



华虹宏力
— HHGRACE —

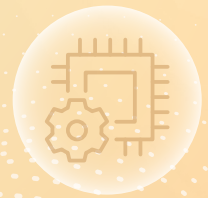
HUA HONG SEMICONDUCTOR LIMITED
華虹半導體有限公司

(Incorporated in Hong Kong with limited liability)

(於香港註冊成立之有限公司)

(Stock Code: 01347)

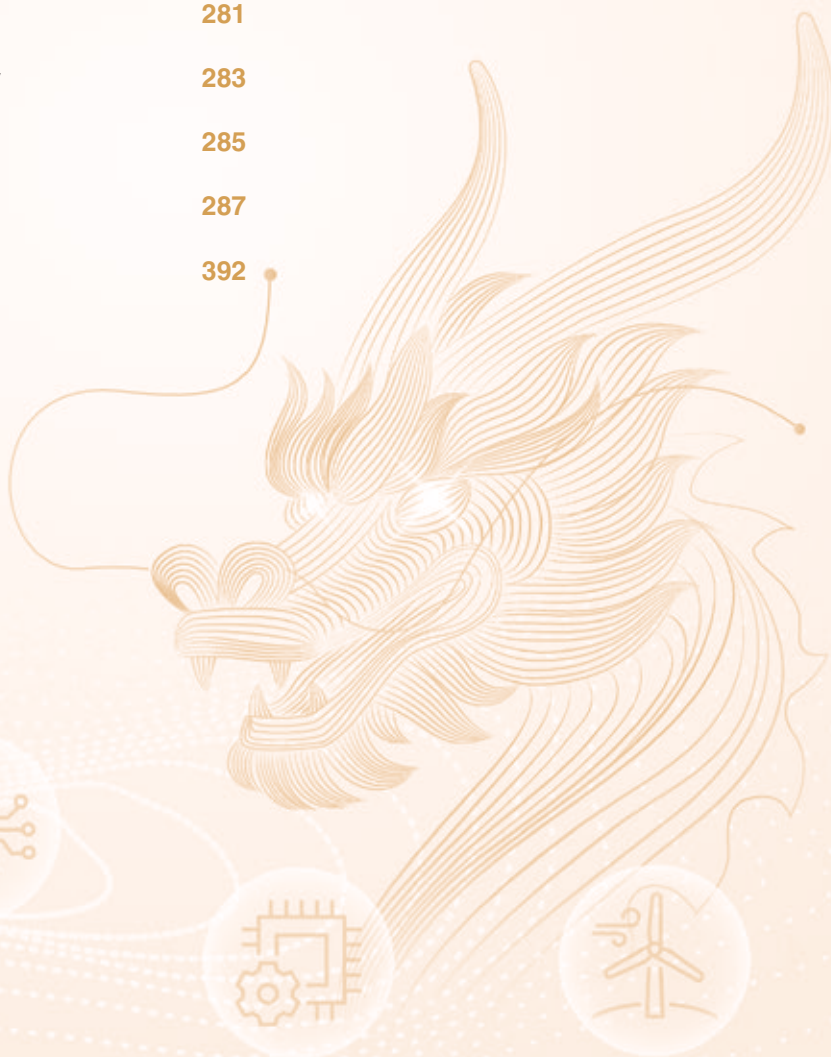
(股份代號：01347)



2023 年度報告
ANNUAL REPORT

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DEFINITIONS

In this annual report, unless otherwise required by the context, the following terms shall have the meanings set out below.

“Annual General Meeting” or “AGM”	an annual general meeting of the Company to be held on 9 May 2024;
“Articles”	the articles of association of the Company (as amended from time to time);
“Audit Committee”	the audit committee of the Board;
“Board”	the Board of Directors of the Company;
“China IC Fund”	China Integrated Circuit Industry Investment Fund Co., Ltd.* (國家集成電路產業投資基金股份有限公司), a company incorporated in the PRC on 26 September 2014; its shareholders include the Ministry of Finance, the enterprises in the Integrated Circuit Industry Cluster, large-scale state-owned enterprises, certain financial institutions and private enterprises. It mainly focuses on the manufacturing of semiconductor wafers and takes into account the upstream and downstream links covering chip design, package test, equipment and materials etc;
“China IC Fund II”	China Integrated Circuit Industry Investment Fund (Phase II) Co., Ltd.* (國家集成電路產業投資基金二期股份有限公司), a company established in the PRC on 22 October 2019; its shareholders include the Ministry of Finance, the enterprises in the Integrated Circuit Industry Cluster, large-scale state-owned enterprises, certain financial institutions and private enterprises. It mainly invests in the value chain of the integrated circuit industry via equity investment, primarily in integrated circuit chip manufacturing as well as chip designing, packaging test and equipment and materials. To the best of the Directors’ knowledge, information and belief and having made all reasonable enquiry, China IC Fund II is not an associate of China IC Fund under Chapter 14A of the Listing Rules;
“China” or “the PRC”	the People’s Republic of China, but for the purpose of this annual report and for geographical reference only and except where otherwise required by the context, references in this annual report to “China” and the “PRC” do not include Taiwan, the Macau Special Administrative Region and Hong Kong Special Administrative Region;
“Company” or “Hua Hong Semiconductor”	Hua Hong Semiconductor Limited, a company incorporated in Hong Kong with limited liability on 21 January 2005 and, except where otherwise required by the context, all of its subsidiaries, or its present subsidiaries where the context refers to the time before it became the holding company of its present subsidiaries;
“Company Secretary”	the Company Secretary of the Company;
“Director(s)”	the Director(s) of the Company;

DEFINITIONS

“EPS”	earnings per share;
“Executive Director(s)”	the Executive Director(s) of our Company;
“Extraordinary General Meeting” or “EGM”	an extraordinary general meeting of the Company;
“GDP”	gross domestic product;
“Grace Cayman”	Grace Semiconductor Manufacturing Corporation, an exempted company with limited liability incorporated in the Cayman Islands on 5 October 1999 and a wholly – owned subsidiary of our Company;
“Grace Shanghai”	Shanghai Grace Semiconductor Manufacturing Corporation (上海宏力半導體製造有限公司), a company incorporated in the PRC on 20 December 2000 and a wholly – owned subsidiary of our Company. It was deregistered on 3 August 2018;
“Group”	our Company and our subsidiaries or, where required by the context, with respect to the period before our Company became the holding company of our present subsidiaries (or became such associated companies of our Company), the business operated by such subsidiaries or their predecessors (as the case may be);
“HHGrace”	Shanghai Huahong Grace Semiconductor Manufacturing Corporation (上海華虹宏力半導體製造有限公司), a company incorporated in the PRC on 24 January 2013 and a wholly-owned subsidiary of our Company;
“HHNEC”	Shanghai Hua Hong NEC Electronics Co., Ltd. (上海華虹NEC電子有限公司), a company incorporated in the PRC on 17 July 1997 and a wholly-owned subsidiary of our Company. It was deregistered on 3 August 2018;
“HK\$”	Hong Kong dollars, the lawful currency of Hong Kong;
“Hong Kong”	the Hong Kong Special Administrative Region of the PRC;
“Hong Kong Stock Exchange”	The Stock Exchange of Hong Kong Limited;

DEFINITIONS

“Huahong Group”	Shanghai Huahong (Group) Co., Ltd. (上海華虹(集團)有限公司), a company incorporated in the PRC on 9 April 1996 as Shanghai Hua Hong Microelectronics Co., Ltd. and renamed as Shanghai Huahong (Group) Co., Ltd. in 1998, and a significant shareholder of our Company;
“Huahong Group Framework Agreement”	the framework agreement dated 30 December 2022 entered into between the Company and Huahong Group to regulate the sales and purchase transactions and provision of services between the Group and Huahong Group, its subsidiaries or associates (as defined under Chapter 14A of the Listing Rules) for the year ending 31 December 2023;
“Huahong Real Estate”	Shanghai Huahong Real Estate Co., Ltd. (上海華虹置業有限公司), a company incorporated in the PRC on 28 October 2011 and a wholly-owned subsidiary of Huahong Technology Development;
“Huahong Technology Development”	Shanghai Huahong Technology Development Co., Limited (上海華虹科技發展有限公司), a connected person, a company incorporated in the PRC on 10 May 2010, and a company 50% held by and consolidated with Huahong Group and 50% held by HHGrace;
“Huajin Property Management”	Shanghai Huajin Property Management Co., Ltd. (上海華錦物業管理有限公司), a company incorporated in the PRC on 8 June 2012, a wholly-owned subsidiary of Huahong Technology Development and a connected person of the Company;
“Huali Integrated”	Shanghai Huali Integrated Circuit Corporation (上海華力集成電路製造有限公司), a company incorporated in the PRC on 8 August 2016. Its Shareholders include Shanghai Huali Microelectronics Corporation, Shanghai Integrated Circuit Industry Investment Fund Co., Ltd. and China Integrated Circuit Industry Investment Fund Co., Ltd.;
“Huali Micro”	Shanghai Huali Microelectronics Corporation (上海華力微電子有限公司), a company incorporated in the PRC on 18 January 2010 and a connected person;
“Hua Hong Manufacturing”	Hua Hong Semiconductor Manufacturing (Wuxi) Co., Ltd.* (華虹半導體製造(無錫)有限公司), a company incorporated in the PRC on 17 June 2022 and a non-wholly owned subsidiary of the Company;
“Hua Hong Wuxi”	Hua Hong Semiconductor (Wuxi) Limited, a company incorporated in the PRC on 10 October 2017 and held 51% by the Group. Upon completion of the Capital Injection Agreement, the registered capital of Hua Hong Wuxi shall increase from US\$1,800 million to approximately US\$2,536.85 million and Hua Hong Wuxi remains a non-wholly owned subsidiary of the Company held as to approximately 22.22%, 28.78%, 20.00%, 20.58% and 8.42% by the Company, HHGrace, Wuxi Xi Hong Lian Xin, China IC Fund and China IC Fund II, respectively;

DEFINITIONS

“Independent Non-Executive Director(s)”	the Independent Non-Executive Director(s) of our Company;
“INESA”	INESA (Group) Co., Ltd. (上海儀電(集團)有限公司), formerly known as INESA Holding Group (上海儀電控股(集團)有限公司), a state-owned company incorporated in the PRC in December 1993, and a controlling shareholder of our Company prior to 17 December 2020;
“Listing Rules”	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended or supplemented from time to time;
“Nomination Committee”	the nomination committee of the Board;
“Non-Executive Director(s)”	the Non-Executive Director(s) of our Company;
“O-Cubes”	O-Cubes (Shanghai) Microelectronics Technology Co., Ltd. (白盒子(上海)微電子科技有限公司), a company incorporated in the PRC owned as to 30% by SAIL;
“QST”	QST Corporation (上海矽睿科技有限公司), a company incorporated in the PRC on 13 September 2012 and a connected person of the Company until 1 September 2020;
“Remuneration Committee”	the remuneration committee of the Board;
“RMB”	Renminbi, the lawful currency of the PRC;
“RMB Share(s)” or “A Share(s)”	the ordinary share(s) of the Company which are listed on the STAR Market and traded in RMB;
“RMB Share Issue”	the Company’s issue of 407,750,000 RMB Shares, which are listed and became available for trading on the STAR Market on 7 August 2023, further information of which are set out in the announcements of the Company dated 21 March 2022, 12 May 2022, 27 June 2022, 4 November 2022, 30 January 2023, 13 April 2023, 10 May 2023, 17 May 2023, 28 May 2023, 7 June 2023, 28 June 2023, 5 July 2023, 14 July 2023, 18 July 2023, 21 July 2023, 24 July 2023, 26 July 2023, 27 July 2023, 31 July 2023 and 4 August 2023, and the circulars of the Company dated 7 June 2022, 5 June 2023 and 29 June 2023;
“SAIL”	Shanghai Alliance Investment Limited (上海聯和投資有限公司), a company incorporated in the PRC on 26 September 1994, a substantial shareholder of our Company;
“SFC”	the Securities and Futures Commission of Hong Kong;

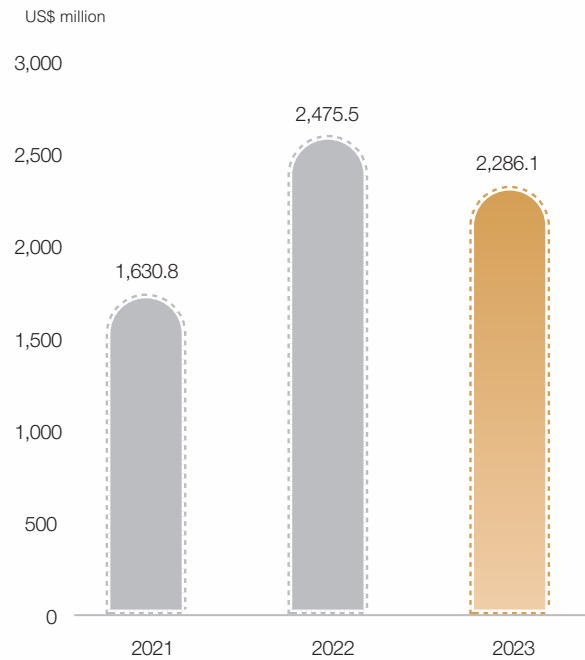
DEFINITIONS

“SFO”	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended or supplemented from time to time;
“Shanghai Awinic”	Shanghai Awinic Technology Co., Ltd. (上海艾為電子技術股份有限公司), a company incorporated in the PRC on 18 June 2008 whose shares are listed on the STAR Market of the Shanghai Stock Exchange (stock code: 688798);
“Shanghai Huali”	Huali Micro and its subsidiaries;
“Shareholders”	holders of ordinary shares in the capital of the Company;
“SITRI”	Shanghai Industrial μ Technology Research Institute (上海新微技術研發中心有限公司), a company incorporated in the PRC in May 2013 and a connected person of the Company;
“STAR Market”	the Science and Technology Innovation Board of the Shanghai Stock Exchange;
“US\$”	United States dollars, the lawful currency of the United States;
“Wuxi Xi Hong Guo Xin”	Wuxi Xi Hong Guo Xin Investment Co., Ltd.* (無錫錫虹國芯投資有限公司), a professional investment company incorporated in the PRC on 16 January 2023, jointly controlled by municipal and district-level state-owned enterprises; and
“Wuxi Xi Hong Lian Xin”	Wuxi Xi Hong Lian Xin Investment Co., Ltd.* (無錫錫虹聯芯投資有限公司), a professional investment company incorporated in the PRC on 19 December 2017, jointly established by municipal and district-level state-owned enterprises.

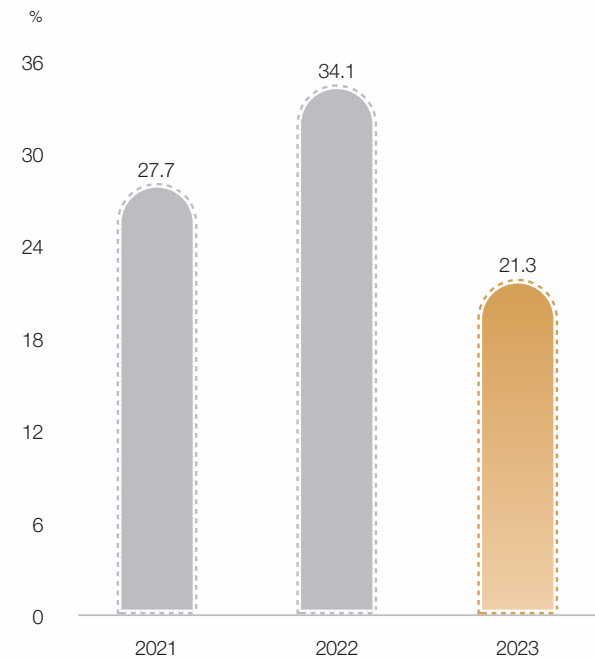
* For identification purpose only

KEY FINANCIALS

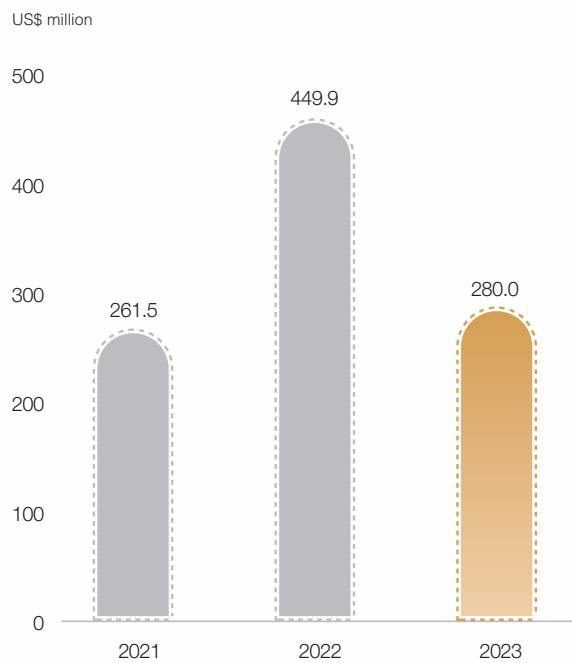
Revenue



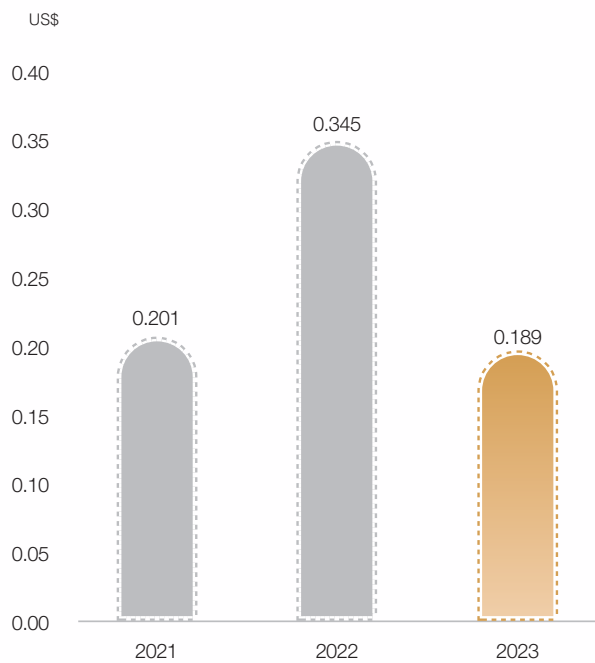
Gross Profit Margin



Profit attributable to owners of the parent



EPS



LETTER TO SHAREHOLDERS

Dear Shareholders,

Looking back at 2023, it was an exceptionally rare, significant, and milestone year in the development history of Hua Hong Semiconductor, given the challenging and complex external environment, volatile market conditions, and a labyrinthine competitive landscape where opportunities and challenges coexisted. The two major manufacturing bases in Shanghai and Wuxi acted as mighty wheels, steering with stability. Upholding the beliefs of “Courage, Perseverance and Unity”, our entire workforce converged together to form an unstoppable force. Overcoming obstacles with determination, we not only navigated the market’s ups and downs smoothly, but also wrote a new glorious chapter in the pursuit of harmony and sustainable development. With the advantages of our “8-inch + 12-inch” strategy, the Company stayed committed to continuous innovation of specialty technologies and developed core competitiveness of products using our specialty platforms, including Embedded/Standalone Non-Volatile Memory, Power Discrete, Analog & PM, and Logic & RF. We persisted in our forward-looking “Specialty IC + Power Discrete” dual-pronged strategy, rapidly penetrated downstream emerging markets, including communication, new energy, Internet of Things, and automotive electronics, continuously providing excellent products and services for our global customers.

In the dynamic summer of 2023, Hua Hong Semiconductor was officially listed on the STAR Market, joining the ranks of “A+H” dual-listed companies and forging a closer bond with the capital market. Seizing this opportunity, we are poised to drive rapid scaling of our 12-inch production line, pursue excellence in our 8-inch production line, and conduct in-depth research and development on specialty technologies. Confronted with severe challenges during the Reporting Period, such as the slowdown in global economic growth, declining market demand, and rising costs of raw materials and labor, revenue of the Company was US\$2,286.1 million, a decrease of 7.7% compared to the year 2022. The overall gross profit margin was also subject to challenges, decreasing 12.8 percentage points to 21.3% compared to the previous year. Despite such a challenging market environment, Hua Hong Semiconductor has maintained steadfast development momentum. The Company actively adjusted its strategic plan, strengthened internal management, and increased its investment in research and development, in order to pursue breakthroughs and precisely seize opportunities for recovery in adverse market conditions.

As at the end of 2023, the Company had an expanded monthly capacity (8-inch equivalent) of 391,000 wafers and an annual shipment of 4.103 million wafers. In particular, Hua Hong Wuxi has successfully achieved its monthly capacity of 94,500 wafers, with IC process nodes covering 90 nm to 65/55 nm. It is a global leading 12-inch production line devoted to specialty technologies and the world’s first 12-inch power semiconductor foundry. In June 2023, the Hua Hong Manufacturing Project was launched with an investment of US\$6.7 billion for the construction of a new 12-inch specialty technology production line with a monthly capacity of 83,000 wafers. The project officially commenced in June, and installation of the main plant’s steel structure was completed in December, showcasing “Hua Hong speed” once again. Capacity release of the Wuxi manufacturing base will provide strong support for improvement and development of the integrated circuit industry supply chain in the Yangtze River Delta region. At the same time, adhering to the development concept of “Driven by innovation, led by technology” with a strong focus on high-quality development, the Company will continue to enhance its core competitiveness, with an aim to make greater contributions to the sustained and healthy development of the integrated circuit industry in China and globally.

LETTER TO SHAREHOLDERS

“This arduous journey is as tough as iron, but now we are striding forward from the very beginning”. Looking ahead to 2024, we will closely keep up with market trends, further advance research and development of new technologies, optimize and upgrade existing platforms, strengthen our advantages in various specialty technologies, focus on new quality productivity, and drive the synergy of the industrial ecosystem. Upholding an innovative mindset, we will create more products for our customers all over the world with an international vision. We express our heartfelt gratitude to all of our shareholders, partners, and friends from all walks of life for their ongoing care, support for, and cooperation with Hua Hong Semiconductor. Let’s work together to jointly build a better future, with no concern for the past, no fear of the present, and no hesitation in pursuing our strategy!

Mr. Suxin Zhang

Chairman and Executive Director

Mr. Junjun Tang

President and Executive Director

Shanghai, PRC
28 March 2024

CORPORATE INFORMATION

Corporate Culture

VISION

WE EMPOWER OUR
CUSTOMERS THROUGH
CONTINUOUS INNOVATION



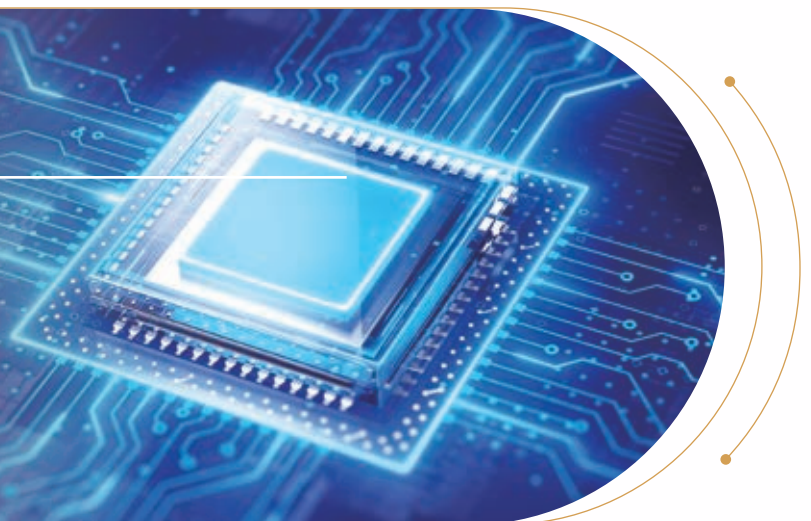
MISSION

CREATING VALUE FOR SHAREHOLDERS,
CUSTOMERS AND EMPLOYEES THROUGH
COLLABORATION, INNOVATION AND BEING
A GOOD CORPORATE CITIZEN



SPIRIT

DISRUPTIVE INNOVATION,
CONFIDENCE, INITIATIVE
AND TEAMWORK



CORPORATE INFORMATION

Board of Directors

Executive Directors

Suxin Zhang (*Chairman*)
Junjun Tang (*President*)

Non-Executive Directors

Jun Ye
Guodong Sun
Limin Zhou (*appointed on 19 January 2024*)
Chengyan Xiong (*appointed on 28 March 2024*)
Jing Wang (*resigned on 1 September 2023*)

Independent Non-Executive Directors

Stephen Tso Tung Chang
Kwai Huen Wong, JP
Songlin Feng (*appointed on 28 March 2024*)
Long Fei Ye (*resigned on 28 March 2024*)

Company Secretary

Sui Har Lee

Authorized Representatives

Junjun Tang
Sui Har Lee

Audit Committee

Stephen Tso Tung Chang (*Chairman*)
Chengyan Xiong (*appointed on 28 March 2024*)
Songlin Feng (*appointed on 28 March 2024*)
Jun Ye (*until 28 March 2024*)
Long Fei Ye (*resigned on 28 March 2024*)

Remuneration Committee

Kwai Huen Wong, JP (*Chairman*)
Jun Ye (*appointed on 28 March 2024*)
Songlin Feng (*appointed on 28 March 2024*)
Long Fei Ye (*resigned on 28 March 2024*)
Jing Wang (*resigned on 1 September 2023*)

Nomination Committee

Suxin Zhang (*Chairman*)
Kwai Huen Wong, JP
Songlin Feng (*appointed on 28 March 2024*)
Long Fei Ye (*resigned on 28 March 2024*)

Website

www.huahonggrace.com

Auditor

Ernst & Young
Certified Public Accountants
27/F, One Taikoo Place
979 King's Road, Quarry Bay
Hong Kong

Hong Kong Legal Advisor

Herbert Smith Freehills
23/F, Gloucester Tower
15 Queen's Road Central
Hong Kong

Principal Banks

China Construction Bank Shanghai Branch
No. 900, Lujiazui Ring Road
Pudong New Area
Shanghai, PRC

China Development Bank Shanghai Branch
No. 68, Puming Road
Shanghai, PRC

China Construction Bank Corporation Hong Kong Branch
28/F, CCB Tower, 3 Connaught Road, Central
Hong Kong

Bank of Communications Co., Ltd. Hong Kong Branch
20 Pedder Street, Central
Hong Kong

China Development Bank Jiangsu Branch
No. 232, Middle Jiangdong Road
Nanjing, Jiangsu, PRC

Agricultural Bank of China Wuxi Xinwu Subbranch
No. 26, Hefeng Road, Xinwu District
Wuxi, Jiangsu, PRC

China Construction Bank Wuxi High and New Technology Industrial Development Zone Subbranch
No. 26, Hefeng Road, Xinwu District
Wuxi, Jiangsu, PRC

China CITIC Bank Wuxi New District Subbranch
No. 26, Hefeng Road, Xinwu District
Wuxi, Jiangsu, PRC

Bank of China Wuxi High and New Technology Industrial Development Zone Subbranch
No. 140, Wangzhuang Road, Xinwu District
Wuxi, Jiangsu, PRC

CORPORATE INFORMATION

Share Registrar

Hong Kong shares:
Tricor Investor Services Limited
17/F, Far East Finance Centre
16 Harcourt Road
Hong Kong

A shares:
China Securities Depository and Clearing Corporation
Limited, Shanghai Branch
No. 188 South Yanggao Road
Pudong New Area
Shanghai

Registered Office

Room 2212, Bank of America Tower
12 Harcourt Road, Central
Hong Kong

Principal Places of Business

288 Halei Road
Zhangjiang Hi-Tech Park
Shanghai, PRC
Postcode: 201203

No. 30, Xinzhou Road
Xinwu District
Wuxi, Jiangsu, PRC
Postcode: 214028

No. 30-1, Xinzhou Road
Xinwu District
Wuxi, Jiangsu, PRC
Postcode: 214028

Stock Code

Hong Kong Stock Exchange: 01347
Shanghai Stock Exchange: 688347

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Suxin Zhang, aged 60, was appointed on 11 March 2016 as the Chairman and an Executive Director of our Company as well as a member of and Chairman of the Nomination Committee. He is currently Chairman and Secretary of the Communist Party of Huahong Group, Chairman of HHGrace, Hua Hong Wuxi, Hua Hong Manufacturing, and Shanghai Huali. Mr. Zhang has extensive experience in hi-tech strategic development, energy strategy research, and the power equipment industry. Mr. Zhang held various positions, including President of Shanghai Turbine Co., Ltd., Executive Vice President of Shanghai Electric Power Generation Group, Chairman of Siemens Gas Turbine Parts Co., Ltd., Executive Director of Shanghai Electric Group Company Limited, Vice President of Shanghai Electric (Group) Corporation, Secretary of the Communist Party and General Manager of Shanghai Jinqiao (Holdings) Limited, Chairman and Secretary of the Communist Party of Shanghai Jinqiao Export Processing Zone Development Co., Ltd., and Deputy Director of both the Shanghai Municipal Development and Reform Commission and the Administration Commission of Shanghai Zhangjiang Hi-Tech Industrial Development Zone. Mr. Zhang graduated from Tsinghua University with a Bachelor's degree in Engineering and is a professor-level Senior Engineer.



Mr. Junjun Tang, aged 59, has been serving the President and Executive Director of the Company since May 2019. Mr. Tang also serves as President of HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing. Mr. Tang has extensive experience in the integrated circuit industry and management and possesses strong coordination and execution ability. Prior to joining the Company, Mr. Tang was the Secretary of the Party Committee, Vice President and Executive Vice President of Huali Micro from February 2010 to March 2019. He was concurrently the President of Huali Integrated from August 2016 to March 2019. During the period from July 2008 to February 2010, Mr. Tang was the Vice Secretary of the Party Committee, President of Trade Union and head of administrative and government relationships of HHNEC. Prior to joining the Company, Mr. Tang successively held various positions, including Associate Chief Officer of Shanghai Bureau of Instrument and Telecommunications Industry (上海儀表電訊工業局), Technologist of Shanghai Radio No.17 Factory (上海無線電十七廠) and Technologist of Shanghai Semiconductor Device No.4 Factory (上海半導體器件四廠). Mr. Tang graduated from Southwest Jiaotong University with an Undergraduate's degree in Business Administration. He also graduated from China Europe International Business School with a Master's degree in Business Administration. He holds the title of Chief Senior Economist, and was awarded titles including National May 1st Labor Medal, National Model Worker, National Outstanding Party Affairs Worker.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Jun Ye, aged 51, has been a Non-Executive Director of our Company since February 2012, and is a Director of HHGrace. Mr. Ye has more than 20 years of experience in finance and investment. Mr. Ye has successively held various positions in SAIL, including Manager of the Investment Banking Division and the Business Development Division, General Manager Assistant and Deputy General Manager since 1996 and General Manager since May 2018. Mr. Ye is also a Director at Bank of Shanghai, Chairman of Shanghai Zhaoxin Semiconductor Co., Ltd., Sinotherapeutics Inc. and Sino-US United MetLife Insurance Company Limited. Mr. Ye obtained a Bachelor's degree in Industrial and International Trade and a Master's degree in Business Administration from Shanghai Jiao Tong University.



Mr. Guodong Sun, aged 47, was appointed as a Non-Executive Director of the Company with effect from 10 December 2020, and is a Director of Hua Hong Wuxi. Mr. Sun joined China Development Bank in 2000. From 2000 to 2014, Mr. Sun held various positions in China Development Bank, including Deputy Director of the Human Resources Systems Division, Deputy Director and Director of the Hubei Branch Human Resources Department, etc. Mr. Sun had been the General Manager of the Human Resources Department of Sino-IC Capital Co., Ltd. (華芯投資管理有限責任公司) from December 2014 to July 2016, and has been the Managing Director of Sino-IC Capital Co., Ltd. since July 2016. Mr. Sun graduated from Beijing Institute of Technology in the PRC with a Bachelor's degree in Computer Application and from Central University of Finance and Economics in the PRC with a Master's degree in Business Administration.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Limin Zhou, aged 47, was appointed as a Non-Executive Director of the Company and a director of its subsidiaries, namely HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing, with effect from 19 January 2024. Mr. Zhou is currently serving as the vice president of Huahong Group and as a director of a number of subsidiaries of Huahong Group. Mr. Zhou has over 24 years of experience working in the semiconductor industry. Prior to joining the Company, Mr. Zhou held various positions with a number of subsidiaries of Huahong Group, including deputy department head, department head, director, vice president and executive vice president from 1999 to 2023. Mr. Zhou graduated from Shanghai University with a Bachelor's degree in engineering, majoring in electronic materials and components, and is a Senior Engineer.



Ms. Chengyan Xiong, aged 44, was appointed as a Non-executive Director of the Company with effect from 28 March 2024. Ms. Xiong has nearly 20 years of experience working in the finance and accounting sector. Prior to joining the Company, Ms. Xiong was a deputy chief staff member and chief staff member of the budget office of Shanghai State-owned Assets Supervision and Administration Commission* (上海市國有資產監督管理委員會), after which she held various positions as vice department head and department head within the group companies of Huahong Group. Ms. Xiong is currently the head of capital and finance department of Huahong Group and holds various positions as a director or a supervisor at a number of the subsidiaries of Huahong Group. Ms. Xiong graduated from Shanghai University of Finance and Economics (上海財經大學) with a Master's degree in management. Ms. Xiong is also a senior accountant and a non-practising certified public accountant in the PRC.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Ms. Jing Wang, aged 53, was a Non-Executive Director of our Company from June 2019 to September 2023.

DIRECTORS AND SENIOR MANAGEMENT TEAM

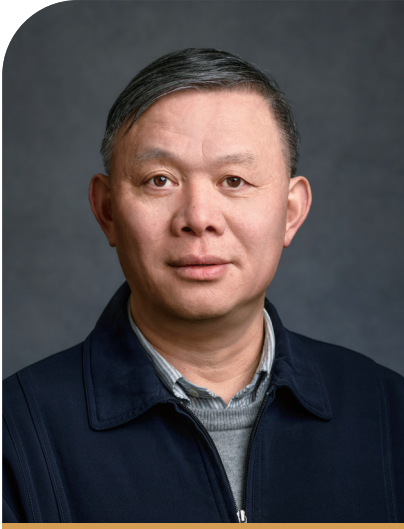


Mr. Stephen Tso Tung Chang, aged 75, is an Independent Non-Executive Director of our Company and a Director of HHGrace. Mr. Chang was a certified public accountant in Hong Kong and a member of the Hong Kong Society of Accountants from 1978 to the end of 2003. He has been a Fellow member of the Institute of Chartered Accountants in England and Wales since January 1983, and has extensive experience in accounting, auditing and financial management. Mr. Chang held various positions at Ernst & Young starting in 1976. He became a Management Committee Member of Ernst & Young in 1989 and was actively involved in establishing and monitoring the firm's internal control and risk management policy and procedures. Prior to his promotion to Managing Partner of the Professional Services Department, he was Chairman of Ernst and Young's audit and advisory business services for four years. He was a Partner of Ernst and Young and the Chairman of Ernst and Young China and Hong Kong prior to his retirement in 2003. He is a member of the Investment Committee of Shanghai Fudan University Education Development Foundation and Fudan University Education Development Foundation (overseas). He is also an Independent Non-Executive Director of China World Trade Center Co., Ltd. (stock code: 600007.SH), and was formerly an Independent Non-Executive Director of China Cinda Asset Management Co., Ltd. (stock code: 1359.HK), Kerry Properties Limited (stock code: 683.HK) and China Life Insurance Company Ltd. (stock code: 2628.HK). Mr. Chang obtained a Bachelor of Science degree in Food Science and Chemistry from the University of London.



Mr. Kwai Huen Wong, SBS, BBS, JP, aged 72, is an Independent Non-Executive Director of our Company and a Director of HHGrace. Mr. Wong had served as the PRC Managing Partner of two international law firms for 15 years. Prior to that, he worked for the Lands Department, Department of Justice and Legislative Council of the Hong Kong SAR Government for a total of 10 years. He was appointed as a Member of Airport Authority Hong Kong, Hospital Authority, and the Competition Commission from 2011 to 2018. He was the former Chairman of the Hong Kong International Arbitration Centre, the former President of the Law Society of Hong Kong and Inter-Pacific Bar Association, and the former Chairman of Hong Kong Copyright Tribunal. He is presently the Chairman of Hong Kong Inland Revenue Board of Review, and the Independent Non-Executive Director of Vinda International Holdings Limited (stock code: 3331.HK) and NWS Holdings Limited (stock code: 659.HK). Mr. Kwai Huen Wong was formerly a Director of the Hong Kong Mortgage Corporation Limited and an Independent Non-Executive Director of China Oilfield Services Limited. In addition, he is the Honorary Lecturer, External Examiner, and Professor at The University of Hong Kong, The Chinese University of Hong Kong, City University of Hong Kong, and Hong Kong Shue Yan University. Mr. Wong holds a Bachelor of Arts degree from The Chinese University of Hong Kong and a Bachelor of Law degree from the University of London.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Songlin Feng, aged 59, is an Independent Non-Executive Director of our Company with effect from 28 March 2024. He has over 32 years of experience in academic research in science and technology, including integrated circuits and semiconductors. He successively served as a deputy researcher, researcher, deputy director, director, an assistant to head and the head of the Institute of Semiconductors of the Chinese Academy of Sciences* (中國科學院半導體研究所) from February 1992 to December 2000. From January 2001 to August 2010, he was a researcher, deputy head and the head of Shanghai Institute of Microsystems and Information Technology of the Chinese Academy of Sciences* (中國科學院上海微系統與信息技術研究所). He successively served as a researcher, the leader of the planning team and the Dean of Shanghai Advanced Research Institute of the Chinese Academy of Sciences* (中國科學院上海高等研究院) from March 2009 to May 2017. Mr. Feng has been an independent director of (i) INESA Intelligent Tech Inc. (雲賽智聯股份有限公司), a company listed on the Shanghai Stock Exchange (Stock Code: 600602), (ii) GEN-S Power Group Co., Ltd. (庚星能源集團股份有限公司), a company listed on the Shanghai Stock Exchange (Stock Code: 600753), and (iii) Shanghai Zhaoxin Semiconductor Co., Ltd.* (上海兆芯集成電路股份有限公司). In addition, Mr. Feng has been a director of Shanghai Zhongyan Hongling Information Technology Co., Ltd.* (上海中研宏瓚信息科技有限公司). Mr. Feng graduated from Wuhan University (武漢大學) with a bachelor's degree in semiconductor physics, and holds a master's degree and a doctor's degree in material sciences from from Université Paris Diderot – Paris VII, respectively.



Mr. Long Fei Ye, aged 82, acted as an an Independent Non-Executive Director of our Company from September 2014 to March 2024.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Daniel Yu-Cheng Wang, aged 61, has been appointed as the Secretary of the Board of the Company since February 2012. Mr. Wang is also an Executive Vice President of our Company, HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing, supervising key functional divisions including finance, information technology, administration and compliance, board office, and overseas human resources. In April 2001, Mr. Wang joined Grace Shanghai and took on a central leadership position at every phase of Grace Shanghai's growth and development. His responsibilities encompassed supervising the planning and execution of the merger, as well as the successful initial public offering of the company on both the Hong Kong Stock Exchange and the STAR board at the Shanghai Stock Exchange. Prior to joining Grace Shanghai, Mr. Wang served at LSI Logic Corporation in San Jose, Silicon Valley, California from August 1995 to March 2001 as the Division Controller in the Broadband Entertainment Division. Before that, Mr. Wang was employed by Franklin Templeton Investments in the U.S. Mr. Wang holds a Bachelor's degree in Industrial Engineering and Operations Research from the College of Engineering, University of California, Berkeley and a Master's degree of Business Administration degree in Finance and Banking from the University of San Francisco, in the U.S.. In the "All – Asia (Ex-Japan) Executive Team Ranking" published by Institutional Investor, a respected international financial magazine, he was honored as the Best Chief Financial Officer in the technology/semiconductor industry for the years 2018, 2019, 2021, and 2022.

DIRECTORS AND SENIOR MANAGEMENT TEAM

Senior Management

As at the date of this report, the Company's senior management includes:

Mr. Suxin Zhang, aged 60, is the Chairman and an Executive Director of our Company. For more information about Mr. Zhang's profile and academic background, see the section headed "Directors and Senior Management Team – Board of Directors".

Mr. Junjun Tang, aged 59, is the President and Executive Director of the Company. For more information about Mr. Tang's profile and academic background, see the section headed "Directors and Senior Management Team – Board of Directors".



Mr. Weiping Zhou, aged 57, is an Executive Vice President of our Company, HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing, responsible for marketing and has over 35 years of experience in the integrated circuit industry in China. Mr. Zhou joined the Company at the beginning of 2018. Prior to joining the Company, Mr. Zhou was the Executive Vice President of Shanghai Belling Corporation Limited, the General Manager of Ningbo Shanshan Ulica Solar Technology Developing Company Limited, the General Manager of Shanghai Belling Microelectronics Manufacturing Company Limited, the Deputy Secretary to the Communist Party Committee, President, Chief Executive Officer, Secretary to the Communist Party Committee and Vice President of Advanced Semiconductor Manufacturing Corporation Limited. Mr. Zhou graduated from East China Normal University with a Bachelor's degree in Solid State Electronic Technology and subsequently obtained a Master's degree in Business Administration from Fudan University, and he is a professor-level Senior Engineer.

DIRECTORS AND SENIOR MANAGEMENT TEAM



Mr. Lihua Ni, aged 55, is an Executive Vice President of our Company, HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing. He joined HHGrace in May 2018. Prior to joining the Company, Mr. Lihua Ni successively worked for Wuxi Huajing Group Co., Ltd. (無錫華晶集團公司), Shanghai Hua Hong Microelectronics Co., Ltd., HHNEC, acted as a Department Manager at Shanghai Xinjin Semiconductor Fabrication Co., Ltd., the department head at HHNEC, and a Deputy Factory Director at Huali Micro. Mr. Lihua Ni graduated from Xidian University with a Bachelor of Engineering degree and obtained a Master of Engineering degree from Shanghai Jiao Tong University. He is qualified as a Senior Engineer.

Mr. Daniel Yu-Cheng Wang, aged 61, is an Executive Vice President of our Company, HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing, responsible for overseeing finance, information technology, administration and compliance, work related to the board office, and overseas human resources. For more information about Mr. Wang's profile and academic background, see the section headed "Directors and Senior Management Team – Board of Directors".



Dr. Weiran Kong, aged 60, is an Executive Vice President of our Company, HHGrace, Hua Hong Wuxi and Hua Hong Manufacturing, and is in charge of technology development and design services. He joined Grace Shanghai in March 2003 and has over 30 years' experience in the semiconductor industry, with a proven track record of driving innovations in the area of NOR Flash, Logic, and Embedded Flash. Before joining Grace Shanghai, Dr. Kong was based in the U.S. and has worked for Sun Microsystems, Inc., LSI Logic Corporation, and ISSI. He obtained a Bachelor's degree in Physics from Nankai University in Tianjin and graduated with a Master's degree in Electrical Engineering and a Doctorate degree in Applied Physics from Oregon Graduate Institute of Science & Technology in the U.S. Dr. Kong holds 27 U.S. patents, 70 PRC patents and co-authored over 20 technical papers.

DIRECTORS AND SENIOR MANAGEMENT TEAM

Company Secretary



Ms. Sui Har Lee, aged 46, has been serving as the Company Secretary of the Company since November 2019. Ms. Lee is currently a Partner of Jun He Law Offices. She has around 16 years of experience in general business practices and corporate financial transactions, such as assisting corporations in listing their shares on the Hong Kong Stock Exchange, merger and acquisitions, capital reorganization, and compliance and regulatory matters in relation to the Listing Rules of the Hong Kong Stock Exchange. Ms. Lee was admitted as a Solicitor of the High Court of Hong Kong in 2005. Ms. Lee graduated from City University of Hong Kong with the degree of Bachelor of Laws and obtained the degree of Master of Laws from University College London.

CORPORATE GOVERNANCE REPORT

The Board is pleased to present this corporate governance report for the year ended 31 December 2023.

Corporate Governance Practices

The Company diligently practices good corporate governance and has established corporate governance procedures that comply with the principles in the Corporate Governance Code (the “Code”) as set out in Appendix C1 to the Listing Rules.

The Company understands the importance of sound corporate governance practices and recognizes the changing regulatory environment. Therefore, the Company has continually monitored and updated its corporate governance practices, from implementing the Code and evaluating the effectiveness of its practices to responding to continuous developments in the regulatory landscape.

Compliance with the Code Provisions

During the year ended 31 December 2023, the Company complied with the Code.

Securities Transactions by Directors

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the “Model Code”) as set out in Appendix C3 to the Listing Rules as its own code of conduct regarding securities transactions by Directors. The Company has made specific enquiries with all of the Directors, each of whom has confirmed that they have, throughout the year ended 31 December 2023, complied with the required standards set out therein.

Board of Directors

The Board is entrusted with the overall responsibility of managing the business and affairs of the Company. It has the ultimate responsibility for the day-to-day management of the Company, which is delegated to the Chairman and management.

The nine-member Board currently comprises two Executive Directors, Mr. Suxin Zhang (Chairman) and Mr. Junjun Tang (President); four Non-Executive Directors, Mr. Jun Ye, Mr. Guodong Sun, Mr. Limin Zhou and Ms. Chengyan Xiong (appointed on 28 March 2024); and three Independent Non-Executive Directors, Mr. Stephen Tso Tung Chang, Mr. Kwai Huen Wong, JP, and Mr. Songlin Feng (appointed on 28 March 2024). Ms. Jing Wang and Mr. Long Fei Ye resigned as a Non-Executive Director and an Independent Non-Executive Director on 1 September 2023 and 28 March 2024, respectively. More details of the Directors are disclosed on pages 13 to 18 of this annual report. The Company has published and maintained on its website and on the Hong Kong Stock Exchange’s website an updated list of the Directors, identifying their roles and functions.

Each of the Non-Executive Directors of the Company is appointed for a specific term of three years and is subject to re-nomination and re-election by the Company in general meetings, unless previously terminated in accordance with the terms and conditions of the relevant letter of appointment or Director’s service contract.

CORPORATE GOVERNANCE REPORT

The Board meets regularly throughout the year. All Directors are given the opportunity to put items on the agenda for regular Board meetings. All Directors have access to the Company Secretary to ensure that all Board procedures, rules and regulations are followed. Full minutes of Board meetings are kept by the Company Secretary and are available for inspection on reasonable notice. Any Director may, in furtherance of his duties, take independent professional advice, where necessary, at the expense of the Company.

The Board is responsible for setting the strategic direction and policies of the Group and supervising management. Some functions are reserved by the Board, including, inter alia, the monitoring and approval of material transactions; matters involving a conflict of interest with a substantial shareholder or a Director of the Company; the approval of the quarterly, interim and final results; other disclosures to the public or regulators; and the internal control system. Decisions relating to such matters shall be subject to formal decisions of the Board. Matters not specifically reserved to the Board and necessary for the daily operations of the Company are delegated to management under the supervision of the respective Director(s) and the leadership of the Chairman.

The Company has implemented different mechanisms to ensure independent views and input are available to the Board:

- **Composition of the Board:** During the year ended 31 December 2023, the Board had at all times complied with Rules 3.10 and 3.10A of the Listing Rules. The Company has three Independent Non-Executive Directors, representing more than one-third of the Board. At least one of the Independent Non-Executive Directors possesses appropriate professional qualifications or accounting or related financial management expertise.
- **Independence assessment:** Each of the Independent Non-Executive Directors has made an annual confirmation of independence pursuant to Rule 3.13 of the Listing Rules. The Company is of the view that all Independent Non-Executive Directors are independent in accordance with the guidelines set out in Rule 3.13 of the Listing Rules.
- **Board decision-making:** A Director who has a material interest in any transaction, contract or arrangement shall not vote (nor shall be counted in the quorum) on any Board resolution approving the same. If a substantial shareholder or a Director has a conflict of interest in a matter to be considered by the Board which the Board has determined to be material, such matter shall be dealt with in a Board meeting rather than by a written resolution.
- **Communication between the Chairman and Independent Non-Executive Directors:** The Chairman of the Board values communication with the Independent Non-Executive Directors highly and holds meetings with them at least once each year without the presence of other Directors.
- **Remuneration of Independent Non-Executive Directors:** Independent Non-executive Directors receive fixed fees for their role as members of the Board and Board committees. No equity-based compensation with performance-related elements is granted to the Independent Non-executive Directors to avoid potential bias in their decision-making or compromise to their objectivity and independence.
- **Board evaluation:** The Board assesses and reviews the time contributed by each Independent Non-Executive Director and their attendance at Board and Board committee meetings, so as to ensure that every Independent Non-Executive Director has devoted sufficient time to the Board to discharge his responsibilities as a Director of the Company.

The implementation and effectiveness of the above mechanisms are reviewed on an annual basis. The Board considers that such mechanisms had been implemented properly and effectively in the year ended 31 December 2023.

CORPORATE GOVERNANCE REPORT

The roles of the Chairman and the President are separate. The Chairman is responsible for the overall management and operations of the Company and for proposing and reviewing the corporate directions and strategies of the Company. The Chairman is responsible for formulating business strategies and provides leadership to the Board, ensuring effective running of the Board, including that all appropriate issues are discussed by the Board in a timely manner. The Chairman ensures that all Directors are properly briefed on issues arising at Board meetings and all Directors receive adequate, complete and reliable information. The Chairman of the Board highly values communication with the Independent Non-Executive Directors and will hold meetings with them at least once each year without the presence of other Directors.

The President is responsible for the day-to-day management of the Company's business and operations as well as implementation of the Company's business strategies.

Directors' and Officers' Liabilities Insurance

Appropriate insurance has been arranged by the Company to cover potential liabilities of Directors and Officers of the Company regarding legal actions against said Directors and Officers of the Company and its subsidiaries, arising out of corporate activities of the Company.

Board Operation

During the year ended 31 December 2023, the Board held ten Board meetings. The attendance record of each Board member at Board meetings, meetings of the Audit Committee, the Nomination Committee, and the Remuneration Committee, as well as the annual/extraordinary general meeting is set out below:

	Board meetings	Audit Committee meetings	Nomination Committee meetings	Remuneration Committee meetings	Annual General Meeting	Extraordinary General Meeting
Executive Directors						
Suxin Zhang	7	N/A	1	N/A	1	3
Junjun Tang	10	N/A	N/A	N/A	1	4
Non-Executive Directors						
Jun Ye	10	6	N/A	N/A	0	0
Jing Wang ^(Note)	6	N/A	N/A	1	1	0
Guodong Sun	8	N/A	N/A	N/A	0	0
Independent Non-Executive Directors						
Stephen Tso Tung Chang	10	6	N/A	N/A	1	4
Kwai Huen Wong, JP	10	N/A	1	1	1	4
Long Fei Ye	10	6	1	1	1	4

Note: Ms. Jing Wang resigned as the non-executive Director and a member of the Remuneration Committee with effect from 1 September 2023.

CORPORATE GOVERNANCE REPORT

In place of physical meetings, the Board may circulate written resolutions for approval by the relevant members of the Board except for matters where a substantial shareholder or a Director has a conflict of interest that the Board has determined to be material, in which case the matter shall be dealt with by a physical Board meeting (rather than a written resolution) to comply with provision C.5.7 of the Code.

The Board, having considered the attendance records of the Directors, is satisfied that each Director spends sufficient time performing his responsibilities.

Continuous Professional Development

Directors shall keep abreast of their responsibilities as Directors and of the conduct, business activities, and development of the Company.

Under Code Provision C.1.4, the Directors should participate in appropriate continuous professional development programs to develop and refresh their knowledge and skills to ensure that their contribution to the Board remains informed and relevant. During the year ended 31 December 2023, all Directors were provided with timely updates on the Company's performance, financial position, prospects, and materials on new or salient changes to laws and regulations applicable to the Group, to enable the Board as a whole and each Director individually to discharge their duties. Internally-facilitated briefings for the Directors will be arranged in the next financial year and reading material on relevant topics will be issued to the Directors where appropriate. All Directors are encouraged to attend relevant training courses at the Company's expense.

The participation by each Director in continuous professional development for the year ended 31 December 2023 is set out below:

Name of Director	Reading related rules and materials and/or attending training courses
Suxin Zhang (<i>Chairman</i>)	✓
Junjun Tang (<i>President</i>)	✓
Jun Ye	✓
Jing Wang	✓
Guodong Sun	✓
Stephen Tso Tung Chang	✓
Kwai Huen Wong, JP	✓
Long Fei Ye	✓

CORPORATE GOVERNANCE REPORT

Remuneration Committee

The Remuneration Committee currently comprises two Independent Non-Executive Directors, Mr. Kwai Huen Wong, JP, Mr. Songlin Feng (appointed on 28 March 2024) and one Non-Executive Director Mr. Jun Ye (appointed on 28 March 2024). Ms. Jing Wang resigned as a member of the Remuneration Committee on 1 September 2023. Mr. Long Fei Ye resigned as a member of the Remuneration Committee on 28 March 2024. The Chairman of the Remuneration Committee is Mr. Kwai Huen Wong, JP. Each member is sufficiently experienced and is appropriately skilled in the issues of determining Executive compensation in public companies. The Board expects committee members to exercise independent judgement in conducting the business of the committee. The roles and functions of the Remuneration Committee include the determination of the specific remuneration packages of all Executive Directors and senior management, including benefits in kind, pension rights, and compensation payments, and making recommendations to the Board in connection with the remuneration of the Non-Executive Directors. The Remuneration Committee should consider factors such as the salaries paid by comparable companies, employment conditions elsewhere in the Group, and the desirability of performance-based remuneration. A copy of the terms of reference of the Remuneration Committee is available from the Company's website and the Hong Kong Stock Exchange's website. The Remuneration Committee shall meet at least once a year.

On 10 August 2023, the Remuneration Committee held a meeting to discuss the vesting of certain options granted under the Company's share option scheme, and resolved to submit a proposal to the Board on the vesting arrangements for such options.

Details of the emoluments of the Directors are set out in note 8 to the Financial Statements.

Nomination Committee

The Nomination Committee currently comprises one Executive Director, Mr. Suxin Zhang, and two Independent Non-Executive Directors, Mr. Kwai Huen Wong, JP and Mr. Songlin Feng (appointed on 28 March 2024). Mr. Long Fei Ye resigned as a member of the Nomination Committee on 28 March 2024. The Chairman of the Nomination Committee is Mr. Suxin Zhang. Each member is sufficiently experienced and is appropriately skilled in the issues of nomination of directors to the Board. The Company has provided the Nomination Committee with sufficient resources to perform its duties. The Nomination Committee may seek independent professional advice, at the Company's expense, to perform its responsibilities. The roles and functions of the Nomination Committee are to review the structure, size and composition of the Board, make recommendations on any proposed changes to the Board to complement the Company's corporate strategy, with due regard to the board diversity policy, identify individuals suitably qualified to become Board members, select or make recommendations to the Board on the selection of individuals nominated for directorships, assess the independence of Independent Non-Executive Directors, and make recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors, in particular the Chairman and the President, and monitor the implementation of the board diversity policy and review such policy, as appropriate, to ensure its effectiveness. The Nomination Committee has established a specific written committee charter which deals clearly with its authority and duties. A copy of the terms of reference of the Nomination Committee is available from the Company's website and the Hong Kong Stock Exchange's website. The Nomination Committee shall meet at least once a year.

On 9 November 2023, the Nomination Committee held a meeting to discuss issues such as the Company's remuneration policy and the competitiveness of the Company's salary levels.

Pursuant to the Articles, any person appointed as a Director to fill a casual vacancy of the Board shall hold office only until the next following annual general meeting of the Company and shall then be eligible for re-election at the relevant general meeting, and any Director appointed as an addition to the existing Board shall hold office only until the next annual general meeting of the Company and shall then be eligible for re-election at the relevant general meeting. Every Director shall be subject to retirement by rotation at least once every three years and shall be eligible for re-election in accordance with the Articles. The Articles also allow for removal of a Director by an ordinary resolution.

CORPORATE GOVERNANCE REPORT

Auditor's Remuneration

During the year ended 31 December 2023, the remuneration paid and payable to the auditors of the Company, Ernst & Young, for the provision of audit services and non-audit related services to the Company were US\$0.75 million and US\$0.01 million, respectively. Details of significant non-audit related services include tax and risk management advisory services.

Audit Committee

At least one of the members of the Audit Committee has appropriate professional qualifications or accounting or related financial management expertise as required under the Listing Rules. None of the members of the Audit Committee was a former partner of the Company's existing external auditors within one year immediately prior to the dates of their respective appointments. All members have appropriate skills and experience in reviewing financial statements as well as addressing significant control and financial issues of the Company. The Board expects the members of the Audit Committee to exercise independent judgement and delegates the responsibilities of the corporate governance functions to the Audit Committee in order to comply with the requirement of the Code.

The Audit Committee currently comprises one Non-Executive Director, Ms. Chengyan Xiong (appointed on 28 March 2024), and two Independent Non – Executive Directors, Mr. Stephen Tso Tung Chang and Mr. Songlin Feng (appointed on 28 March 2024). Mr. Long Fei Ye resigned as a member of the Audit Committee on 28 March 2024. Mr. Jun Ye ceased to be a member of the Audit Committee on 28 March 2024 upon his re-designation as a member of the Remuneration Committee. The Chairman of the Audit Committee is Mr. Stephen Tso Tung Chang. The primary duties of the Audit Committee include the reviewing of the Company's financial reporting system, the nature and scope of the audit review as well as the effectiveness of the system of internal control procedures and risk management. The Audit Committee is also responsible for making recommendations in relation to the appointment, reappointment, and removal of the external auditors, and the reviewing and monitoring of the independence and objectivity of the external auditors. In addition, the Audit Committee discusses matters raised by the external auditors and regulatory bodies to ensure that appropriate recommendations are implemented. A copy of the terms of reference of the Audit Committee is available from the Company's website and the Hong Kong Stock Exchange's website. The Audit Committee shall meet at least twice a year.

During the year ended 31 December 2023, the Audit Committee held six meetings and all the committee members were present at the meetings. The major work performed by the Audit Committee with respect to the year ended 31 December 2023 included reviewing and recommending the re-appointment of the external auditor, approving the terms of engagement (including the remuneration) of the external auditor and the audit plan, reviewing the unaudited quarterly results announcement, reviewing the unaudited interim report and interim results announcement for the six months ended 30 June 2023, reviewing the audited financial statements and final results announcement for the year ended 31 December 2023, reviewing the work of the Group's audit department and assessing the effectiveness of the Group's systems of risk management and internal control. The Audit Committee also held discussions with management to ensure that the Company has adequate resources, qualified and experienced staff in the accounting and financial reporting function, training programs and budget.

CORPORATE GOVERNANCE REPORT

Board Diversity

The Board adopted a board diversity policy (the “Policy”) in compliance with Rule 13.92 of the Listing Rules.

The Company sees increasing diversity at the Board level as an essential element in maintaining the Company’s competitive advantage. In designing the Board’s composition, Board diversity will be considered from several aspects, including without limitation, differences in the talents, skills, regional and industry experience, background, gender, age, and other qualities of the members of the Board, in order to maintain an appropriate range and balance of talents, skills, experience, and background on the Board. In recommending candidates for appointment to the Board, the Nomination Committee will consider candidates on merit against objective criteria and with due regard to the benefits of diversity on the Board. The Nomination Committee discussed and agreed on the measurable objectives for achieving diversity on the Board and recommended them to the Board for adoption. At any given time, the Board may seek to improve one or more aspects of its diversity and measure progress accordingly.

The Board believes that gender diversity is an important aspect of Board diversity. Following the resignation of Ms. Jing Wang on 1 September 2023, the Company did not have a director of a different gender at that moment and, as a result, could not meet the requirement set out in Rule 13.92 of the Listing Rules for the remaining months of the year ending 31 December 2023. The Board has made its best endeavors to identify a suitable candidate for appointment as a director. Following the appointment of Ms. Chengyan Xiong as a non-executive director on 28 March 2024, the Company is compliant with the requirement under Rule 13.92 of the Listing Rules. Gender diversity aside, the Remuneration Committee took the view that the measurable objectives for Board diversity had been achieved to a large extent for the year ended 31 December 2023. The Nomination Committee paid particular attention to the cultural and educational background, professional and technical experience, and skills of the members of the Board and also reviewed the composition of Executive Directors and Independent Non-Executive Directors, so as to ensure appropriate independence within the Board.

The Company will continue to maintain a balance of diverse perspectives on the Board that is appropriate for and conducive to the Company’s growth.

Workforce Diversity

As at 31 December 2023, the gender ratio of the Group’s workforce (including the Company’s senior management) was approximately 73% male to 27% female. The Company’s hiring is merit-based and non-discriminatory. The Board is satisfied that the Company has achieved gender diversity in its workforce.

Corporate Governance Functions

The Board is responsible for performing the functions set out in provision A.2.1 of the Code.

The Board reviewed the Company’s corporate governance policies and practices, the training and continuous professional development of Directors and senior management, the Company’s policies and practices on compliance with legal and regulatory requirements, the compliance with the Model Code, and the Company’s compliance with the Code and disclosure in this Corporate Governance Report.

CORPORATE GOVERNANCE REPORT

Investor Relations

Changes to the Articles during the Reporting Period

To satisfy the relevant regulatory requirements in relation to the Company's corporate governance structure after the RMB Share Issue and listing, a special resolution was proposed and passed by the Shareholders at the EGM held on 27 June 2022 to amend the Articles. Details of the amendments are set out in Appendix V to the circular of the Company dated 7 June 2022. The amended Articles took effect on 7 August 2023, being the date of listing of the RMB Shares on the STAR Market. The full text of the amended Articles is published on the websites of the Hong Kong Stock Exchange (www.hkexnews.hk), the Shanghai Stock Exchange (www.sse.com.cn) and the Company (www.huahonggrace.com).

Shareholders' Communication Policy

The Company has adopted a shareholders' communication policy, which is subject to annual review to ensure its implementation and effectiveness. Such policy aims to ensure that Shareholders will have equal and timely access to information about the Company, so as to enable them to exercise their rights in an informed manner and to allow them to engage actively with the Company.

A summary of the Company's shareholders' communication policy is set out below.

The Company provides information to Shareholders through its financial reports (including quarterly, interim and annual reports), circulars, announcements and other disclosures submitted to the Hong Kong Stock Exchange and the Shanghai Stock Exchange for publication.

To further promote effective communication, the Company maintains a website at www.huahonggrace.com with information and updates on the Company's business developments and operations, list of Directors and their roles and functions, constitutional documents, terms of reference of the Board and its committees, procedures for nomination of Directors for election, corporate governance practices, financial reports, circulars, announcements and other information.

Shareholders' meetings are a primary forum for communication between the Board and Shareholders. The Company encourages Shareholders to attend and participate in general meetings to ensure a high level of accountability and to keep them informed of the Company's goals and strategies. The Chairman of the Board, other Board members, and the Chairmen of all the Board committees, or in their absence, other members of the respective committees, are available to answer any questions from Shareholders. Shareholders are given sufficient notice of the meetings, and detailed voting procedures are included in circulars to Shareholders accompanying the notices of meetings.

In addition to the above, the Company also publishes newsletters through its WeChat public account. Shareholders can subscribe to the account to obtain the latest news of the Company.

To promote investors' understanding of the Company's business, the Company organises roadshows and on-site visits to its clean rooms and exhibition halls for investors. The Company has also participated in a number of investment forums and conducted multiple exchanges with securities analysts, fund management companies, and individual investors through various means.

In order for the Company to solicit and understand the views of Shareholders and stakeholders, Shareholders and other stakeholders may make enquiries to the Company through its investor relations contact by email at IR@hhgrace.com.

The Company has reviewed the implementation and effectiveness of its shareholders' communication policy for the year ended 31 December 2023, including the steps taken at the general meetings, the handling of queries received and the multiple communication channels in place. The Company is of the view that the policy is effective and has been properly implemented.

CORPORATE GOVERNANCE REPORT

Company Secretary

Ms. Sui Har Lee, the Company Secretary, is responsible to the Board for ensuring that the Board procedures are followed and that the Board activities are efficiently and effectively conducted. She is also responsible for ensuring that the Board is fully appraised of the relevant legislative, regulatory, and corporate governance developments relating to the Company and facilitating the induction and professional development of Directors.

The Company Secretary reports to the Chairman and the President, plays an essential role in the relationship between the Company and its Shareholders, and assists the Board in discharging its obligations to Shareholders pursuant to the Listing Rules.

During the year ended 31 December 2023, Ms. Sui Har Lee attended relevant professional seminars to update her skills and knowledge and has complied with Rule 3.29 of the Listing Rules.

Procedures for Shareholders to Convene an Extraordinary General Meeting

Extraordinary general meetings may be convened by the Directors on requisition of Shareholder(s) holding not less than one-twentieth of the paid-up capital of the Company or by such Shareholder(s) who made the requisition (the "Requisitionist(s)") (as the case may be) pursuant to sections 566 to 568 of the Companies Ordinance (Chapter 622 of the laws of Hong Kong) (the "Companies Ordinance"). The objects of the meeting must be stated in the requisition, which must be signed by the Requisitionist(s) and deposited at the registered office of the Company. Shareholders should follow the requirements and procedures as set out in sections 580 to 583 of the Companies Ordinance for convening an extraordinary general meeting.

Procedures for Putting Forward Proposals at Shareholders' Meetings and Directing Enquiries from Shareholders to the Board

Shareholders may at any time send their written requests, proposals, enquiries, and concerns to the Company for the attention of Chairman of the Board or the Company Secretary whose contact details are as follows:

288 Halei Road, Zhangjiang Hi-Tech Park, Shanghai 201203, China

Tel: (86) 21 38829909

Fax: (86) 21 50809999

Email: IR@hhgrace.com

CORPORATE GOVERNANCE REPORT

Voting by Poll

Pursuant to Rule 13.39(4) of the Listing Rules, any vote of Shareholders at a general meeting must be taken by poll.

Risk Management and Internal Monitoring

Risk Management and Internal Monitoring Objectives

Risk Management Objective

From a compliance perspective, the Company has implemented the provisions of the Corporate Governance Code issued by the Hong Kong Stock Exchange to ensure the compliance with relevant requirements in a timely manner.

From the perspective of operations, the management team well understands the risks that may be confronted by the Company as it undertakes future development. Therefore, the risk management objective of the Company is to identify and assess risks and take appropriate countermeasures to evade a risk entirely, if possible, otherwise to manage these risks to reduce their impact and keep them under control. The Company has constructed a robust risk control system working on a continuous basis, established a risk management platform, clarified risk management mechanisms, improved a risk map, and carried out an annual risk evaluation. We have developed a concise, scientific, practical, and efficient risk management and control model which complies with regulatory requirements under the Code and is in line with the Company's specific evolving circumstances.

Internal Control System Objective

The Company's internal control system has fully implemented the requirements for a risk management framework as set out by COSO (Committee of Sponsoring Organizations of the Treadway Commission) as well as the guidelines of Hong Kong Institute of Certified Public Accountants for risk management. We refined the three tiers of risk map in the processes and formed risk-oriented internal control evaluation by considering the Company's ongoing operational circumstances and business characteristics. The objective is to evaluate the effectiveness and applicability of our internal monitoring system and provide reasonable guarantees for the effectiveness of the Company's operating activities, the reliability of financial reports, and compliance with laws and regulations.

CORPORATE GOVERNANCE REPORT

Risk Management and Internal Monitoring System

To ensure our risk management work develops efficiently and forms a long-term mechanism, the Company has established a risk management monitoring system comprising a “three-line model”. It covers the roles and duties of many different aspects as follows:

1st Line	Business Departments
	<ul style="list-style-type: none">• Establish and maintain various departmental risk management mechanisms;• Ongoing collection of risk data while performing day-to-day department tasks;• Continue to carry out risk monitoring and early warning of the department;• Assist in the implementation of the Company’s risk management work, including providing necessary documents and samples, identify major risks related to the department, and determine major risk countermeasures;
2nd Line	Business Supervision and Administration Departments
	<ul style="list-style-type: none">• Provide and supplement expertise, play a supportive and supervisory role, help continuously implement and improve the risk management work; analyze and report on the accuracy and effectiveness of risk management;
3rd Line	Internal Audit Level
	<ul style="list-style-type: none">• Independently inspect and supervise risk management activities conducted by the Business Departments and the Risk Management Level, and evaluate whether the Company’s risk management mechanism is implemented effectively and efficiently;• Conduct annual comprehensive risk assessments, based on the risk assessment results, define the major risk factors and relevant response responsibilities, organize and guide relevant departments in making response plans for major risks, and follow up on the implementation of the plans;• Urge departments or agencies to rectify problems discovered during the auditing and risk assessment process and monitor the ongoing status of the rectification work;• Report the auditing and risk assessment results to the Audit Committee of the Company.

CORPORATE GOVERNANCE REPORT

Risk Management and Internal Monitoring Statement

The Board is responsible for the Company's risk management and internal monitoring system, as well as ensuring a review of the system's effectiveness. The Board designated the Internal Auditing Department to perform the internal auditing function and granted it full independent responsibility and authority. The internal auditors audited the effectiveness of the Company's risk management and internal monitoring system each year through various audit projects according to the approved auditing scope and in accordance with the provisions in D.2 of the Corporate Governance Code, and no material deficiency was found.

Based on audits by the Internal Auditing Department, the Board believes that the Company's risk management and internal monitoring system is adequate, trustworthy, and effective. However, one must recognise that the Company's risk management and internal monitoring framework can only manage rather than completely eliminate risks that may affect the Company's ability to accomplish its business objectives. Therefore, it provides a reasonable but not an absolute guarantee for the avoidance of material misstatement or loss.

With a view to identifying, handling, and disseminating inside information in compliance with the SFO, procedures, including pre-clearance on dealing in the securities of the Company by designated members of management, notification of regular blackout period and securities dealing restrictions to relevant Directors and employees, identification of projects by code name, and dissemination of information to stated purpose and on a need-to-know basis, have been implemented by the Group to guard against possible mishandling of inside information within the Group.

General

The Directors acknowledge their responsibility in preparing the Company's financial statements for each financial period to give a true and fair view of the state of affairs of the Company and in accordance with statutory requirements and applicable accounting standards. In preparing the financial statements for the year ended 31 December 2023, the Directors have selected suitable accounting policies and applied them consistently, made judgments and estimates that are prudent, fair, and reasonable, and prepared the financial statements on a going concern basis.

The responsibilities of the auditors with respect to the financial reporting are set out in the Independent Auditors' Report on pages 271 to 278 of this annual report.

On behalf of the Board

Mr. Suxin Zhang

Chairman

DIRECTORS' REPORT

The Board presents the annual report of the Company for 2023 and the audited financial statements of the Company for the period from 1 January 2023 to 31 December 2023 (the "Financial Statements").

Principal Activities

The Company was a pure-play 8-inch and 12-inch wafer foundry as at the end of 2023, with its long-term focus on the development and application of advanced "Specialty IC + Power Discrete" differentiated specialty technologies, including Embedded/Standalone Non-Volatile Memory, Power Discrete, Analog & Power Management, Logic & RF, providing diverse specialized process wafer manufacturing services to its customers. The activities of its principal subsidiaries are set out in note 1 to the Financial Statements (Pages 287 to 288).

BUSINESS REVIEW

Revenue Analysis

Revenue of Hua Hong Semiconductor for 2023 was US\$2,286.1 million, representing a decrease of 7.7% compared to the previous year. According to the information released by International Business Strategies, Inc. (IBS), the global semiconductor market experienced a decline of approximately 10% in 2023 due to the continuing sluggish end-consumer market, posing challenges to the wafer foundry market. Having confidence in anticipating the long-term market growth despite these circumstances, the Company unwaveringly continued to implement its expansion strategy and optimize its product mix that is focused on 8-inch and 12-inch products. Leveraging long-term technological accumulation and continuous innovation, the Company has achieved favorable development in various fields such as automotive, industry, and new energy. With diversified support of advanced "Specialty IC + Power Discrete" specialized process technology, product quality and performance were widely recognized by the market. The Company will continue to create value for shareholders and the market in 2024.

	Revenue by Service					
	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change US\$'000	Change %
Semiconductor wafers	2,181,591	95.4%	2,376,659	96.0%	(195,068)	(8.2%)
Others	104,522	4.6%	98,829	4.0%	5,693	5.8%
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- In 2023, 95.4% of our revenue was generated from the sale of semiconductor wafers.

	Revenue by Customer					
	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change US\$'000	Change %
Systems and fabless companies	2,109,482	92.3%	2,267,446	91.6%	(157,964)	(7.0%)
Integrated device manufacturers (IDMs)	176,631	7.7%	208,042	8.4%	(31,411)	(15.1%)
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- Our revenue from systems and fabless companies accounted for 92.3%.

DIRECTORS' REPORT

Revenue by Geography

	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change	Change
					US\$'000	%
China	1,774,178	77.6%	1,811,269	73.2%	(37,091)	(2.0%)
North America	204,882	9.0%	297,683	12.0%	(92,801)	(31.2%)
Other Asia	149,087	6.5%	210,610	8.5%	(61,523)	(29.2%)
Europe	134,760	5.9%	114,728	4.6%	20,032	17.5%
Japan	23,206	1.0%	41,198	1.7%	(17,992)	(43.7%)
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- In 2023, Europe continued to maintain double-digit growth, with a year-on-year increase of 17.5% in revenue.

Revenue by Technology Type

	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change	Change
					US\$'000	%
Embedded Non-Volatile Memory (eNVM)	703,148	30.8%	767,568	31.0%	(64,420)	(8.4%)
Standalone Non-Volatile Memory (sNVM)	116,715	5.1%	208,171	8.4%	(91,456)	(43.9%)
Power	902,346	39.4%	774,638	31.3%	127,708	16.5%
Logic & RF	202,483	8.9%	274,384	11.1%	(71,901)	(26.2%)
Analog & Power Management (PM)	358,333	15.7%	448,648	18.1%	(90,315)	(20.1%)
Others	3,088	0.1%	2,079	0.1%	1,009	48.5%
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- In 2023, power discrete experienced double-digit growth, mainly due to strong demand in the new energy vehicle and industrial sectors.

DIRECTORS' REPORT

Revenue by Technology Node

	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change	Change
					US\$'000	%
55nm & 65nm	291,683	12.8%	355,161	14.3%	(63,478)	(17.9%)
90nm & 95nm	386,191	16.9%	505,233	20.4%	(119,042)	(23.6%)
0.11μm & 0.13μm	405,911	17.8%	426,387	17.2%	(20,476)	(4.8%)
0.15μm & 0.18μm	147,338	6.4%	206,733	8.4%	(59,395)	(28.7%)
0.25μm	24,217	1.1%	15,027	0.6%	9,190	61.2%
≥0.35μm	1,303,773	45.0%	966,947	39.1%	63,826	6.6%
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- In 2023, revenue for ≥0.35μm continued to grow due to power discrete business.

Revenue by End Market

	2023	2023	2022	2022	YoY	YoY
	US\$'000	%	US\$'000	%	Change	Change
					US\$'000	%
Consumer Electronics	1,294,251	56.6%	1,599,116	64.6%	(304,865)	(19.1%)
Industrial & Automotive Electronics	673,395	29.5%	550,342	22.2%	123,053	22.4%
Communications	256,856	11.2%	248,033	10.0%	8,823	3.6%
Computing	61,611	2.7%	77,997	3.2%	(16,386)	(21.0%)
Total	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- In 2023, the industrial and automotive electronic markets continued to maintain double-digit growth.

DIRECTORS' REPORT

Capacity and Capacity Utilization			
Fab (In thousands of wafers per month)	2023	2022	YoY Change
Fab 1	65	65	–
Fab 2	60	60	–
Fab 3	53	53	–
Total monthly 8-inch wafer capacity	178	178	–
Fab 7 (12-inch wafer capacity)	95	65	30
Capacity utilization (8-inch wafer equivalent)	94.3%	107.4%	(13.1%)

- In 2023, capacity utilization (8-inch wafer equivalent) was 94.3%.

Wafer Shipments			
In thousands of wafers	2023	2022	YoY Change
Wafer shipments (8-inch wafer equivalent)	4,103	4,087	0.4%

- In 2023, there was a year-on-year increase of 0.4% in the Company's wafer shipments.

Research and Development

Hua Hong Semiconductor is committed to research and development (R&D), innovation, and optimization of differentiated technologies, with a focus on eNVM, sNVM, Discrete, Analog & PM (Power Management), and Logic & RF. It continues to provide customers with well-featured process technologies and services that meet market demand. In 2023, Hua Hong Semiconductor continued to expand 12-inch capacity and technology of the Hua Hong Wuxi production line; and the product mix of advanced "Specialty IC + Power Discrete" became more diverse due to the extension of 12-inch process platform.

In 2023, NVM technology platforms continued to be main sources of revenue for Hua Hong Semiconductor, including eNVM used mainly for smart card IC and MCU. Shipments remained stable for smart card products produced using embedded flash memory technology with independent intellectual property rights. The Company has leveraged the advantages of the 8-inch +12-inch embedded flash memory platform to enable customers to develop MCUs with capabilities of global industry leaders in areas such as automotive electronics, home appliances, industrial control. Our full range of automotive-grade chip products, which are produced using the multi-technology-node eFlash technology, have commenced mass production. As a result, revenue from automotive electronics has maintain year-to-year double-digit growth. The Company has collaborated with customers on our standalone flash memory platform to advance the SPI NOR flash memory and EEPROM products based on our proprietary NORD technology and traditional ETOX technology. These products have utilized smaller memory cell and gained recognition in various end-market applications. Multiple automotive-grade SPI NOR flash memory and EEPROM products have been put into mass production.

DIRECTORS' REPORT

In 2023, the market demand for power discrete also witnessed a decrease in growth rate amid increasingly intensified price competition. Despite these challenges, Hua Hong Semiconductor has maintained growth in the revenue from its power discrete business. Our continuing innovation and generation on generation improvements in our power discrete capabilities have enabled our customers to maintain industry-leading positions by their iterative product improvements. With an increasing proportion of ultra-fine trench gate IGBT products and the orderly introduction of new-generation superjunction MOSFET technology, the Company has achieved a record high number of new products for customers in the automotive, electric vehicle, new energy and industrial sectors in recent years. Meanwhile, the Company has been continuously expanding its production capacity of the power product line while maintaining a leading domestic position in technology and product quality.

Based on the analog and power management product platform of BCD technology, the Company has collaborated with leading analog and power management customers to advance the development of various power management IC for the mobile phone market, such as fast charging and wireless charging IC, which have been widely recognized by the leading end-market brands in the industry. Furthermore, certain customers were actively identified and cultivated in preparation for expansion in the automotive electronics sector. The Company is committed to developing diverse specialized BCD+ process platforms integrating the traditional BCD process with existing digital process platforms. As a result, the Company established a leading position in the domestic market. Furthermore, following mass production of 12-inch 90 nm and 65 nm BCDs, the Company continued its development activities for the automotive electronics and emerging markets. In the second half of the year, parts of the market rebounded resulting in higher chip production volume for the fourth quarter.

To expand our 12-inch production capacity, Hua Hong Semiconductor officially commenced construction of the phase-II project 12-inch production line in Wuxi in June 2023, expanding upon Hua Hong Semiconductor's "8-inch + 12-inch" strategy and its advanced "Specialty IC + Power Discrete" dual-pronged strategy. This development not only extends our specialty process technology to more advanced nodes but also represents a new milestone and chapter in the industrial collaboration between Hua Hong Group and the Wuxi City Government. With a total investment of US\$6.7 billion, a 12-inch specialty process production line will be established to cover 65/55 – 40 nm nodes, with a monthly capacity of 83,000 wafers.

Despite persistent downward pressure on demand in the traditional consumer market in 2023 and decelerating growth rates in new energy and electric vehicle markets, Hua Hong Semiconductor remained firmly confident in the long-term growth trajectory of the semiconductor market, unswervingly pursued its strategic deployment of advanced "Specialty IC + Power Discrete" process technology and continued to enhance technological accumulation, with 672 patent applications filed by the Company in China and overseas throughout 2023 and an accumulative number of 4,427 invention patents granted in China and overseas. Following industrial upgrades and transformations in markets such as automotive, home appliances, and new energy with increasingly informatized and digitalized daily life, the Company's growing production capacity will be able to support industry's incremental demand for semiconductor chips. The Company is focused on innovation, quality, and continuity in every aspect of its production and operations, as part of our commitment to maximize benefits for shareholders and our customers.

DIRECTORS' REPORT

Outlook

Looking forward to 2024, the global economy remains overshadowed by various uncertainties. Nevertheless, global GDP growth is expected to reach 2.4% in 2024, an improvement compared to 2023, according to prediction by the World Bank. With consumer and industrial markets showing signs of bottoming out, it is expected that the momentum of industry growth will continue to build up. In the face of a downturn in the semiconductor market over the past two years, Hua Hong Semiconductor has persistently striven to maintain stable performance, safeguarded shareholder interests, and ensured product quality for customers. Looking into 2024, Hua Hong Semiconductor will remain committed to constantly optimizing its 8-inch product mix, and increasing the proportion of high-value products. With the accelerated construction of 12-inch production capacity according to the plan, we will ensure that the Wuxi phase II project will deliver the stated production capacity. Hua Hong Semiconductor will continue to strategically implement its advanced “Specialty IC + Power Discrete” process technology, providing customers and the market with a wide selection of process technology. Hua Hong Semiconductor will enhance its engagement in the ecosystem to ensure a balanced supply-demand relationship by actively responding to increasing demand resulting from market upgrades driven by high-quality development of automotive, home appliance, and new energy markets.

DIRECTORS' REPORT

MANAGEMENT DISCUSSION AND ANALYSIS

FINANCIAL PERFORMANCE

	2023 US\$' 000	2022 US\$'000	Change
Revenue	2,286,113	2,475,488	(7.7%)
Cost of sales	(1,799,017)	(1,631,832)	10.2%
Gross profit	487,096	843,656	(42.3%)
Other income and gains	144,370	70,986	103.4%
Fair value gain on an investment property	103	78	32.1%
Selling and distribution expenses	(10,189)	(12,464)	(18.3%)
Administrative expenses	(322,868)	(266,666)	21.1%
Other expenses	(33,666)	(111,360)	(69.8%)
Finance costs	(100,497)	(40,331)	149.2%
Share of profit of associates	9,230	12,171	(24.2%)
Profit before tax	173,579	496,070	(65.0%)
Income tax expense	(47,154)	(89,499)	(47.3%)
Profit for the year	126,425	406,571	(68.9%)
Attributable to:			
Owners of the parent	280,034	449,912	(37.8%)
Non-controlling interests	(153,609)	(43,341)	254.4%

Revenue

Revenue was US\$2,286.1 million, 7.7% lower than 2022, due to decreased average selling price.

Cost of sales

Cost of sales was US\$1,799.0 million, an increase of 10.2% over 2022, primarily due to increased provision for inventories, depreciation and utility costs, partially offset by decreased labor costs.

Gross profit

Gross profit was US\$487.1 million, a decrease of 42.3% compared to 2022, mainly due to decreased average selling price and increased depreciation costs, partially offset by decreased labor costs.

Other income and gains

Other income and gains were US\$144.4 million, an increase of 103.4% compared to 2022, primarily due to increased government subsidies and interest income.

Selling and distribution expenses

Selling and distribution expenses were US\$10.2 million, a decrease of 18.3% compared to 2022, primarily due to decreased labor expenses.

Administrative expenses

Administrative expenses were US\$322.9 million, an increase of 21.1% from 2022, primarily due to decreased government grants for research and development activities and increased engineering wafer costs.

Other expenses

Other expenses were US\$33.7 million, a decrease of 69.8% compared to 2022, largely due to decreased foreign exchange loss.

DIRECTORS' REPORT

Finance costs

Finance costs were US\$100.5 million, an increase of 149.2% from 2022, primarily due to increased bank borrowings and increased interest rates.

Share of profit of associates

Share of profit of associates was US\$9.2 million, a decrease of 24.2% from 2022, due to decreased profit realized by the associates.

Income tax expense

Income tax expense was US\$47.2 million, a decrease of 47.3% compared to 2022, primarily due to decreased taxable profit.

Profit for the year

As a result of the cumulative effect of the above factors, profit for the year decreased to US\$126.4 million from US\$406.6 million in 2022. Net profit margin was 5.5%, compared to 16.4% in 2022.

FINANCIAL STATUS

	31 December 2023 US\$'000	31 December 2022 US\$'000	Change
Non-current assets			
Property, plant and equipment	3,519,292	3,367,716	4.5%
Investment property	166,643	169,363	(1.6%)
Right-of-use assets	78,545	78,425	0.2%
Investments in associates	139,099	130,721	6.4%
Equity instruments designated at fair value through other comprehensive income	270,506	178,632	51.4%
Other non-current assets	199,780	54,794	264.6%
Total non-current assets	4,373,865	3,979,651	9.9%
Current assets			
Inventories	449,749	578,060	(22.2%)
Trade and notes receivables	278,669	291,856	(4.5%)
Due from related parties	11,219	13,006	(13.7%)
Other current assets	212,649	182,996	16.2%
Restricted and time deposits	32,088	1,042	2,979.5%
Cash and cash equivalents	5,585,181	2,008,765	178.0%
Total current assets	6,569,555	3,075,725	113.6%
Current liabilities			
Trade payables	235,410	236,999	(0.7%)
Interest-bearing bank borrowings	193,035	426,756	(54.8%)
Due to related parties	13,876	6,096	127.6%
Government grants	35,017	37,714	(7.2%)
Other current liabilities	495,049	674,851	(26.6%)
Total current liabilities	972,387	1,382,416	(29.7%)
Net current assets	5,597,168	1,693,309	230.5%
Non-current liabilities			
Interest-bearing bank borrowings	1,906,526	1,481,580	28.7%
Other non-current liabilities	49,963	55,912	(10.6%)
Total non-current liabilities	1,956,489	1,537,492	27.3%
Net assets	8,014,544	4,135,468	93.8%

DIRECTORS' REPORT

Explanation of items with fluctuation over 10% from 31 December 2022 to 31 December 2023

Equity instruments designated at fair value through other comprehensive income

Equity instruments designated at fair value through other comprehensive income increased from US\$178.6 million to US\$270.5 million, primarily due to increase of fair value of equity instruments.

Other non-current assets

Other non-current assets increased from US\$54.8 million to US\$199.8 million, primarily due to increased long-term prepayments.

Inventories

Inventories decreased from US\$578.1 million to US\$449.7 million, primarily due to decreased finished goods and work in progress.

Due from related parties

Due from related parties decreased from US\$13.0 million to US\$11.2 million, primarily due to decreased receivables from certain of our related parties.

Other current assets

Other current assets increased from US\$183.0 million to US\$212.6 million, primarily due to increased properties under development.

Restricted and time deposits

Restricted and time deposits increased from US\$1.0 million to US\$32.1 million, primarily due to increased pledged deposits.

Cash and cash equivalents

Cash and cash equivalents increased from US\$2,008.8 million to US\$5,585.2 million, mainly due to reasons stated in the cash flow analysis below.

Due to related parties

Due to related parties increased from US\$6.1 million to US\$13.9 million, primarily due to a payable of technology purchased from certain related parties.

Other current liabilities

Other current liabilities decreased from US\$674.9 million to US\$495.0 million, primarily due to decreased advanced payments from customers.

Interest-bearing bank borrowings

Total interest-bearing bank borrowings increased from US\$1,908.3 million to US\$2,099.6 million, due to increased drawdowns of bank borrowings.

DIRECTORS' REPORT

CASH FLOW

	2023 US\$'000	2022 US\$'000	Change
Net cash flows generated from operating activities	641,695	750,865	(14.5%)
Net cash flows used in investing activities	(833,312)	(930,156)	(10.4%)
Net cash flows generated from financing activities	3,781,746	672,177	462.6%
Net increase in cash and cash equivalents	3,590,129	492,886	628.4%
Cash and cash equivalents at beginning of the year	2,008,765	1,610,140	24.8%
Effect of foreign exchange rate changes, net	(13,713)	(94,261)	(85.5%)
Cash and cash equivalents at end of the year	5,585,181	2,008,765	178.0%

Net cash flows generated from operating activities

Net cash flows generated from operating activities were US\$641.7 million, a decrease of 14.5% compared to 2022, mainly due to decreased receipts from customers, partially offset by decreased payments for materials, maintenance and payrolls.

Net cash flows used in investing activities

Net cash flows used in investing activities were US\$833.3 million, primarily attributed to US\$906.6 million for capital investments, offset by receipts of (i) US\$61.6 million of interest income, and (ii) US\$11.7 million of government grants for equipment.

Net cash flows generated from financing activities

Net cash flows generated from financing activities were US\$3,781.7 million, including (i) US\$2,937.0 million proceeds from issuance of shares on the STAR Market, (ii) US\$787.9 million of capital contribution from non-controlling interests, (iii) US\$615.4 million of proceeds from bank borrowings, (iv) US\$4.9 million from share option exercises, and (v) US\$3.0 million of government grants for finance costs, offset by (i) US\$422.1 million of repayments of bank borrowings, (ii) US\$106.6 million of interest payments, (iii) increase of US\$31.2 million in pledged margin deposits (iv) US\$4.6 million payment of principal portion of lease payments, and (v) US\$2.0 million payments of listing fee.

Net increase in cash and cash equivalents

As a result of the cumulative effect of the above factors, cash and cash equivalents increased from US\$2,008.8 million as of 31 December 2022 to US\$5,585.2 million as of 31 December 2023.

DIRECTORS' REPORT

FINANCIAL RISKS

Interest rate risk

Our exposure to the risk of changes in market interest rates relates primarily to the Group's interest-bearing bank borrowings with a floating interest rate. Our policy is to manage interest rate risk using a mix of fixed and variable rate debts.

As at 31 December 2023, if the interest rates had been 100 basis points higher/lower with all other variables held constant, profit before tax for the year would have been US\$17.5 million lower/higher, mainly as a result of higher/lower interest expense on floating rate bank borrowings.

Foreign currency risk

We have transactional currency exposures arising primarily from sales or purchases by our significant subsidiaries operating in the Chinese Mainland in US\$, rather than the subsidiaries' functional currency, which is RMB. During the year, approximately 22% of our sales were denominated in currencies other than the functional currency of the subsidiaries making the sale, whilst 53% of costs of sales were denominated in the subsidiaries' functional currency.

In addition, we have currency exposures from interest-bearing bank borrowings held by our subsidiaries operating in the Chinese Mainland. As at 31 December 2023, interest-bearing bank borrowings with a carrying amount of US\$1,653.0 million were dominated in US\$, rather than the subsidiaries' functional currency, which is RMB.

As at 31 December 2023, if the US\$ had strengthened or weakened against the RMB by 5 percent, with all other variables held constant, our profit before tax for the year would have been approximately US\$47.6 million lower or higher.

Credit risk

We trade only with recognised and creditworthy third parties and related parties. It is our policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis, and our exposure to bad debts is not significant.

Our maximum exposure to credit risk in relation to our financial assets is: the carrying amounts of cash and cash equivalents, trade and notes receivables, financial assets included in prepayments, other receivables and other assets, amounts due from related parties, and restricted and time deposits included in the consolidated statement of financial position. We have no other financial assets which carry significant exposure to credit risk.

Liquidity risk

To meet liquidity requirements in the short and long term, our policy is to monitor regularly the current and expected liquidity requirements to ensure that we maintain sufficient reserves of cash and adequate committed lines of funding from major financial institutions.

Capital management

Our primary objectives of capital management are to safeguard our ability to continue as a going concern and to maintain healthy capital ratios to support our business and maximize shareholders' value.

We manage our capital structure and make adjustments in light of changes in economic conditions. To do this, we may adjust the dividend payment to shareholders, return capital to shareholders, or issue new shares. We are not subject to any externally imposed capital requirements. No changes were made in the objectives, policies, or processes for managing capital during the year.

DIRECTORS' REPORT

Gearing Ratio

Details of the gearing ratio are set out in note 38 to the Financial Statements.

Results

The results of the Group for the year ended 31 December 2023 and the state of affairs as at that date are set out in the Financial Statements on pages 279 to 282 of this report.

Final Dividends

The Board recommended the payment of a final dividend of HK\$0.165 per Share (equivalent to US\$36,234,000) in respect of the year ended 31 December 2023 (the "Final Dividend"). The Final Dividend is denominated and declared in Hong Kong dollars, among which, dividends for RMB Shares will be paid in RMB calculated using the average central parity rate between Hong Kong dollars and RMB announced by the People's Bank of China for the week immediately preceding the date of the declaration of dividend by the Board (HK\$1 is equivalent to RMB0.90736). Dividends for Hong Kong Shares will be paid in Hong Kong dollars. Please refer to the announcement on final dividend distribution plan published by the Company on the Shanghai Stock Exchange for details of the dividend distribution on RMB Shares.

Subject to the approval by the Shareholders at the AGM, the Final Dividend will be payable on or about 26 June 2024 to the Shareholders whose names appear on the register of members of the Company on 6 June 2024.

Dividend Policy

Subject to the approval of the Shareholders and the requirements of law, it has been decided that the Company will pay dividends to the Shareholders for the year of 2015 and onwards if the Group is profitable, the operations environment is stable, and there is no significant investment made by the Group. It is intended that the average of dividends paid in three consecutive years will be no less than 30% of the average distributable net profit of these three years. The remaining net profit will be used for the development and operations of the Group.

This dividend policy will continue to be reviewed from time to time and there can be no assurance that dividends will be paid in any amount for any given period. In the event that the Board recommends a dividend, the form and amount will depend on the assessment by the Directors of the factors affecting the Group from time to time.

Distributable Reserves

As at 31 December 2023, the Company has US\$314,127,000 in distributable reserves available for distribution to Shareholders.

DIRECTORS' REPORT

Bank Loans

The particulars of bank loans of the Group as at 31 December 2023 are set out in note 26 to the Financial Statements.

As at 31 December 2023, certain of the Group's bank loans were secured by pledges of the Group's assets. Please refer to note 26 to the Financial Statements for further details.

Financial Summary

A summary of the published results and the assets and liabilities of the Group for the past five financial years is set out on page 392. This summary does not form part of the audited financial statements.

Property, Plant and Equipment

Details of additions and other changes during the year ended 31 December 2023 in the property, plant and equipment, and investment property of the Group are set out in notes 13 and 14 to the Financial Statements.

In addition, details of the investment property are set out below:

Location	Type of Use	Term of Lease	Group's Interest	Gross Floor Area (sq.m.)
Portions of 9 buildings No. 818 Guo Shou Jing Road Zhangjiang Hi-Tech Park Pudong New Area Shanghai, PRC	Industrial use	Held under a land use right for a term expiring on 8 March 2051	100%	91,563.11

Significant Events After the Reporting Period

On 28 March 2024, the Company proposed a final dividend of HK\$0.165 per ordinary share totaling approximately US\$36,234,000 for the year ended 31 December 2023. The proposed final dividend for the year is subject to the approval of the Company's shareholders at the forthcoming annual general meeting.

Share Capital

Details of movement in the share capital of the Company during the year ended 31 December 2023 are set out in note 30 to the Financial Statements. These movements include the automatic inclusion of the amount standing to the share premium account into the share capital as from 3 March 2014, in accordance with section 37 of Schedule 11 to the New Companies Ordinance (Cap. 622), as part of the transition to the no-par value regime.

DIRECTORS' REPORT

Share Option Scheme

A share option scheme (the "Share Option Scheme") was approved by an extraordinary general meeting of the Company held on 1 September 2015. A summary of the Share Option Scheme is as follows:

Purpose of the Share Option Scheme:	The purpose of the Share Option Scheme is to attract, retain and provide incentives to the Participants (defined below), to provide them with the opportunity to obtain Shares of the Company, and to link their interests closely to the operating results and share performance of the Company, with the view to increasing the value of the Company.
Participants:	The participants of the Share Option Scheme ("Participants") include (1) existing Executive and Non-Executive Directors of any member of the Group; or (2) senior management and key managerial and technical personnel having a direct impact on the results of operations and sustainable development of any member of the Group, subject always to any limits and restrictions specified in the Share Option Scheme, but shall not include any Independent Non-Executive Directors.
Maximum entitlement of each Participant:	If the total number of Shares allotted and which may fall to be allotted upon exercise of all the share options ("Share Options") granted and to be granted (including exercised, cancelled, and outstanding Share Options) to a Participant in any 12-month period in aggregate exceeds 1% of the issued share capital of the Company at the time, no further grant of Share Options shall be given to such Participant. Share Options may be granted to a Participant in excess of the individual limit of 1% in any 12-month period only with the approval of the Shareholders at a general meeting. No Share Option shall be granted to any person who holds over 5% of Shares which carry voting rights on the Grant Date (as defined in the Share Option Scheme), unless such grant is approved by shareholders at the general meeting.
Minimum period, if any, for which an option must be held before it can be exercised:	Two years unless otherwise stated in the grant notice of the Share Option.
The amount payable on application or acceptance of the Share Option and the period within which payments or calls must be made or loans for such purposes must be paid:	HK\$1.00 is to be paid by each grantee as consideration for the grant of Share Option within 28 days from the date of proposed offer.
Number of options available for grant at the beginning and the end of year 2023, and the remaining life of the Share Option Scheme:	The Share Option Scheme shall be valid and effective for a period of seven (7) years commencing on the date of adoption. It has therefore expired on 1 September 2022. No further options could be granted, and none has been granted, under the Share Option Scheme from that date.

As at the date of this report, the total number of shares available for issue under the Share Option Scheme is 21,144,481 shares, representing approximately 1.23% of the total number of shares in issue (representing all shares in issue of the listed company (including A Shares)).

DIRECTORS' REPORT

Share Options Granted under the Share Option Scheme

On 4 September 2015, the Company granted 30,250,000 share options (the "2015 Options") to subscribe for a total of 30,250,000 ordinary shares of the Company to certain individuals under the Share Option Scheme. Details of the 2015 Options are as follows:

Date of grant:	4 September 2015
Exercise price of options granted:	HK\$6.912
Number of options granted:	30,250,000 (representing 1.76% of the issued shares of the Company as at 31 December 2023).
Validity period of the options:	From 4 September 2015 to 3 September 2022 (seven (7) years), both dates inclusive.
Vesting period of the options:	One third of the options shall vest on each of 4 September 2017, 4 September 2018, and 4 September 2019.

The exercise price of HK\$6.912 per Share represents a premium of 0% over the higher of (i) the closing price of HK\$6.87 per Share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the date of the grant; (ii) the average closing price of HK\$6.912 per Share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange for the five trading days immediately preceding the date of the grant; and (iii) the closing price of HK\$6.800 per Share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the day immediately before the grant date.

On 24 December 2018, the Company granted 34,500,000 share options (the "2018 Options") to subscribe for a total of 34,500,000 ordinary shares of the Company to certain individuals under the Share Option Scheme. Details of the 2018 Options are as follows:

Date of Grant:	24 December 2018
Exercise price of options granted:	HK\$15.056
Number of options granted:	34,500,000 (representing 2.01% of the issued shares of the Company as at 31 December 2023)
Validity period of the options:	From 24 December 2018 to 23 December 2025 (seven (7) years), both dates inclusive
Vesting period of the options:	For employees at or above the level of the vice president of the Company (together with Directors), one fourth of the 2018 Options shall vest on each of 24 December 2020, 24 December 2021, 24 December 2022, and 24 December 2023; for the other employees of the Company, one third of the 2018 Options shall vest on each of 24 December 2020, 24 December 2021, and 24 December 2022

DIRECTORS' REPORT

The exercise price of HK\$15.056 per share represents the higher of (i) the closing price of HK\$14.440 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the date of the grant; (ii) the average closing price of HK\$15.056 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange for the five business days immediately preceding the date of the grant; (iii) the closing price of HK\$14.380 per Share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the day immediately before the grant date; and (iv) the nominal value of the share.

On 29 March 2019, the Company granted 500,000 share options (the "March 2019 Options") to subscribe for a total of 500,000 ordinary shares of the Company to one individual under the Share Option Scheme. Details of the March 2019 Options are as follows:

Date of Grant:	29 March 2019
Exercise price of options granted:	HK\$18.400
Number of options granted:	500,000 (representing 0.03% of the issued shares of the Company as at 31 December 2023)
Validity period of the options:	From 29 March 2019 to 28 March 2026 (seven (7) years), both dates inclusive
period of the options:	One fourth of the options will vest on each of 23 December 2021, 12 August 2022, 11 August 2023, and 29 March 2024

The exercise price of HK\$18.400 per share represents the higher of (i) the closing price of HK\$18.400 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the date of the grant; (ii) the average closing price of HK\$18.176 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange for the five business days immediately preceding the date of the grant; (iii) the closing price of HK\$18.220 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the day immediately before the grant date; and (iv) the nominal value of the share.

On 23 December 2019, the Company granted 2,482,000 share options (the "December 2019 Options") to subscribe for a total of 2,482,000 ordinary shares of the Company to certain individuals under the Share Option Scheme. Details of the December 2019 Options are as follows:

Date of Grant:	23 December 2019
Exercise price of options granted:	HK\$17.952
Number of options granted:	2,482,000 (representing 0.14% of the issued shares of the Company as at 31 December 2023)
Validity period of the options:	From 23 December 2019 to 22 December 2026 (seven (7) years), both dates inclusive
Vesting period of the options:	For employees at or above the level of the vice president of Hua Hong Wuxi, one fourth of the options will vest on each of 23 December 2021, 23 December 2022, 23 December 2023, and 23 December 2024; for the other employees of Hua Hong Wuxi, one third of the options will vest on each of 23 December 2021, 23 December 2022, and 23 December 2023

DIRECTORS' REPORT

The exercise price of HK\$17.952 per share represents the higher of (i) the closing price of HK\$17.260 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the date of the grant; (ii) the average closing price of HK\$17.952 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange for the five business days immediately preceding the date of the grant; (iii) the closing price of HK\$17.200 per share as stated in the daily quotation sheets issued by the Hong Kong Stock Exchange on the day immediately before the grant date; and (iv) the nominal value of the share.

Among the March 2019 Options, 500,000 share options were granted to the Directors of the Company, subject to their acceptance.

Details of the movements in the share options during the year ended 31 December 2023 are as follows:

Number of share options	Name or category of participants						Total
	Director Mr. Junjun Tang	Resigned director		Other employees			
Granted at 4 September 2015	-	988,000	-	29,262,000	-	-	30,250,000
Granted at 24 December 2018	-	-	680,000	-	33,820,000	-	34,500,000
Granted at 29 March 2019	500,000	-	-	-	-	-	500,000
Granted at 23 December 2019	-	-	-	-	-	2,482,000	2,482,000
Cancelled/Lapsed during the year 2015	-	-	-	-130,000	-	-	-130,000
Cancelled/Lapsed during the year 2016	-	-	-	-1,458,000	-	-	-1,458,000
Cancelled/Lapsed during the year 2017	-	-	-	-1,353,399	-	-	-1,353,399
Cancelled/Lapsed during the year 2018	-	-	-	-754,595	-	-	-754,595
Cancelled/Lapsed during the year 2019	-	-	-600,000	-58,000	-1,035,000	-36,000	-1,729,000
Cancelled/Lapsed during the year 2020	-	-119,000	-80,000	-	-993,904	-84,000	-1,276,904
Cancelled/Lapsed during the year 2021	-62,500	-	-	-	-5,751,868	-592,993	-6,407,361
Cancelled/Lapsed during the year 2022	-	-	-	-	-543,728	-73,983	-617,711
Exercised during the period	-	-	-	-	1,913,454	88,500	2,001,954
Cancelled during the period	-	-	-	-	-	-6,900	-6,900
Lapsed during the period	-	-	-	-	-8,168	-	-8,168
Outstanding at 1 January 2023	437,500	-	-	-	21,389,723	1,611,648	23,438,871
Outstanding at 31 December 2023	437,500	-	-	-	19,468,101	1,516,248	21,421,849
Vesting period of share options	From 29 March 2019 to 28 March 2026	From 4 September 2015 to 3 September 2022	From 24 December 2018 to 23 December 2025	From 4 September 2015 to 3 September 2022	From 24 December 2018 to 23 December 2025	From 23 December 2019 to 22 December 2026	
Exercise period of share options	From 29 March 2021 to 28 March 2026	From 4 September 2017 to 3 September 2022	From 24 December 2020 to 23 December 2025	From 4 September 2017 to 3 September 2022	From 24 December 2020 to 23 December 2025	From 23 December 2021 to 22 December 2026	
Exercise price of share options	HK\$18.400	HK\$6.912	HK\$15.056	HK\$6.912	HK\$15.056	HK\$17.952	
Weighted average closing price of the shares immediately before the dates on which the share options were exercised					HK\$27.58	HK\$31.15	

Save as disclosed above, the Company has not adopted any other share option scheme during the year ended 31 December 2023.

DIRECTORS' REPORT

Reserves

Details of movements in the reserves of the Group during the year ended 31 December 2023 are set out in the consolidated statement of changes in equity on pages 283 to 284 of this report.

Issuance and Listing of Securities

Type of shares and other derivative instruments	Issue price	Issue amount	Listing date	Trading amount approved to be listed
Ordinary share	RMB52.00	407,750,000	7 August 2023	103,974,252 (Circulating shares not subject to selling restrictions); 303,775,748 (Circulating shares subject to selling restrictions)

In order to enhance the overall competitiveness and strengthen the sustainable development capabilities of the Company, an extraordinary general meeting of the Company was held on 27 June 2022 to consider and approve the resolution on the application for the initial public offering and listing of not more than 433,730,000 RMB Shares on the STAR Market of the Shanghai Stock Exchange. The Board is of the view that the offering and listing of the Company is in line with the relevant national industrial policies and the Company's development strategies, which will facilitate the further expansion of the Company's production capacity, enhance the Company's research and development capabilities and enrich the technological platform. It helps the Company to better meet market demands and enhance its market position and core competitiveness in the wafer foundry industry.

On 7 August 2023, the Company was listed on the STAR Market of the Shanghai Stock Exchange under the stock abbreviation of Hua Hong Company (華虹公司) and stock code of 688347.

Through issuing the RMB Shares on the STAR Market of the Shanghai Stock Exchange, a total of 407,750,000 ordinary shares of the Company have been subscribed by eligible off-line investors, as well as eligible natural persons, legal entities and other institutional investors (other than those prohibited by the laws and regulations and regulatory documents of the PRC) or such other target subscribers meeting the relevant qualification requirements of the China Securities Regulatory Commission and the Shanghai Stock Exchange, who have maintained stock accounts with the Shanghai Stock Exchange.

DIRECTORS' REPORT

The total proceeds raised amounted to RMB21,203,000,000. After deducting the issuance expenses, including underwriting, sponsorship fees, as well as other issuance expenses, the net proceeds amounted to RMB20,920,677,000, at an issue price of RMB52.00 per ordinary share (the closing price of the Company's shares on the Hong Kong Stock Exchange was HK\$26.35 as at the date of the announcement of the Company in relation to the terms of the RMB Share Issue (i.e. 4 August 2023)). Upon receipt of the proceeds, the entire amount has been deposited into a dedicated account for the proceeds, which was approved by the Board. The proceeds raised will be utilised in accordance with the previously disclosed intended use of the proceeds as set out below:

Unit: RMB

Previously disclosed intended use of proceeds	Amount of committed investments	Accumulated unutilised proceeds at the end of the Reporting Period	Expected timeframe for usage of unutilised proceeds
Hua Hong Manufacturing (Wuxi) Project	12,500,000,000.00	11,721,659,938.34	By the end of 2025
8-Inch Factory Optimisation and Upgrading Project	2,000,000,000.00	1,965,732,745.52	By the end of 2025
Specialty Technological Innovation, Research and Development Project	2,500,000,000.00	2,368,704,324.02	By the end of 2026
Replenishment of Working Capital	1,000,000,000.00	–	N/A

Formation of Joint Venture during the Reporting Period

On 18 January 2023, the Company, HHGrace, China IC Fund II and Wuxi Xi Hong Guo Xin (together, the "JV Shareholders") entered into a joint venture agreement (the "JV Agreement"), pursuant to which the parties conditionally agreed to establish a joint venture (i.e. the Wuxi Phase II project (HH Fab9)) through Hua Hong Manufacturing and invest US\$880.38 million, US\$1,169.82 million, US\$1,165.8 million and US\$804 million in cash, respectively, in Hua Hong Manufacturing. Pursuant to the JV Agreement, Hua Hong Manufacturing shall engage in the manufacturing and sale of integrated circuits and 12-inch (300mm) wafers adopting 65/55 nm to 40 nm processes. On the same day, the JV Shareholders and Hua Hong Manufacturing entered into an investment agreement (the "JV Investment Agreement") to convert Hua Hong Manufacturing into a joint venture and increase the registered capital of Hua Hong Manufacturing from RMB6.68 million to US\$4.02 billion. The JV Agreement, the JV Investment Agreement, the Land Transfer Agreement (as defined in the section headed "Connected Transactions" below) and the transactions contemplated thereunder constituted major transactions under Chapter 14 of the Listing Rules and were approved by the Shareholders at the EGM held on 17 March 2023.

Please refer to the announcements of the Company dated 18 January 2023 and 17 March 2023 and the circular of the Company dated 24 February 2023 for further details.

DIRECTORS' REPORT

Continuing Connected Transactions

The Group disclosed in the prospectus dated 3 October 2014 the continuing connected transactions with, amongst others, Huali Micro, Huahong Real Estate and Huajin Property Management. Certain details of such transactions are summarized in the table below. With respect to such transactions, the Company had applied for and the Hong Kong Stock Exchange had granted a waiver from, among others, strict compliance with the announcement and independent shareholders' approval requirement (as the case may be). Details of such continuing connected transactions of the Group together with certain other continuing connected transactions conducted during 2023 are set out as follows:

Transaction	Transaction Date	Parties to the Transaction	Connected Relationship	Transaction	Actual Transaction Amount 2023	Proposed Annual Caps 2023
(1)	1 January 2023	Huahong Group (as purchaser) The Company (as seller)	Huahong Group is a substantial shareholder of the Company. Hongri and Huahong Zealcore are owned 51% and 93.02% owned by Huahong Group, respectively.	The Company's sale of semiconductor products to Huahong Group, its subsidiaries and associates, including Hongri and Huahong Zealcore, pursuant to the Huahong Group Framework Agreement.	US\$20,578,000	US\$21,100,000
(2)	1 January 2023	Huahong Group (as seller) The Company (as purchaser)	Huahong Group is a substantial shareholder of the Company. Hongri and Huahong Zealcore are owned 51% and 93.02% owned by Huahong Group, respectively.	The Company's purchase of wafers and chemicals from Huahong Group, its subsidiaries and associates, including Hongri and Huahong Zealcore, pursuant to the Huahong Group Framework Agreement.	US\$19,234,000	US\$31,500,000
(3)	1 January 2023	SAIL (as purchaser) The Company (as seller)	SAIL is a substantial shareholder of the Company.	The Company's sale of semiconductor products to SAIL, its subsidiaries and associates, including SITRI and O-Cubes, pursuant to the SAIL Sales Framework Agreement.	US\$357,000	US\$2,000,000

DIRECTORS' REPORT

Transaction	Transaction Date	Parties to the Transaction	Connected Relationship	Transaction	Actual Transaction Amount 2023	Proposed Annual Caps 2023
(4)	1 January 2021	HHGrace (as service provider) Hua Hong Wuxi (as recipient of service)	Hua Hong Wuxi is a non-wholly owned subsidiary which is held as to approximately 20.58% by China IC Fund, a substantial shareholder of the Company. Accordingly, Hua Hong Wuxi is a connected subsidiary of the Company.	Service agreement between HHGrace (as service provider) and Hua Hong Wuxi (as recipient of services) in relation to the provision of corporate services by HHGrace to Hua Hong Wuxi.	RMB145,000,000 (approx. US\$20,644,000)	RMB145,000,000 (approx. US\$20,644,000)
(5)	1 January 2023	HHGrace (as recipient of service) Hua Hong Wuxi (as service provider)	Hua Hong Wuxi is a non-wholly owned subsidiary which is held as to approximately 20.58% by China IC Fund, a substantial shareholder of the Company. Accordingly, Hua Hong Wuxi is a connected subsidiary of the Company.	Service agreement between HHGrace (as recipient of service) and Hua Hong Wuxi (as service provider) in relation to the provision of chemical placing services.	US\$47,000	US\$2,400,000
(6)	25 February 2010 (together with the supplemental agreements dated 10 June 2011 and 25 July 2014)	Huali Micro (as lessee) The Company (as lessor)	Huali Micro is 53.85% owned by Huahong Group, a substantial shareholder of the Company.	Lease agreement between Huali Micro (as lessee) and the Company (as lessor) in relation to the factory premise situated at Hill 2, 13th street, Zhangjiang Hi-Tech park, Pudong New Area, Shanghai, PRC leased by the Company to Huali Micro for their 300mm wafer production line. The total gross floor area leased was 96,048.2 square meters.	RMB97,189,000 (approx. US\$13,786,000)	RMB99,000,000 (approx. US\$14,095,000)
(7)	1 January 2023	Huali Micro (as lessee) HHGrace (as lessor)	Huali Micro is 53.85% owned by Huahong Group, a substantial shareholder of the Company.	Lease agreement between Huali Micro (as lessee) and HHGrace (as lessor) in relation to certain clean rooms in HHGrace's factory premises leased to Huali Micro. The total gross floor area leased was 192 square meters.	RMB1,402,000 (approx. US\$199,000)	RMB4,200,000 (approx. US\$598,000)

DIRECTORS' REPORT

Transaction	Transaction Date	Parties to the Transaction	Connected Relationship	Transaction	Actual Transaction Amount 2023	Proposed Annual Caps 2023
(8)	10 January 2013 (together with a supplemental agreement dated 10 June 2014)	Huahong Real Estate (as lessor) The Company (as lessee)	Huahong Real Estate is a wholly-owned subsidiary of Huahong Technology Development, a company 50% held by and consolidated with Huahong Group, a substantial shareholder of the Company, and 50% held by HHGrace, a wholly-owned subsidiary of the Company.	Lease agreement between Huahong Real Estate (as lessor) and the Company (as lessee) in relation to the dormitory premises situated at Hua Hong Innovation Park, Nong 2777, Jinxiu Road East, Pudong New Area, Shanghai, PRC ("Dormitory Premises") rented by the Company from Huahong Real Estate for use as staff quarters for the Company's employees. The total gross floor area rented was 17,412.87 square meters.	RMB11,504,000 (approx. US\$1,631,000) ⁽¹⁾	RMB12,700,000 (approx. US\$1,808,000)
(9)	1 January 2023	Huajin Property Management (as property manager) The Company (as lessee)	Huajin Property Management is a wholly-owned subsidiary of Huahong Technology Development, a company 50% held by and consolidated with Huahong Group, a substantial shareholder of the Company, and 50% held by HHGrace, a wholly-owned subsidiary of the Company.	Property management agreement between Huajin Property Management (as property manager) and the Company (as lessee) in relation to the engagement of Huajin Property Management by the Group to provide property management services for the Dormitory Premises.	RMB3,993,000 (approx. US\$567,000)	RMB5,700,000 (approx. US\$812,000)
(10)	1 January 2023	Huahong Real Estate (as lessor) HHGrace (as lessee)	Huahong Real Estate is a wholly-owned subsidiary of Huahong Technology Development, a company 50% held by and consolidated with Huahong Group, a substantial shareholder of the Company, and 50% held by HHGrace, a wholly-owned subsidiary of the Company.	Lease agreement between Huahong Real Estate (as lessor) and HHGrace (as lessee) in relation to the dormitory premises situated at Hua Hong Innovation Park, Nong 2777, Jinxiu Road East, Pudong New Area, Shanghai, PRC ("Additional Dormitory Premises") rented by the Company from Huahong Real Estate for use as staff quarters for the Company's employees. The total gross floor area rented was 9,977.17 square meters.	RMB6,285,000 (approx. US\$891,000) ⁽²⁾	RMB7,300,000 (approx. US\$1,039,000)

DIRECTORS' REPORT

Notes:

- (1) The Group entered into a twenty-year lease with respect to certain dormitory premises from Huahong Real Estate before the adoption of Hong Kong Financial Reporting Standard 16. Thus, the Group are not required to re-comply with the notifiable or connected transaction Rules. The amount of rent payable by the Group under the lease is US\$1,631,000 per year. As at 31 December 2023, the balances of those right-of-use assets and lease liabilities were US\$10,932,000 and US\$13,498,000, respectively.
- (2) The Group entered into an additional lease of dormitory premises from Huahong Real Estate. The amount of rent payable by the Group under the lease is US\$891,000 per year. As at 31 December 2023, the balances of those right-of-use assets and lease liabilities were US\$7,151,000 and US\$7,292,000, respectively.

The price and terms of the continuing connected transactions as described above were determined in accordance with the pricing policies and guidelines as set out in the relevant announcements of the Company. The Board (including the Independent Non-Executive Directors) has reviewed the continuing connected transactions as described above and confirmed that such transactions did in fact continue in 2023:

- (i) in the ordinary and usual course of business of the Company;
- (ii) either on normal commercial terms or, if there are no sufficient comparable transactions to judge whether they are on normal commercial terms, on terms no less favourable to the Company than terms available to or from (as appropriate) independent third parties; and
- (iii) in accordance with the relevant agreements on terms that are fair and reasonable and in the interests of the Shareholders of the Company as a whole.

The auditors of the Company have confirmed in a letter to the Board that, with respect to the aforesaid continuing connected transactions of 2023:

- (i) nothing has come to their attention that causes the auditors to believe that the disclosed continuing connected transactions have not been approved by the Company's Board;
- (ii) for transactions involving the provision of goods or services by the Group, nothing has come to their attention that causes the auditors to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Company;
- (iii) nothing has come to their attention that causes the auditors to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions; and
- (iv) with respect to the aggregate amount of each of the continuing connected transactions, nothing has come to their attention that causes the auditors to believe that the disclosed continuing connected transactions have exceeded the relevant annual caps disclosed in the relevant announcement(s) with respect to each of the disclosed continuing connected transactions.

DIRECTORS' REPORT

Connected Transactions

Technology Development Agreement

On 1 December 2023, HHGrace entered into a technology development agreement (the “Technology Development Agreement”) with Huali Micro, pursuant to which Huali Micro agreed to provide HHGrace with a non-exclusive licence to use certain technological know-how together with ancillary technical consulting services in support of Hua Hong Manufacturing’s production line of 12-inch (300 mm) wafers with 40 nm processes, for a consideration of between RMB110 million and RMB180 million (inclusive of tax).

As at the date of the Technology Development Agreement, Huali Micro was 53.85% owned by Huahong Group, a substantial shareholder of the Company. Accordingly, Huali Micro was a connected person of the Company and the entering into of the Technology Development Agreement constituted a connected transaction of the Company under Chapter 14A of the Listing Rules.

Please refer to the announcement of the Company dated 1 December 2023 for further details.

China IC Fund II Subscription Agreement

On 28 June 2023, the Company, China IC Fund II, Guotai Junan Securities Co., Ltd. and Haitong Securities Co., Ltd. entered into a share subscription agreement (the “China IC Fund II Subscription Agreement”), pursuant to which China IC Fund II would participate in the RMB Share Issue as a strategic investor by subscribing for RMB Shares under the RMB Share Issue up to an aggregate subscription amount of RMB3,000,000,000, subject to allotment.

As at the date of the China IC Fund II Subscription Agreement, China IC Fund II held 29% of the equity interests in Hua Hong Manufacturing, which was a non-wholly owned subsidiary of the Company. Therefore, China IC Fund II was a substantial shareholder of Hua Hong Manufacturing and was a connected person of the Company at the subsidiary level pursuant to Chapter 14A of the Listing Rules. Accordingly, the transaction contemplated under the China IC Fund II Subscription Agreement constituted a connected transaction of the Company under Chapter 14A of the Listing Rules.

The China IC Fund II Subscription Agreement and the transaction contemplated thereunder were approved by the Shareholders at the EGM held on 14 July 2023. The final number of RMB Shares allotted to China IC Fund II under the China IC Fund II Subscription Agreement was determined to be 48,334,249 RMB Shares, with an aggregate allotted amount of RMB2,513,380,948.

Please refer to the announcements of the Company dated 28 June 2023, 14 July 2023 and 24 July 2023 and the circular of the Company dated 29 June 2023 for further details.

Land Transfer Agreement

In connection with the JV Agreement and JV Investment Agreement, on 18 January 2023, Hua Hong Manufacturing and Hua Hong Wuxi entered into a land transfer agreement (the “Land Transfer Agreement”), pursuant to which Hua Hong Wuxi conditionally agreed to transfer and Hua Hong Manufacturing conditionally agreed to purchase several plots of land located in Wuxi, Jiangsu for a total consideration of RMB170,100,450, for the purpose of developing fabs housing Hua Hong Manufacturing’s production lines for manufacturing integrated circuits and 12-inch (300mm) wafers.

As at the date of the Land Transfer Agreement, Hua Hong Wuxi was a non-wholly owned subsidiary of the Company which was held as to approximately 20.58% by China IC Fund, a substantial shareholder of the Company. Accordingly, Hua Hong Wuxi was a connected subsidiary of the Company and the entering into of the Land Transfer Agreement constituted a connected transaction of the Company under the Chapter 14A of the Listing Rules.

DIRECTORS' REPORT

The Land Transfer Agreement and the transaction contemplated thereunder were approved by the Shareholders at the EGM held on 17 March 2023.

Please refer to the announcements of the Company dated 18 January 2023 and 17 March 2023 and the circular of the Company dated 24 February 2023 for further details.

Related Party Transactions

During the year ended 31 December 2023, the Group entered into certain transactions with parties regarded as “related parties” under the applicable accounting standards. Details of the related party transactions entered into by the Group during the year ended 31 December 2023 are disclosed in note 35 to the financial statements. The Company has complied with the disclosure requirements set out in Chapter 14A of the Listing Rules. Save as disclosed in the section headed “Continuing Connected Transactions and Connected Transactions” in this annual report, the other related party transactions disclosed in note 35 were not regarded as connected transactions or were exempt from reporting, announcement, and shareholder approval requirements under the Listing Rules.

Performance of the Equity Investments

The table below sets out the breakdown of the performance with respect to the Equity Investments during the year ended 31 December 2023.

	Huali Micro (USD' 000)	QST (USD' 000)	Shanghai Awinic (USD' 000)
Initial investment cost	229,133	1,704	2,120
Book value at the beginning of the year	174,170	2,020	2,442
Changes in fair value	94,313	969	28
Exchange realignment	(3,355)	(40)	(41)
Book value at the end of the year	265,128	2,949	2,429
Dividends received	–	–	–
Gain on disposals	–	–	1,943
Subscribed capital contribution/ number of shares held	RMB1,400,000,000	10,377,050	178,000
Percentage of equity interest held	5.3900%	0.6220%	0.1072%
Size compared to the total assets of the Company	3.8%	0.0%	0.0%

During the year ended 31 December 2023, the Group did not dispose of any equity interest in Huali Micro, QST or Shanghai Awinic. Changes in the fair value of the Company's equity investment in Huali Micro, QST, and Shanghai Awinic were US\$94,313,000, 969,000, and US\$28,000 respectively.

Huali Micro was established in 2010. As an industry-leading IC wafer foundry company, Huali Micro has advanced process technologies and offers comprehensive solutions. It is devoted to providing one-stop wafer foundry technical services for process technology nodes from 65/55nm to 28/22nm for design companies, IDM companies, and other system companies. Huali Micro has two 12-inch fully-automated wafer fabs in China.

DIRECTORS' REPORT

During the financial year of 2023, the book value of the Company's equity investment in Huali Micro increased by US\$90,958,000, including an increase of US\$94,313,000 in the fair value and a foreign currency statement loss of around US\$3,355,000. Accordingly, the Board is of the view that the performance of Huali Micro during the financial year of 2023 has been in line with its expectations.

QST was founded in September 2012 and has a robust IP portfolio, with over 83 patents issued. QST is a leading sensor platform company engaged in the development and marketing of Innovative MEMS sensors and solutions to simplify advanced perception, measurement, and control in consumer, automotive, and industrial applications.

During the financial year of 2023, the book value of the Company's equity investment in QST increased by US\$930,000, including an increase of US\$969,000 in the fair value and a foreign currency statement loss of around US\$40,000. As the business of QST is still in its early development stage, the Board is of the view that the performance and strategic planning of QST during 2023 have been consistent with its expectations.

Shanghai Awinic, founded in June 2008, is a high-tech company focusing on high-quality and high-performance IC design of mixed signal, analog, and RF for mobile phone, AI, Internet of Things, automotive electronics, wearables, and consumer electronics. Shanghai Awinic is a listed company on the STAR Market of the Shanghai Stock Exchange.

During the financial year of 2023, the book value of the Company's equity investment in Shanghai Awinic decreased by US\$13,000, including an increase of US\$28,000 in the fair value and a foreign currency statement loss of around US\$41,000. The Board is of the view that the performance of Shanghai Awinic during the financial year of 2023 has been in line with its expectation.

The Company confirms that it has complied with the accounting policy of investments and other financial assets (policies under HKFRS 9, applicable since 1 January 2018) as contained in the annual report of the Company for the year ended 31 December 2023.

The Company expects the future prospects of the aforementioned investments to be largely in line with that over the past year. No significant changes in investment strategy or source of funding are expected for the coming year.

Annual General Meeting

The AGM will be held on Thursday, 9 May 2024.

Closure of Register of Members

For determining the eligibility of Shareholders to attend and vote at the AGM

Latest time to lodge transfer documents for registration	4:30 p.m. on 3 May 2024
Closure of register of members	6 May 2024 to 9 May 2024 (both dates inclusive)
Record date	9 May 2024

In order to be eligible to attend and vote at the Annual General Meeting, unregistered holders of shares should ensure all share transfer forms accompanied by the relevant share certificates are lodged with the Company's branch share registrar Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong for registration no later than the aforementioned latest time.

For determining entitlement of Shareholders to the proposed final dividend

Latest time to lodge transfer documents for registration	4:30 p.m. on 4 June 2024
Closure of Register of members	5 June to 6 June 2024 (both dates inclusive)
Record date	6 June 2024
Payable date	26 June 2024

DIRECTORS' REPORT

For the purpose of ascertaining the Shareholders' entitlement to the proposed Final Dividend, the register of members of the Company will be closed from 5 June to 6 June 2024, both days inclusive, during which period no transfer of Shares will be registered. In order to qualify for the proposed Final Dividend, unregistered holders of Shares should ensure all share transfer forms accompanied by the relevant share certificates must be lodged with the Company's share registrar in Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong for registration no later than 4:30 p.m. on 4 June 2024.

Directors and Directors' Service Contracts

The Directors of the Company during the year and as of the date of this report were:

Executive Directors:

Mr. Suxin Zhang (*Chairman*)

Mr. Junjun Tang (*President*)

Non-Executive Directors:

Mr. Jun Ye

Mr. Guodong Sun

Mr. Limin Zhou (*appointed on 19 January 2024*)

Ms. Chengyan Xiong (*appointed on 28 March 2024*)

Ms. Jing Wang (*resigned on 1 September 2023*)

Independent Non-Executive Directors:

Mr. Stephen Tso Tung Chang

Mr. Kwai Huen Wong, JP

Mr. Songling Feng (*appointed on 28 March 2024*)

Mr. Long Fei Ye (*resigned on 28 March 2024*)

Each of the Directors of the Company is appointed for a specific term of three years and is subject to re-nomination and re-election by the Company in general meetings, unless his/her appointment has been early terminated in accordance with the terms and conditions of the relevant letter of appointment or director's service contract.

Mr. Suxin Zhang, Mr. Junjun Tang and Mr. Kwai Huen Wong, JP will retire by rotation from office as Directors at the Annual General Meeting in accordance with articles 117 to 118 of the Articles. Mr. Limin Zhou, Mr. Songlin Feng and Ms. Chengyan Xiong appointed by the Board as a Non-Executive Director, Independent Non-Executive Director and Non-Executive Director of the Company on 19 January 2024, 28 March 2024 and 28 March 2024, respectively, will retire at the Annual General Meeting in accordance with article 122 of the Articles. Mr. Suxin Zhang, Mr. Junjun Tang, Mr. Kwai Huen Wong, JP, Mr. Limin Zhou, Mr. Songlin Feng and Ms. Chengyan Xiong, being eligible, will offer themselves for re-election pursuant to the Articles.

None of the Directors proposed for re-election at the general meeting has a service contract which is terminable by the Group within one year without payment of compensation, other than statutory compensation.

The Company has received annual confirmation of independence from each of the existing Independent Non-Executive Directors and Mr. Long Fei Ye in accordance with Rule 3.13 of the Listing Rules. The Company considers that all the aforesaid current and former Independent Non-Executive Directors are independent in accordance with the Listing Rules.

Profiles of Directors and Senior Management

Profiles of Directors and Senior Management of the Company are set out on pages 13 to 21 of this report.

DIRECTORS' REPORT

Remuneration of the Highest Paid Individuals and Directors and Senior Management

Details of the remuneration of the Directors and the five highest paid individuals are set out in notes 8 and 9 to the consolidated financial statements in this annual report, respectively.

Interests of the Directors and the Chief Executive in Shares and Underlying Shares of the Company

As at 31 December 2023, save as disclosed below, none of the Directors or the Chief Executive of the Company had any interests or short positions in the shares, underlying shares, or debentures of the Company or any associated corporation (within the meaning of Part XV of the SFO), as recorded in the register kept under section 352 of the SFO, or as otherwise notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code contained in the Listing Rules.

Name of Director	Capacity	Number of underlying shares held in long position ⁽¹⁾	Approximate percentage of interests
Mr. Junjun Tang	Beneficial owner	448,500	0.03%

Note:

- (1) Long position in (a) 437,500 underlying shares of the Company under share options granted pursuant to the Share Option Scheme and (b) 11,000 RMB Shares he held.

Interests of Directors in a Competing Business

During the year, none of the Directors of the Group had any interests in a business which competes, either directly or indirectly, with the business of the Company or the Group.

Interests of Directors in Transactions, Arrangements or Contracts of Significance

On 18 January 2023, Hua Hong Manufacturing and Hua Hong Wuxi entered into a land transfer agreement (the "Land Transfer Agreement"), pursuant to which Hua Hong Wuxi conditionally agreed to transfer and the Hua Hong Manufacturing conditionally agreed to purchase several plots of land located in Wuxi, Jiangsu for a total consideration of RMB170,100,450. Since (i) Hua Hong Wuxi was owned by China IC Fund as to 20.58% as at the date of the Land Transfer Agreement, and was the transferor under the Land Transfer Agreement, (ii) Sino IC Capital was the fund manager of China IC Fund, and (iii) Mr. Guodong Sun, a non-executive Director of the Company, was the managing director of Sino IC Capital, to avoid potential conflict of interest, Mr. Guodong Sun abstained from voting at the Board meeting authorising the entering into of the Land Transfer Agreement. Please refer to the section headed "Continuing Connected Transactions and Connected Transactions – Connected Transactions – Land Transfer Agreement" for further details of the Land Transfer Agreement.

Save as disclosed above, no transaction, arrangement or contract of significance to which the Company or any of its subsidiaries or associates was a party and in which a Director or an entity connected with a Director has or had a material interest, whether directly or indirectly, subsisted at the end of the year ended 31 December 2023 or at any time during the year.

Directors' Securities Transactions

The Company has devised its own code of conduct regarding Directors dealing in the Company's securities (the "Company Code") on terms no less exacting than the Model Code. Specific enquiry has been made to all the Directors, and the Directors have confirmed that they have complied with the Company Code and the Model Code throughout 2023.

DIRECTORS' REPORT

Indemnity and Insurance

The Company provides directors and officers liabilities (D&O) insurance for the Directors and Officers. The D&O insurance covers day-to-day management liability and is renewed every year.

Director(s) of the Subsidiaries

The names of Directors who have served on the boards of the Company's subsidiaries during the year ended 31 December 2023, or during the period from the end of the year 2023 to the date of this report, were as follows:

Name of the Subsidiary	Place of Incorporation	Name of the Director(s)
Grace Cayman	Cayman Islands	Mr. Suxin Zhang Mr. Jun Ye
HHGrace	Shanghai, PRC	Mr. Suxin Zhang Mr. Junjun Tang Ms. Jing Wang ¹ Mr. Yuchuan Ma Mr. Takayuki Morita Mr. Jun Ye Mr. Stephen Tso Tung Chang Mr. Kwai Huen Wong, JP Mr. Long Fei Ye Mr. Limin Zhou ²
Hua Hong Wuxi	Wuxi, PRC	Mr. Suxin Zhang Mr. Jun Wei Mr. Junjun Tang Mr. Guodong Sun Ms. Jing Wang ³ Ms. Qi Chen ⁴ Mr. Xin Jin Mr. Xiaoming Zhu ⁵ Mr. Weihua Wu ⁶ Mr. Limin Zhou ⁷
Huahong Real Estate (Wuxi) Co., Ltd.	Wuxi, PRC	Mr. Weiping Zhou
Hua Hong Manufacturing	Wuxi, PRC	Mr. Suxin Zhang Mr. Jun Wei ⁸ Mr. Junjun Tang ⁸ Mr. Guodong Sun ⁸ Mr. Xin Jin ⁸ Mr. Weihua Wu ⁸ Mr. Limin Zhou ⁸ Ms. Jing Wang ⁹ Ms. Qi Chen ¹⁰
Global Synergy Technology Limited	Hong Kong, PRC	Mr. Daniel Yu-Cheng Wang Mr. Cheng Fu
HHGrace Semiconductor USA, Inc.	CA, USA	Mr. Daniel Yu-Cheng Wang Mr. Cheng Fu
HHGrace Semiconductor Japan Co., Ltd.	Tokyo, Japan	Ms. Maki Nakamura Mr. Daniel Yu-Cheng Wang Mr. Cheng Fu

DIRECTORS' REPORT

Notes:

- (1) Ms. Jing Wang's resignation as a director of HHGrace was registered with the relevant market supervision and management authority on 29 December 2023.
- (2) Mr. Limin Zhou's appointment as a director of HHGrace was registered with the relevant market supervision and management authority on 31 January 2024.
- (3) Ms. Jing Wang's resignation as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 2 November 2023.
- (4) Ms. Qi Chen's appointment as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 13 January 2023. Ms. Qi Chen's resignation as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 2 November 2023.
- (5) Mr. Xiaoming Zhu's resignation as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 13 January 2023.
- (6) Mr. Weihua Wu's appointment as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 2 November 2023.
- (7) Mr. Limin Zhou's appointment as a director of Hua Hong Wuxi was registered with the relevant market supervision and management authority on 2 November 2023.
- (8) The appointment of each of Mr. Jun Wei, Mr. Junjun Tang, Mr. Guodong Sun, Mr. Xin Jin, Mr. Weihua Wu, and Mr. Limin Zhou as a director of Hua Hong Manufacturing was registered with the relevant market supervision and management authority on 8 November 2023.
- (9) Ms. Jing Wang's resignation as a director of Hua Hong Manufacturing was registered with the relevant market supervision and management authority on 8 November 2023.
- (10) Ms. Qi Chen's resignation as a director of Hua Hong Manufacturing was registered with the relevant market supervision and management authority on 8 November 2023.

Interests of Substantial Shareholders and Other Persons in the Shares and Underlying Shares of the Company

As at 31 December 2023, persons other than a Director or Chief Executive of the Company, having interests of 5% or more or short positions in the shares and underlying shares of the Group, were as follows:

Substantial shareholders	Capacity and nature of interest	Number of shares held	Approximate percentage of aggregate interests in issued share capital*
Shanghai Hua Hong International, Inc. ("Hua Hong International") ⁽²⁾	Legal and beneficial owner	347,605,650 ⁽¹⁾	20.25%
Huahong Group ⁽²⁾	Interest in a controlled corporation	347,605,650 ⁽¹⁾	20.25%
Sino-Alliance International, Ltd. ("Sino-Alliance International")	Legal and beneficial owner	160,545,541 ⁽¹⁾⁽³⁾	9.35%
Sino-Alliance International	Interest in a controlled corporation	28,415,606 ⁽¹⁾	1.66%
SAIL	Interest in a controlled corporation	188,961,147 ⁽¹⁾⁽⁴⁾	11.01%
Xinxin (Hong Kong) Capital Co., Limited	Legal and beneficial owner	178,705,925 ⁽¹⁾	10.41%
Xun Xin (Shanghai) Investment Co., Ltd.	Interest in a controlled corporation	178,705,925 ⁽¹⁾	10.41%
China IC Fund	Interest in a controlled corporation	178,705,925 ⁽¹⁾	10.41%

Notes:

- (1) Long positions in the shares of the Company.
- (2) Hua Hong International is a wholly-owned subsidiary of Huahong Group.
- (3) Including 3,084 shares held in escrow by Sino-Alliance International pursuant to an escrow arrangement.
- (4) SAIL indirectly held interests in the Company through two wholly-owned subsidiaries, including Sino-Alliance International.

* The percentages are calculated based on the total number of shares of the Company in issue as at 31 December 2023, i.e., 1,716,588,694 shares.

DIRECTORS' REPORT

Save as disclosed above, so far as is known to any of the Directors and the Chief Executive of the Company, as at 31 December 2023, no other person or corporation other than a Director or Chief Executive of the Company had any interests or short positions in any shares or underlying shares of the Company which were recorded in the register required to be kept by the Company pursuant to section 336 of the SFO.

Arrangements to Purchase Shares or Debentures

At no time during the year ended 31 December 2023 were rights to acquire benefits by means of an acquisition of shares in or debentures of the Company granted to any of the Directors or their respective spouses or minor children, or were any such rights exercised by them, or was the Company or any of its holding companies, subsidiaries, or fellow subsidiaries, a party to any arrangements to enable the Directors or their respective spouses or minor children to acquire such rights in any other body corporate.

Major Customers and Suppliers

For the year ended 31 December 2023, the purchases attributable to the Group's top five suppliers combined were less than 30% of total purchases, and the turnover attributable to the Group's top five customers combined was less than 30% of total turnover.

Emolument Policy

As at 31 December 2023, the Group had a total of 6,863 employees. The Group recruits and promotes individuals based on their merit and development potential. The emolument policy for employees of the Group is set up by the Remuneration Committee on the basis of their merit, qualifications, and competence.

The emoluments of the Directors are determined by the Remuneration Committee, having regard to the Group's operating results and individual performance. The emoluments of the Directors on a named basis are set out in note 8 to the financial statements for the year ended 31 December 2023.

Purchase, Sale or Redemption of Securities

For the year ended 31 December 2023, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed securities.

Right of First Refusal

There are no provisions for right of first refusal under the Articles, or the laws of Hong Kong, which would oblige the Company to offer new shares on a pro-rata basis to existing shareholders.

Corporate Governance

The Company is committed to maintaining a high standard of corporate governance to safeguard the interests of shareholders and to enhance corporate value and accountability.

Information on the corporate governance practices adopted by the Company is set out in the Corporate Governance Report in this annual report.

Compliance with the Relevant Laws and Regulations

As far as the Board is aware, the Company has complied in all material respects with the relevant laws and regulations that have a significant impact on the business and operation of the Company.

DIRECTORS' REPORT

Environmental and Social Responsibilities

The Company firmly believes that robust and effective environmental, social, and governance (ESG) management is the foundation for sustainable and high-quality development. The concept of ESG has been deeply integrated into the Company's strategy, management, and long-term development goal and has been involved in the entire process of our business operations, so as to drive continuous business growth and create and share value for all stakeholders.

In 2023, the Company systematically advanced various ESG management goals and monitored their progress. It actively carried out ESG-related initiatives and achieved outstanding results, including special technical transformation related to safety and environmental protection, safeguarding employee rights and interests and production safety, deepening product research and development and innovation, establishing responsible supply chains, and strengthening risk compliance and control. During the reporting period, the Company passed the social responsibility audit certification by EcoVadis, a global corporate social responsibility (CSR) assessment agency, and received a bronze medal.

Compliance with the Deed of Non-Competition and the Deed of Right of First Refusal

Huahong Group, SAIL, and INESA, being the then controlling shareholders of the Company, entered into a deed of non-competition (the "Deed of Non-Competition") dated 23 September 2014, details of which have been set out in the paragraph headed "Non-Competition Undertaking" in the section headed "Relationship with Controlling Shareholders" of the Company's prospectus dated 3 October 2014 (the "Prospectus"). In addition, Huahong Group and SAIL also entered into a deed of right of first refusal (the "Deed of Right of First Refusal") dated 10 June 2014, details of which have been set out in the paragraph headed "Right of First Refusal" in the section headed "Relationship with Controlling Shareholders" of the Prospectus. The Company has reviewed the written declaration from each of the controlling shareholders mentioned above on their compliance with their undertakings under the Deed of Non-Competition and the Deed of Right of First Refusal (as the case may be) for the year ended 31 December 2023. The Independent Non-Executive Directors have reviewed the status of compliance and confirmed that all the undertakings under the Deed of Non-Competition and the Deed of Right of First Refusal (as the case may be) have been complied with by the relevant parties.

DIRECTORS' REPORT

Sufficiency of Public Float

Based on the information that is publicly available to the Company and within the knowledge of the Directors as at the date of this report, the Directors are satisfied that the Company has maintained the prescribed minimum public float under the Listing Rules.

Auditors

A resolution will be submitted at the AGM to re-appoint Ernst & Young as auditors of the Company.

On behalf of the Board

Mr. Suxin Zhang

Chairman

28 March 2024

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Management Statement of the Board

The Company adheres to the entrepreneurial spirit of “set a course mastering the challenges ahead” and promotes the “Hua Hong 520 Spirit” of “showing loyalty to and love for the motherland, always keeping the promise, being diligent and dedicated, and always fulfilling the mission”. By embracing the concept of “openness, innovation, and cooperation” and driven by “bravery, perseverance, and unity”, we have strengthened business operations and development, advanced production expansion, perfected the innovation system, and enhanced technological capabilities, thereby achieving stable and coordinated operation and sustainable development.

The Company firmly believes that Environmental, Social, and Governance (ESG) management has laid the foundation for sustainable and high-quality development. We have crafted ESG management objectives for 2030, focusing on water resource management, energy use management, greenhouse gas emissions management, waste emission management, and sustainable supply chain management. In identifying, assessing, and managing ESG issues, the Company takes into consideration its development strategy and external policy trends. In 2023, we added “corporate governance”, “environmental management”, and “intellectual property protection” as new issues and upgraded the “anti-corruption” issue to “business ethics issue” as well as the “emissions management” issue to the “emissions and waste management” issue. These adjustments better address concerns of stakeholders and ensure effectiveness of the Company’s ESG management strategies and measures. In 2023, the Company passed corporate social responsibility (CSR) audit certification by the global corporate social responsibility (CSR) assessment agency Eco Vadis, covering labor, environmental management, business ethics, and sustainable procurement and received a bronze medal.

The management and practical progress of ESG issues in this report were considered and approved at the third meeting of the Board of Directors of the Company held in 28 March 2024.

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

1 ESG Management System

1.1 ESG Management Structure

Based on the corporate vision of “Continuous Innovation and Empowering the Future for Global Customers”, the Company established a top-down environmental, social, and governance (ESG) management structure, continues to improve the ESG management system, encourages innovation-driven development, fosters innovative talents, and strives to reduce the impact of business operation on the environment. We also make efforts to diversify the supply chain capabilities and promote the joint creation of corporate business and social values.

The Board, as the highest decision-making/management body for the Company’s ESG management, is responsible for the following aspects:

- to direct the formulation of ESG management policies and strategies of the Company and ensure that they are up to date, relevant, and in compliance with applicable legal and regulatory requirements;
- to direct the identification and determination of the importance of significant ESG issues of the Company;
- to supervise the setting and implementation of the Company’s ESG goals, including: setting ESG management performance goals of the Company; monitoring progress in achieving the goals; and advising on actions required to achieve the goals;
- to review and approve the Company’s annual Environmental, Social, and Governance Report and other ESG related disclosures.

The management level will be responsible for supervising the overall implementation according to the formulated ESG targets, and the ESG working group assists in development and implementation of ESG management and regularly reports to the Board on the progress of ESG key performance indicators, so as to promote the realization of the Company’s ESG management targets.

ESG Management Structure



2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

1.2 ESG management strategies and targets

The Company has integrated ESG management into its products, business operations, and corporate development and formed a complete ESG management strategy covering the four aspects of “Responsibility for Employees”, “Responsibility for the Industry”, “Responsibility for People’s Livelihood”, and “Responsibility for Investors”.

ESG Management Strategies



2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

The Company has set ESG management targets for water use efficiency, energy use efficiency, GHG emissions, waste reduction, and conflict mineral due diligence, based on the development of its business and its ESG performance in operations. On an annual basis, the Board of Directors reviews ESG performance and achievement of the Company's ESG goals for the previous year and discloses the results in the ESG report, so as to promote the achievement of ESG management targets.

ESG Management Targets and Progress in 2023

Aspect	Target	Progress in 2023
Water resources management	The water consumed per unit product (m ³ per 8-inch wafer) in 2030 will decrease by 12% as compared with 2015	The water consumed per unit product in 2023 was 2.83 m ³ per 8-inch wafer, decreasing by 11% as compared with 2015
Energy consumption management	Comprehensive energy consumption per unit product (MWh per 8-inch wafer) in 2030 will decrease by 7% as compared with 2015	Comprehensive energy consumption per unit product in 2023 was 0.30 MWh per 8-inch wafer, decreasing by 21% as compared with 2015
GHG emissions management	GHG emissions per unit product (tCO ₂ e per 8-inch wafer) in 2030 will decrease by 12% as compared with 2015	GHG emissions per unit product in 2023 was 0.14 tCO ₂ e per 8-inch wafer, remaining basically flat as compared with 2022
Waste discharge management	Under the philosophy of lean manufacturing management, the Company will take reduction measures to continuously reduce hazardous waste produced per unit product and non-hazardous waste produced per unit product	<ul style="list-style-type: none"> Under the philosophy of lean manufacturing management, the Company continuously reduced generation of hazardous waste The non-hazardous waste produced per unit product in 2023 was 2.36 kg per 8-inch wafer, remaining flat as compared with 2022
Wastewater Discharge Management	100% compliance on discharge	<ul style="list-style-type: none"> 100% compliance on wastewater discharge in 2023
Air Emission Discharge Management	100% compliance on discharge	<ul style="list-style-type: none"> 100% compliance on air emission discharge in 2023
Sustainable supply chain management	The due diligence rate on suppliers of conflict minerals will reach 100%, and the utilization rate of compliant minerals will reach 100%	<ul style="list-style-type: none"> Have conducted due diligence on suppliers of "conflict minerals", with a coverage rate of 100%, and completed the latest version of the investigation report on conflict minerals and extended minerals According to due diligence, all suppliers are found to use compliant raw materials with the utilization rate of compliant minerals up to 100%

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Social Recognitions in 2023

No.	Honors
	Global
1	EcoVadis Bronze Medal
	National
2	2022 Outstanding Intelligent Manufacturing Scene
3	2023 National Worker Pioneer
4	The 15th China Semiconductor Innovation Products and Technology
	Shanghai
5	First Prize in Shanghai Science and Technology Award
6	Water Efficiency Leader of Key Water-Using Enterprises in Shanghai
7	2022 Top 20 Enterprises with Corporate Social Responsibility Reports in Shanghai
8	100 Smart Factories in Shanghai
9	2023 Top 100 Innovative High-Tech Enterprises in Shanghai
10	Shanghai Outstanding Invention Gold Award
11	Shanghai Model Unit for Open and Democratic Factory Affairs Management
12	Shanghai Women's Civilization Post
13	Shanghai Worker Pioneer
14	Shanghai Model Worker's Small Home
15	Second Prize in Shanghai Industrial Water Reuse Outstanding Cases
	Jiangsu
16	Wuxi Model Unit for Happy Enterprise Construction
17	Wuxi City Model Worker's Home

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

1.3 Involvement of Stakeholders

Based on the business and operational characteristics of our Company and leveraging the experience and practices in industry at home and abroad, Hua Hong Semiconductor has determined the following to be our stakeholders: our shareholders and senior management, customers, employees, government agencies and regulators, partners, communities, and the public and actively communicates with all of these stakeholders via various channels and methods, including websites, media, meetings, reports, and social activities.

Communications and Issues of Concern of Stakeholders

Key stakeholders	Description	Issues concerned	Communications and responses
Shareholders and senior management	Domestic and foreign investors holding equity and debt investments in our Company, and senior management members of the Company	<ul style="list-style-type: none"> Compliant operation Corporate governance Risk management Business ethics Customer relationship management Water resource management Product quality and safety R&D innovation 	<ul style="list-style-type: none"> Regular reviews of laws and regulations are conducted, the outcomes of which are used for revising management systems to ensure operational compliance Publication of financial and performance reports, communication with investors through the Shanghai Stock Exchange e-interaction platform, emails, and roadshows Robust risk management system Improvement in anti-corruption management mechanisms Conducting customer satisfaction surveys The WRI Water Risk Atlas is used to assess water risk levels and develop a comprehensive water resource management system Implementation of product quality and safety management measures Organization of technical seminars and industry exchange meetings

2023 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Key stakeholders	Description	Issues concerned	Communications and responses
Customers	IDMs and fabless semiconductor companies	<ul style="list-style-type: none"> • Data security and privacy protection • Product quality and safety • Customer relationship management • R&D innovation 	<ul style="list-style-type: none"> • Establishment of information security and privacy protection policies • Implementation of product quality and safety management measures • Conducting customer surveys • Organization of technical seminars and industry exchange meetings
Employees	Our employees and contract personnel who serve our Company on a continuous basis	<ul style="list-style-type: none"> • Employee interests and welfare • Employee health and safety • Employee development and training 	<ul style="list-style-type: none"> • Formulation of an employee handbook • Establishment of a platform for talent development and learning sharing • Organization of safety production training and health checkups • Diversification of the employee training system
Government and regulators	Manufacturing, tax, environmental protection security and other departments, local governments, SFC and other governmental or regulatory authorities	<ul style="list-style-type: none"> • Compliant operation • Green products • Emissions management and waste management • Energy management • Climate change mitigation and adaptation 	<ul style="list-style-type: none"> • Robust internal control and compliance system • Green production • Research and development of low-carbon and energy-efficient products • Emissions and waste are properly managed through recycling and other methods • Collaboration with institutional inspections • Organization of energy-saving and carbon reduction initiatives

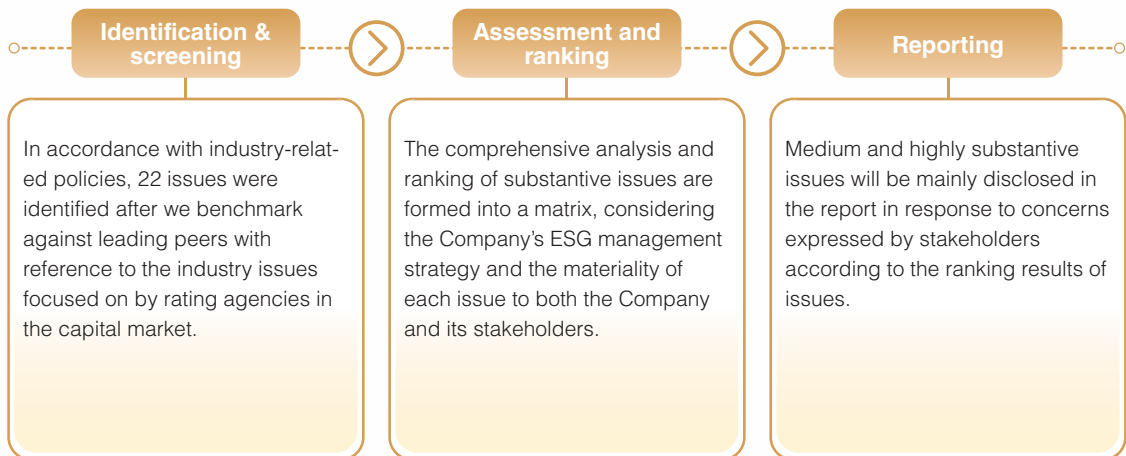
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Key stakeholders	Description	Issues concerned	Communications and responses
Partners	Suppliers, research institutions, industry associations, etc.	<ul style="list-style-type: none"> Industry development Product quality and safety R&D innovation Sustainable supply chain management 	<ul style="list-style-type: none"> Active participation in industry exchanges Optimization of product quality management More investments in research and development Promotion of responsible sourcing
Communities and the public	Communities in which we operate, the public and media, etc.	<ul style="list-style-type: none"> Community and public benefit 	<ul style="list-style-type: none"> Engagement in Community activities, employee volunteer activities, public welfare activities, social cause campaigns, etc.

1.4 Identification and Analysis of Substantive Issues

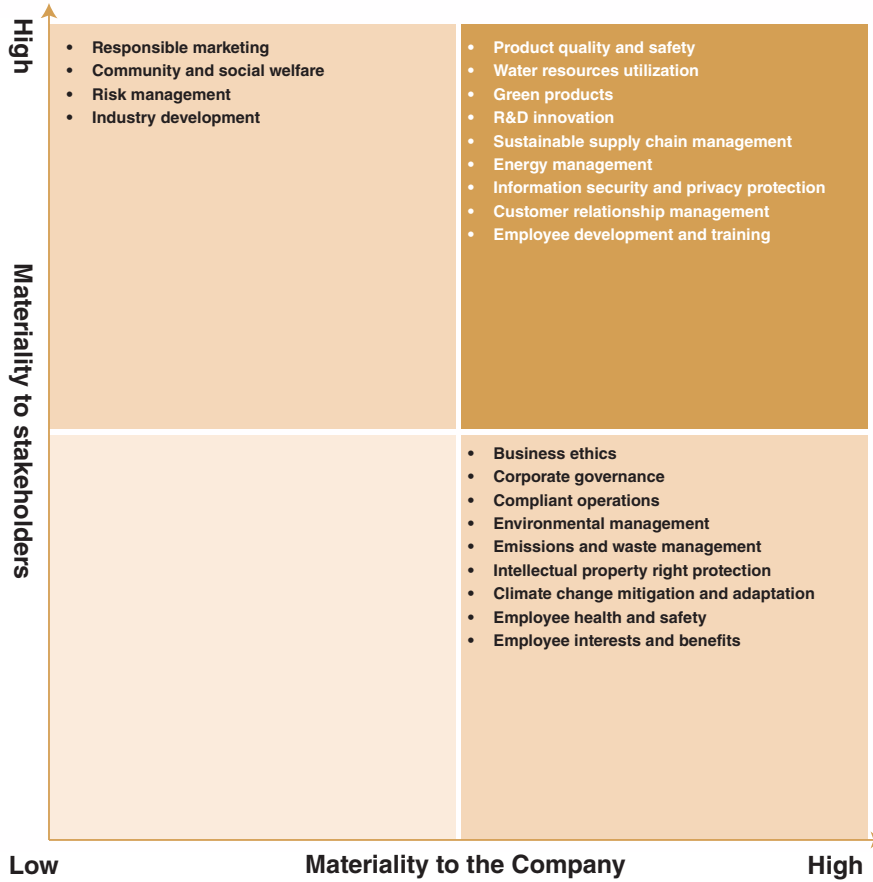
The identification and analysis of substantive ESG issues represent a crucial element in ESG management. The Company has developed a comprehensive process for identifying and analyzing material issues, whereby regularly carrying out identification and screening work. In light of our ESG management strategy and business development, the Company, together with the Board of Directors and the ESG Working Group, evaluates and ranks identified substantive issues in collaboration with external experts from two dimensions: materiality to the Company; and materiality to stakeholders. In 2023, the Company identified 22 substantive issues, of which 9 were of high substantive significance to both the Company and its stakeholders.

Substantive Issue Analysis Process



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Matrix of Substantive Issues



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Descriptions on Adjustment of Issues in 2023

Issues for 2022	Issues for 2023	Explanation	Descriptions on Adjustment
—	Environmental management	In accordance with laws, regulations, and its own business nature, the Company has established a systematic management system and adopted scientific management methodologies to minimize the environmental impacts caused by its activities, aiming to achieve environmental protection.	A new issue, which better responds to stakeholders' concerns and is more in line with the Company's actual conditions.
—	Intellectual property right protection	The Company's administrative system, measures, and results pertaining to protection of its own intellectual property rights and non-infringement on others' intellectual property rights.	A new issue, which better responds to stakeholders' concerns and is more in line with the Company's actual conditions.
Anti-corruption	Business ethics	The Company's business ethics management system includes the establishment of systems and training related to anti-corruption and anti-bribery, as well as practices to regulate conduct of unfair competition, anti-trust, or anti-monopoly.	The description is adjusted to broaden the scope of issue management, including business ethics and anti-unfair competition management, which better responds to stakeholders' concerns and is more in line with the Company's actual conditions.
—	Corporate governance	The Company has established an effective governance structure to promote diversity and independence within the Board, ensuring the Company's compliant operations, as well as scientific, standardized, and transparent corporate governance.	A new issue, which better responds to stakeholders' concerns.
Emissions management	Emissions and waste management	The Company's management system and measures for the classification and treatment of wastewater, air emissions, and hazardous and non-hazardous waste, as well as reduction in discharge of wastewater, air emissions, and hazardous and non-hazardous waste, including management methods and emission data.	The description is adjusted to broaden the scope of issue management, including emissions and waste management, which better responds to stakeholders' concerns and is more in line with the Company's actual conditions.

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2 Environmental Responsibilities

Main Progress in 2023

Measures	Achievements
Technical transformation related to safety and environmental protection	A total of 46 special technical transformation projects related to safety and environmental protection An investment of RMB111.96 million in safety and environmental protection and technological transformation
Development of energy-efficient projects	The preparation of energy audit reports and clean production audit reports completed Development of 21 energy-efficient projects

2.1 Environmental Management System

Environmental Management

The Company adheres to the philosophy of environmental friendliness and sustainable development, strictly abides by the Environmental Protection Law of the People's Republic of China and other laws and regulations, and has formulated administrative systems, including the Resource and Energy Management Procedure, the Management Regulations for Water, Electricity, Steam, and Gas Metering, the Exhaust Gas Emission Management Policy, and the Waste Management Procedure. Furthermore, the Company is actively developing a number of environmental management measures, and continues to optimize environmental management procedures covering the whole life cycle, thereby improving its environmental management system.

Hua Hong Semiconductor's production and manufacturing fabs include the Shanghai Production Base¹ and the Wuxi production base².

Hua Hong Semiconductor Environmental Management System

Management Structure	<ul style="list-style-type: none"> The management team is responsible for overseeing and managing environmental tasks The EHS department is responsible for executing environmental management projects, and delivering regular reports on the project progress to the management
Scope of Management	<ul style="list-style-type: none"> Environmental management including energy management, resource management, and emissions and waste management
Management System	<ul style="list-style-type: none"> Regulations such as Resource and Energy Management Procedure, Management Regulations for Water, Electricity, Steam, and Gas Metering; Operating Norms for Industrial Waste Management; and Standard Operating Procedures for Industrial Water Supply System
Management Measures	<ul style="list-style-type: none"> Relevant environmental management systems are revised according to laws and regulations to regulate environmental management procedures Regular identification and assessment are performed over environmental risks at production bases and environmental protection and technical transformation projects are carried out, thereby reducing the environmental impacts of operation and production activities Certification of environmental management systems is performed to actively improve our environmental management capabilities

1 The Shanghai production base includes Fab 1, Fab 2, and Fab 3.

2 The Wuxi production base includes Fab 7 and Fab 9 (under construction).

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The Company's EHS Department is responsible for coordinating its environmental management system, including formulation of management regulations, performance analysis and evaluation with respect to energy and resource use, emissions management, etc. It also assists external agencies in the audit and testing of the Company's environmental management system. Furthermore, the Company uses safety management auditing and tracking system to analyze, sort out, and list the nonconforming items against environmental protection regulations found in daily management, then follow up and record subsequent rectifications through the regular reminder function of the system.

In 2023, the Company invested RMB111.96 million in 46 safety, environmental protection, and technical transformation projects, as part of our continuing commitments to improving environmental management facilities. All plant facilities under the Company have passed ISO 14001 system certification. During the Reporting Period, no Company violation against environmental laws and regulations occurred. During the Reporting Period, the Company fully paid relevant taxes with respect to environmental protection. In the meantime, the Company experienced no incident in violation of the relevant law and regulations with respect to environmental protection.

Certification in Relation to Environmental Management of Hua Hong Semiconductor

Certified Entity	Certification Name	Validity of Certification
Hua Hong Shanghai Production Base	ISO 14001: 2015 Environmental Management System	18 April 2024
Hua Hong Wuxi Production Base	ISO 14001: 2015 Environmental Management System	18 April 2024

Green Culture

The Company continuously promotes the environmental protection concept, regularly holds environmental management sharing sessions, and organizes each production plant to share excellent environmental management cases and measures at sharing sessions, so as to strengthen employees' awareness of environmental protection and the economical use of office resources and energy.

Practice in Green Culture

Saving paper around the office	<ul style="list-style-type: none"> Implementing office informatization to reduce paper consumption. Making efforts to promote the use of recycled paper, including for printing business cards of employees, to support recycling.
Saving electricity	<ul style="list-style-type: none"> Turning off the power supply when leaving work or for a long time absence. Reasonably setting air conditioning temperature above 26°C in summer and below 20°C in winter.
Saving water	<ul style="list-style-type: none"> Developing employees' awareness of saving water and posting water saving tips.
Waste disposal	<ul style="list-style-type: none"> Classifying domestic waste in each factory into 4 categories, namely dry, wet, recyclable, and harmful waste and putting up posters for waste classification to raise employees' awareness.
Commuting	<ul style="list-style-type: none"> Encouraging employees to commute by public transport. Using new energy vehicles as shuttle buses for the Company.

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2.2 Energy Management

Types of energy consumed by the Company are mainly electric power, heat, natural gas, gasoline, and diesel. The production operations of the Company have no significant impact on the environment and natural energy resources. The Company strictly complies with the Energy Conservation Law of the People's Republic of China and other laws, regulations, and relevant provisions; sets energy conservation management goals; and formulates energy management systems. The Company continues to optimize and improve its energy management system, constantly enhancing energy efficiency by carrying out various energy-saving technical transformation projects and by using energy-saving equipment.

Energy Management System

Philosophy

- Carrying out source control and continuous improvement while satisfying and improving productivity and reducing the impact on the environment while reducing production costs.

Goal

- By 2030, the Company's comprehensive energy consumption per unit product will decrease by 7% compared with 2015.

Policy

- Resource and Energy Management Procedure
- Management Regulations for Water, Electricity, Steam, and Gas Metering

Measures

- Carrying out technical transformation for energy-saving.
- Regularly engaging third-party agencies to conduct energy audits of the Company.
- Organizing energy-saving publicity, implementation activities, and post energy-saving signs.

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To ensure the stable supply of electricity and smooth production, the Company developed the Administrative Rules for Electricity Safety, the Emergency Response Plan for Anomalies in External Power Supply, the On-site Treatment Plan of the Power Department for Power Cut, and the Emergency Plan for Power Circuit Breaker Tripping and carried out emergency plan training and emergency drills in fabs on a regular basis. The power supply is secured through daily inspection, special system investigation, and emergency drills.

In 2023, by continuing to respond to the “One Percent” Energy Conservation and Carbon Reduction Initiative in Shanghai Industrial and Communication Industry, all factories at the Shanghai Production Base executed 15 energy-saving projects and completed preparation of energy audit reports and clean production audit reports, reinforcing the outcomes of the “energy conservation project plan of 3,000 tons of standard coal”.

Energy Saving Work and Achievements in 2023

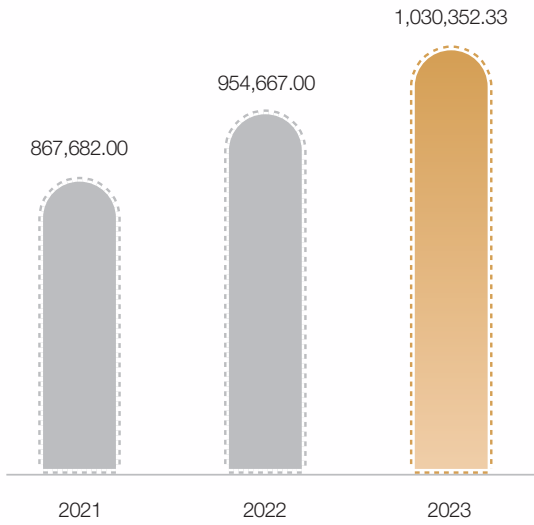
Fabs	Measures	Annual Reduction in Energy Consumption
Fab 1	<ul style="list-style-type: none"> Undertaking high-efficiency refrigeration unit renovation projects, replacing old refrigeration units to improve energy efficiency Utilizing energy-efficient LED lighting Renovating the high-pressure pumps in the pure water system 	<ul style="list-style-type: none"> Saved a total of approximately 800,000 kWh of electricity in 2023 Saved a total of approximately 30,000 kWh of electricity in 2023 Saved a total of approximately 100,000 kWh of electricity in 2023
Fab 2	<ul style="list-style-type: none"> Replacing the refrigeration unit for the refrigeration system to improve energy efficiency Completing heat recovery renovations for chilled water in the refrigeration unit 	<ul style="list-style-type: none"> Saved a total of approximately 3.144 million kWh of electricity in 2023 Saved a total of approximately 188,000 cubic meters of natural gas in 2023
Fab 3	<ul style="list-style-type: none"> Undertaking energy-efficient renovations for high-efficiency refrigeration units 	<ul style="list-style-type: none"> Saved a total of approximately 2 million kWh of electricity in 2023
Fab 7	<ul style="list-style-type: none"> Optimizing the number of operating facilities for organic waste gas treatment Installing new RO concentrate water recycling equipment Reducing water makeup volume by regulating the RO makeup water bypass of the MAU under the summer mode of a MAU 	<ul style="list-style-type: none"> Saved a total of 175,200 kWh of electricity and 474,500 cubic meters of natural gas in 2023 Saved a total of 26,000 tons of water in 2023 Saved a total of 32,898 tons of water in 2023

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During the Reporting Period, the Company’s primary energy consumption was as follows:

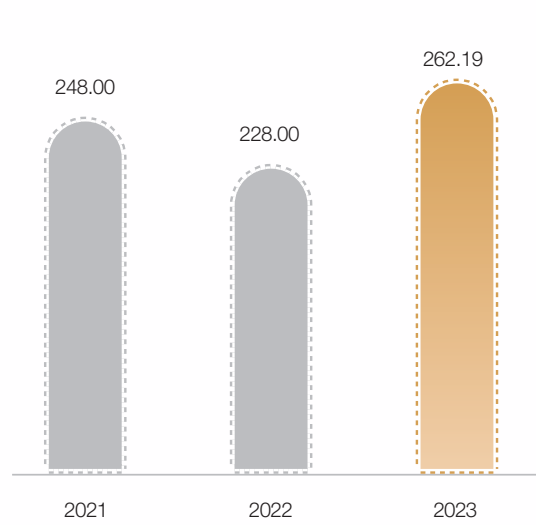
Total power consumption

Unit: MWh



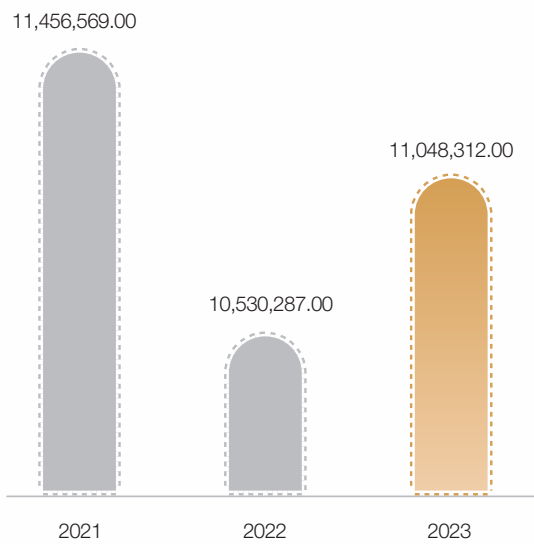
Power consumption intensity

Unit: kWh per 8-inch wafer



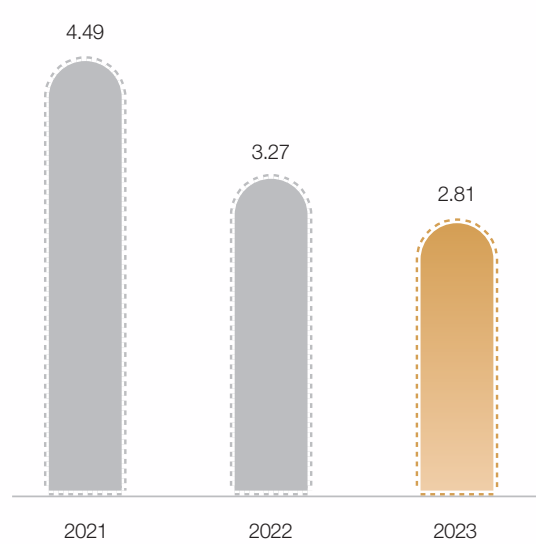
Total natural gas consumption

Unit: m³



Natural gas consumption intensity

Unit: m³ per 8-inch wafer



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2.3 Climate Change Mitigation and Adaptation

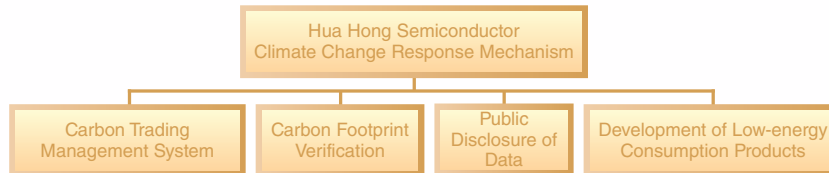
Hua Hong Semiconductor recognizes the importance of mitigating climate change for both the Company and the world. In 2023, the Company improved its management system for addressing climate change with reference to the International Sustainability Standards Board (ISSB)'s Sustainability Disclosure Standards of IFRS 2 – Climate-Related Disclosures (ISSB Climate Standards), regularly identified climate risks and opportunities, and piloted carbon emission verification. While continuing to improve energy use efficiency in production and business operations, the Company disclosed information about energy use and carbon emissions in its ESG Report. In the meantime, the Company actively developed low-energy consumption products, as part of our endeavor to facilitate achievement of China's "30 • 60" carbon peaking and carbon neutrality goals.

Hua Hong Semiconductor's Climate Change Management System

Governance

- A top-down governance framework is established, where the Board takes responsibility for formulating and coordinating climate change response strategies. This includes regular reviews over the progress of climate change management work to ensure the effectiveness of strategies and management measures, as well as reviewing target progress.
- The ESG Working Group takes responsibility for implementing climate change strategies, whereby assessing, managing, and monitoring climate change management work, as well as regularly reporting work progress and related performance to the Board.
- Each business department actively participates in climate change management work, contributing to the Company's efforts to reduce carbon emissions.

Strategies



Risk management

- Based on the identification results of climate risks and opportunities, the Company develops corresponding management measures to enhance its capability to respond to climate change and capture green product opportunities.

Indicators and targets

- Scientific and reasonable climate change management targets are set with related performance and target progress disclosed in the annual ESG report, details of which are available in the section headed "ESG Management Strategy and Targets".

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The Company regularly undertakes identifications of climate change risks, so that the climate change response mechanism can be constantly improved, as part of our active response to the risks and opportunities brought by climate change.

Identification and Response to Climate Change Risks and Opportunities

Major Risks and Opportunities of Climate Change as Identified		Potential Financial Impacts	Response Measures
Risks	Transition Risks Reputation Risks Transitioning to a low-carbon economy, the PRC government and various stakeholders expect companies to take active actions in response to climate change and to enhance the transparency of information disclosure. As a result, any company that fails to respond effectively to these propositions from the stakeholders would be exposed to negative impacts on its own reputation.	Decreased Business Revenue	<ul style="list-style-type: none"> – Categorizing climate change mitigation and adaptation into work priorities for all business departments. – Actively participating in the Shanghai Development and Reform Commission's carbon emissions trading work and conducting regular carbon accounting work.
	Policy and Legal Risks The PRC has set carbon neutrality targets, and regulatory scrutiny on corporate carbon emissions will continue to intensify in the future. If the Company fails to meet regulatory requirements in environmental management, it may face risks of litigation and fines, which could lead to defaults.	Increased Operating Costs	<ul style="list-style-type: none"> – Developing a climate change management system in reference to the ISSB Climate Standards. – Communicating with stakeholders about climate change as a substantive issue through channels such as ESG reports.
	Market Risks In recent years, customers and consumers have become increasingly conscious about product sustainability, which is constantly changing the external market environment in which businesses operate. If the Company's products and services cannot effectively and timely adapt to these market changes, our operations will be impacted.	Decreased Business Revenue	<ul style="list-style-type: none"> – Developing low-power consumption products and actively communicating with customers and consumers about the green attributes of said products.
Physical Risks	Acute Physical Risk The increase in natural disasters including typhoons and floods caused by climate change may affect the Company's wafer fab operations, resulting in economic losses.	Increased Operating Costs; Reduced Value of Fixed Assets	<ul style="list-style-type: none"> – Formulating emergency response plans for extreme weather events. – Regularly conducting emergency drills and training for natural disaster incidents.
	Chronic Physical Risks Persistent high-temperature weather and sea-level rise caused by climate change may lead to disruptions in business operations, resulting in financial losses.	Increased Operating Costs; Reduced Value of Fixed Assets	

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Major Risks and Opportunities of Climate Change as Identified		Potential Financial Impacts	Response Measures
Opportunities	Resource Use Efficiency Resource use efficiency shall be improved, including the efficiency of energy and water resources, which can help the Company reduce costs during operations.	Reduced Operating Costs	<ul style="list-style-type: none"> – Actively adopting green office and operations measures. – Integrating ecological and environmental concepts into the design stage of new plant premises to reduce the use of various resources during construction and operation.
	Energy Sources A higher utilization rate of more low-emission/clean energy in operational activities can help reduce the risk of rising energy prices in the future.	Reduced Operating Costs	<ul style="list-style-type: none"> – Continuously increasing investment in green research, development, and innovation.
	Products and Services Amid the transition to a low-carbon economy, the Company is presented with new market opportunities as demand is increasing for green, low-power consumption products among customers and consumers.	Increased Business Revenue	<ul style="list-style-type: none"> – Continuously improving the environmentally friendly and green attributes of products. – Reducing the generation of hazardous substances with green technologies and materials, minimizing environmental impact. – Developing products with lower power consumption and higher efficiency to help downstream industries improve energy efficiency and reduce carbon emissions. – Providing integrated services in product design, research and development, and production.

The Company's GHG emissions mainly come from direct GHG emissions, generated from the use of natural gas, small amounts of petroleum and diesel, and indirect GHG emissions from outsourced electricity and thermal power. The Company carries out GHG emission reduction work from the management level and the technical level to reduce carbon emissions generated in its operation activities, thereby lessening the impact on climate change.

The Shanghai Production Base is recognized as a "carbon emission quota management unit" by the Shanghai municipal government and actively responds to government policies by conducting regular carbon investigations. During the Reporting Period, the Company undertook third-party verification of the 2022 carbon emission data for Fab 1, Fab 2, and Fab 3 at the Shanghai Production Base to enhance our carbon emission data management capability.

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2.4 Resource Management

Sustainable Water Management

The Company sets water management goals and formulates water management strategies in strict accordance with laws and rules and other relevant regulations, including the Water Law of the People's Republic of China, the Shanghai Administrative Measures for Water Conservation, and the Jiangsu Water Conservation Ordinance. It also introduces higher-efficiency equipment and processes, continuously optimizes water resources management measures, and enhances its water consumption efficiency.

Water Resource Management System

Goal

- By 2030, the Company aims to reduce water consumed per unit product by 12% as compared to 2015.

Policy

- Management Regulations for Water Use
- Standard Operating Procedures for Industrial Water Supply System
- Tap Water Anomaly Handling Procedure

Measures

- Monitor the supply and quality of water resources in operating areas.
- Establish and maintain comprehensive ledger management, regularly conducting statistics, analysis, and improvement of utilisation.
- Implement water-saving technological upgrades and wastewater reuse.
- Organize water-saving promotion activities and post water-saving signs.

Semiconductor manufacturing process necessitates adherence to water quality standards and involves substantial water consumption, resulting in a significant impact on the availability of natural water resources. The Company constantly monitors the risk of water resources in areas where we operate through the "Aqueduct Water Risk Atlas", an external tool from the World Resources Institute (WRI). We analyze the rationality of water consumption for production and the operation of our fabs and the possible impact of the water intake and formulate effective measures to reduce risks and ensure that water resources can support the Company's sustainable development.

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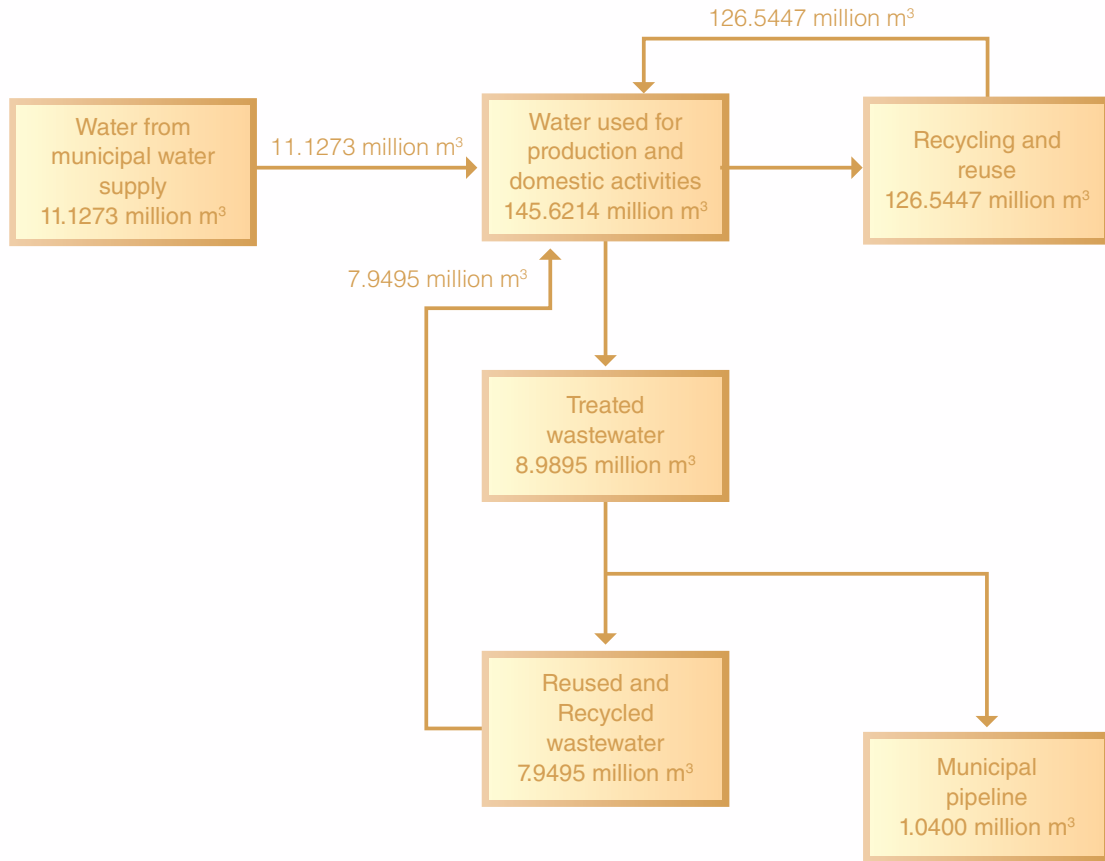
WRI Risk Monitoring Results and Countermeasures of the Company

Water risk monitoring indicators	<ul style="list-style-type: none"> • Type of physical risks: Water consumption risk, drought, decline of groundwater water level, etc.. • Condition of physical risks: Coastal erosion, untreated water. • Laws, regulations and reputation risks: Quality of drinking water, sanitary conditions, etc..
Monitoring results	<ul style="list-style-type: none"> • High-risk area: Wuxi Fab and Shanghai Fab.
Countermeasures	<ul style="list-style-type: none"> • Relying on water monitoring sites for each fab, the Company has conducted water balance tests on a regular basis to calculate the process water, recycled water, wastewater, and domestic water use of each fab. • The Company records the flow, volume, and recycling of water resources, so as to analyze whether there is any abnormal utilization of water resources and predict the reasonable allocation of water resources among water-consuming units. • Build green buildings, upgrade or replace equipment with high water consumption, and enhance water consumption efficiency. • Expand the sources of water resources, recycle air-conditioning condensate, organic wastewater, etc., and transform recycled water into industrial water. • Carry out water-saving awareness publicity activities and post water-saving signs.

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Water used by the Company comes to a large extent from the municipal water supply in addition to a smaller amount of recycled water and air conditioning condensate from the pure water manufacturing process.

Overview of Water Used for Production and Operation of the Company in 2023



During the Reporting Period, the Company undertook several water-saving and wastewater reuse activities. In 2023, it was awarded the medal and certificate of honor titled as “Water Efficiency Leader of Key Water-Using Enterprises in Shanghai” jointly issued by the Shanghai Municipal Commission of Economy and Informatization and the Shanghai Water Authority. In addition, it received the second prize for “Shanghai Industrial Water Reuse Excellent Case” jointly awarded by the Labor Union of Shanghai Water Authority, the Shanghai Office for Water Saving, and the Shanghai Water Supply Management Office.

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Water Resources Management Work and Achievements in 2023

Action	Measures	Achievements
<ul style="list-style-type: none"> Reclaimed water reuse project 	<ul style="list-style-type: none"> Additional reclaimed water recycling facilities were installed, and turbidity removal membranes and special RO membranes were used to improve the quality of water output from the system, ensuring the requirements for use in the pure water system are met 	In 2023, a total of 275,940 tons of water was saved
<ul style="list-style-type: none"> Saving RO makeup water 	<ul style="list-style-type: none"> Water makeup volume was reduced by regulating the RO makeup water bypass of the MAU without affecting the indoor AMC in the cleanroom 	In 2023, a total of 32,898 tons of water was saved
<ul style="list-style-type: none"> Recycling of RO concentrated water 	<ul style="list-style-type: none"> Additional RO concentrated water recycling equipment was installed to increase the treatment amount of recycled water 	In 2023, a total of 26,000 tons of water was saved
<ul style="list-style-type: none"> Recycling of sampling water from the online instrument 	<ul style="list-style-type: none"> The sampling water from the online water quality testing instrument was collectively recovered in the intermediate water tank and reused for the spray water system 	In 2023, a total of 9,125 tons of water was saved
<ul style="list-style-type: none"> Adjusting OAC unit makeup water flow 	<ul style="list-style-type: none"> Diaphragm valves and flow meters were installed to adjust the makeup water amount according to actual needs, saving water 	In 2023, a total of 55,845 tons of water was saved
<ul style="list-style-type: none"> RCM product water reuse project 	<ul style="list-style-type: none"> The organic reclaimed water pipeline was installed to substitute reclaimed water for tap water for washing 	In 2023, a total of 14,600 tons of water was saved

Raw Materials Management

The Company primarily uses raw materials including silicon slices, quartz, target materials, and chemicals. To streamline management, the Company has established management systems, including the Raw Materials Shelf Life Control Policy, the Risk Identification and Response Measures for Key Materials, the Key Materials Risk Analysis Table, and the Materials Management Department's Management Standards for Chemical Storage and Gas-based Operations, to standardize the raw materials management procedures. The Company encourages employees to reduce waste rates by means of technical innovation, constant optimization, and recommendations on optimization, thereby enhancing the efficient utilization of raw materials.

2.5 Emissions and Waste Management

In order to meet emission standards and reduce impact on the environment, the Company has standardized the management of air emissions, wastewater, and waste discharge in strict accordance with the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, Law of the People's Republic of China on the Prevention and Control of Soil Pollution, Law of the People's Republic of China on the Prevention and Control of Water Pollution, as well as other laws and regulations and relevant provisions. During the Reporting Period, no incident of excessive or illegal discharge of pollutants by the Company has occurred, nor has any litigation case arising from the above types of incidents occurred.

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Air Emission Discharge Management

The Company strictly complies with national and local discharge requirements, such as the Discharge Standards of Pollutants for Semiconductor Industry (DB31/374-2006) and Jiangsu Discharge Standards for Semiconductor Industry (DB32/3247-2020), and sets a management goal of achieving 100% compliance on discharge. The Company has formulated improved testing plans and management measures for air emissions discharged during production, including sulfuric acid mist (H₂SO₄), hydrogen chloride (HCl), nitric oxide (NO_x), ammonia (NH₃), and volatile organic compounds (VOCs). The Company has further developed testing plans for major air emissions according to the production situation and regularly carried out testing and evaluation to ensure compliance of air emissions.

Air Emissions Management

Type		Treatment Method
Air Emissions	Acid air emission	Up-to-standard discharge after removing most of the components through pretreatment and centralized treatment of the washing tower.
	Alkaline air emission (mainly ammonia gas)	Purification through a washing tower.
	Organic air emission	Purification through activated carbon adsorption, or combustion after concentration.
	Air Emissions containing dust (mainly small particulates of silicon dioxide)	Removal through a dust-extraction unit

The Company has standardized the requirements for online monitoring and management of organic waste gas and improved on-site supervision capacity of its fabs. The Company's waste gas treatment facilities are maintained at a high level of treatment efficiency through annual overhaul and other measures. In addition, the Company optimized and improved the treatment technology of its organic waste gas treatment system, constantly enhanced the treatment efficiency of the system, and reduced the emission of organic waste gas.

Waste Management

The Company adheres to the principles of "reduction from the source" and "circular economy". Besides standardizing the identification and strict classification of generated waste, the Company adopts proper management methods to handle waste, aiming to maximize the waste recycling rate.

The Company maintains consistently high standards and strict requirements in the implementation of the waste management system by formulating the Waste Management Procedure, the Code of Practice for Industrial Waste Management, and other management regulations, as well as crafting all-around management procedures for waste management to standardize waste management operations. Through the unified environmental protection management system of the government, waste treatment is recorded and managed to ensure all transportation records are traceable and controllable. In every year since 2017, the Company has carried out work to reduce the discharge of various hazardous wastes to constantly reduce the impact of hazardous waste emissions on the environment.

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Classification and Treatment Methods of Waste

Categories		Treatment Method
Non-hazardous waste	Domestic waste and kitchen garbage	Entrusting the environmental sanitation departments in the places where we operate for unified disposal on a regular basis
	Raw materials for production and office supplies	Recycling within plant premises
	Such as sludge	Landfilling, and brick manufacturing
Hazardous waste	Such as waste acid, waste isopropanol, waste phosphoric acid, and organic waste liquid	handled by suitable enterprises, or reused in other industries, for a higher reuse rate
	Such as waste glass bottles, 200L chemical barrels, and waste liquid from laboratory	Physical-chemical treatment
	Such as cleaning cloths, plastic bottles, waste activated carbon, waste resin, and arsenic-containing waste	Incineration

Wastewater Discharge Management

The Company strictly complies with the relevant laws and regulations governing wastewater discharge for all of the jurisdictions in which its factories operate and sets a management goal of achieving 100% compliance on discharge. The Shanghai Production Base is in compliance with the Discharge Standard of Water Pollutants for Electronic Industry (GB39731-2020), the Integrated Wastewater Discharge Standard (DB31/199-2018), and the Waste Water Quality Standards for Discharge to Municipal Sewers (GBT 31962-2015) – Grade B Standard. The Wuxi Production Base is in compliance with the Jiangsu Discharge Standards for Semiconductor Industry (DB32/3247-2020), the Integrated Wastewater Discharge Standard (GB8978-1996), and the Waste Water Quality Standards for Discharge to Municipal Sewers (GB/T31962-2015) and formulates the Management System for Drainage and Waste. The Company also reduces the generation of wastewater by continuously optimizing manufacturing processes and wastewater recovery.

In terms of pollution discharge and information disclosure, the Company carried out online monitoring and management of wastewater, with relevant data of the Shanghai Production Base and the Wuxi Production Base disclosed on the environmental information disclosure platform, thus improving transparency of environmental information for the Company.

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Wastewater Discharge Management

	Testing Indicators	Treatment Method
Wastewater	pH, COD, ammonia nitrogen, fluorine ion, etc.	Discharged through a pipeline into a designated urban sewage pipe network after treatment and meeting relevant standards

2.6 Green Products

Green products refer to safe, environment-friendly, and high-quality products manufactured in the closed-loop process of product design, manufacturing, use, scrapping, and reuse during which the green concept is always considered. Green products are also characterized by low resource and energy consumption, low pollutant emissions, low toxicity and less harm, and easy recycling, treatment, and reuse. Through special technologies, green production, and the use of clean energy, the Company creates green “core” products and continues to improve product efficiency with reduced energy consumption and waste production during manufacturing, thereby minimizing environmental impact.

Pathway to Green Products

Special technologies

The “green” concept is integrated into the technological research and development phase, whereby continuing to develop low-power consumption, high-performance, highly reliable, and highly integrated technology platforms.

Green production

Use of green products and energy-saving technological transformation reduce energy consumption and waste generation in product production processes, enhancing the green attributes of products.

Clean energy






End-use product energy efficiency is improved by developing energy-efficient products through technological innovation.

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Green Product Production

Based on the environmental footprint of the full life-cycle of a product, the Company identifies the potential improvement links for the green attributes during raw materials procurement, product production, and product transportation. By adhering to the philosophy of lean manufacturing management, implementing green procurement principles, improving technological processes, and other measures, the Company continues to reduce the environmental impact of product production and enhance the green attributes of its products.

Environmental Management for the Full Life Cycle of Products

				
Warehousing of Raw Materials	Product Production	Product Transportation	End-user Products	Disposal
<ul style="list-style-type: none"> Carry out hazardous substance examination and systematic control on raw materials Review the qualification and environmental compliance of suppliers and require suppliers to sign the Environmental Protection Undertaking 	<ul style="list-style-type: none"> Choose production equipment with low energy consumption and high performance Implement water recovery projects to improve the overall recycling rate of water Adhere to the philosophy of lean manufacturing management, minimizing the generation of waste 	<ul style="list-style-type: none"> Recycle and reuse product packaging materials to reduce the consumption of packaging materials and waste generation 	<ul style="list-style-type: none"> By helping customers produce low energy consumption products, reduce the environmental impact of the use of end-user electronic products 	<ul style="list-style-type: none"> The wafers produced by the Company are monitored for harmful substances, which means that the end-user electronic products manufactured by using the wafers have less impact on the environment after disposal Recyclable waste during production is handed over to qualified third parties for recycling

Seizing the Clean Energy Opportunity

With the accelerated adjustment of the global energy structure, promoting the use of clean energy has become the focus of development for more and more enterprises. Hua Hong Semiconductor has actively seized the opportunity of clean energy and applied its main process platforms in different application fields to facilitate the development of green products in the downstream supply chain.

The Company has accumulated substantial technology and experience in the manufacturing process for upstream components in the new energy application field, such as new energy power generation, etc., which can effectively support its energy transformation and development. The Company's semiconductor components for new energy, which are already at the international advanced level, utilize the technology and reliability of the 8-inch wafer production platform, with gradual transitioning to the 12-inch process platform. Hua Hong Semiconductor focuses on development of the "8-inch + 12-inch" wafer production strategy, vigorously implementing core development of the advanced "Specialty IC + Power Discrete" product mix, and fully supporting the high-quality supply capacity of components for the new energy infrastructure and application fields. Hua Hong Semiconductor's power discrete, non-volatile memory, and analog and power management processes play an important role in supporting the development of end-user products in new energy application fields, such as new energy vehicles, photovoltaic energy storage, energy-saving household appliances, etc.

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Products for Supporting Clean Energy Development

Power Discrete

Power discrete are important devices for new energy power generation and new energy applications. For example, a large number of IGBTs, MOSFETs, and other devices are required for PV and wind power generation equipment, electric vehicles, and electric two-wheelers.

The Company has accumulated a large number of customers in this field and has maintained good partnerships with leading enterprises in the field for a long time to conduct in-depth development and cooperation together. So far, the revenue of power discrete devices has contributed a significant part of the Company's revenue.

Non-volatile Memory Process

Non-volatile memory processes are widely used in chip applications such as MCUs and ASICs, and these chips are also widely applied to new energy-based power generation equipment.

According to IC Insights, the automotive market accounts for more than 30% of the global MCU consumption market. All of Hua Hong's fabs have passed the IATF 16949 automotive quality management system certification, making important contributions to supporting the local manufacturing of automotive semiconductors.

New Energy Components Involved in Development Projects and Application Areas

Product	Application Area	Proportion of Revenue
Power Discrete	Photovoltaic and wind power generation equipment, electric vehicles, electric bicycles, etc.	39.4%
Non-volatile Memory Process	New energy generation equipment, electric vehicles, etc.	35.9%

In 2023, the Company held the “Core Connectivity, Vehicle Connectivity, and Chain Connectivity” Automotive Chip Ecosystem Cooperation Conference, joining forces with nearly a hundred businesses in the integrated circuit, automotive component, and vehicle assembly sectors, to promote cooperation in the automotive chip ecosystem and foster collaborative industry development under the spirit of “identifying opportunities in industrial development by amassing the power of technical innovation”. Pursuant to the “8-inch + 12-inch” and forward-looking “Special IC + Power Discrete” strategies, the Company's automotive electronics business has been expanding, with products continuing to expand in the new energy sector, propelling the low-carbon green development.

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Development Progress of Technologies Boosting New Energy Transformation in 2023

Automotive Electronics	Industrial New Energy	High-end Consumer Electronics
<ul style="list-style-type: none"> • Collaboration along the supply chain assists customers in accelerating introduction of their products into related module factories and vehicle manufacturing enterprises. • Direct collaboration is established with mainstream domestic automotive manufacturers, focusing on mature chip substitution for key and challenging projects. This partnership aims to build a sustainability ecosystem that ensures multi-dimensional cooperation. Recommended mature chip types cover various areas, including the automotive power system, body control, cabin, chassis and safety, remote control and communication, ADAS, and charging stations, thereby achieving mass supply. • A company-level automotive electronics database is established and continuously improved. 	<ul style="list-style-type: none"> • Key power device products have achieved mass supply, significantly increasing market share. With the government enacting a national strategy and rendering strong support for the dual-carbon economy, the new energy market is poised for promising growth in the future. 	<ul style="list-style-type: none"> • Collaboration with well-known domestic appliance brands aims to increase the domestic substitution rate and continue the push for expansion of high-end consumer electronics business. • Well-known domestic appliance brands, manufacturing products such as IGBT, display touch control chips, fingerprint lock chips, and motor control on the Company's process platform, have gradually expanded into the market for large household appliances, including air conditioners and refrigerators.

In the future, the Company will further promote the development of silicon-based power devices capable of achieving higher energy efficiency and initiate development of compound semiconductor power devices characterized by high power density and low energy consumption. This will provide continuously optimized solutions for products applied to the clean energy sector, such as variable frequency household appliances, new energy vehicles, and further improve energy efficiency.

3 Employee-Related Responsibilities

Major Developments in 2023

Measures	Achievements
Safe Production	100% of our employees and contractors signed the Safety Responsibility Letter and the Letter of Commitment on Safety and Environmental Protection, respectively.
Employee training	100% employee training coverage. 135.6 training hours per person.

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3.1 Rights and Benefits of Employees

Rights and Interests of Employees

Hua Hong Semiconductor strictly complies with laws and regulations including the Labor Law of the PRC and the Law on Employment Contracts of the PRC. We insist on fair employment, implement the principle of equal pay for equal work, and ensure that employees are not discriminated against or treated differently based on non-work factors including age, gender, place of birth, religious belief, marital status, or disability. We prohibit the employment of child labor or forced labor.

The Company has formulated relevant management regulations, including the Employment Procedures and the Management Procedures for Trainees. The Company strictly checks the identity information of employees and never employs adolescents under the age of 16. If such a situation is identified and verified, it will be immediately suspended and investigated for rectification, targeting at the omission of links around the recruitment review process so that such process can be improved. As at the end of the Reporting Period, the Company had 6,863 regular employees. The Company has experienced no illegal or non-compliant incidents in connection with employee recruitment and dismissal, work hours and holidays, job promotion and equal opportunities, anti-discrimination and diversity, the employment of child labor or forced labor, nor had any litigation in connection with the aforesaid matters.

Overview on Employee Rights and Interests

Recruitment and Dismissal	Remuneration	Working Hours and Vacation System	Democratic Participation
<ul style="list-style-type: none"> Recruitment: Adhering to the principle of fairness, equity and openness; Dismissal: The Company and employees go through the dismissal procedure according to relevant laws, regulations, and the Dismissal Management Procedure. 	<ul style="list-style-type: none"> The Company provides competitive salaries for employees, which are higher than the minimum wage in the place of operation. 	<ul style="list-style-type: none"> A standard working hours system is adopted. A comprehensive or flexible working hours system is adopted for certain positions with the approval of the government labor and personnel authorities; Based on holidays and festivals specified by the government, supplementary annual leaves are provided for employees. 	<ul style="list-style-type: none"> Establishing labor union, employee congress, etc. to ensure the democratic participation of employees in the Company's decision-making.

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Employee Diversity

The Company attaches great importance to the diversity of employees and believes that a diversified talent pool can enhance dynamics in the team, which will constantly improve the efficiency of research and production, driving business growth of the Company. Through diverse recruitment channels, the Company provides employment opportunities for talent from different cultural backgrounds, educational backgrounds, and technical specialties.

Practice of Employee Diversity

Gender Diversity

- ▶ Upholding the principle of “gender equality” in recruitment, employment, and promotion, the Company incorporates employee aptitude and performance assessments into the standards of employment and promotion.

Age Diversity

- ▶ Upholding the principle of “age equality”, the Company provides job and promotion opportunities for employees of different age groups.

Functional Diversity

- ▶ The Company offers various positions and levels in management, technology, and functional support, allowing employees to choose based on their own development plans.

The Company formulates relevant regulations and procedures and continues to create an open, inclusive, respectful, and diverse employment environment. We respect the lifestyle of all kinds of employees and try to provide them with convenient conditions to meet their living habits. The Company is also committed to creating better office and service facilities for employees and improving their happiness.

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Employee Care

The Company persistently cares about the well-being of its employees by integrating employee care into its daily practices, including provision of fringe benefits and caring initiatives in areas such as office environment, diet, accommodation, and transportation, as part of our commitments to creating a warm, loving, and vibrant working environment for them.

Measures for Employee Care

Office	<ul style="list-style-type: none"> • The ventilation system is installed in all offices and additional air purification devices added to improve office air quality.
Diet	<ul style="list-style-type: none"> • Green space increased in office areas. • There are staff canteens and coffee shops in factory zones. • Establishing a food safety supervision team, adopting the mode of centralized purchasing of food materials and qualified supply chain management, and inviting employees and department representatives to carry out supervision. • Publishing the canteen food cooking guideline to manage balanced nutrition, oil and salt control, for the employees' diet in the canteens.
Accommodation	<ul style="list-style-type: none"> • Construction of dormitory with private bathrooms, 24-hour supply of hot water, and WIFI network, etc. • The dormitory area has a library, computer room, snooker room, laundry, TV room, HIVE BOX, and other facilities.
Travel	<ul style="list-style-type: none"> • Providing all employees with travel allowance. • Providing free commuter bus services between the park, subway stations, and the dormitory. • Creating a commuting route for employees living in the transit-challenged areas and arranging commuter bus services for departments which need to have such services on weekends.
Extending solicitude	<ul style="list-style-type: none"> • Organizing holiday celebrations and activities during festive periods as a gesture of extending our solicitude.
Health checkup	<ul style="list-style-type: none"> • Offering annual health check-ups for all employees, including screenings for multiple types of cancer.

In addition, the Company established the Employee Assistance Mechanism, under which we provide assistance for needy employees at special festivals such as Spring Festival, Labor Day, and Mid-Autumn Festival, in addition to routine expression of sympathy and solicitude to injured or families of diseased employees; and we give timely care and support to employees who suffer a significant misfortune and help them overcome their plight as soon as possible through multiple forms of assistance including donation, support, care, and nursing.

In terms of care for female employees, the Company organizes a special physical examination every year, continuously improving human-based management of lactating employees, and providing relevant service facilities to ensure convenience for pregnant employees and lactating employees at work.

Employee Communication

An unblocked communication channel is favorable to the establishment of harmonious labor relations. The Company is committed to building and improving employee communication and feedback mechanisms, has formulated the Employee Communication Rules, and encouraged multi-way communication between the Company and employees, between officers and subordinate officers, and among employees.

The Company utilizes various communication channels, including satisfaction surveys, forums for young employees, an OA online platform, and one-on-one departmental communications, to understand the feedback and suggestions of employees. Meanwhile, the Company has established a labor union, and employee representative meetings are regularly convened as part of our active efforts to communicate with employees.

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3.2 Employee Health and Safety

The Company attaches great importance to occupational health and safety of employees and strictly complies with the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, the Production Safety Law of the People's Republic of China, the Regulation on Work-Related Injury Insurances, as well as other laws, regulations, and provisions. The Company has established a complete occupational health and safety system that meets the safety goal of "zero accident for production safety", defining the occupational health and safety policy, to provide employees with a good working environment and ensure their occupational health. During the Reporting Period, there were zero work-related injuries or deaths, occupational diseases, or fire accidents.

Occupational Health and Safety Management System

Occupational Health and Safety Management Policy			
The Company strictly complies with the laws and regulations pertaining to safety, health, and environmental protection; makes efforts for clean production; carries out continuous improvement; creates a safe, healthy, and comfortable working environment for employees; and strenuously pursues the highest goal of "zero accidents" and sustainable operation, becoming a model corporate citizen in the world.			
System Construction	<ul style="list-style-type: none"> The Company has established the Safe Production Committee; implemented the Committee's Safe Production Responsibility System; and implemented the Regular Safety Meeting System. All employees at all levels are required to sign the Safety Responsibility Letter, so as to implement the Safe Production Responsibility System for the staff. 	Management Factors	<ul style="list-style-type: none"> Emergency response to hazards/ environmental factors. Special equipment and posts. Chemicals management. Occupational health monitoring and Protection.
Internal Audit, Inspection, and Hazard Identification	<ul style="list-style-type: none"> Safety technology transformation. Establishing a dual prevention work mechanism of hierarchical control of safety risks and management or hazard identification. 	Construction of a Safety Culture	<ul style="list-style-type: none"> Safety awareness and safety training. Emergency drills.

Safe Production

The Company pays great attention to safety assurance of employees in the production process, strictly abides by the Production Safety Law of the People's Republic of China, and formulates the Implementation Measures for the Production Safety Responsibility System of the Production Safety Committee. We also established the safe production committee and the weekly production safety meeting system to continue the optimization of various management procedures and facilitate construction of the corporate safety culture, ensuring stable operation of the Company's safe production system. So far, the Shanghai Production Base and the Wuxi Production Base both have passed certification of the ISO 45001 International Occupational Health and Safety Management System.

Name of production base	ISO 45001 Certification	Term of Validity
Shanghai Production Base and Wuxi Production Base	Certified	18 April 2024

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The Company actively implemented standardization, systematization, and intelligent construction of safety work and optimized the production safety responsibility system of all employees. In accordance with the principle of “one post with one responsibility” and “whoever takes charge and uses shall take the responsibility”, the Company has compiled a Safety Responsibility Letter covering all staff by combining the post functions. Meanwhile, contractors of the Company are required to sign the “Letter of Commitment on Safety and Environmental Protection”, so as to make every department and every employee take their respective responsibility and optimize the production safety responsibility system of all employees. In 2023, 100% of our employees and contractors signed the Safety Responsibility Letter and the Letter of Commitment on Safety and Environmental Protection, respectively.

In addition, the Company improved systematic procedure management based on its operation experience, established and perfected safety management systems such as safety accident/incident/hidden danger troubleshooting and tracking system, and implemented a special equipment registration system, equipment terminal infrared detection and recording system, etc. Data records are kept to ensure implementation of corrective measures, thereby standardizing implementation of procedures and enhancing the Company’s safety management efficiency and safety operation level.

Safety Risk Prevention Facilities and Measures for Employees

Fire fighting facilities:

Comprehensive systems are installed, including automatic fire extinguishing system, automatic fire alarm system, smoke control system, fire broadcasting system, evacuation indications, and emergency lighting system.

Alarming and monitoring system:

Our clean work areas are equipped with toxic, hazardous, and flammable gas alarming systems, liquid leakage detection system, and extremely early smoke detection systems.

Emergency measures:

An emergency response team (ERT) is established and receives specialized skill training, and emergency response plans are formulated for different disasters. Furthermore, special action drills are regularly organized and identified issues are promptly rectified.

In 2023, Hua Hong Semiconductor advanced the Three-Year Special Rectification Action Plan for Production Safety (2023-2025), covering hazardous chemicals, construction projects, fire safety, gas, electricity, and special equipment, with a total of 397 safety hazards successfully rectified.

Chemical Safety Management

With regard to safety protection of chemicals, the Company has formulated a number of management policies and operation procedures, including the Chemicals Management Procedure, the Chemical Substance Review Procedure, the Special Emergency Plan for Chemical Leakage, the Inspection and Registration System for Chemicals Coming In and Out of the Warehouse, the Safety Management Rules for Hazardous Chemicals, the Management Measures for Chemical Turn-on, etc., to regulate the chemical management procedures as well as to enhance chemical safety compliance.

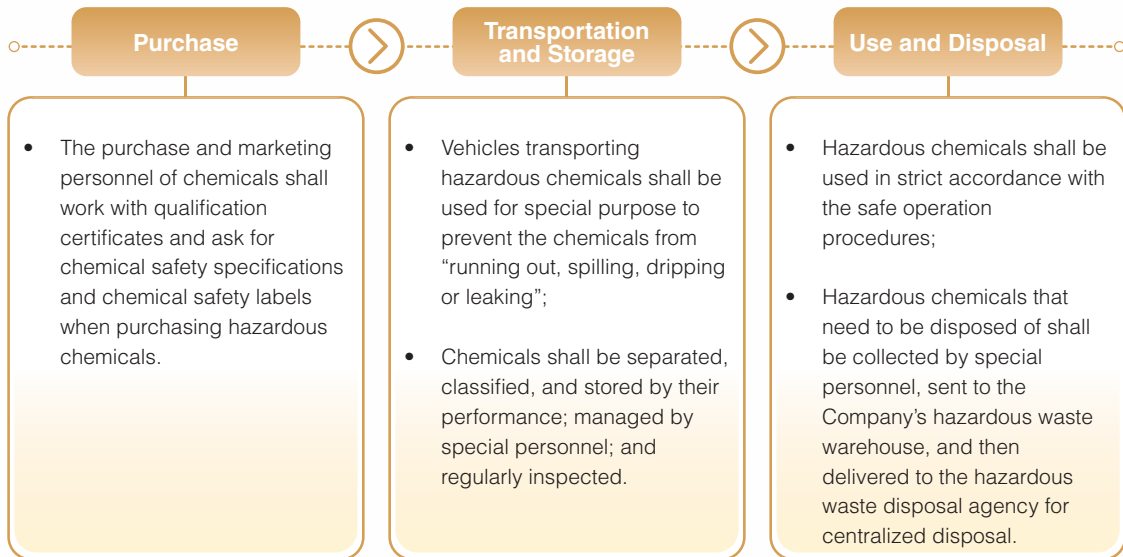
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Hazardous Chemicals Used in the Manufacturing of Hua Hong Semiconductor Chips

Type	Name
Flammable liquid	Isopropanol, photoresist, and diesel
Oxidants and organic peroxides	Hydrogen peroxide
Toxic chemicals	Phosphine and fluorine
Corrosive chemicals	Sulfuric acid, hydrochloric acid, hydrofluoric acid, phosphoric acid, mixed acid, ammonia water, and sodium hydroxide
Compressed and liquefied gas	Hydrogen, methane, silane, nitrogen, oxygen, argon, helium, ammonia, and chlorine

The Company has established a factory chemical review committee to comprehensively evaluate the environmental protection and safety qualifications as well as the risk prevention and control capabilities of chemical suppliers in advance. The Company employs the chemical substance management system to: manage the handling, storage, and disposal of chemicals; control the maximum storage quantity of chemicals; and dynamically monitor their use and consumption. In addition, the Company endeavors to eliminate on-site hazard sources and reduce safety risks from the source by giving priority to the use of new technologies and by replacing toxic and flammable hazardous chemicals with non-toxic chemicals.

Hazardous Chemicals Management Procedure



Protection of Employees' Occupational Hazard Factors

In order to provide occupational health protection for employees, the Company identifies occupational hazard factors of employees and formulates corresponding countermeasures in strict accordance with the Law of the People's Republic of China on Prevention and Control of Occupational Diseases and other laws and regulations. The Company's job positions involving occupational hazard factors mainly include ion implantation, diffusion, etching, chemical mechanical grinding, power gasification, and other positions involving equipment operation.

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Identification and Protection of Employees' Occupational Hazard Factors

Job Positions with Occupational Hazards	Occupational Hazard Factors	Countermeasures	Occupational health monitoring
Ion implantation, diffusion, etching, chemical mechanical grinding, power gasification, and other positions involving equipment operation.	Fluorine and its inorganic compounds, hydrofluoric acid, hydrochloric acid, nitric acid, sulfuric acid, phosphoric acid, ammonia water, hydrogen peroxide, arsenic and its compounds, phosphorus and its compounds, isopropanol, etc.	<ul style="list-style-type: none"> The equipment in the clean room is automatically operated in a closed space and is equipped with a closed process exhaust system. Provide employees with personal protective articles and emergency response devices, regularly checking such articles and devices to ensure their effectiveness. 	<ul style="list-style-type: none"> Annual occupational health monitoring and assessment of current occupational hazards. Strict pre-employment, on-the-job, and post-employment medical examinations for employees at positions exposed to occupational disease hazards.

In addition, the Company engages external organizations to test the occupational hazards in its production environment every year, so as to ensure that the occupational exposure limits for harmful factors are not exceeded in the production environment. The Company informs all employees of the test results. Over the course of research, development, and production, the Company persistently has upheld the green chemistry philosophy, thereby continuously reducing the occupational hazard exposure risk of employees.

The Company provides an annual health check-up for all employees, including multiple cancer screenings and other items, and establishes employee health records to systematically track changes in employees' health status. In 2023, the Company established the "Health Defense Column", while simultaneously carrying out various activities to promote a healthy lifestyle for employees, such as health lectures on the theme of "How to stay away from the risk of "hypertension, hyperlipemia and hyperglycemia", "Guidelines for People Infected with COVID-19 at Home", and "Prevention of facial paralysis in alternate seasons", to encourage the employees to live and work in a healthy way.

Construction of Production Safety Culture

In order to carry out the construction of a production safety culture and strengthen the staff's awareness of the safety culture, the Company organized a series of activities such as "Production Safety Month", "Safety & Health Cup", and "Fire Protection Month" and carried out activities such as production safety publicity, education, and training, as well as safety knowledge and skills competitions. Various safety publicity and demonstration activities have effectively enhanced the safety awareness and safety knowledge reserve of employees and motivated all staff to fulfill their safety commitments and responsibilities.

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Actions for Construction of Production Safety Culture in 2023

Action Name	Content and Effect
Strengthening safety training	<ul style="list-style-type: none"> 131 safety education and training sessions were organized and held on the primary responsibility for production safety, enrolling over 28,000 participants with the participation rate in safety education and training reaching 100% and the certificate holding rate for employees reaching 100%.
Enhancing emergency response capability	<ul style="list-style-type: none"> Each production base organized and implemented more than 385 comprehensive and special emergency plan drills, enrolling more than 29,770 participants. Complete the expert review and filing of production safety emergency plans, establish and improve the required documents, such as rapid emergency response procedures to abnormal conditions for production base, as well as organize weekly training, quarterly practice, and annual competition. Hold ERT personal skills and ERT firefighting skills competitions and build an emergency management system communication platform by carrying out activities. Organize and carry out the “Fire Protection Month” fire knowledge display board publicity, firefighting skill training, evacuation and escape drills for all staff, and enhance the staff’s safety awareness and emergency response ability.
Safety Technical Transformation Assessment	<ul style="list-style-type: none"> Conduct annual evaluation of required safety and technical skills, and organize learning and exchange activities. Conduct assessment activities to select typical investigation cases for hidden hazards.

3.3 Employee Development and Training

Employee Training

The Company has established a sound employee education and training system and formulated the Operating Procedure of Internal Training System Review, the Education and Training Procedure, and department-level training procedures, which are constantly adjusted according to strategic development and employee needs, to meet the all-round and multi-level training needs of employees in different positions.

The Company has established training facilities (with special training rooms and equipment for each plant site), learning and sharing platforms (including an online training registration management platform, training material, and position-specific question bank and multimedia learning courseware, etc.) and where necessary, uses external resources for ensuring employees learning and development.

In 2023, the Company continuously carried out a “Special Training Camp for Newly-hired Recent College Graduates” training program. In addition to the refining and concentration of professional theory and practical training in three major series of courses, namely “new era”, “new revelation” and “new talents”, the Company offered courses regarding corporate culture and political literacy as well as organized visits to bases of Chinese revolution, which helped its new employees quickly integrate into the team and meet the challenges of their future work with full enthusiasm.

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Employee System

Trainees	Training Contents	2023 Performance
Grass-roots managers	Role recognition, self-management, management of others, and working management	<ul style="list-style-type: none"> Percentage of employees trained: 100%
Front-line managers	Develop management skills of front – line shift and team leaders, cultivate a front-line management team with high quality and high business ability, and lay a solid foundation for the Company’s management	
Newly-employed university students	Career quality, corporate culture, introduction to special skills, and other courses	<ul style="list-style-type: none"> Average training hours per employee: 135.6 hours
Front-line employees	Courses about theory and practical training of the semiconductor manufacturing module	

Career Development

The Company has clear and transparent promotion channels for employees, regularly evaluates employee performance providing employees with feedback on individual performance, and offers personal career development plans for the development of employees. According to industrial practice, the Company has set three professional categories, namely, management, technology, and functional support and has established corresponding job training. Employees may continuously develop their careers in a single professional title category according to their own specialties, potential, and desires. In addition, they are able to shift from technology to management.

In continuing to push forward with high-quality development and improve its high-quality talent pool, the Company focuses on refining its comprehensive capabilities through specialized training, technical exchanges, and lectures, so as to constantly improve the talent cultivation mechanism.

In addition, the Company has formulated the Implementation Measures for Academic Education Subsidy, which encourages employees to improve their professional and technical knowledge and provided 18 employees with on – the-job academic education subsidies in 2023, so as to promote work performance and efficiency improvement, continuously training high-quality talent that meets the current and future needs of the Company, further improving its comprehensive competitiveness.

As of the end of the reporting period, the overall employee turnover rate of the Company³ was approximately 10.0%. Specifically, the employee turnover rates by gender, age and region are as follows.

Employee Turnover Rate of Hua Hong Semiconductor in 2023

Category	Turnover rate (%)
Male employees	11.3%
Female employees	7.1%
Employees aged below 30	14.0%
Employees aged 30 to 50	7.5%
Employees aged above 50	1.9%
Employees in mainland China	10.0%
Employees from overseas	9.7%

3 Employee Turnover Rate= number of resigned employees in the category/total number of employees in the category * 100%

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4 Products and Services

Main Progress in 2023

Measures	Achievements
Innovation and R&D	<ul style="list-style-type: none"> 672 patent applications 12 approved papers
Product quality	<ul style="list-style-type: none"> Selected as a shortlist for the nomination award of the 5th China Quality Award Awarded 2022 Shanghai Key Product Quality Improvement Achievement Award (Second Prize)
Customer service	<ul style="list-style-type: none"> Average score of customer satisfaction in the questionnaire of 8.97 (full score: 10 points)

4.1 Product R&D and Innovation

Construction of an Innovative Technology R&D System

Continuous innovation and R&D are crucial requirements for the sustained growth of an enterprise and serve as strategic support for promoting high-quality development. The Company abides by the Law of the People's Republic of China on Progress of Science and Technology, the Patent Law of the People's Republic of China, and the requirements of other laws and regulations. Guided by its vision of "Continuous Innovation and Empowering the Future for Global Customers", the Company consistently benchmarks itself against international standards, promotes integrated innovation in processes, devices, design, and products and strives to build industry-leading specialized technological capabilities.

In 2023, the Company embarked on a patent layout for "Automotive-Grade Memory" and continued to promote integrated innovation in processes, devices, design, and products. We concentrated our efforts on key research and development projects, accelerating the development of differentiated advanced technologies. We also made continuous progress in the development of new power discrete devices, leveraging patents as barriers to proactively position itself in industry-leading research areas.

R&D System of Hua Hong Semiconductor in 2023

R&D Strategy	R&D Achievements
<ul style="list-style-type: none"> "8-inch +12-inch" and advanced "Specialty IC + Power Discrete" strategies. To deepen the high-quality development of diversified specialized process platforms, such as Embedded/ Standalone Non-Volatile Memory, Power Device, and Analog & PM, and Logic & RF. 	<ul style="list-style-type: none"> Completed the development of a number of advanced specialty ICs and high-end power discrete devices, and achieved mass production of over 200,000 wafers of new products. Achieved significant breakthroughs in the indicators and product performance of key devices, such as image sensors and embedded flash memory, enabling the Group to gradually expand in the automotive electronics supply chain.

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R&D Innovation Honors of Hua Hong Semiconductor in 2023

- √ Successfully listed on the **list of “2022 Excellent Intelligent Manufacturing Scenarios”** jointly announced by the Ministry of Industry and Information Technology, the National Development and Reform Commission, the Ministry of Finance, and the State Administration for Market Regulation.
- √ “A new type of mirror floating gate flash memory storage unit and application (一種新型鏡像浮柵閃存存儲單元及應用)” was awarded the **first prize of the Shanghai Science and Technology Award** by the Shanghai Municipal People’s Government.
- √ The “Development and Industrialization of 12-inch IGBT Complete Manufacturing Process” project won the **“15th China Semiconductor Award for Innovative Products and Technologies”** award by the China Semiconductor Industry Association.
- √ Successfully selected as one of the **“100 Intelligent Factories in Shanghai”** by the Shanghai Economic and Information Commission.

Intellectual Property Protection

The Company complies with the Patent Law of the People’s Republic of China, the Copyright Law of the People’s Republic of China, the Trademark Law of the People’s Republic of China, and other laws and regulations and places equal emphasis on both quantity and quality when it comes to promoting intellectual property rights. We have formulated the Management Regulations for Intellectual Property, to regulate the management of our intellectual property rights.

The Company sets annual targets for patent applications and actively maintains its own intellectual property rights. At the same time, the Company promises that it will never infringe upon the intellectual property rights of any enterprise or individual and will keep confidential all technological information regarding products of upstream and downstream partners. To avoid infringement of third-party intellectual property rights, the Company conducts reputational and potential risk audits on customers before accepting product orders and has entered into several technology licensing agreements with major technical companies.

As at the end of 2023, the Company has applied for a total of 8,969 patents in China and overseas and has obtained 4,427 patents.

Intellectual Property Achievements and Honors of Hua Hong Semiconductor in 2023

- √ 672 patent applications
- √ 270 patents granted
- √ Hua Hong Wuxi was listed on the “Wuxi High-Tech Zone Intellectual Property List” for 2023
- √ Hua Hong Wuxi ranked 2nd in the “Top 20 New Invention Patents in 2022”
- √ Hua Hong Wuxi ranked 6th in the “Top 30 Accumulated Invention Patents in 2022”

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4.2 Product Quality and Safety

Quality Management System

The Company has been deepening and improving its quality management system to enhance management efficiency of the “R&D – Mass Production – Quality Control” process, especially in the face of challenging market fluctuations. We have formulated the Quality Manual, Quality Management Procedures, Code of Practice for Quality Objective Management, Supplier Management Regulations, and other rules to carry out quality management work. In 2023, the Company carried out evaluation activities with the theme of “Zero Defect of Characteristic Processes and High-quality Development of Hua Hong”, during which a total of 2,578 projects were reviewed and completed. The outcomes have been remarkable in terms of efficiency improvement, supply chain safety, energy conservation and emission reduction, talent development, and safety production.

Certified Subject	Certification	Term of Validity
Hua Hong Shanghai Production Base	ISO 9001 Quality Management System	21 May 2024
	IECQ QC 080000 Hazardous Substances Process Management System	11 December 2026
	IATF 16949 Quality Management System for Automotive Industry	21 May 2024
Hua Hong Wuxi Production Base	ISO 9001 Quality Management System	11 November 2025
	IECQ QC 080000 Hazardous Substances Process Management System	11 December 2026
	IATF 16949 Quality Management System for Automotive Industry	7 May 2026

The Company strictly adheres to the Zero Defects concept, with the quality assurance department responsible for overall planning, execution, and implementation of product quality and safety management, reporting to management and the Board on the relevant work. By organizing regular quality management review meetings, promoting the implementation of product quality monitoring, and strengthening customer communication, the Company aims to ensure that product quality meets expectations and provide high-quality products to the market.

In 2023, the quality assurance department collaborated with the research and development, production, safety and environmental protection, and marketing departments to conduct monitoring and testing over our entire product lifecycle covering “R&D – Production – After-sales”, so as to predict and analyze potential anomalies, take timely corrective actions, and prevent product quality risks.

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Achievements in Quality Management in 2023

Quality Management	Achievement
Customer Certifications	<ul style="list-style-type: none"> √ Successfully passed audits from 14 automotive customers and 25 key customers, completing pre-qualification for leading global automotive electronics manufacturers. √ Made breakthroughs in the construction of financial IC card security system, passed EMVCO certification audits, and obtained customer recognition in terms of the quality system.
Reliability Management	<ul style="list-style-type: none"> √ Established comprehensive process assessment schemes for 40nm and below advanced process nodes, laying the theoretical foundation for subsequent process verification.
Yield Management	<ul style="list-style-type: none"> √ Resolved 15 systematic issues in process baselines across various platforms throughout the year, achieving stable yields of 97% or higher for major production platforms.
New Product Quality Management	<ul style="list-style-type: none"> √ Introduced over 500 new products throughout the year, with more than 30 products meeting automotive-grade specifications. √ Completed the transition of 8 products and technologies from R&D to mass production throughout the year.

In 2023, the Company organized both the theme activity of “Zero Defect of Characteristic Processes and High-quality Development of Hua Hong” and the Quality Month activity. With the goal of “Building the Foundation of Quality, Pursuing the Path of Excellence (築質量之基，行卓越之路)”, all departments and employees in Shanghai and Wuxi worked together to carry out a series of activities such as executive lectures, quality knowledge training, knowledge competitions, quality-themed essay submissions, and quality-themed debate competitions, to promote the Company’s high-quality development and pursuit of excellence in quality.

To further enhance its quality management level and inspire employee engagement in learning, the Company organized a series of online activities such as “Zero Defects Quality Awareness Training” and “Quality Knowledge Competition” for all employees, so as to instill the concept of “High Quality and Zero Defects” in the minds of every employee and solidify their quality consciousness.

Quality Management Awards and Honours of Hua Hong Semiconductor in 2023

- √ Second Prize for 2022 Shanghai Key Product Quality Improvement Achievement Award
- √ Manufacturing Department of Fab 1 received the “Excellent Level” award in the Shanghai On-site Management Innovation Activity
- √ Fab 2 was selected as a shortlist for the nomination award of the 5th China Quality Award
- √ Fab 3 was awarded the title of Shanghai Intelligent Factory and recognised as a national-level demonstration site

Product Safety Assurance

In terms of product safety assurance, the Company has established a hazardous substance management system, conducted regular risk assessments of hazardous substances and compliance evaluations with applicable laws and regulations, and formulated the Hazardous Substances Management Procedure and the three-level management system to effectively control the hazardous substances in products.

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Hazardous Substance Control System

Process	Measures
Product R&D	The Company incorporates the management of hazardous substances into the product R&D process to reduce the risk of using hazardous substances from the source.
Raw materials testing	Suppliers are required to provide the product test report for hazardous substances, sign the Letter of Commitment on Product and Environmental Protection. We conducted sampling tests on certain raw materials to ensure the safety of raw materials.
Product hazardous substance control certification	A third-party organization is entrusted to carry out testing in accordance with the Directive on Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (“RoHS”) and the Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (“REACH”) on a yearly basis to ensure that our products meet the requirements of relevant certification standards.

Management of Nonconforming Products

For nonconforming products, the Company has formulated the policy of Nonconforming Product Control Procedure for management and has established an optimal product recall system. For products that meet the warranty conditions, our customers may return or exchange any nonconforming products within the warranty period. During the reporting period, the failure rate of the Company’s products on the end-user side was less than one in a billion.

4.3 Customer Relationship Management

Customer service system

The Company adheres to the concept of “providing customers with more convenient and safe services” and consistently follows the Law of the People’s Republic of China on the Protection of Consumer Rights and Interests. It has formulated the Customer Complaint Handling Procedure, listened to customer feedback, and employed various methods, including proactive communication, establishing complaint channels, and conducting satisfaction surveys, to continuously enhance customer service effectiveness.

Customer Service System



Customer Communication

- Adopt multiple methods of communication with customers, including customer survey, regular quarterly/annual business reviews, technical seminar and training.



Customer Complaint

- Establish customer complaint channels and formulate the Customer Complaint Handling Procedure, handle and feed back customer complaints in a timely manner.



Customer Satisfaction Survey

- Carry out satisfaction surveys on a sampling basis annually and formulate an improvement plan according to the survey results. Satisfaction Survey.

The Company maintains smooth customer complaint channels and has formulated the Customer Complaint Handling Rules to standardize the process and response measures for customer complaint and the implementation of corrective and preventative measures. Customers may make a complaint and give feedback to the Company through e-mail, hotline, letter, and other channels. During the Reporting Period, the Company received 4 complaints from customers, all of which were properly handled and resolved to the satisfaction of the customers.

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Customer Complaint Handling Procedure



Occurrence of a Complaint

Normally, communicate and confirm with the customer within 24 hours after the occurrence of a complaint and give a preliminary reply.



Investigation into Failure Causes

Complaints requiring product failure analysis will be submitted to relevant departments for handling. Corrective and preventive measures will be proposed according to the investigation results and a reply will be given to customers.



Prevention and Correction

Supervise the implementation of corrective and preventive measures, and verify the correction results by regularly sorting out and analyzing relevant information fed back by customers.

The Company conducts customer satisfaction surveys on a regular basis. In 2023, the Company carried out a customer satisfaction survey in the form of questionnaire to collect customer opinions. The average score of customer satisfaction in the questionnaire was 8.97 (full score: 10 points), representing an increase of 0.11 points compared to 2022. Overall, customer satisfaction has remained relatively stable. The management of the Company reviews the annual satisfaction survey results, organizes the difference analysis and implements improvement measures, and feeds corresponding improvement measures and results back to customers.

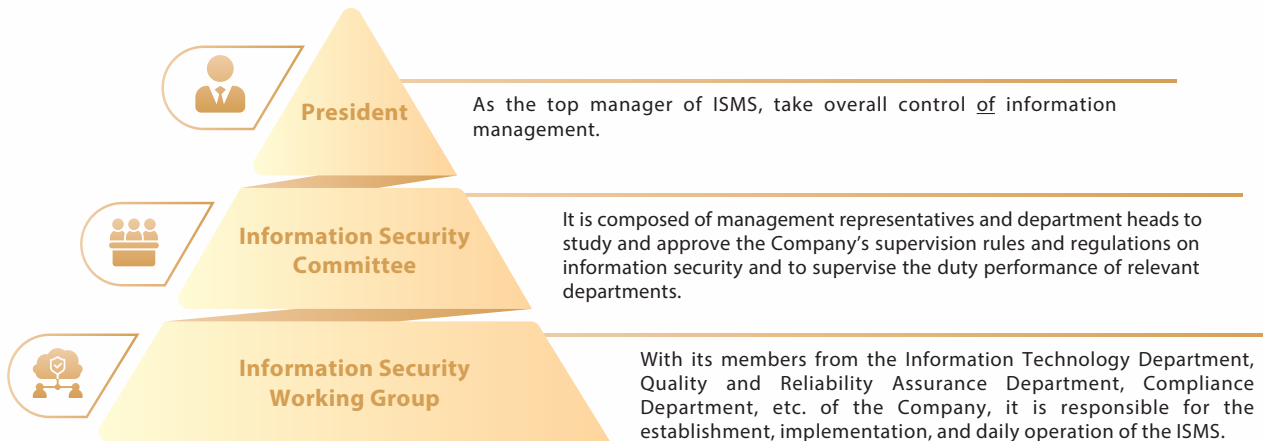
Information Security and Privacy Protection

The Company strictly complies with the Cyber Security Law of the People's Republic of China, the Cryptography Law of the People's Republic of China, the Regulation on the Administration of Commercial Cipher Codes, and other laws, regulations, and provisions and has developed information security management rules such as the Information Security System Manual and the Statement of Applicability (SOA). Meanwhile, we continuously optimize our organizational structure and management processes. We implement measures such as organizing centralized learning for employees, conducting publicity and warning education, and ensuring the implementation of relevant measures to continuously enhance their awareness and further strengthen the protection and control of data and information, so as to prevent any incidents of unauthorized disclosure.

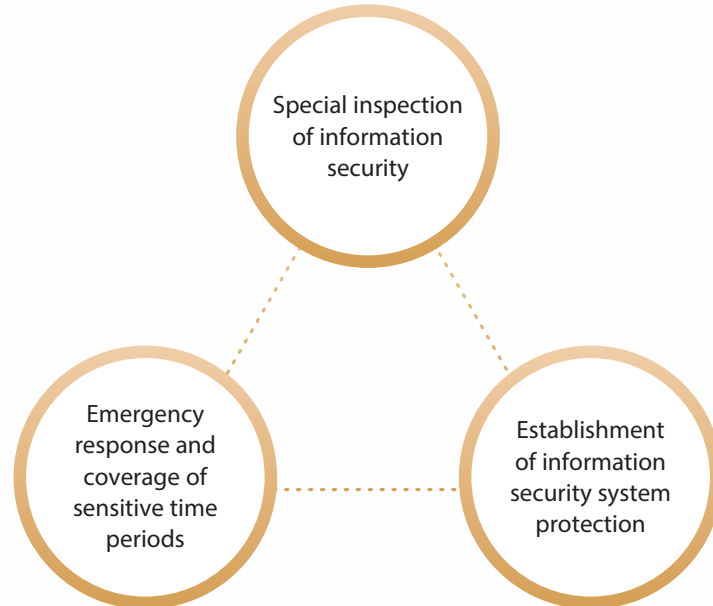
The Company established the Information Security Committee, which is fully responsible for the information security protection work of the Company. The Company has established an Information Security Management System (ISMS), which controls information security risks from information asset management, personnel security, physical control, logic control, and other aspects to ensure information security and is ISO 27001 certified (valid until February 2025). In 2023, the Company did not experience any complaints or incidents related to the infringement of customer privacy or loss of customer data.

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ISMS Structure



Hua Hong Semiconductor's Key Initiatives in Information Security in 2023



In 2023, the Company carried out a series of trainings in relation to information security protection in various production and operation bases to enhance employees' knowledge and capabilities in preventing information leaks and strengthen their ability to respond effectively. By doing so, we have built a strong workforce that serves as a solid foundation for ensuring information security.

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Information Security Protection Training in 2023

Theme	Coverage	Participants
ISMS Training 2023Q1		8,233
ISMS Training 2023Q2		6,554
ISMS Training 2023Q3		6,476
ISMS Training 2023Q4		6,919
Confidentiality and Information Security Compliance Training	Shanghai & Wuxi Production Bases	6,802
Enterprise Information Security and Trade Secret Protection Training		1,044

Responsible Marketing

Integrity, accuracy, and fact-based communication and promotion are the company's responsibilities towards its customers. The Company strictly abides by the Trademark Law of the People's Republic of China, the Advertising Law of the People's Republic of China, and other laws and regulations. We execute product label management in accordance with compliant procedures and establish unified and regulated product labeling standards with our customers. We ensure compliance awareness is integrated throughout the whole process of contract formulation, business development, and both internal and external marketing activities, thereby eliminating the possibility of improper marketing due to subjective factors.

No incidents of violations concerning the use of labels and promotional information occurred within the Company during the Reporting Period.

5 Responsible Business Operation

Main Progress in 2023

Measures	Achievements
Responsible Supply Chain	Through multi-dimensional risk assessment, multi-channel research, scientific planning, and categorization, the Group has made every effort to promote supply chain management. For example, 69 suppliers of raw materials/equipment/components were audited.
Conflict Minerals	A total of 11 suppliers were involved in the due diligence, covering 100% of suppliers that are involved in "conflict minerals". No supplier was found to be involved in "conflict minerals" during the due diligence. The suppliers who do not use conflict minerals account for 100%, as verified by the third-party organization.
Economic Performance	Social contribution per share for 2023 was RMB3.59.

5.1 Responsible Value Chain

Sustainable Supply Chain Management

The Company primarily relies on suppliers of silicon wafers, chemicals, and gases. The Company is committed to reducing supply chain risks by complying with industry standards of conduct, such as the Code of Conduct of the Responsible Business Alliance (RBA), and formulating supply chain management systems, such as the Supplier Risk Identification, Planning, and Control Management Procedure and the Social Responsibility Requirements for Suppliers. By leveraging the Group's advantages of integration, the Company conducts multi-dimensional supplier risk assessment, multi-channel research, scientific planning, and categorisation.

Major Suppliers of Hua Hong Semiconductor

Type of Suppliers	Numbers
Silicon wafers	16
Chemicals	54
Gases	33

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Cooperation with suppliers that demonstrate good social responsibility performance is a prerequisite for the Company to achieve stable production and operation. The Company has established a management system applicable to all suppliers and covering supplier selection and access, supplier review and evaluation, support for supplier growth, and supplier elimination.






Supply Chain Management System

Supply Chain Management Actions	
Supplier selection and access	<ul style="list-style-type: none"> The Company formulated the Social Responsibility Requirements for Suppliers in accordance with the RBA and put forward requirements for suppliers in five aspects: labor, health and safety, environmental protection, business ethics, and management system; Suppliers with outstanding performance in terms of environment, labor, and ethics will be preferred in supply and procurement; In addition to requiring all cooperating suppliers to comply with the Social Responsibility Requirements for Suppliers, the Company also requires its upstream suppliers to recognize and manage in accordance with the Social Responsibility Requirements for Suppliers.
Supplier review and evaluation	<ul style="list-style-type: none"> The Company has formulated the Supplier Risk Identification, Planning, and Control Management Procedure to carry out comprehensive evaluation and control on the environmental and social risks of suppliers every year, so as to identify the environmental and social risks of suppliers and formulate corresponding countermeasures; Suppliers with major violation records are required to carry out a third-party risk audit in terms of their social responsibilities and provide the certificate of passing the audit, or they may be disqualified as suppliers; The Company's anti-corruption policy covers all suppliers, requiring them to comply with anti-corruption requirements and confirming their compliance at the time of annual evaluation.
Support for supplier growth	<ul style="list-style-type: none"> The Company carries out regular publicity trainings on the theme of "CSR" and "RBA Code of Conduct" for suppliers every year, including environment, labor, ethics, etc.; The supplier training program carried out in 2023 covered suppliers of silicon wafers, chemicals, gas, target materials, and other categories. The Company conducts on-site audits and assessments and collaborates with relevant departments to organize presentations for suppliers, ensuring that they are aware of the Company's product quality requirements and standards, while providing technical support to suppliers to help them improve their product quality.
Supplier elimination	<ul style="list-style-type: none"> The Company urges the suppliers with poor performance in terms of environment, labor, and ethics to rectify and confirm that their rectification meets the requirements. Suppliers who fail to meet the rectification requirements will be disqualified.

In addition, the manufacturing process of semiconductor silicon wafers requires a significant amount of water resources and semiconductor manufacturing is associated with high levels of pollution. Failure to address issues such as pollution emissions and wastewater treatment during the production process further threatens water resource sustainability. Therefore, the Company has undertaken actions and performance assessments related to water resource management for its silicon wafer suppliers to mitigate the impact of their production operations on water sources. In 2023, the Company achieved a 100% coverage rate for water resource investigations conducted on its silicon wafer suppliers.

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Overview of the Social Responsibility Requirements for Suppliers of Hua Hong Semiconductor

 Labor	<ul style="list-style-type: none"> • Free choice of occupation • Youth employees • Working hours 	<ul style="list-style-type: none"> • Salaries and benefits • Humane treatment • Non-discrimination 	<ul style="list-style-type: none"> • Free association
 Occupation and Health	<ul style="list-style-type: none"> • Occupational safety • Emergency plan • Occupational injuries and diseases 	<ul style="list-style-type: none"> • Hygiene management • Physically demanding work • Machine-related protection 	<ul style="list-style-type: none"> • Public health, canteen, and dormitories • Communication of health and safety
 Environmental Protection	<ul style="list-style-type: none"> • Environment-related permits and reports • Preventing pollution and saving resources • Hazardous substances 	<ul style="list-style-type: none"> • Solid waste • Air emissions • Material restrictions 	<ul style="list-style-type: none"> • Management of water resources • Energy consumption and greenhouse gas emissions
 Business Integrity	<ul style="list-style-type: none"> • Operation with integrity • No illegitimate interests • Information disclosure 	<ul style="list-style-type: none"> • Intellectual property rights • Fair trade, advertisement, and competition • Confidentiality on identities 	<ul style="list-style-type: none"> • Responsible procurement of minerals • Privacy
 Management System	<ul style="list-style-type: none"> • Duties and responsibilities of management • Legal and customer requirements • Risk assessment and management 	<ul style="list-style-type: none"> • Performance indicators with implementation plans and measures • Training • Communication 	<ul style="list-style-type: none"> • Employee feedback, participation, and complaints • Review and assessment • Corrective measures

In 2023, the Company further enhanced its automotive electronic supply chain management system, fostering collaborative cooperation among upstream and downstream enterprises within the ecosystem, with an aim to establish a reliable and efficient automotive electronic chip supply chain.

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Supply Chain Management Initiatives at Hua Hong Semiconductor in 2023

Supplier Access	Supplier Evaluation	Supplier Diversity
<ul style="list-style-type: none"> Introduced 28 new domestic suppliers to strengthen the cooperation with excellent domestic suppliers in width and depth. 	<ul style="list-style-type: none"> Conducted more than 500 investigations on related enterprises, including more than 100 on-site visits, and established contacts with nearly 20 domestic key suppliers. Conducted water resource management assessment on its silicon wafer suppliers with 100% coverage. 	<ul style="list-style-type: none"> Made every effort to promote supply chain diversification, resulting in an increase of 20.2% in the diversification rate of “8-inch + 12-inch” raw material suppliers to 65.4% as compared with that of 2022. Increased the diversification rate of 8-inch raw material suppliers by 20.1% to 72%, of which the diversification rate of target materials and silicon wafers exceeded 90%. Increased the diversification rate of 12-inch raw material suppliers by 20.4% to 55%

The external environment affects the stability of raw material supply. To mitigate supply chain risks, the Company has implemented various measures to improve the percentage of raw materials purchased from local suppliers through on-site research and increased sourcing efforts. In addition, the Company has established an effective emergency response system. To ensure sustained, safe, and stable operations, the Company has taken various measures, including improving equipment self-maintenance capabilities, cultivating more sources of income while reducing expenditure, cutting costs while increasing efficiency, closely monitoring market demand, continuously optimizing its product portfolio, and further enhancing the production flexibility of its advanced manufacturing platforms.

Responsible Minerals Management

“Conflict Minerals” are obtained by local armed militias by way of long-time forced labor, child labor, and damaging the environment and ecology. Such metals are also the main capital source of illegal armed organizations. According to the Dodd-Frank Wall Street Reform and Consumer Protection Act and research reports of certain international nongovernmental organizations, such minerals are likely to be used for electronic and electrical products, such as mobile phones and computers, in ICT industries.

Metal mineral resources such as gold (Au), tantalum (Ta), tungsten (W), tin (Sn) and cobalt (Co) will be involved in the Company’s production and operation process. The Company has formulated the Conflict Minerals Management Policy in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act, to avoid the procurement and financing of minerals that have significant negative social and environmental impacts.

In addition to self-management, the Company carries out traceability and due diligence on its suppliers in accordance with internationally recognized investigation frameworks such as the Responsible Minerals Initiative (RMI) and the Organization for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and requires all suppliers to promise not to purchase “conflict minerals” in conflict-affected and high-risk areas, so as to ensure the safety of minerals in the supply chain.

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Conflict Minerals Management Policy of Hua Hong Semiconductor

The Company takes global social and environmental responsibility as its goal and follows green procurement principles and has promised to undertake the following social and environmental responsibilities in its metal supply chain:

1. Suppliers whose raw materials contain gold (Au), tantalum (Ta), tungsten (W), and tin (Sn) are required to purchase materials according to the Responsible Minerals Policy, while suppliers whose raw materials contain cobalt (Co) are required to disclose the smelters of cobalt.
2. We undertake to cause our suppliers to provide the declaration that they do not use gold (Au), tantalum (Ta), tungsten (W), tin (Sn), and cobalt (Co) from “conflict minerals” and to issue the Conflict Minerals Reporting Template (CMRT) and the Extended Minerals Reporting Template (EMRT) to suppliers as part of our conflict minerals investigation questionnaire.

More than 50% of gold, tin, tantalum and tungsten used by the Company in its production process are from Asia, with over 33% from Europe, and the remaining portion from the Americas. Two-thirds of the cobalt used comes from Asia, while one third is from Europe. During the Reporting Period, none of the gold (Au), tantalum (Ta), tungsten (W), or tin (Sn) used by the Company was from the regions with armed conflict.

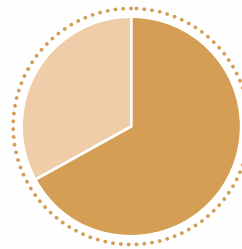
Types and Sources of Minerals Used

Gold (Au), tin (Sn), tantalum (Ta) and tungsten (W)



■ Asia ■ Europe ■ The Americas

Cobalt (Co)



■ Asia ■ Europe

In 2023, the Company conducted conflict minerals questionnaire surveys on 11 suppliers involving minerals, achieving a 100% response rate and coverage. The Company requires its suppliers to trace the origin of minerals and provide information about smelters. If it is determined that the conflict minerals used by a supplier originate from illegal sources in conflict-affected and high-risk areas, the Company discontinues the procurement of non-compliant materials from that supplier and requires that supplier to rectify within a specified timeframe, ensuring that both the supplier and its upstream raw materials comply with the Company’s conflict minerals management requirements.

In 2023, no major issues concerning child labor, human rights violations, forced labor, ecological damage, etc. were found during the supply chain due diligence. 100% of the Company’s suppliers do not use conflict minerals, as verified by the third-party organization.

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5.2 Anti-Corruption and Bribery

The Company is committed to fostering a corporate culture of integrity, honesty, fairness, and transparency. It strictly complies with the laws and regulations, such as the Anti-Unfair Competition Law of the People's Republic of China and the Interim Provisions on Prohibition of Commercial Bribery, as well as relevant provisions, and has formulated the Undertaking System on Anti-Corruption and Business Ethics, the Anti-Corruption and Anti-Bribery Policy, and other internal management regulations, specifying that all partners and suppliers shall sign the Undertaking Against Commercial Bribery and that all employees shall sign the Undertaking on Business Ethics.

All employees (including part-time employees), senior management, and Board members are required to abide by relevant laws and regulations and practice and behave with integrity, diligence, and self-discipline. Corruption and bribery in all forms are prohibited, including:

Anti-Corruption and Anti-bribery Policy of Hua Hong Semiconductor



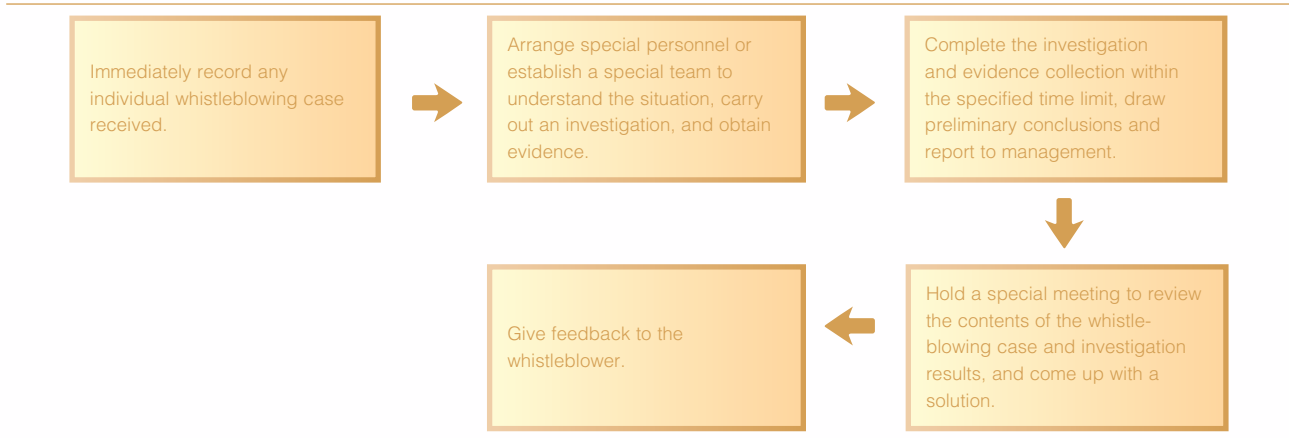
The Company is committed to creating a sound business ethics environment by regularly introducing warning articles and cases in internal publications and providing training activities on anti-corruption and business ethics. The Company focuses on creating a strong foundation for an ethical culture, nurturing the values of integrity and ethics among its employees. In May 2023, Signing Ceremonies for the "Undertaking on Business Ethics" were held in Shanghai and Wuxi, targeting the department heads and above, to further reinforce the commitment to ethical conduct and create a positive and transparent atmosphere within the Company.

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The Company supports employee self-supervision and reporting to maintain a clean and ethical working environment. It provides defined whistle-blowing channels, including E-mail, hotline, and mailbox, to allow employees to make real-name or anonymous complaints and whistle-blowing. The Company comprehensively handles whistle-blowing calls and letters at any time to achieve early detection, resolution, and control, as well as appropriate treatment.

The Company has established comprehensive business ethics supervision and whistle-blowing case handling procedures. Whistle-blowing is thoroughly investigated and evidence is collected, and after review, feedback is provided to the whistleblower regarding the course of action taken. In terms of whistleblower protection, all information related to whistleblowers will be kept strictly confidential. The Company protects the employees or external personnel from unfair treatment such as dismissal, demotion, suspension, intimidation, harassment, or any other form of retaliation for whistle-blowing through legal channels.

Business Ethics Supervision and Whistle-blowing Case Handling Procedures



During the Reporting Period, no corruption, bribery, extortion, fraud, or money-laundering event has occurred to the Company, nor has any litigation case arising from the above matters occurred.

5.3 Risk Management

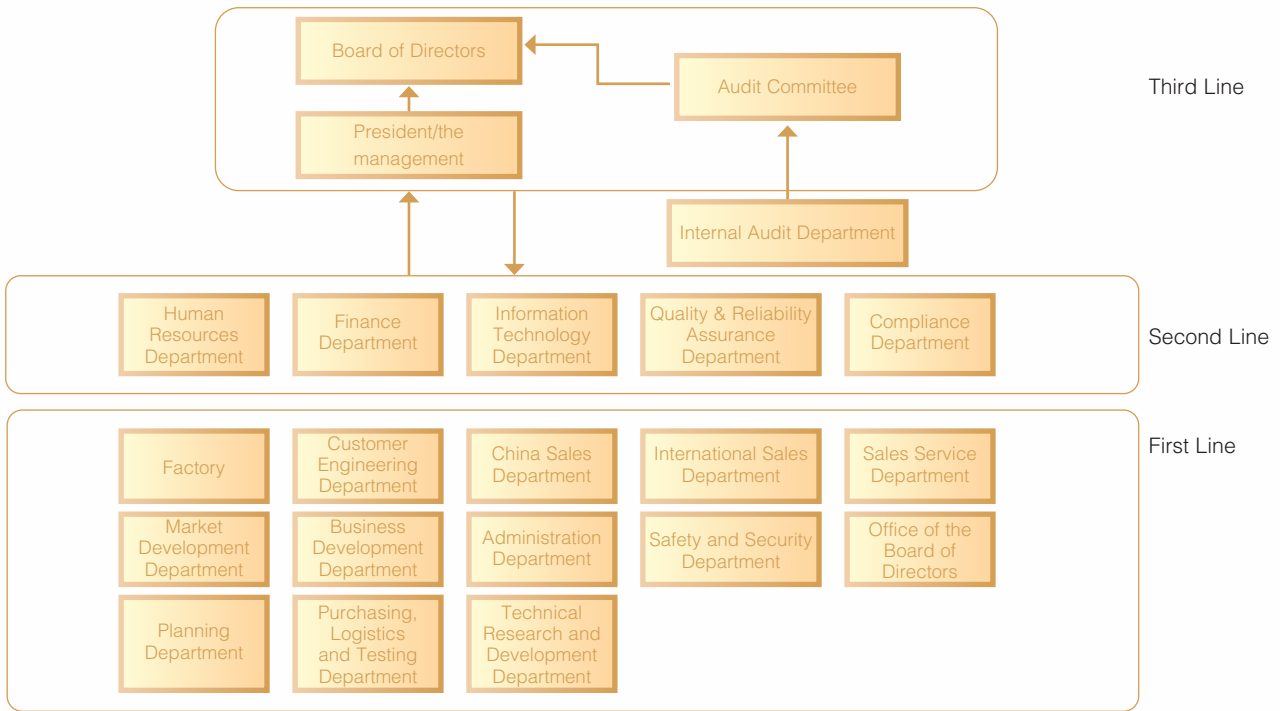
The Company has established the Rules about Comprehensive Control of Risks that covers all business processes, and conducted regular identification, analysis, and assessment of risk lists to form a long-term mechanism. The Company employs a layered and business line-based approach to prevent its major risks in various areas and implements the control and management of major risks in a targeted manner.

At the organizational level, under the authorization of the Audit Committee and management, the Company has established a risk management organizational structure that aligns with the latest “Three-Line Model” of risk management by the Institute of Internal Auditors (IIA). This structure incorporates the Company’s specific characteristics and clearly defines the division of responsibilities for addressing major risks, including the responsible leaders, leading departments, and their respective roles. The internal audit department reports annually to the Audit Committee on key aspects of internal controls, risk management priorities, risk assessments, and corresponding control measures, to ensure a closed-loop approach to addressing major risks.

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Hua Hong Semiconductor’s Three Lines of Defence for Risk Management in the Economic Sector

Organisation Governing Body (accountable to stakeholders, with supervisory responsibilities)



- Functions of the First Line: to provide products/services to customers and manage risks;
- Functions of the Second Line: to provide expertise, support, monitoring, and challenge on risk-related matters;
- Functions of the Third Line: to provide independent and objective confirmation and advice on all matters related to the achievement of objectives.

Based on the “three-line model” of risk management and taking into account the principle of comprehensiveness and importance, the Company continuously optimizes its risk map by consolidating certain similar risk factors, resulting in the identification of 59 key risk factors. The Company also comprehensively prevents and supervises its internal and external risks. In 2023, the Company conducted annual risk assessments at its Shanghai and Wuxi bases. Through methods such as questionnaires, interviews, seminars, on-site inspections, and data analysis, the Company identified and analysed risk areas, with focuses on R&D, product quality, supply chain management, and talent reserves and development, to generate an annual risk management report.

Risk Management System of Hua Hong Semiconductor

Risk assessment	Risk reporting	Communication and training
<p>We identify and analyze risk areas through methods such as questionnaires, interviews, and seminars and score the risk areas to generate an annual risk management report.</p>	<p>We implement a quarterly risk communication and reporting mechanism, where each business unit collects and reports risk events within their respective areas on a quarterly basis or as needed.</p>	<p>From time to time, we organize risk line management meetings, conduct risk training, and communicate risk issues across business units and at the company level.</p>

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Risk Response Mechanism of Hua Hong Semiconductor

Risk Category	Risk Factor	Countermeasures
Strategy	Strategic planning	The Company formulated strategic objectives from top to bottom and appropriately deconstructed and implemented such objectives in specific business models of corporate operation, to ensure the accomplishment of strategic objectives.
Operation	Research and development	The Company continuously improves the R&D project management system, conducts comprehensive monitoring on R&D project initiation, implementation, and post-evaluation, constantly enhances the ability of project managers, and develops new technologies and products with commercial value in a timely manner.
	Product quality	Relying on the production quality system, we comprehensively implement excellent performance management, strictly adhere to the Zero Defects concept and ensure the delivery of green and high-quality products in a timely manner to ensure the quality stability of all products, especially automotive-grade products, and continuously improve customer satisfaction.
	Talent reserve and development	We set up the talent resume database, carried out a talent inventory, continuously explored recruitment channels, optimized the salary structure, and improved the supporting welfare policies to comprehensively enhance the Company's attraction and employee satisfaction.
	Supply chain	The Company enhances its right to speak in the industry supply chain through its technological advantages, signs medium- and long-term strategic agreements with suppliers, sets a safe inventory level for each production material, regularly reviews the rationality of the safe inventory level, makes timely adjustments according to market changes, and continuously evaluates suppliers' capacity and product quality to ensure stability of the supply chain.
	Information security	The Company has established its information security framework and management policy; implements the risk evaluation procedure for information security every year; and continuously monitors all kinds of key information through the data protection system (DLP), so as to maintain the optimal interests of the Company, its shareholders, its customers, its suppliers, and its employees.
Environment and Safety	Environment	We design management procedures based on our observation, assessment, and control of environmental factors and list major environmental factors.
	Safety check	Safety checks focusing on troubleshooting and fault diagnosis are carried out continuously and regularly.
	Occupational health	We have developed the goals, indicators, and program management forms for our environmental and occupational health and safety programs, in accordance with the Company's established goals, indicators, and program management procedures for health, safety, and environment ("HSE").

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5.4 Compliance in Business Operation

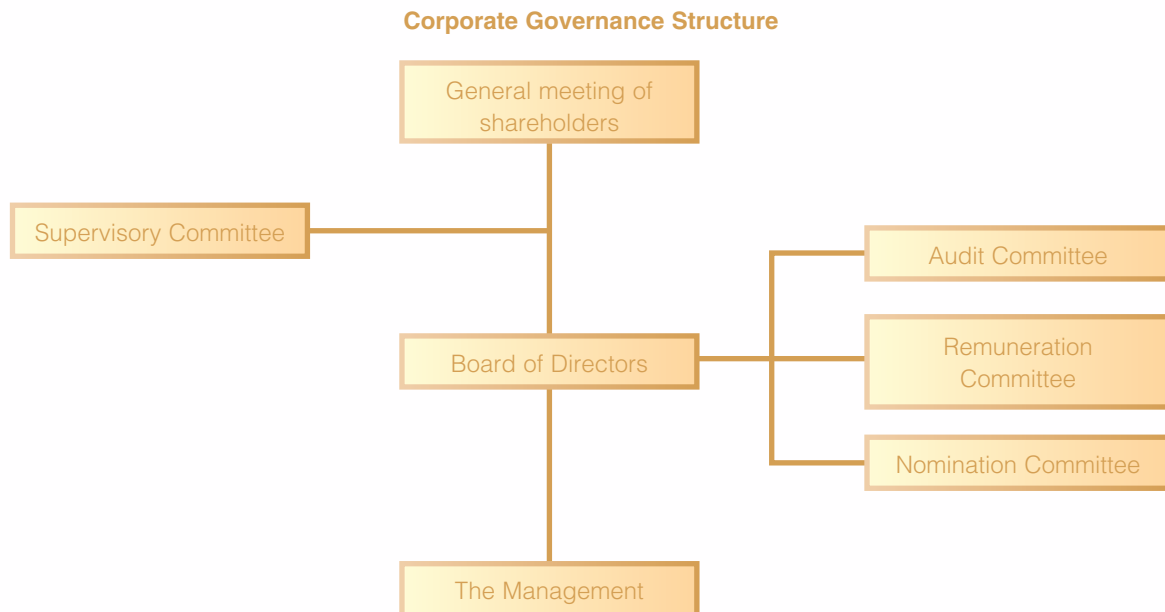
The Company respects and complies with applicable local laws and regulations. For details of specific laws, regulations, and related policies, please refer to the “List of Laws, Regulations, and Relevant Policies Observed by the Company” in the Appendix. The Company closely monitors the promulgation and amendment of laws and regulations, identifies regulations relevant to its operations and production, and promptly improves internal policies and management systems to ensure that its operations are in compliance with laws and regulations. The Company has established an internal audit department, which conducts regular audits of the supply chain procurement, business ethics, anti-corruption, and other areas to ensure the compliance of business activities.

5.5 Corporate Governance

Corporate Governance

The Company has established various regulations and systems, including the Articles of Association, Rules of Procedure for Shareholders’ General Meeting, and Rules of Procedure for the Board of Directors, in accordance with laws and regulations, such as the Company Law of the People’s Republic of China and the Securities Law of the People’s Republic of China. In 2023, the Company was listed on the STAR Market of the Shanghai Stock Exchange. To comply with legal requirements, such as the Guidelines for Corporate Governance of Listed Companies and the Administrative Measures for the Disclosure of Information of Listed Companies, the Company updated the Articles of Association and other corporate governance rules, ensuring standardized operations within the Company.

The Company has established a well-structured governance structure consisting of the general meeting of shareholders, the Board, their respective specialized committees (including the Audit Committee, Remuneration Committee, and Nomination Committee), and the management personnel, leading to a governance mechanism of checks and balances where powers and responsibilities of the organs of control, decision-making, and execution are clearly defined and well-coordinated with each other.



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Composition of the Board of Directors and Supervisory Committee and data of related meetings held

Composition of the Board and Supervisory Committee	Data of related meetings held
7 Directors on the Board	5 general meetings held
Among them, 3 are independent Directors	A total of 18 proposals considered
	10 meetings of the Board held
	A total of 31 proposals considered

In terms of the regulation of information disclosure, the Company has formulated the Information Disclosure Management System and other management documents to ensure the truthful, accurate, timely, fair, and complete disclosure of relevant information, thereby ensuring that stakeholders have access to the necessary information. During the Reporting Period, the Company promptly reported relevant matters and ensured the quality of information disclosure in accordance with the requirements of information disclosure standards.

Protection of Investors' Rights and Interests

As a listed company on the Main Board of the Stock Exchange of Hong Kong Limited and the STAR Market of the Shanghai Stock Exchange, the Company strictly complies with the requirements of the Companies Ordinance of Hong Kong, the Main Board Listing Rules of the Hong Kong Stock Exchange, the Administrative Measures for the Disclosure of Information of Listed Companies of the China Securities Regulatory Commission (CSRC), the Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange, and other laws, regulations, and relevant policy requirements. The Company has established an investor relations management team to maintain communication and interaction with various stakeholders, ensuring that investors' reasonable demands are addressed.

The Company communicates with the capital market through multiple channels about the Company's business operation and management status, financial position, product technology, major issues, and other information, based on the principle of "equal treatment of all investors", the requirement on "compliance information disclosure", and the standard of "honest and trustworthy operation and interactive communication". The Company also proactively discloses information related to the Company of concern by investors and fully protects the legitimate rights and interests of investors.

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Investor Communication Channel



To ensure the protection of shareholders’ rights and interests, the Company has formulated reasonable profit distribution policies and dividend plan to proactively return to shareholders and provide sustainable and steady returns to investors.

In 2023, the Company held one annual general meeting and four special general meetings of shareholders, at which 18 resolutions were passed by voting. All shareholders of the Company were invited to participate in the above meetings, including all small and medium-sized investors, ensuring the participation rights of small and medium-sized investors. Furthermore, the Company held four performance exchange meetings during the Reporting Period.

6 Industry and Community

Main Progress in 2023

Measures	Achievements
Industry Development	<ul style="list-style-type: none"> Held the “Core Connectivity, Vehicle Connectivity, and Chain Connectivity” Automotive Chip Ecosystem Cooperation Conference to promote the cooperation and high-quality development of the automotive chip ecosystem
Volunteer Service and Charity	<ul style="list-style-type: none"> Conducted welfare visits to nursing homes for 18 consecutive years Organized four sessions of integrated circuit-themed science popularization activities

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6.1 Industry Development

The Company actively participated in the industry co-development activities to facilitate high-quality development of the IC industry and actively attended the industry summit to jointly promote high-quality development of the industry.

In 2023, the Company held the “Core Connectivity, Vehicle Connectivity, and Chain Connectivity” Automotive Chip Ecosystem Cooperation Conference, joining forces with nearly a hundred businesses in the integrated circuit, automotive components, and assembled vehicles sectors to promote cooperation of the automotive chip ecosystem and foster collaborative industry development under the spirit of “identifying opportunities in industrial development by amassing the power of technical innovation”.

6.2 Volunteer Service and Charity

In order to enhance safety awareness of community residents, for six years the Company has provided the “First Aid Course for Accidents” in the community where the headquarters operates, including First Aid knowledge and cardiopulmonary resuscitation.

The Company is enthusiastic in public welfare undertaking and has organized employees to regularly visit the elderly in the community nursing home every year, to chitchat, make wontons, and carry out activities, so as to entertain and care for the elderly. The Company has been visiting the Meixin Nursing Home for 18 consecutive years, demonstrating its commitment to volunteer service. Furthermore, the Company encourages employees to utilize their mornings by volunteering at community kindergartens, to actively embody the “Hua Hong 520 Spirit” through practical actions.

The Company is dedicated to youth education. During the Zhangjing Science Hall Science Festival themed “Enlightening with Light, Exploring with Children (以光育光, 探索‘童’行)”, the Company organized four sessions of integrated circuit-themed science popularization activities. Through informative lectures and educational courses, over 130 children were introduced to the process of chip manufacturing and the everyday applications of chips in daily life. The Company also donated school bags and sporting goods to Lada Primary School in Temuli Town, Butuo County, Liangshan Yi Autonomous Prefecture, Sichuan Province *(四川省凉山彝族自治州布拖縣特木里鎮拉達小學), and the students. In 2023, the Company launched a paired-up assistance in poverty alleviation program and donated RMB50,000 to Youqiao Village, Chongming District, Shanghai.

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7 Appendix

7.1 Quantitative Performance

Environment

Performance Indicators	Unit	2021	2022	2023
Emissions				
Total air emissions	10,000 m ³	2,319,307	2,391,024	2,747,929
Nitrogen oxide (NOx) emissions	Kg	36,857	32,650	33,719
Sulfur dioxide (SO ₂) emissions	Kg	2,239	3,546.12	5,251.56
Total wastewater discharge	10,000 m ³	704	832	898
Total hazardous waste ¹	Ton	17,363	20,385	20,797
Hazardous waste produced per unit output	Kg/8-inch wafers	4.96	4.88	5.29
Total non-hazardous waste ²	Ton	8,981	9,864	9,269
Non-hazardous waste produced per unit output	Kg/8-inch wafers	2.57	2.36	2.36
Use of Energy and Resources				
Total electricity consumed ¹	MWh	867,682	954,667	1,030,352
Natural gas consumed ¹	m ³	11,456,569	10,530,287	11,048,312
Gasoline consumed ¹	L	/	/	43,949
Diesel consumed ¹	L	/	/	15,911
Heat purchased ¹	GJ	/	/	134,940
Hydrogen ¹	m ³	/	/	1,149,860
Integrated energy consumption ³	MWh	991,663	1,065,002	1,168,170
Integrated energy consumed per unit output	MWh/8-inch wafers	0.28	0.25	0.30
Total water consumed ⁴	m ³	15,707,212	18,010,226	19,076,734
Of which: Water from municipal water supply	m ³	8,928,040	10,284,063	11,127,266
Wastewater reused	m ³	6,788,287	7,726,163	7,949,468
Water consumed per unit product ⁵	m ³ /8-inch wafers	2.55	2.46	2.83
Recycled/reused water	m ³	86,119,337	107,163,560	126,544,660
Total packaging materials used for the shipment of finished products	Ton	253.5	313.32	336.92
Packaging materials used for the shipment of per unit finished product	Kg/8-inch wafers	0.07	0.07	0.09
Recycled packaging materials used for the shipment of finished products	Ton	48.5	54.9	66.33
GHG Emission				
GHG emissions ⁶	Ton of CO ₂ equivalent	713,649	497,938	537,070
Of which: Direct GHG emissions	Ton of CO ₂ equivalent	24,803	24,877	22,881
Indirect GHG emissions ⁷	Ton of CO ₂ equivalent	697,899	473,060	514,189
GHG emissions per unit output	Ton of CO ₂ equivalent/ 8-inch wafers	0.21	0.12	0.14

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Notes:

- 1 In 2023, the expansion project of the Wuxi Production Base was put into operation, resulting in an increase in energy consumption, waste gas, waste water, hazardous and non-hazardous waste generation.
- 2 Non-hazardous waste include sludge produced in wastewater treatment and general waste.
- 3 Integrated energy consumption included electricity purchased, natural gas, gasoline, diesel, heat purchased, and hydrogen.
- 4 Total water consumption = water consumption from municipal water supply + wastewater reuse.
- 5 In calculation, water consumed per unit product only includes water from the municipal water supply.
- 6 GHG emissions are calculated in accordance with the GB/T 32150 General Guideline for Calculation and Reporting of GHG Emissions from Industrial Enterprises and the GB/T 32151 Requirements on Calculation and Reporting of GHG Emissions published by the Standardization Administration of China.
- 7 In 2022 and 2023, the indirect GHG emissions in Shanghai and Wuxi plants were calculated according to the Guidelines for Accounting and Reporting of Greenhouse Gas Emissions in Shanghai (Trial) (Hu Fa Gai Huan Zi [2012] No. 180) and the Notice on the 2023-2025 Corporate Greenhouse Gas Emission Reporting Management in Power Generation Industry, respectively, among which, Shanghai plant uses a default value of electricity emission factor of $4.2\text{tCO}_2/10^4\text{kWh}$, and Wuxi plant uses the national average grid emission factor of $0.5703\text{tCO}_2/\text{MWh}$ when calculating.

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Employment and Labor Practice

Performance Indicators	Unit	2021	2022	2023
Employment				
Total number of full-time employees	Person	6,084	6,760	6,863
Including: Number of male employees	Person	4,426	4,932	5,039
Number of female employees	Person	1,658	1,828	1,824
Number of employees working under a labor contract with the employer	Person	6,084	6,760	6,863
Number of employees working under a labor contract with a labor dispatch company	Person	85	81	53
Part-time employees	Person	0	0	0
Number of employees aged under 30	Person	2,676	2,983	2,894
Number of employees aged between 30 and 50	Person	3,271	3,624	3,811
Number of employees aged above 50	Person	137	153	158
Number of employees from Mainland China	Person	6,075	6,751	6,855
Number of foreign employees	Person	9	9	8
Health and Safety				
Occupational disease incidence	%	0	0	0
Number of work-related fatalities	Person	0	0	0
Percentage of work-related fatalities	%	0	0	0
Lost days due to work injury	Day	367	83	61
Employee Training				
Average training hours completed per employee	Hour	119.9	122.2	133.7
Including: Average training hours completed per non-management employee	Hour	121.5	123.7	135.6
Average training hours completed per management member	Hour	23.5	26.5	31.6
Average training hours completed per female employee	Hour	123.8	124.3	125.1
Average training hours completed per male employee	Hour	118.5	121.4	136.8
Percentage of employees trained	%	100	100	100
Including: The percentage of non-management employees trained	%	100	100	100
Percentage of management members trained	%	100	100	100
Percentage of female employees trained	%	100	100	100
Percentage of male employees trained	%	100	100	100

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Product Responsibility and Customer Service

Performance Indicators	Unit	2021	2022	2023
Product Responsibility and Customer Service				
Product return rate	%	0.05	0.11	0.087
Percentage of products sold subject to recalls for safety and health reasons	%	0	0	0
Customer Service				
Number of complaints received in relation to products and services	Case	0	0	4
Performance for percentage of customer complaints resolved	%	/	/	100%

Supply Chain Management

Performance Indicators	Unit	2021	2022	2023
Total number of suppliers ¹	Supplier	545	551	561
Total number of local suppliers	Supplier	410	413	420
Total number of foreign suppliers	Supplier	136	138	141
Number of suppliers assessed ²	Supplier	115	112	114
Number of suppliers subject to rectification	Supplier	0	0	0
Percentage of raw and auxiliary material suppliers signing the Environmental Protection Undertaking	%	100	100	100
Percentage of raw materials purchased from local suppliers ³	%	29	31	32

Notes:

- 1 The reviewed data for the last three years for the relevant performance indicators for the total number of suppliers is based on the data disclosed in the table of the annual report.
- 2 The number of suppliers which were assessed by the Company in terms of labor, health and safety, environment, and business ethics.
- 3 Raw materials purchased include silicon slices, quartz, target materials, gases, chemicals, and other raw materials for production.

Anti-corruption

Performance Indicators	Unit	2021	2022	2023
Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period	Case	0	0	0
Total hours of anti-corruption training received by employees	Hour	/	/	2,542

Community Investment

Performance Indicators	Unit	2021	2022	2023
Number of employees participating in volunteer services	Person	1,324	4,189	1,108
Total hours of volunteer activities	Hour	1,986	6,283	1,364
Community investment	RMB	/	/	50,000

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Economic Performance

Performance Indicators	Unit	2021	2022	2023
Social contribution per share ¹	RMB	3.31	5.46	3.59

Note:

- 1 Social contribution per share = (net profit of the Company + tax paid to the state during the year + salaries paid to employees + interest on borrowings paid to banks and other creditors + value created for other stakeholders, e.g. donations – other social costs due to environmental pollution)/total number of shares of the Company.

7.2 List of Laws, Regulations and Relevant Policies Observed by the Company

Fields	Names of Laws and Regulations
Environmental Responsibility	
Environmental Protection	Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution, Urban and Rural Planning Law of the People's Republic of China, Marine Environment Protection Law of the People's Republic of China, Energy Conservation Law of the People's Republic of China, etc.
Product Responsibility	
Product and Service	Accounting Law of the People's Republic of China, Company Law of the People's Republic of China, Constitution of the People's Republic of China, Law of the People's Republic of China on Product Quality, Customs Law of the People's Republic of China, Metrology Law of the People's Republic of China, Foreign Trade Law of the People's Republic of China, Anti-Unfair Competition Law of the People's Republic of China, Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH"), Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances ("RoHS"), etc.
Information Security and Privacy Protection	Cyber Security Law of the People's Republic of China, Cryptography Law of the People's Republic of China, Regulation on the Administration of Commercial Cipher Codes, Personal Information Protection Law of the People's Republic of China
Intellectual Property Protection	Patent Law of the People's Republic of China, Copyright Law of the People's Republic of China, Trademark Law of the People's Republic of China, etc.
Responsibility for Employees	
Employee Employment	Law of the People's Republic of China on Employment Contracts, Law of the People's Republic of China on Protection of Women's Rights and Interests, Employment Promotion Law of the People's Republic of China, Social Insurance Law of the People's Republic of China, Civil Code of the People's Republic of China, Labor Law of the People's Republic of China, Criminal Law of the People's Republic of China, Measures for the Administration of Health Insurance, Measures for Application for and Payment of Unemployment Insurance Money, etc.
Occupational Health and Safety	Law of the People's Republic of China on Prevention and Control of Occupational Diseases, Production Safety Law of the People's Republic of China, Regulation on Work-Related Injury Insurances, etc.
Corporate Governance	
Corporate Governance	Company Law of the People's Republic of China, Securities Law of the People's Republic of China, etc.

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7.3 Benchmarking Index

The Hong Kong Stock Exchange's Environmental, Social and Governance Reporting Guide (effective from 31 December 2023)

Part B: Mandatory Disclosure Requirements

Mandatory Disclosure Items	Section in the Report
Governance Structure	1. ESG Management System
Reporting Principles	7.5 Reporting Principles
Reporting Boundary	7.4 Preparation of the Report

Part C: “Comply or explain” Provisions

Aspects, General Disclosures and KPIs	Disclosure Section
Subject Area A. Environmental	
Aspect A1. Emissions	
General Disclosure A1	2.5 Emissions and Waste Management
KPI A1.1	7.1 Quantitative Performance
KPI A1.2	2.5 Emissions and Waste Management 2.3 Climate Change Mitigation and Adaptation
KPI A1.3	7.1 Quantitative Performance
KPI A1.4	7.1 Quantitative Performance
KPI A1.5	2.5 Emissions and Waste Management 1.2 ESG management strategies and targets
KPI A1.6	2.5 Emissions and Waste Management 1.2 ESG management strategies and targets
Aspect A2. Use of Resources	
General Disclosure A2	2.2 Energy Management 2.4 Water Resources Management
KPI A2.1	7.1 Quantitative Performance
KPI A2.2	7.1 Quantitative Performance
KPI A2.3	2.2 Energy Management 1.2 ESG management strategies and targets
KPI A2.4	2.4 Water Resources Management 1.2 ESG management strategies and targets
KPI A2.5	7.1 Quantitative Performance
Aspect A3. Environment and Natural Resources	
General Disclosure A3	2.2 Energy Management 2.4 Water Resources Management
KPI A3.1	2.2 Energy Management 2.4 Water Resources Management
Aspect A4. Coping with Climate Change	
General Disclosure A4	2.3 Climate Change Mitigation and Adaptation
KPI A4.1	2.3 Climate Change Mitigation and Adaptation

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Aspects, General Disclosures and KPIs	Disclosure Section
Subject Area B. Social Employment and Labour Practices	
Aspect B1. Employment	
General Disclosure B1	3.1 Employee Interests and Benefits
KPI B1.1	7.1 Quantitative Performance
KPI B1.2	3.3 Employee Development and Training
Aspect B2. Health and Safety	
General Disclosure B2	3.2 Employee Health and Safety
KPI B2.1	7.1 Quantitative Performance
KPI B2.2	7.1 Quantitative Performance
KPI B2.3	3.2 Employee Health and Safety
Aspect B3. Development and Training	
General Disclosure B3	3.3 Employee Development and Training
KPI B3.1	7.1 Quantitative Performance
KPI B3.2	7.1 Quantitative Performance
Aspect B4. Labor Standards	
General Disclosure B4	3.1 Employee Interests and Benefits
KPI B4.1	3.1 Employee Interests and Benefits
KPI B4.2	3.1 Employee Interests and Benefits
Subject Area B. Social Operating Practices	
Aspect B5. Supply Chain Management	
General Disclosure B5	5.1 Responsible Value Chain
KPI B5.1	7.1 Quantitative Performance
KPI B5.2	5.1 Responsible Value Chain
KPI B5.3	5.1 Responsible Value Chain
KPI B5.4	5.1 Responsible Value Chain
Aspect B6. Product Responsibility	
General Disclosure B6	4.2 Product Quality and Safety
	4.3 Customer Relationship Management
KPI B6.1	7.1 Quantitative Performance
KPI B6.2	4.3 Customer Relationship Management
	7.1 Quantitative Performance
KPI B6.3	4.3 Customer Relationship Management
KPI B6.4	4.3 Customer Relationship Management
KPI B6.5	4.3 Customer Relationship Management

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Aspects, General Disclosures and KPIs	Disclosure Section
Aspect B7. Anti-corruption	
General Disclosure B7	5.2 Anti-corruption and Bribery
KPI B7.1	7.1 Quantitative Performance
KPI B7.2	5.2 Anti-corruption and Bribery
KPI B7.3	5.2 Anti-corruption and Bribery
Aspect B8. Community Investment	
General Disclosure B8	6.2 Voluntary Service and Public Charity
KPI B8.1	6.2 Voluntary Service and Public Charity
KPI B8.2	7.1 Quantitative Performance

Rules Governing the Listing of Stocks on the STAR Market of Shanghai Stock Exchange (revised in August 2023)

Disclosure requirement	Report Section
4.4.1 General	1 ESG Management System
4.4.2 Environmental protection responsibilities	2 Environmental Responsibilities
4.4.2(1) Complying with environmental laws, regulations and industry standards	2.1 Environmental Management System
4.4.2(2) Formulating and implementing its environmental plan	2.1 Environmental Management System
4.4.2(3) Efficiently use natural resources such as energy, water and raw materials	2.4 Resource Management
4.4.2(4) Dispose of pollutants in accordance with law	2.5 Emissions and Waste Management
4.4.2(5) Building and operating effective pollution control facilities	2.1 Environmental Management System 2.5 Emissions and Waste Management
4.4.2(6) Fully paying environmental taxes	2.1 Environmental Management System
4.4.2(7) Ensuring the environmental security of the supply chain	5.1 Responsible Value Chain
4.4.2(8) Other due environmental responsibilities	2.1 Environmental Management System
4.4.3 Production and product safety responsibilities	4 Products and Services
4.4.3(1) Complying with product safety laws and regulations and industry standards	4.2 Product Quality and Safety
4.4.3(2) Establishing a safe and reliable production environment and process	4.2 Product Quality and Safety
4.4.3(3) Establishing product quality and safety protection mechanism and product safety emergency plan	4.2 Product Quality and Safety
4.4.3(4) Other due production and product safety responsibilities	4.1 Product R&D and Innovation 4.2 Product Quality and Safety 4.3 Customer Relationship Management
4.4.4 Protection of the rights and interests of employees	3 Employee-Related Responsibilities
4.4.4(1) Establishing management system on employee employment and dismissal, salary and benefits, social insurance, working hours and punishment on violations	3.1 Rights and Benefits of Employees
4.4.4(2) Creating a working environment and supporting safety measures to prevent occupational hazards	3.2 Employee Health and Safety
4.4.4(3) Carrying out necessary expertise and vocational skills training on employee	3.3 Employee Development and Training
4.4.4(4) Other due responsibilities to protect the rights and interests of employees	3.1 Rights and Benefits of Employees
4.4.5 Scientific ethics	4.1 Product R&D and Innovation

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Guidelines for the Application of Self-regulatory Rules for Companies Listed on the STAR Market of the Shanghai Stock Exchange No.2 –Voluntary Disclosure of Information (2022 Revision)

	Terms and Disclosure	Report Section
(VI)-1	Basic Information on Research and Development	4.1 Product R&D and Innovation, 6.1 Industry Development
(VI)-2	Research and Development Feasibility	2.6 Green Products, 4.1 Product R&D and Innovation
(VI)-3	Necessary Risk Warning	5.3 Risk Management
(VI)-4	Impact of Research and Development on the Company	2.6 Green Products, 4.1 Product R&D and Innovation
(XIV)-1	Environmental Responsibility	2.1 Environmental Management System, 2.2 Energy Management, 2.3 Climate Change Mitigation and Adaptation, 2.4 Resource Management, 2.5 Emissions and Waste Management
(XIV)-2	Employee Protection and Development	3.1 Employee Interests and Benefits, 3.2 Employee Health and Safety, 3.3 Employee Development and Training
(XIV)-3	Product Safety, Compliance, Public Welfare Activities	4.1 Product Quality and Safety, 5.4 Compliance in Business Operation, 5.5 Corporate Governance, 6.2 Voluntary Service and Public Charity
(XIV)-4	Corporate Governance and investor protection	5.5 Corporate Governance

7.4 Preparation of the Report

This report represents the 8th Environmental, Social and Governance Report of Hua Hong Semiconductor Limited, which disclose the Company's principles, management approaches, initiatives, and achievements regarding ESG issues in its business operations to investors and other stakeholders.

Scope of the Report

The report covers Hua Hong Semiconductor Limited ("Hua Hong Semiconductor" and the "Company") and its subsidiaries, and unless otherwise specified, is consistent with the scope of the annual consolidated financial statements of Hua Hong Semiconductor (stock code: 01347.HK/688347.SH) for the same period.

Reporting Period

The reporting period is from 1 January 2023 to 31 December 2023. Unless otherwise stated, the data presented in this report are data for that period.

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Basis for preparation

This Report is prepared in accordance with Appendix C2 “Environmental, Social and Governance Reporting Guide” (effective from 31 December 2023) of the Listing Rules published by the Hong Kong Stock Exchange with reference to the Rules Governing the Listing of Stocks on the STAR Market of Shanghai Stock Exchange (revised in August 2023) and the “Guidelines for the Application of Self-regulatory Rules for Companies Listed on the STAR Market of the Shanghai Stock Exchange No.2 –Voluntary Disclosure of Information (2022 Revision)”.

Data Declaration

The data and cases presented in the report are based on the official records of the Company’s actual operations.

All financial data in the report are denominated in RMB. In case of any discrepancies between the financial data in this report and the Company’s annual financial report, the latter shall prevail.

Access to the Report

This report is released in electronic form on such platforms as the e Company’s official website (<https://www.huahonggrace.com>).

Contact Us

For any inquiries on the Report, please contact us through the following methods:

Address: 288 Halei Road, Zhangjiang Hi-Tech Park, Shanghai, PRC

Email: IR@hhgrace.com

7.5 Reporting Principles

- **Materiality**
The Company identifies the substantive issues in relation to business operation concerned by investors and other stakeholders as the focus of this Report. The reporting on substantive issues in this Report also focuses on the industry characteristics and regional characteristics involved in the Company’s operation. The details of analysis process and results of material issues are set out in the section headed “ESG Management System” of this Report. In the meantime, this Report highlights the ESG matters that may have significant influence on investors and other stakeholders.
- **Accuracy**
Best efforts have been made to ensure the accuracy of the information contained in the report. Among them, data caliber, calculation basis, and assumptions have been explained in the calculation of quantitative information, to ensure that the calculation error range will not cause misleading of information users. For quantitative information and notes, please refer to the relevant sections in the report.

The Board guarantees that there are no misrepresentations or misleading statements contained in or material omissions from the report.

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- **Balance**
The Report reflects the objective facts and discloses both positive and negative information related to the Company impartially. The Company has searched the objects within the scope of this Report through Shanghai Qingyue Credit Database (data.epmap.org), and did not find any negative events that should be disclosed but not disclosed during the Reporting Period.
- **Clarity**
This report is published in simplified Chinese. This report contains tables and model diagrams as an aid to understanding the textual content of this report. To facilitate quicker access to information for stakeholders, this report provides a table of contents and benchmarking index tables for ESG standards.
- **Quantitative and consistency**
This Report discloses key quantitative performance indicators and historical data as much as possible. The statistical and disclosure methods of the same indicator in this Report are consistent in different reporting periods; Any change, where possible, in the statistical and disclosure methods shall be fully explained in the notes to the Report, so that the stakeholders can conduct meaningful analysis and evaluate the development trend of the Company's ESG performance level. For details, see the section headed "Quantitative Performance" of the Report.
- **Integrity**
The scope of disclosures in this report is consistent with the scope of the Company's consolidated financial statements.
- **Timeliness**
This is an annual report covering the period from 1 January 2023 to 31 December 2023. The Company strives to publish the report as soon as possible after the end of the reporting year to provide timely information for stakeholders' decision-making.
- **Verifiability**
The cases and data in this report are derived from the original records or financial reports of the actual operations of the Company. The Company adopts the HiESG Performance Management System to manage quantitative ESG performance over the years. The source of the disclosed data and the calculation process are traceable and can be used to support the inspection by external assurance works.

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釋義

於本年報內，除非文義另有所指，否則下列詞彙具有下文所載涵義。

「股東週年大會」	本公司擬於二零二四年五月九日舉行的股東週年大會；
「細則」	本公司的組織章程細則(不時修訂)；
「審核委員會」	董事會審核委員會；
「董事會」	本公司董事會；
「國家集成電路產業基金」	國家集成電路產業投資基金股份有限公司，一家於二零一四年九月二十六日在中國註冊成立的公司。公司股東包括中央財政、集成電路產業聚集區企業、大型國有企業、部份金融機構及民營企業，公司重點投向半導體晶圓製造業，兼顧芯片設計、封裝測試、設備及材料等上下游環節；
「國家集成電路產業基金II」	國家集成電路產業投資基金二期股份有限公司，一家於二零一九年十月二十二日在中國成立的公司；公司股東包括財政部、集成電路產業聚集區企業、大型國有企業、部份金融機構及民營企業。其主要透過股權投資於集成電路產業價值鏈進行投資，其中以集成電路芯片生產及芯片設計、封裝測試以及設備及材料為主。據董事作出一切合理查詢後所深知、全悉及確信，根據上市規則第十四A章，國家集成電路產業基金II並非國家集成電路產業基金的聯繫人；
「中國」	中華人民共和國，但僅就本年報及作地理參考而言，除文義另有所指，否則，本年報中對「中國」的提述不包括台灣、澳門特別行政區及香港特別行政區；
「本公司」或「華虹半導體」	華虹半導體有限公司，一家於二零零五年一月二十一日在香港註冊成立的有限公司，除非文義另有所指，否則包括其所有子公司，或如文義指其成為其現有子公司的控股公司之前期間，則指其現有子公司；
「公司秘書」	本公司公司秘書；
「董事」	本公司董事；

釋義

「EPS」	每股盈利；
「執行董事」	本公司執行董事；
「股東特別大會」	本公司股東特別大會；
「GDP」	國內生產總值；
「Grace Cayman」	Grace Semiconductor Manufacturing Corporation，一家於一九九九年十月五日在開曼群島註冊成立的獲豁免有限公司，為本公司的全資子公司；
「上海宏力」	上海宏力半導體製造有限公司，一家於二零零零年十二月二十日在中國註冊成立的公司，為本公司的全資子公司。已經於二零一八年八月三日註銷；
「本集團」	本公司及我們的子公司，或如文義所指為本公司成為我們現有子公司的控股公司之前期間(或成為本公司的該等聯營公司)，則指由該等子公司或其前身公司(視乎情況而定)所經營的業務；
「華虹宏力」	上海華虹宏力半導體製造有限公司，一家於二零一三年一月二十四日在中國註冊成立的公司，為本公司的全資子公司；
「華虹NEC」	上海華虹NEC電子有限公司，一家於一九九七年七月十七日在中國註冊成立的公司，為本公司的全資子公司。已經於二零一八年八月三日註銷；
「港元」	香港法定貨幣港元；
「香港」	中華人民共和國香港特別行政區；
「香港聯交所」	香港聯合交易所有限公司；

釋義

- 「華虹集團」 上海華虹(集團)有限公司，一家於一九九六年四月九日在中國註冊成立為上海華虹微電子有限公司的公司，並於一九九八年更名為上海華虹(集團)有限公司，為本公司重要股東；
- 「華虹集團框架協議」 本公司與華虹集團訂立日期為二零二二年十二月三十日之框架協議，旨在規範本集團與華虹集團、其子公司或聯營公司(定義見上市規則第十四A章)之間截至二零二三年十二月三十一日止年度的銷售及採購交易以及提供服務；
- 「華虹置業」 上海華虹置業有限公司，一家於二零一一年十月二十八日在中國註冊成立的公司，為華虹科技發展的全資子公司；
- 「華虹科技發展」 上海華虹科技發展有限公司，一家於二零一零年五月十日在中國註冊成立的公司，一家由華虹集團持有50%並與其合併報表及由華虹宏力持有50%的公司，為關連人士；
- 「華錦物業管理」 上海華錦物業管理有限公司，一家於二零一二年六月八日在中國註冊成立的公司，為華虹科技發展的全資子公司，為本公司關連人士；
- 「華力集成」 上海華力集成電路製造有限公司，一家於二零一六年八月八日在中國註冊成立的公司，股東為上海華力微電子有限公司、上海集成電路產業投資基金股份有限公司、國家集成電路產業投資基金股份有限公司；
- 「華力微」 上海華力微電子有限公司，一家於二零一零年一月十八日在中國註冊成立的公司，為關連人士；
- 「華虹製造」 華虹半導體製造(無錫)有限公司，一家於二零二二年六月十七日註冊成立的公司，且為本公司非全資子公司；
- 「華虹無錫」 華虹半導體(無錫)有限公司，一家於二零一七年十月十日在中國註冊成立的公司，由本集團持有51%。於注資協議完成後，華虹無錫的註冊資本將由1,800百萬美元增至約2,536.85百萬美元，且華虹無錫仍為本公司非全資子公司，由本公司、華虹宏力、無錫錫虹聯芯、國家集成電路產業基金及國家集成電路產業基金II分別持有約22.22%、28.78%、20.00%、20.58%及8.42%；

釋義

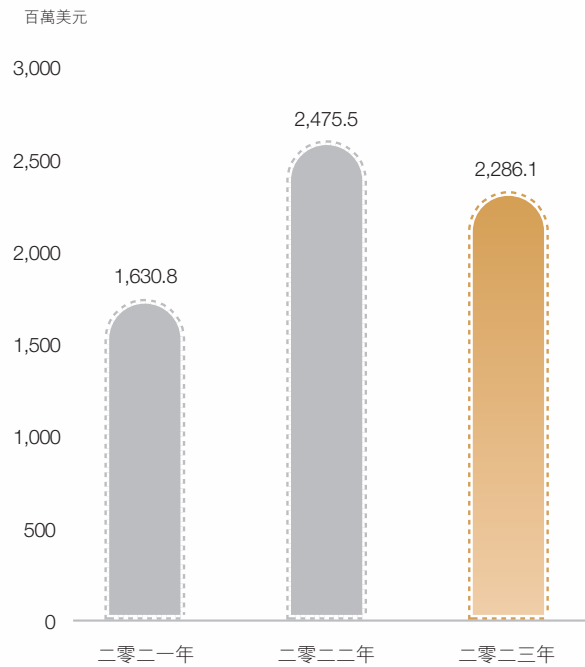
「獨立非執行董事」	本公司獨立非執行董事；
「儀電集團」	上海儀電(集團)有限公司，前身為上海儀電控股(集團)有限公司，一家於一九九三年十二月在中國註冊成立的國有公司，於二零二零年十二月十七日之前為本公司控股股東；
「上市規則」	《香港聯合交易所有限公司證券上市規則》(經不時修訂或補充)；
「提名委員會」	董事會提名委員會；
「非執行董事」	本公司非執行董事；
「白盒子」	白盒子(上海)微電子科技有限公司，一家於中國註冊成立的公司，並由上海聯和擁有30%權益；
「矽睿科技」	上海矽睿科技有限公司，一家於二零一二年九月十三日在中國註冊成立的公司，於二零二零年九月一日之前為本公司的關連人士；
「薪酬委員會」	董事會薪酬委員會；
「人民幣」	中國法定貨幣人民幣；
「人民幣股份」或「A股」	在科創板上市及以人民幣買賣的本公司普通股
「人民幣股份發行」	本公司於二零二三年八月七日發行407,750,000股人民幣股份，其在科創板上市且可供買賣，進一步資料載於本公司日期為二零二二年三月二十一日、二零二二年五月十二日、二零二二年六月二十七日、二零二二年十一月四日、二零二三年一月三十日、二零二三年四月十三日、二零二三年五月十日、二零二三年五月十七日、二零二三年五月二十八日、二零二三年六月七日、二零二三年六月二十八日、二零二三年七月五日、二零二三年七月十四日、二零二三年七月十八日、二零二三年七月二十一日、二零二三年七月二十四日、二零二三年七月二十六日、二零二三年七月二十七日、二零二三年七月三十一日及二零二三年八月四日的公告，以及本公司日期為二零二二年六月七日、二零二三年六月五日及二零二三年六月二十九日的通函；
「上海聯和」	上海聯和投資有限公司，一家於一九九四年九月二十六日在中國註冊成立的公司，為本公司主要股東；
「證監會」	香港證券及期貨事務監察委員會；

釋義

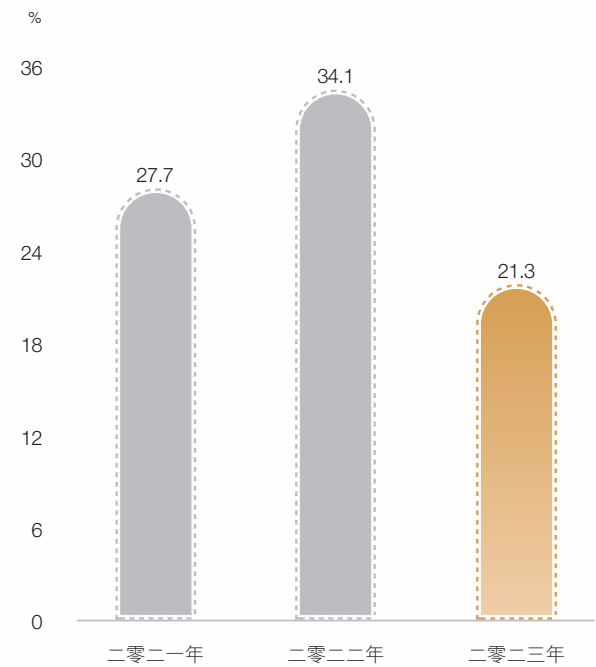
「證券及期貨條例」	香港法例第571章《證券及期貨條例》(經不時修訂或補充);
「上海艾為」	上海艾為電子技術股份有限公司, 一家於二零零八年六月十八日在中國註冊成立的公司, 其股份在上海證券交易所科創板上市(股份代號: 688798);
「上海華力」	華力微及其控股子公司
「股東」	本公司股本中普通股持有人;
「新微」	上海新微技術研發中心有限公司, 一家於二零一三年五月在中國註冊成立的公司, 為本公司關連人士;
「科創板」	上海證券交易所科創板;
「美元」	美國法定貨幣美元;
「無錫錫虹國芯」	無錫錫虹國芯投資有限公司, 一家於二零二三年一月十六日在中國註冊成立的公司, 係由市屬及區級國企聯合控制的專業投資公司;
「無錫錫虹聯芯」	無錫錫虹聯芯投資有限公司, 一家於二零一七年十二月十九日在中國註冊成立的公司, 係由市屬及區級國企聯合設立的專業投資公司。

主要財務指標

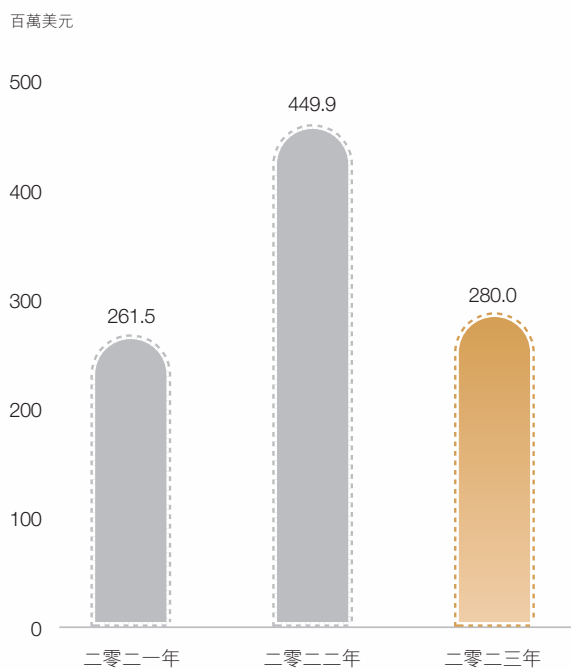
銷售收入



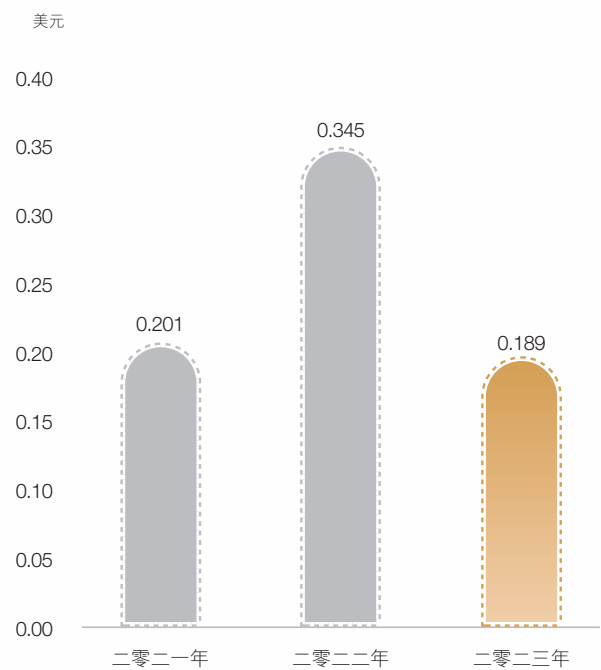
毛利率



母公司擁有人應佔溢利



每股盈利



致股東的信

尊敬的各位股東：

回望2023年，外部環境嚴峻複雜，市場形勢跌宕起伏，競爭格局撲朔迷離，機遇與挑戰並存，在華虹半導體的發展史上是極為罕見、極其重要、極具里程碑意義的一年。上海、無錫兩大製造基地如巨輪般穩健前行，公司全體員工秉承「勇敢、堅持、團結」的信念，共同匯聚成了不可阻擋的力量。我們披荊斬棘、勇毅前行，不僅平穩駕馭了市場的風浪，更在協調與可持續的發展道路上書寫了新的輝煌篇章。公司依託「8英寸+12英寸」的佈局優勢，致力於特色工藝技術的持續創新，圍繞嵌入式／獨立式非易失性存儲器、功率器件、模擬與電源管理、邏輯與射頻等特色工藝平台打造產品核心競爭力；堅持先進「特色IC + Power Discrete」雙引擎驅動戰略，高速滲透通信、新能源、物聯網、汽車電子等下游新興市場，持續為全球客戶提供卓越的產品和服務。

2023年的盛夏，華虹半導體正式登陸科創板，晉升「A+H」兩地上市企業的行列，與資本市場更為緊密地相擁。以此為契機，助力公司12英寸產線的展翅高飛、8英寸產線的精益求精，以及特色工藝技術的深入研發。面臨全球經濟增長放緩，市場需求萎縮、原材料和人力成本上漲等嚴峻挑戰，在本報告期內，公司業績銷售收入為22.861億美元，較2022年回落了7.7%；整體毛利率也遭遇了挑戰，下滑至21.3%，較上年度減少了12.8個百分點。在嚴峻的市場環境下，華虹半導體依然保持着堅韌不拔的發展態勢，積極調整戰略佈局、加強內部管理、加大研發投入，力求在逆境中尋求突破、精準把握回暖先機。

截至2023年底，公司折合8英寸月產能擴充至39.1萬片，全年付運晶圓達到410.3萬片。其中，華虹無錫的9.45萬片月產能已完全釋放，IC工藝節點覆蓋90~65/55納米，不僅是全球領先的12英寸特色工藝生產線，也是全球第一條12英寸功率器件代工生產線。2023年6月，投資達67億美元的華虹製造項目啟動，將新建一條月產能8.3萬片的12英寸特色工藝生產線。6月項目正式開工，12月主廠房鋼屋架吊裝完成，再現「華虹速度」。無錫製造基地的產能釋放，將為長三角地區集成電路產業鏈的完善和發展提供強有力的支撐。同時，公司也將繼續秉承「創新驅動、科技引領」的發展理念，以高質量發展為主線，提升企業核心競爭力，為中國乃至全球集成電路產業的持續健康發展作出更大貢獻。

致股東的信

「雄關漫道真如鐵，而今邁步從頭越。」展望2024年，我們將緊跟市場趨勢，持續推進新技術的研發和現有平台的優化和提升，強化特色工藝領域的優勢，聚焦新質生產力，推動產業生態協同。我們將以國際化的視野秉持創新理念，為全球客戶製造更多的「芯」夢想。在此，我們衷心感謝各位股東、合作夥伴和各界友人，對華虹半導體一直以來的關心、支持與厚愛。讓我們攜手並進，無悔昨日的啟航、無懼今日的征途、無愧明日的逐夢，共同開創更加美好的未來！

張素心先生
主席兼執行董事

唐均君先生
總裁兼執行董事

中國上海
二零二四年三月二十八日

公司資料

企業文化

願景

持續創新，
為全球客戶製造
「芯」夢想



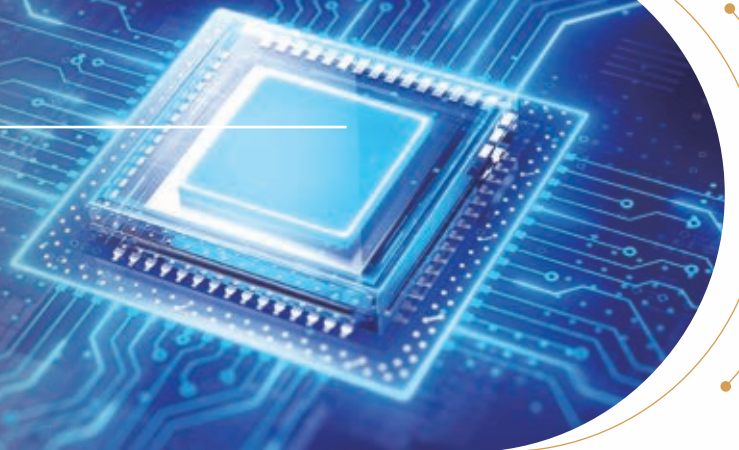
使命

通過協作、創新和優秀的
企業公民性，為股東、客戶
和員工創造價值



企業精神

革新，自信
進取，團結



公司資料

董事會

執行董事

張素心(主席)
唐均君(總裁)

非執行董事

葉峻
孫國棟
周利民(於二零二四年一月十九日獲委任)
熊承艷(於二零二四年三月二十八日獲委任)
王靖(於二零二三年九月一日辭任)

獨立非執行董事

張祖同
王桂壘, 太平紳士
封松林(於二零二四年三月二十八日獲委任)
葉龍蜚(於二零二四年三月二十八日辭任)

公司秘書

李瑞霞

授權代表

唐均君
李瑞霞

審核委員會

張祖同(主席)
熊承艷(於二零二四年三月二十八日獲委任)
封松林(於二零二四年三月二十八日獲委任)
葉峻(直至二零二四年三月二十八日)
葉龍蜚(於二零二四年三月二十八日辭任)

薪酬委員會

王桂壘, 太平紳士(主席)
葉峻(於二零二四年三月二十八日獲委任)
封松林(於二零二四年三月二十八日獲委任)
葉龍蜚(於二零二四年三月二十八日辭任)
王靖(於二零二三年九月一日辭任)

提名委員會

張素心(主席)
王桂壘, 太平紳士
封松林(於二零二四年三月二十八日獲委任)
葉龍蜚(於二零二四年三月二十八日辭任)

網址

www.huahonggrace.com

核數師

安永會計師事務所
執業會計師
香港
鰂魚涌英皇道979號
太古坊一座27樓

香港法律顧問

史密夫斐爾律師事務所
香港
皇后大道中15號
告羅士打大廈23樓

主要往來銀行

中國建設銀行上海市分行
中國上海市
浦東新區
陸家嘴環路900號

國家開發銀行上海分行
中國上海市
浦明路68號

中國建設銀行股份有限公司香港分行
香港中環
干諾道中3號中國建設銀行大廈28樓

交通銀行股份有限公司香港分行
香港中環
畢打街20號

國家開發銀行江蘇分行
中國江蘇省南京市
江東中路232號

中國農業銀行無錫新吳支行
中國江蘇省無錫市
新吳區和風路26號

中國建設銀行無錫高新技術產業開發區支行
中國江蘇省無錫市
新吳區和風路26號

中信銀行無錫新區支行
中國江蘇省無錫市
新吳區和風路26號

中國銀行無錫高新技術產業開發區支行
中國江蘇省無錫市
新吳區旺莊路140號

公司資料

股份過戶登記處

港股：
卓佳證券登記有限公司
香港
夏慤道16號
遠東金融中心17樓

A股：
中國證券登記結算有限責任公司上海分公司
上海市
浦東新區
楊高南路188號

註冊辦事處

香港中環
夏慤道12號
美國銀行中心2212室

主要營業地點

中國上海市
張江高科技園區
哈雷路288號
郵編：201203

中國江蘇省無錫市
新吳區
新洲路30號
郵編：214028

中國江蘇省無錫市
新吳區
新洲路30-1號
郵編：214028

股份代號

香港聯交所：01347
上交所：688347

董事及高級管理層



張素心先生，60歲，於二零一六年三月十一日獲委任為本公司董事會主席兼執行董事及提名委員會成員兼主席。現擔任華虹集團董事長及黨委書記、華虹宏力、華虹無錫、華虹製造及上海華力董事長。張先生擁有豐富的高新技術產業戰略發展、能源戰略研究及發電設備製造業經驗，曾歷任上海汽輪機有限公司總裁、上海電氣電站集團執行副總裁、上海西門子燃氣輪機部件有限公司董事長、上海電氣集團股份有限公司執行董事、上海電氣(集團)總公司副總裁、上海金橋(集團)有限公司黨委書記、總經理、上海金橋出口加工區開發股份有限公司董事長及黨委書記、上海市發展和改革委員會副主任、上海市張江高新技術產業開發區管委會副主任等職務。張先生畢業於清華大學，擁有工學學士學位，為教授級高級工程師。



唐均君先生，59歲，於二零一九年五月起獲委任為本公司總裁兼執行董事。唐先生亦為華虹宏力、華虹無錫、華虹製造總裁。唐先生擁有豐富的集成電路行業資歷與管理經驗，和極強的協調能力與執行力。在加入本公司之前，唐先生自二零一零年二月至二零一九年三月擔任華力微黨委書記、副總裁及執行副總裁，自二零一六年八月至二零一九年三月兼任華力集成總裁。二零零八年七月至二零一零年二月期間，擔任華虹NEC黨委副書記、工會主席兼行政與政府關係總監。此前，唐先生歷任上海儀表電訊工業局副主任科員、上海無線電十七廠技術員、上海半導體器件四廠技術員等職。唐先生於西南交通大學工商管理專業本科畢業，後畢業於中歐國際工商學院，獲工商管理碩士學位；正高級經濟師職稱；全國五一勞動獎章、全國勞模、全國優秀黨務工作者榮譽獲得者。

董事及高級管理層



葉峻先生，51歲，自二零一二年二月起為本公司非執行董事及華虹宏力董事。葉先生於金融投資領域擁有二十多年經驗。自一九九六年起，葉先生歷任上海聯和投資銀行部經理、業務發展部經理、總經理助理及副總經理等職位，並於二零一八年五月起任上海聯和總經理。葉先生亦為上海銀行的董事，上海兆芯集成電路股份有限公司、上海宣泰醫藥科技股份有限公司及中美聯泰大都會人壽保險有限公司的董事長。葉先生畢業於上海交通大學，獲工業外貿學士及工商管理碩士學位。



孫國棟先生，47歲，自二零二零年十二月十日起獲委任為本公司非執行董事，及華虹無錫董事。孫先生於二零零零年加入國家開發銀行，二零零零年至二零一四年，孫先生在國家開發銀行擔任多項職務，包括人事局系統幹部處副處長、湖北省分行人事處副處長及處長等。二零一四年十二月至二零一六年七月擔任華芯投資管理有限責任公司的人力資源部總經理，二零一六年七月起至今擔任華芯投資管理有限責任公司的總監。孫先生畢業於中國北京理工大學，獲得計算機應用學士學位，並畢業於中國中央財經大學，獲得工商管理碩士學位。

董事及高級管理層



周利民先生，47歲，自二零二四年一月十九日起獲委任為本公司非執行董事及其子公司(即華虹宏力、華虹無錫及華虹製造)董事。周先生現任華虹集團副總裁及華虹集團下屬多家子公司董事。周先生在半導體行業擁有逾24年工作經驗。在加入本公司之前，自一九九九年至二零二三年期間，周先生曾在華虹集團下屬多家子公司任職，歷任職位包括副部長、部長、總監、副總裁及執行副總裁等。周先生畢業於上海大學電子材料與元器件專業，獲得工學學士學位，並為高級工程師。



熊承艷女士，44歲，於二零二四年三月二十八日獲委任為本公司非執行董事。熊女士於金融及會計領域擁有近二十年工作經驗。於加入本公司之前，熊女士曾任上海市國有資產監督管理委員會預算處副主任科員、主任科員，之後於華虹集團旗下公司擔任多個副部門主管及部門主管職位。熊女士現為華虹集團資金財務部部長，並於華虹集團多間子公司擔任董事或監事職務。熊女士畢業於上海財經大學，獲管理學碩士學位。熊女士亦為高級會計師及中國註冊會計師(非執業)。

董事及高級管理層



王靖女士，53歲，自二零一九年六月起至二零二三年九月擔任本公司非執行董事。

董事及高級管理層

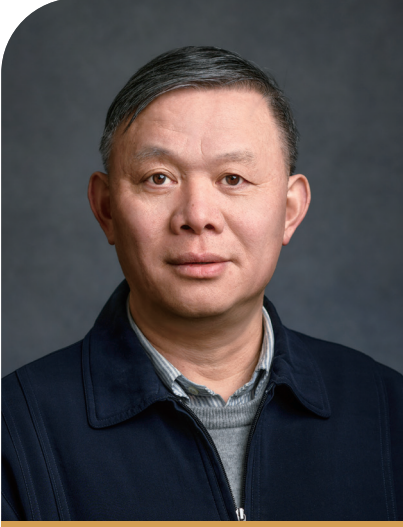


張祖同先生，75歲，為本公司獨立非執行董事及華虹宏力董事。張先生曾為香港執業會計師，並自一九七八年至二零零三年底為香港會計師公會會員，自一九八三年一月起為英格蘭及威爾士特許會計師公會資深會員，在會計、核數及財務管理方面具有豐富經驗。張先生自一九七六年起於安永會計師事務所擔任多個職位，並於一九八九年成為安永會計師事務所管理委員會成員。他積極參與制定和監督公司內部控制和風險管理政策和程序。他亦曾擔任安永審計和諮詢業務服務的主席四年。之後，他被晉升為專業服務部門的管理合夥人。於二零零三年退休前，張先生為安永會計師事務所合夥人暨中國及香港區主席。張先生為上海復旦大學教育發展基金會及復旦大學教育發展基金會(海外)投資委員會成員。張先生亦為中國國際貿易中心股份有限公司(股票代碼：600007.SH)的獨立非執行董事。張先生曾任中國信達資產管理股份有限公司(股票代碼：1359.HK)、嘉里建設有限公司(股票代碼：683.HK)以及中國人壽保險股份有限公司(股票代碼：2628.HK)的獨立非執行董事。張先生畢業於倫敦大學，獲食品科學及化學理學學士學位。



王桂堦先生，72歲，銀紫荊星章、銅紫荊星章獲得者，太平紳士，為本公司獨立非執行董事及華虹宏力董事。王先生曾於兩所國際律師事務所擔任中國主理合夥人達十五年。在此之前，王先生曾任職於香港特區政府的地政總署、律政司及立法會共達十年。王先生於二零一一年至二零一八年間分別獲委任為香港機場管理局、醫院管理局及競爭事務委員會的成員。王先生為前任香港國際仲裁中心主席，香港律師會及環太平洋律師協會前會長，以及香港版權審裁處前主席。王先生現時為香港稅務上訴委員會主席，維達國際控股有限公司(股票代碼：3331.HK)、新創建集團有限公司(股票代碼：659.HK)的獨立非執行董事；王桂堦先生曾任香港按揭證券有限公司董事及中海油田服務股份有限公司的獨立非執行董事；並於香港大學、香港中文大學、香港城市大學及香港樹仁大學擔任名譽講師、校外評核委員及教授。王先生持有香港中文大學文學學士學位及倫敦大學法律學士學位。

董事及高級管理層



封松林先生，59歲，自二零二四年三月二十八日起擔任本公司的獨立非執行董事。彼於集成電路及半導體等科學技術領域擁有超過32年的學術研究經驗。彼於一九九二年二月至二零零零年十二月歷任中國科學院半導體研究所副研究員、研究員、副主任、主任、所長助理及所長。二零零一年一月至二零一零年八月，彼歷任中國科學院上海微系統與信息技術研究所研究員、副所長及所長。二零零九年三月至二零一七年五月，彼歷任中國科學院上海高等研究院研究員、籌備工作組組長及院長。封先生為(i)雲賽智聯股份有限公司(一間於上海證券交易所上市的公司(股票代碼：600602))，(ii)庚星能源集團股份有限公司(一間於上海證券交易所上市的公司(股票代碼：600753))，及(iii)上海兆芯集成電路股份有限公司的獨立董事。此外，封先生為上海中研宏領信息科技有限公司的董事。封先生畢業於武漢大學，獲得半導體物理系學士學位，並在巴黎第七大學獲得碩士及博士學位。



葉龍斐先生，82歲，自二零一四年九月至二零二四年三月擔任本公司的獨立非執行董事。

董事及高級管理層



王鼎先生，61歲，於二零一二年二月起獲委任為公司董事會秘書。王先生亦擔任本公司、華虹宏力、華虹無錫及華虹製造的執行副總裁，負責財務、資訊技術、行政與合規、董辦及外籍人事。王先生於二零零一年四月加入上海宏力，並在其成長發展的各個階段起到了核心領導作用。他的職責包括主導合併的籌備與實施，以及本公司成功在香港聯合證券交易所和上海證券交易所科創板上市。在加入上海宏力之前，王先生於一九九五年八月至二零零一年三月在美國加利福尼亞矽谷聖荷西的LSI Logic Corporation擔任寬帶娛樂部的部門總監。於加入LSI Logic Corporation之前，王先生任職於美國Franklin Templeton Investments。王先生畢業於美國加州大學伯克利分校工程學院，獲工業工程及營運研究學士學位；後於美國舊金山大學獲工商管理碩士學位，主修財務及銀行專業。王先生在國際權威財經雜誌Institutional Investor《機構投資者》所發佈的「亞洲(除日本外)執行團隊榜單」中，於2018年、2019年、2021年、2022年榮獲科技／半導體行業最佳首席財務官。

董事及高級管理層

高級管理層

截至本報告日期的高級管理層成員列示如下：

張素心先生，60歲，為本公司董事會主席兼執行董事。有關張先生履歷及學術背景的更多資料，請參閱「董事及高級管理層 – 董事會」一節。

唐均君先生，59歲，為本公司總裁兼執行董事。有關唐先生履歷及學術背景的更多資料，請參閱「董事及高級管理層 – 董事會」一節。



周衛平先生，57歲，為本公司、華虹宏力、華虹無錫及華虹製造執行副總裁，負責市場銷售，在中國集成電路行業有超過35年的工作經驗。周先生於二零一八年初加入本公司。此前，周先生曾任上海貝嶺股份有限公司執行副總裁；寧波杉杉尤利卡太陽能科技發展有限公司總經理；上海貝嶺微電子製造有限公司總經理；上海先進半導體製造股份有限公司黨委副書記、總裁、首席執行官，黨委書記、副總裁等職務。周先生畢業於華東師範大學，獲固態電子技術專業學士學位；後於復旦大學獲工商管理碩士學位；教授級高級工程師職稱。

董事及高級管理層



倪立華先生，55歲，為本公司、華虹宏力、華虹無錫及華虹製造執行副總裁。倪先生於二零一八年五月加入華虹宏力。在加入公司之前，倪立華先生曾先後任職於無錫華晶集團公司，上海華虹微電子有限公司，華虹NEC，上海新進半導體製造有限公司部經理，華虹NEC部長，華力微副廠長。倪立華先生畢業於西安電子科技大學，獲工學學士學位；後於上海交通大學獲工程碩士學位；高級工程師職稱。

王鼎先生，61歲，為本公司、華虹宏力、華虹無錫及華虹製造執行副總裁，負責財務、信息科技、行政與合規、董辦及外籍人事。有關王先生履歷及學術背景的更多資料，請參閱「董事及高級管理層 – 董事會」一節。



孔蔚然博士，60歲，為本公司、華虹宏力、華虹無錫及華虹製造執行副總裁，負責技術研發與設計服務。孔博士於半導體領域擁有逾30年經驗，於二零零三年三月加入上海宏力，在推動NOR閃存、邏輯及嵌入式閃存領域的創新方面有良好往績。在加入上海宏力之前，孔博士在美國工作，先後任職於Sun Microsystems, Inc., LSI Logic Corporation及ISSI。孔博士畢業於天津南開大學，獲物理學士學位；後於美國俄勒岡科學理工研究學院獲電機工程學碩士及應用物理博士學位。孔博士擁有27項美國專利、70項中國專利，共同發表逾20篇技術論文。

董事及高級管理層

公司秘書



李瑞霞女士，46歲，自二零一九年十一月起擔任本公司公司秘書。李女士目前為君合律師事務所合夥人。彼於一般收購合併及企業融資交易領域上(如協助企業股份於香港聯交所上市、併購、資本重組及香港聯交所上市規則相關合規及監管事務)擁有約16年的經驗。李女士於二零零五年取得香港高等法院律師資格。李女士畢業於香港城市大學，獲法學學士學位，後於英國倫敦大學學院取得法學碩士學位。

企業管治報告

董事會欣然匯報截至二零二三年十二月三十一日止年度的企業管治報告。

企業管治常規

本公司致力於提倡良好企業管治，並已就企業管治制定程序，該等程序符合上市規則附錄C1所載的企業管治守則（「該守則」）。

本公司深諳完善的企業管治常規的重要性，並認識到監管環境的變化多端。因此，從實行守則及評估其常規的有效性到回應監管環境的持續發展，本公司持續監控及更新其企業管治常規。

遵守守則條文

截至二零二三年十二月三十一日止年度，本公司一直遵守該守則。

董事的證券交易

本公司已採納上市規則附錄C3所載的上市發行人董事進行證券交易的標準守則（「標準守則」）作為本公司關於董事進行證券交易的守則。本公司已向所有董事作特定查詢，每位董事均已確認其於截至二零二三年十二月三十一日止年度全年遵守當中所載的必守標準。

董事會

董事會總體上負責本公司的業務及事務管理，並對轉授予主席及管理層負責的本公司日常管理承擔最終責任。

董事會現時共有九名董事，當中包括兩名執行董事張素心先生（主席）及唐均君先生（總裁），四名非執行董事葉峻先生、孫國棟先生、周利民先生及熊承艷女士（於二零二四年三月二十八日獲委任）以及三名獨立非執行董事張祖同先生、王桂壙先生、太平紳士及封松林先生（於二零二四年三月二十八日獲委任）。王靖女士及葉龍蜚先生分別於二零二三年九月一日及二零二四年三月二十八日辭任非執行董事及獨立非執行董事。有關各董事的更多詳情在本年度報告第148至153頁披露。本公司已於本公司網頁及香港聯交所網頁刊載經更新的董事名單，列明其角色和職能。

本公司各非執行董事皆以三年的特定任期委任，除非根據相關委任書或董事服務合約上的條款及條件被終止委任，彼等須於股東大會上接受本公司重新提名及重選。

企業管治報告

於本年度，董事會定期舉行會議。全體董事皆有機會提出商討事項列入董事會定期會議議程。全體董事皆可直接接觸公司秘書，確保董事會議事程序及規則及規例均獲得遵守。董事會會議的完整會議記錄由公司秘書保管，並應在獲得合理通知時，公開有關會議記錄以供查閱。如有需要，各董事可尋求獨立專業意見以履行其責任，費用由本公司支付。

董事會負責制定本集團的策略性方向及政策，並監督管理層。董事會保留的部份職能包括(但不限於)監察及批准重大交易、涉及本公司主要股東或董事利益衝突的事宜、批准季度、中期及全年業績、向公眾或監管機構進行其他披露及內部監控系統，另與前述事項相關的決定亦須由董事會決定。董事會並無具體保留、本公司日常運作所需的事宜則轉授予管理層，管理層由相應董事監督並由主席領導。

本公司已實施多項機制，確保董事會可獲得獨立的觀點和意見：

- **董事會的組成：**截至二零二三年十二月三十一日止年度，董事會無論何時均遵守上市規則第3.10及3.10A條。本公司有三名獨立非執行董事，佔董事會成員三分之一以上。至少一名獨立非執行董事具備適當專業資格或具備適當的會計或相關財務管理專長。
- **獨立性評估：**各獨立非執行董事已根據上市規則第3.13條作出年度獨立性確認書。本公司認為，全體獨立非執行董事根據上市規則第3.13條所載指引屬獨立人士。
- **董事會決策：**倘董事於任何交易、合約或安排中擁有重大權益，則其不可就通過相同事宜的任何董事會決議進行表決，亦不應被計入法定人數。倘主要股東或董事於董事會審議的事宜中擁有利益衝突，且董事會已確定該利益衝突屬重大時，應召開董事會會議而非通過書面決議處理該事宜。
- **主席與獨立非執行董事之間的溝通：**董事會主席高度重視與獨立非執行董事之間的溝通，每年至少與其舉行一次沒有其他董事出席的會議。
- **獨立非執行董事的薪酬：**獨立非執行董事就其董事會及董事會委員會成員的職位收取固定費用。不授予獨立非執行董事與業績掛鈎的股權報酬，以避免其決策時出現潛在偏見或損害其客觀性及獨立性。
- **董事會評估：**董事會評估及審議各獨立非執行董事投入的時間以及董事會及董事會委員會會議參與情況，以確保每名獨立非執行董事於董事會投入足夠時間，履行其作為本公司董事的職責。

每年會對上述機制的執行情況及有效性進行審閱。董事會認為，該等機制於截至二零二三年十二月三十一日止年度得到妥善有效執行。

企業管治報告

主席與總裁的角色已予區分。主席負責本公司整體管理及運營，並建議及檢討本公司的企業方向及策略。主席負責制定商業策略，領導董事會，確保董事會有效地運作，包括董事會及時就所有適当事項進行討論。主席確保董事會會議所審議的事項均已向所有董事妥善簡報，而全體董事所收到的資訊亦充分、完備及可靠。董事會主席高度重視與獨立非執行董事的溝通，並在沒有其他董事出席的情況下每年與其舉行至少一次會議。

總裁負責本公司的業務與營運的日常管理並實施本公司的業務策略。

董事和高級人員的責任保險

本公司已為本公司及其子公司的全體董事和高級人員安排適當的保險，以就因本公司的企業行動而可能面對的法律訴訟給予保障。

董事會的運作

截至二零二三年十二月三十一日止年度，董事會曾舉行十次董事會會議。董事會各成員出席董事會會議、審核委員會會議、提名委員會會議及薪酬委員會會議以及股東週年／特別大會的記錄如下：

	董事會會議	審核委員會會議	提名委員會會議	薪酬委員會會議	股東週年大會	股東特別大會
執行董事						
張素心	7	不適用	1	不適用	1	3
唐均君	10	不適用	不適用	不適用	1	4
非執行董事						
葉峻	10	6	不適用	不適用	0	0
王靖 ^(附註)	6	不適用	不適用	1	1	0
孫國棟	8	不適用	不適用	不適用	0	0
獨立非執行董事						
張祖同	10	6	不適用	不適用	1	4
王桂燦，太平紳士	10	不適用	1	1	1	4
葉龍蜚	10	6	1	1	1	4

附註：王靖女士於二零二三年九月一日起辭任非執行董事及薪酬委員會成員。

企業管治報告

董事會亦傳閱書面決議案，取得董事會相關成員批准，以代替有形的會議。惟若有主要股東或董事在事項中存有董事會認為重大的利益衝突，有關事項則以舉行董事會會議(而非書面決議案)方式處理，以遵守該守則第C.5.7條。

董事會認為各董事的出席記錄令人滿意，每位董事皆付出足夠時間來履行其董事職責。

持續專業發展

董事應跟進其作為本公司董事的責任，並跟進本公司的行為、業務活動及發展。

根據守則條文第C.1.4條，董事應參與適當的持續專業發展計劃，以建立並更新其知識及技能，確保其對董事會的貢獻是有根據及相關。截至二零二三年十二月三十一日止年度，全體董事獲及時提供有關本公司表現、財務狀況、前景的最新資料以及適用於本集團的法律及法規新的或顯著變化的材料，以便董事會整體及各董事單獨履行其職責。各董事將於下一個財政年度獲安排參與內部舉辦的簡報會，以及在適當時間獲發放相關議題的閱讀資料。本公司鼓勵所有董事參與相關培訓課程，課程費用由本公司負責。

截至二零二三年十二月三十一日止年度，各董事所參與之持續專業發展載列如下：

董事姓名	閱讀有關規則及相關材料及／或出席培訓
張素心(主席)	✓
唐均君(總裁)	✓
葉峻	✓
王靖	✓
孫國棟	✓
張祖同	✓
王桂壘, 太平紳士	✓
葉龍蜚	✓

企業管治報告

薪酬委員會

薪酬委員會現時成員包括兩名獨立非執行董事王桂壘先生，太平紳士、封松林先生(於二零二四年三月二十八日獲委任)及一名非執行董事葉峻先生(於二零二四年三月二十八日獲委任)。王靖女士於二零二三年九月一日辭任薪酬委員會成員。葉龍蜚先生於二零二四年三月二十八日辭任薪酬委員會成員。薪酬委員會主席為王桂壘先生，太平紳士。各成員在釐定公眾公司行政人員薪酬上經驗豐富，並具備適當之技能。董事會認為，委員會成員於處理委員會事務時均能作出獨立判斷。薪酬委員會的角色及功能包括為所有執行董事及高級管理層制定特定薪酬待遇，包括實物利益、退休金權利及報酬，並就非執行董事的薪酬待遇，向董事會提出建議。薪酬委員會應考慮同類公司支付的薪酬及集團內其他職位的僱用條件等因素，以及與工作表現掛鈎的薪酬安排的可取性。薪酬委員會已在本公司網站及香港聯交所網站上公開其職權範圍。薪酬委員會每年最少須舉行一次會議。

二零二三年八月十日，薪酬委員會召開了一次會議，討論了根據本公司購股權計劃已授出的若干購股權的歸屬情況，並決議通過了向董事會提交有關該等購股權的歸屬安排建議。

各董事的薪酬詳情已列於財務報表附註8。

提名委員會

提名委員會現時成員包括一名執行董事張素心先生及兩名獨立非執行董事王桂壘先生，太平紳士及封松林先生(於二零二四年三月二十八日獲委任)。葉龍蜚先生於二零二四年三月二十八日辭任提名委員會成員。提名委員會主席為張素心先生。各成員在釐定董事會董事提名上經驗豐富，並具備適當之技能。本公司已為提名委員會提供充足資源以履行其職責。提名委員會或會尋求獨立專業意見以履行其職責，費用由本公司承擔。提名委員會的角色及功能包括檢討董事會的架構、人數及組成，並就任何為補足本公司的公司策略而擬對董事會作出的任何建議變動提出建議；並遵從董事會成員多元化政策，物色具備合適資格可擔任董事的人士，並挑選提名董事人選或就此向董事會提供意見；評估獨立非執行董事的獨立性；就董事委任或重新委任以及董事(尤其是主席及總裁)繼任計劃向董事會提出建議，並監察落實董事會成員多元化政策的情況及適當檢討有關政策，以確保政策有效。提名委員會已書面訂明提名委員會的具體職權範圍，清楚說明其職權和責任。提名委員會已在本公司網站及香港聯交所網站上公開其職權範圍。提名委員會每年最少須舉行一次會議。

二零二三年十一月九日，召開了一次提名委員會會議，討論了本公司的薪酬政策及本公司薪酬水平的競爭力等議題。

根據本公司的細則，任何獲委任為董事以填補董事會臨時空缺的人士應留任至本公司下次股東週年大會為止，屆時將符合資格於相關股東大會上膺選連任，而任何獲委任為現有董事會新增成員的董事則應留任至本公司下屆股東週年大會為止，屆時將符合資格於相關股東大會上膺選連任。各董事最少每三年輪席退任一次，屆時應按細則規定膺選連任。細則亦允許以普通決議案罷免董事。

企業管治報告

核數師的薪酬

截至二零二三年十二月三十一日止年度，就向本公司提供的核數服務及與核數無關的服務已付或應付本公司核數師安永會計師事務所的薪酬分別為75萬美元及1萬美元。與核數無關的服務主要包括稅務諮詢和風險管理諮詢服務。

審核委員會

審核委員會中，最少一名成員具備上市規則所要求的適當專業資格，或具備適當的會計或相關的財務管理專長。審核委員會並無成員於緊接各自委任日期前一年內擔任本公司現任外聘核數師的前任合夥人。所有成員皆具備適當的能力和經驗去審閱財務報表，以及解決本公司的重大監控及財務問題。董事會期望審核委員會成員能作出獨立判斷，並將企業管治功能的責任轉授予審核委員會，以遵守該守則的要求。

審核委員會現時成員包括一名非執行董事熊承艷女士(於二零二四年三月二十八日獲委任)及兩名獨立非執行董事張祖同先生及封松林先生(於二零二四年三月二十八日獲委任)。葉龍蜚先生於二零二四年三月二十八日辭任審核委員會成員。葉峻先生於二零二四年三月二十八日調任薪酬委員會成員後不再為審核委員會成員。審核委員會主席為張祖同先生。審核委員會的主要職責包括檢討本公司的財務報告系統、審計的性質及範疇，以及內部監控與風險管理系統是否有效。審核委員會同時負責就外聘核數師的委任、重新委任及罷免提供建議，以及檢討及監察外聘核數師是否獨立客觀。另外，審核委員會會就任何因外聘核數師及監管機構所引起的事宜進行討論，以確保適當的建議已予落實。審核委員會已在本公司網站及香港聯交所網站上公開其職權範圍。審核委員會每年最少須舉行兩次會議。

截至二零二三年十二月三十一日止年度，審核委員會已舉行六次會議，成員均出席會議。審核委員會於截至二零二三年十二月三十一日止年度進行的主要工作包括檢討及建議續聘外聘核數師、批准外聘核數師的聘用條款(包括薪酬)及審核計劃、審查未經審核季度業績公告、審查截至二零二三年六月三十日止六個月的未經審核中期報告及中期業績公告、審查截至二零二三年十二月三十一日止年度的經審核財務報表及末期業績公告、檢討本集團審計部門的工作及評估本集團風險管理及內部控制系統的有效性。審核委員會亦與管理層進行討論，以確保本公司會計及財務匯報職能方面之資源、員工資歷及經驗、培訓課程及預算之足夠性。

企業管治報告

董事會成員多元化

董事會採納董事會成員多元化政策(該「政策」)，以遵守上市規則第13.92條。

本公司視董事會層面日益多元化為維持其競爭優勢的關鍵元素。本公司在設定董事會成員組合時，將從多個方面考慮董事會成員多元化，包括但不限於天賦、技能、地區及行業經驗、背景、性別、年齡及董事會成員的其他素質，令董事會上各種天賦、技能、經驗及背景維持適當的範疇及平衡。向董事會建議選擇董事候選人時，提名委員會將按照客觀標準考慮候選人的功績，並充分顧及董事會成員在多元化方面的益處。提名委員會就達致董事會成員多元化的可計量目標，作出討論及達成一致，並向董事會作出建議，由董事會採用。在任何特定時間，董事會可在一個或多個方面改善其多元化，並相應檢討其進展。

董事會認為性別多元化屬董事會多元化的重要元素。在王靖女士於二零二三年九月一日呈辭後，本公司當時並無不同性別的董事，因此於截至二零二三年十二月三十一日止年度餘下月份未能滿足上市規則第13.92條所載列規定。董事會已竭盡所能物色一位合適的候選人擔任董事。於二零二四年三月二十八日委任熊承艷女士為非執行董事後，本公司符合上市規則第13.92條的規定。除性別多元化外，於截至二零二三年十二月三十一日止年度，薪酬委員會認為在相當程度上已達致董事會成員多元化的可計量目標。提名委員會專注董事會成員文化及教育背景、專業及技能專長以及本領，並審閱執行董事及獨立非執行董事之組成，以確保董事會內適當之獨立性。

本公司將繼續在適合併有利於本公司發展的董事會多元化範疇保持平衡性。

員工多元化

於二零二三年十二月三十一日，本集團員工(包括本公司高級管理層)的男女性別比例約為73%：27%。本公司以用人唯才及非歧視為原則進行招聘。董事會信納，本公司的員工已滿足性別多元化。

企業管治職能

董事會負責執行該守則內第A.2.1條所列明的職能。

董事會已檢討本公司的企業管治政策及常規、董事及高級管理人員的培訓及持續專業發展、本公司在遵守法律和監管規定方面的政策及常規、遵守標準守則、以及本公司遵守該守則的情況及在企業管治報告內的披露。

企業管治報告

投資者關係

報告期間細則變動

為於人民幣股份發行及上市後，滿足本公司企業管治架構之相關監管要求，股東於二零二二年六月二十七日舉行的股東特別大會上提呈並通過特別決議案以修訂細則。有關修訂詳情載於本公司日期為二零二二年六月七日通函附錄五。經修訂細則已於二零二三年八月七日（即人民幣股份在科創板上市之日）生效。經修訂細則全文刊載於香港聯交所網站（www.hkexnews.hk）、上海證券交易所網站（www.sse.com.cn）及本公司網站（www.huahonggrace.com）。

股東通訊政策

本公司已採納股東通訊政策，該政策需每年進行檢討，以確保其執行情況及有效性。該政策旨在確保股東能夠平等及時地獲取有關本公司的資料，以使股東能夠以知情方式行使其權利，同時積極參與本公司事務。

本公司股東通訊政策的概要載列如下。

本公司透過其向香港聯交所及上海證券交易所提交發佈的財務報告（包括季度、中期及年度報告）、通函、公告等披露資料向股東提供資料。

為進一步推動有效之溝通，本公司設有網站www.huahonggrace.com以刊登本公司業務發展及營運的最新資訊、董事名單及其角色與職能、組織章程文件、董事會及其轄下委員會的職權範圍、提名董事候選人的程序、企業管治常規、財務報告、通函、公告，以及其他資訊。

股東大會是董事會與股東之間的主要溝通渠道。本公司鼓勵股東出席及參與股東大會，以確保高問責水平，以及使其保持對本公司的目標及策略的了解。董事會主席、其他董事會成員及各董事會委員會主席（若主席未能出席，則由委員會其他成員出席）將在場為股東解答任何問題。股東會獲提供大會的充分通知，且載有詳細表決程序的通函將連同大會通告一起寄發予股東。

除上述外，本公司亦透過其微信公眾號發佈通訊。股東可訂閱該帳號以獲取本公司最新資訊。

為促進投資者對本公司業務的了解，本公司為投資者組織路演及現場參觀無塵室及展覽廳。本公司亦參加大量投資論壇並通過各種方式與證券分析師、基金管理公司及個人投資者進行多次交流。

為使本公司徵詢及了解股東及利益相關者的意見，股東及利益相關者可透過投資者關係聯繫人（郵箱：IR@hhgrace.com）向本公司提出問詢。

截至二零二三年十二月三十一日止年度，本公司已對其股東通訊政策的執行情況及有效性進行審閱，包括於股東大會採取的行動、對所接收問詢的處理以及現有的多種溝通渠道。本公司認為該項政策具有有效性且已妥善實施。

企業管治報告

公司秘書

公司秘書李瑞霞女士向董事會負責，以確保董事會程序獲得遵守，董事會活動亦獲有效率地進行。她亦負責確保董事會已全面評估與本公司有關的相應法律、法規及企業管治發展，協助董事的入職及專業發展。

公司秘書向董事會主席及總裁匯報，在本公司與其股東的關係中擔當重要角色，協助董事會向股東履行其責任，以遵守上市規則。

截至二零二三年十二月三十一日止年度期間，李瑞霞女士已出席相關專業講座以更新其技能及知識，並遵守上市規則第3.29條的規定。

股東召開股東特別大會的程序

一名或多名持有本公司繳足股本不少於十分之一的股東可請求董事，或根據香港法例第622章公司條例(「公司條例」)第566至568條提出請求的股東(「請求方」)(視情況而定)可提出召開股東特別大會的請求。請求書須列明召開大會的目的，由請求方簽署，並送至本公司的註冊辦事處。股東召開股東特別大會時須遵守公司條例第580至583條所列明的要求及程序。

於股東大會上提出要求及將股東查詢轉達董事會的程序

股東可於任何時間以書面形式向本公司提出其要求、計劃、查詢及想法，信件抬頭請註明董事會主席或公司秘書，其聯絡地址為：

中國上海張江高科技園區哈雷路288號，郵編：201203

電話：(86) 21 38829909

傳真：(86) 21 50809999

電子郵件：IR@hhgrace.com

企業管治報告

以投票方式表決

根據上市規則第13.39(4)條，股東於股東大會上的任何表決均須以投票方式進行。

風險管理和內部監控

風險管理及內部監控目標

風險管理目標

在合規層面上，本公司依據香港聯交所的《公司管治守則》執行，確保適時符合有關規定。

在營運層面上，本公司管理層深知公司未來發展過程中所面臨的風險。因此，本公司的風險管理目標是要識別、評估這些風險，並採取降低、轉移、規避或接受等風險應對策略管理這些風險。本公司持續開展風險監控體系建設，搭建風險管理險監平台，明確風險管理機制，完善風險地圖，實行年度風險評估，形成滿足該守則監管要求的，符合公司實際情況的簡潔、科學、務實、高效的風險管控模式。

內部控制體系目標

本公司內部控制體系充分吸收COSO(反虛假財務報告委員會的發起人組織委員會)的風險管理框架要求和香港會計師公會關於風險管理的指南，兼顧本公司實際情況和業務特點，將公司風險地圖的三級風險細化下沉到流程層面，形成風險導向的內部控制評價體系，目標是評價內部監控系統的有效性和適用性，為確保本公司經營活動的有效性、其財務報告的可靠性和法律法規的遵循性提供合理保證。

企業管治報告

風險管理及內部監控體系

為保障風險管理工作有效開展並形成長效機制，本公司已建立風險管理「三線模型」的監控體系。它包含下列多個不同層面的角色和責任：

第一線	業務部門
	<ul style="list-style-type: none"> • 建立與維護本部門風險管理的各項機制； • 於日常工作中持續收集風險原始信息； • 持續開展本部門風險監控與預警工作； • 協助落實公司風險管理工作，包括提供必要的資料與樣本，確定與本部門相關的重大風險，並確定重大風險應對措施；
第二線	業務監督管理部門
	<ul style="list-style-type: none"> • 提供補充專業性知識，發揮支持和監督作用，幫助持續實施、改善風險管理工作；對風險管理的準確性和有效性進行分析和報告；
第三線	內部審計條線
	<ul style="list-style-type: none"> • 對各業務部門和風險管理條線的風險管理工作開展情況進行獨立的監督檢查，評價公司風險管理機制是否有效落實； • 開展年度全面風險評估工作，基於風險評估結果，界定重大風險應對責任主體，組織並指導相關部門制定重大風險應對方案，並對方案的實施進行跟蹤； • 對於審計及風險評估過程中的發現點，督促相關部門或機構進行整改，並持續跟蹤整改情況； • 向公司審核委員會匯報各項審計及風險評估結果。

企業管治報告

風險管理及內部監控聲明

董事會負責本公司的風險管理及內部監控系統，以及確保檢討該系統的有效性。董事會已指派內部審計部門執行內部審計職能，並充分保證其權威性及獨立性。內部審計師已根據經批准的檢查範圍及按企業管治守則內守則條文D.2條款規定，每年通過各審計項目對本公司風險管理及內部監控系統的有效程度進行檢查，並無出現重大缺失。

根據內部審計部門的工作成果，本公司董事會認為，本公司的風險管理及內部監控系統充分、令人信任且有效地運作。但我們也必須承認，公司的風險管理和內部監控架構旨在管理、而非完全消除影響本公司達致業務目標能力的風險，僅可對重大錯誤的陳述或損失提供合理而非絕對的保證。

為根據證券及期貨條例識別、處理及傳播內幕消息，本集團已實施若干程序，包括管理層指定人員進行本公司證券交易須獲得事先批准、告知相關董事及僱員常規禁售期及證券交易限制、通過代號識別項目以及按既定目的及按須知基準傳播信息，以防範本集團內部可能出現的內幕消息處理失誤。

一般資料

董事負責編製本公司每個財政期間的財務報表，使這些財務報表能真實和公平地反映本公司的業務狀況，並符合法定要求及適用會計準則。在編製截至二零二三年十二月三十一日止年度的財務報表時，董事已挑選並貫徹地應用適當的會計政策、作出審慎、公平及合理的判斷及估計，並按持續經營基準編製財務報表。

核數師的財政申報責任聲明載於本年度報告中第271至278頁的獨立核數師報告內。

代表董事會
張素心先生
主席

董事會報告

董事會謹提呈本公司二零二三年年度報告和二零二三年一月一日至二零二三年十二月三十一日經審核的財務報表(「財務報表」)。

主要業務

截止二零二三年底，華虹半導體是一家兼具8英寸與12英寸的純晶圓代工企業，長期專注於開發與應用嵌入式／獨立式非易失性存儲器、功率器件、模擬及電源管理和邏輯及射頻等先進「特色IC+Power Discrete」工藝技術，為客戶提供多元化的特色工藝晶圓製造服務。華虹半導體主要子公司的業務說明請參考財務報表附註1(第287至288頁)。

業務回顧

營收分析

華虹半導體二零二三年度銷售收入為22.861億美元，較上一年度下降7.7%。根據International Business Strategies, Inc. (IBS)資料顯示，受到終端消費市場持續萎靡影響，全球半導體市場二零二三年下滑約10%，晶圓代工市場遭遇挑戰。儘管如此，基於對市場長期增長的判斷與信心，公司仍堅定不移的實施擴產策略，持續優化8英寸+12英寸產品組合。依託長期的技術積累與持續創新，公司在汽車、工業、新能源等領域均獲得較好發展。在先進「特色IC+Power Discrete」特色工藝戰略的多樣化支援下，產品品質與性能均受到市場的廣泛認可。公司將在二零二四年繼續為股東及市場創造價值。

	按服務劃分營業收入					
	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
半導體晶圓	2,181,591	95.4%	2,376,659	96.0%	(195,068)	(8.2%)
其他	104,522	4.6%	98,829	4.0%	5,693	5.8%
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 二零二三年，公司95.4%的營業收入來自半導體晶圓的銷售收入。

	按客戶類型劃分營業收入					
	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
系統公司和無廠晶片設計公司	2,109,482	92.3%	2,267,446	91.6%	(157,964)	(7.0%)
整合器件製造商(IDMs)	176,631	7.7%	208,042	8.4%	(31,411)	(15.1%)
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 公司來自系統公司和無廠晶片設計公司客戶類型的營業收入佔比92.3%。

董事會報告

按區域劃分營業收入

	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
中國	1,774,178	77.6%	1,811,269	73.2%	(37,091)	(2.0%)
北美區	204,882	9.0%	297,683	12.0%	(92,801)	(31.2%)
亞洲其他區域	149,087	6.5%	210,610	8.5%	(61,523)	(29.2%)
歐洲區	134,760	5.9%	114,728	4.6%	20,032	17.5%
日本區	23,206	1.0%	41,198	1.7%	(17,992)	(43.7%)
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 二零二三年歐洲區仍然保持了雙位數增長，營收同比增長17.5%。

按技術類型劃分營業收入

	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
嵌入式非易失性存儲器(eNVM)	703,148	30.8%	767,568	31.0%	(64,420)	(8.4%)
獨立式非易失性存儲器(sNVM)	116,715	5.1%	208,171	8.4%	(91,456)	(43.9%)
功率器件	902,346	39.4%	774,638	31.3%	127,708	16.5%
邏輯與射頻	202,483	8.9%	274,384	11.1%	(71,901)	(26.2%)
模擬(Analog)與電源管理(PM)	358,333	15.7%	448,648	18.1%	(90,315)	(20.1%)
其他	3,088	0.1%	2,079	0.1%	1,009	48.5%
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 二零二三年，功率器件保持雙位數增長，主要由於新能源汽車、工業領域的強勁需求。

董事會報告

按工藝節點劃分營業收入

	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
55納米及65納米	291,683	12.8%	355,161	14.3%	(63,478)	(17.9%)
90納米及95納米	386,191	16.9%	505,233	20.4%	(119,042)	(23.6%)
0.11微米及0.13微米	405,911	17.8%	426,387	17.2%	(20,476)	(4.8%)
0.15微米及0.18微米	147,338	6.4%	206,733	8.4%	(59,395)	(28.7%)
0.25微米	24,217	1.1%	15,027	0.6%	9,190	61.2%
≥0.35微米	1,303,773	45.0%	966,947	39.1%	63,826	6.6%
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 二零二三年≥0.35微米的收入由於功率器件業務而保持增長。

按終端市場劃分營業收入

	二零二三年 千美元	二零二三年 %	二零二二年 千美元	二零二二年 %	同比變化 千美元	同比變化 %
消費電子	1,294,251	56.6%	1,599,116	64.6%	(304,865)	(19.1%)
工業和汽車電子	673,395	29.5%	550,342	22.2%	123,053	22.4%
通信	256,856	11.2%	248,033	10.0%	8,823	3.6%
計算	61,611	2.7%	77,997	3.2%	(16,386)	(21.0%)
合計	2,286,113	100.0%	2,475,488	100.0%	(189,375)	(7.7%)

- 二零二三年工業和汽車電子市場仍然保持雙位數增長。

董事會報告

晶圓廠(千片晶圓每月)	產能及產能利用率		
	二零二三年	二零二二年	同比變化
華虹一廠	65	65	-
華虹二廠	60	60	-
華虹三廠	53	53	-
8英寸晶圓月產能合計	178	178	-
華虹七廠(12英寸晶圓產能)	95	65	30
產能利用率(折合8英寸晶圓)	94.3%	107.4%	(13.1%)

- 二零二三年度折合8英寸晶圓產能利用率94.3%。

千片晶圓	付運晶圓		
	二零二三年	二零二二年	同比變化
付運晶圓(折合8英寸晶圓)	4,103	4,087	0.4%

- 二零二三年公司付運晶圓同比上升0.4%。

技術研發

華虹半導體堅持致力於差異化技術的研發、創新和優化，主要聚焦於嵌入式非易失性存儲器、獨立式非易失性存儲器、功率器件(Discrete)、模擬(Analog)和電源管理、及邏輯(Logic)與射頻等差異化技術，持續為客戶提供滿足市場需求的特色工藝技術和服務。二零二三年，華虹半導體繼續擴大12英寸生產與技術平台建設，先進「特色IC+Power Discrete」產品組合因12英寸工藝平台的擴展而變得更加豐富。

非易失性存儲器相關的技術平台依然是華虹半導體二零二三年主要營收來源之一，其中嵌入式非易失性存儲器主要包括智能卡芯片和微控制器兩大類芯片應用。智能卡方面，具有自主知識產權的嵌入式閃存技術在相關智能卡產品領域繼續保持平穩出貨。在微控制器方面，透過8英寸+12英寸嵌入式閃存工藝平台優勢，成功推動客戶產品進入汽車電子、家電、工業控制等領域，並成為主流供應商。使用嵌入式閃存工藝生產的全系列車規級芯片產品已量產供貨，來自汽車電子的銷售收入同比保持兩位數增長；獨立式閃存平台，與客戶協力推進基於更小存儲單元自主開發NORD技術以及傳統ETOX技術的SPI NOR閃存以及EEPROM產品，得到各類終端應用認可，多款車規級SPI NOR閃存以及EEPROM產品已經在量產。

董事會報告

二零二三年，功率器件市場同樣面臨需求增速下降，價格競爭更加激烈。儘管如此，華虹半導體功率器件業務板塊營收仍然保持增長。依託持續不斷的創新與精細打磨使得客戶產品不斷迭代，並保持業界領先水準。隨著超精細溝槽柵的IGBT產品比重越來越高，新型超結MOSFET技術的有序開放，面向汽車、電動車、新能源及工業用途的客戶新品數量創下近年新高。同時公司功率產品線的產能規模保持不斷擴展，技術與產品質量始終保持國內領先地位。

基於BCD工藝的模擬與電源管理產品平台，與頭部模擬與電源管理公司協同推進手機市場各類電源管理芯片如快充、無線充等芯片，得到業內頭部終端品牌的廣泛認可，並積極培育部分客戶向汽車電子滲透。公司致力於打造多元化特色工藝生產平台，基於傳統BCD工藝基礎上開發BCD+組合工藝，在部分相關領域上，處於國內領先地位。此外，12英寸90nm與65nm BCD均已量產，在汽車電子以及新興領域持續發力，隨著下半年部分市場出現觸底反彈，四季度投片量達到較高水準。

12英寸產能建設方面，於二零二三年六月正式開始無錫二期12英寸生產線的建設，這不僅標誌著華虹半導體8英寸+12英寸、先進「特色IC+Power Discrete」雙引擎戰略的進一步深化，將特色工藝向更先進節點推進，也標誌著華虹集團與無錫市產業合作再上新台階，再譜新篇章。二期項目總投資67億美元，將建設一條覆蓋65/55-40nm，月產能8.3萬片的12英寸特色工藝生產線。

二零二三年仍然是市場低位運行的一年，消費市場下行壓力未減，新能源及電動車市場增速全面趨緩，儘管如此，華虹半導體仍然堅定相信市場的長期增長態勢，堅定不移實踐先進「特色IC+Power Discrete」工藝組合的戰略部署，不斷增進技術積累，二零二三年公司全年申請國內外專利672件，累計獲得國內外授權專利4,427件。隨著汽車、家電、新能源等領域的產業升級與轉型，資訊化、智慧化趨勢不斷滲透到日常生活當中，公司不斷增長的產能將有力支援產業對半導體芯片的增量需求。公司將創新、品質與長期的服務精神貫徹到生產運營的每個環節，致力於為股東、客戶帶來最大收益。

董事會報告

展望

展望二零二四年，全球經濟仍有諸多不穩定因素，儘管如此，世界銀行預測，二零二四年全球GDP增速將來到2.4%，相比2023年將有所好轉。消費及工業市場已有觸底跡象，行業增長勢能將持續積累。華虹半導體在過去兩年半導體市場下行行情中不斷努力保持業績穩定，維護股東權益，保證客戶產品品質。2024年也將繼續堅定不移，不斷優化8英寸產品結構，提高高價值產品比例；加快12英寸產能建設，推動無錫二期12英寸生產線建設項目按照既定目標時間點交付產能；持續實踐先進「特色IC+Power Discrete」工藝佈局，持續為客戶及市場提供豐富的產品選擇。終端市場方面，高質量發展汽車、家電、新能源等市場，積極應對市場升級帶來的需求增量，增強生態參與、保障生態供應需求。

董事會報告

管理層討論及分析

財務表現

	二零二三年 千美元	二零二二年 千美元	變動
銷售收入	2,286,113	2,475,488	(7.7%)
銷售成本	(1,799,017)	(1,631,832)	10.2%
毛利	487,096	843,656	(42.3%)
其他收入及收益	144,370	70,986	103.4%
投資物業的公平值收益	103	78	32.1%
銷售及分銷費用	(10,189)	(12,464)	(18.3%)
管理費用	(322,868)	(266,666)	21.1%
其他費用	(33,666)	(111,360)	(69.8%)
財務費用	(100,497)	(40,331)	149.2%
分佔聯營公司溢利	9,230	12,171	(24.2%)
稅前溢利	173,579	496,070	(65.0%)
所得稅開支	(47,154)	(89,499)	(47.3%)
年內溢利	126,425	406,571	(68.9%)
下列人士應佔：			
母公司擁有人	280,034	449,912	(37.8%)
非控股權益	(153,609)	(43,341)	254.4%

銷售收入

銷售收入達22.861億美元，較二零二二年降低7.7%，乃由於平均銷售價格下降所致。

銷售成本

銷售成本為17.99億美元，較二零二二年增長10.2%，主要由於存貨撥備、折舊及能源費增加，部分被人工費用減少所抵銷。

毛利

毛利為4.871億美元，較二零二二年減少42.3%，主要由於平均銷售價格下降及折舊費用增加，部分被人工費用減少所抵銷。

其他收入及收益

其他收入及收益為1.444億美元，較二零二二年增加103.4%，主要由於政府補貼和利息收入增加所致。

銷售及分銷費用

銷售及分銷費用為1,020萬美元，較二零二二年減少18.3%，主要由於人工費用減少所致。

管理費用

管理費用為3.229億美元，較二零二二年增加21.1%，主要由於研發活動的政府補助下降以及工程片開支增加所致。

其他費用

其他費用為3,370萬美元，較二零二二年減少69.8%，主要由於外匯匯兌損失減少所致。

董事會報告

財務費用

財務費用為1.005億美元，較二零二二年增加149.2%，主要由於銀行借款增加及利率上升所致。

分佔聯營公司溢利

分佔聯營公司溢利為920萬美元，較二零二二年減少24.2%，乃由於聯營公司實現溢利減少所致。

所得稅開支

所得稅開支為4,720萬美元，較二零二二年減少47.3%，主要由於應課稅溢利減少所致。

年內溢利

在上述因素的累計影響下，年內溢利由二零二二年的4.066億美元減至1.264億美元。淨利率為5.5%，而二零二二年為16.4%。

財務狀況

	二零二三年 十二月三十一日 千美元	二零二二年 十二月三十一日 千美元	變動
非流動資產			
物業、廠房及設備	3,519,292	3,367,716	4.5%
投資物業	166,643	169,363	(1.6%)
使用權資產	78,545	78,425	0.2%
於聯營公司的投資	139,099	130,721	6.4%
指定按公平值計入其他全面收益的權益工具	270,506	178,632	51.4%
其他非流動資產	199,780	54,794	264.6%
非流動資產總額	4,373,865	3,979,651	9.9%
流動資產			
存貨	449,749	578,060	(22.2%)
貿易應收款項及應收票據	278,669	291,856	(4.5%)
應收關聯方款項	11,219	13,006	(13.7%)
其他流動資產	212,649	182,996	16.2%
已凍結及定期存款	32,088	1,042	2,979.5%
現金及現金等價物	5,585,181	2,008,765	178.0%
流動資產總額	6,569,555	3,075,725	113.6%
流動負債			
貿易應付款項	235,410	236,999	(0.7%)
計息銀行借款	193,035	426,756	(54.8%)
應付關聯方款項	13,876	6,096	127.6%
政府補助	35,017	37,714	(7.2%)
其他流動負債	495,049	674,851	(26.6%)
流動負債總額	972,387	1,382,416	(29.7%)
流動資產淨額	5,597,168	1,693,309	230.5%
非流動負債			
計息銀行借款	1,906,526	1,481,580	28.7%
其他非流動負債	49,963	55,912	(10.6%)
非流動負債總額	1,956,489	1,537,492	27.3%
資產淨額	8,014,544	4,135,468	93.8%

董事會報告

就二零二二年十二月三十一日至二零二三年十二月三十一日同比變動超過10%的項目的闡釋

指定按公平值計入其他全面收益的權益工具

指定按公平值計入其他全面收益的權益工具由1.786億美元增至2.705億美元，主要由於權益工具的公平值增加所致。

其他非流動資產

其他非流動資產由5,480萬美元增加至1.998億美元，主要是由於長期預付款項增加。

存貨

存貨由5.781億美元減至4.497億美元，主要由於產成品及在製品減少所致。

應收關聯方款項

應收關聯方款項由1,300萬美元減至1,120萬美元，主要由於應收若干關聯方的款項減少所致。

其他流動資產

其他流動資產由1.830億美元增至2.126億美元，主要由於發展中物業增加所致。

已凍結及定期存款

已凍結及定期存款由100萬美元增至3,210萬美元，主要由於已抵押存款增加所致。

現金及現金等價物

現金及現金等價物由20.088億美元增至55.852億美元，主要由於下文現金流量分析所述之原因。

應付關聯方款項

應付關聯方款項由610萬美元增至1,390萬美元，主要由於向若干關聯方購買技術的應付款項所致。

其他流動負債

其他流動負債由6.749億美元減至4.950億美元，主要由於客戶預付款項減少所致。

計息銀行借款

計息銀行借款總額由19.083億美元增至20.996億美元，乃由於提取銀行借款增加所致。

董事會報告

現金流量

	二零二三年 千美元	二零二二年 千美元	變動
經營活動所得現金流量淨額	641,695	750,865	(14.5%)
投資活動所用現金流量淨額	(833,312)	(930,156)	(10.4%)
融資活動所得現金流量淨額	3,781,746	672,177	462.6%
現金及現金等價物增加淨額	3,590,129	492,886	628.4%
年初現金及現金等價物	2,008,765	1,610,140	24.8%
外匯匯率變動影響，淨額	(13,713)	(94,261)	(85.5%)
年末現金及現金等價物	5,585,181	2,008,765	178.0%

經營活動所得現金流量淨額

經營活動所得現金流量淨額為6.417億美元，較二零二二年減少14.5%，主要由於向客戶收取的款項減少，部分被材料、維護及薪金支出減少所抵銷。

投資活動所用現金流量淨額

投資活動所用現金流量淨額為8.333億美元，主要由於資本投資9.066億美元，被收到(i)利息收入6,160萬美元，及(ii)政府對設備的補助1,170萬美元所抵銷。

融資活動所得現金流量淨額

融資活動所得現金流量淨額為37.817億美元，包括(i)於科創板發行股份所得款項29.370億美元，(ii)非控股權益注資7.879億美元，(iii)銀行借款所得款項6.154億美元，(iv)購股權行使所得490萬美元，及(v)政府對財務費用的補助300萬美元，被(i)償還銀行借款4.221億美元，(ii)利息付款1.066億美元，(iii)抵押保證金存款增加3,120萬美元，(iv)支付租賃付款的本金部份460萬美元，及(v)支付上市費用200萬美元所抵銷。

現金及現金等價物增加淨額

在上述因素的累計影響下，現金及現金等價物由截至二零二二年十二月三十一日的20.088億美元增至截至二零二三年十二月三十一日的55.852億美元。

董事會報告

財務風險

利率風險

我們面臨市場利率變動的風險，主要與本集團浮動利率計息銀行借款有關。我們的政策為運用固定及浮動利率債務組合管理利率風險。

於二零二三年十二月三十一日，倘利率增加／減少100基點，而所有其他變量維持不變，年內稅前溢利將減少／增加1,750萬美元，乃主要由於浮動利率銀行借款的利息開支增加或減少所致。

外幣風險

我們面臨交易性貨幣風險，該等風險主要產生自我們於中國內地營運的主要子公司以美元而非以該子公司的功能貨幣人民幣進行的買賣。於年內，我們的銷售額中約22%乃以進行銷售的子公司的功能貨幣以外的貨幣計值，與此同時，銷售成本中53%乃以子公司的功能貨幣計值。

此外，我們面臨來自計息銀行借款的外幣風險，該借款由我們在中國內地經營的子公司持有。於二零二三年十二月三十一日，賬面值為16.530億美元的計息銀行借款以美元計值，而非以子公司的功能貨幣人民幣計值。

於二零二三年十二月三十一日，倘美元對人民幣升值或貶值5%，而所有其他變量維持不變，我們的年內稅前溢利將減少或增加約4,760萬美元。

信貸風險

我們僅與獲認可及信譽良好的第三方及關聯方交易。根據我們的政策，所有擬按信用條款交易的客戶均須通過信用核實程序。此外，由於持續對應收款項結餘進行監控，故我們的壞賬風險並不重大。

我們的金融資產中面臨最大信用風險的項目為：綜合財務狀況表內現金及現金等價物、貿易應收款項及應收票據、計入預付款項、其他應收款項及其他資產的金融資產、應收關聯方款項以及已凍結及定期存款的賬面值。我們並無其他存在重大信用風險的金融資產。

流動資金風險

我們的政策為定期監控現時及預期流動資金需要，以確保維持充裕的現金儲備及從主要金融機構獲得足夠的融資承擔額度，以應對短期及長期流動資金需要。

資本管理

我們資本管理的首要目標為維護持續經營能力及維持良好的資本比率，以支持我們的業務及實現股東價值最大化。

我們根據經濟狀況的變動管理及調整資本架構。為此，我們或會調整派付予股東的股息、向股東返還資本或發行新股。我們不受任何外部施加的資本要求規限。年內，管理資本的目標、政策或程序概無任何變動。

董事會報告

資產負債比率

資產負債比率的詳情載於財務報表附註38。

業績

本集團截至二零二三年十二月三十一日止年度的業績及於該日的事務狀況載於本報告第279至282頁的財務報表。

末期股息

董事建議派付截至二零二三年十二月三十一日止年度的末期股息每股0.165港元(相當於36,234,000美元)(「末期股息」)。末期股息將以港元計值和宣派，其中人民幣股份的股息將以人民幣支付，折算匯率按董事會宣派股息之日前一周的中國人民銀行公佈的港元對人民幣中間價平均值計算(1港元等於人民幣0.90736元)；港股股息將以港元支付。人民幣股份派息的具體情況參見本公司於上海證券交易所網站披露的末期股息分配方案的公告。

待股東於股東週年大會上批准後，末期股息將於二零二四年六月二十六日或前後派付予於二零二四年六月六日名列本公司股東名冊的股東。

股息政策

本公司決定自二零一五年度起，在本集團實現利潤、經營環境趨勢穩定且無重大投資行為的情況下，於本公司股東同意及合乎法例要求下，將對股東派發股息。計劃連續三年所派股息的平均額將不低於該三年平均可分配淨利潤的30%；其餘部份將用於本集團發展與經營。

有關股息政策仍會不時檢討，不保證會在任何指定期間派付任何特定金額的股息。如董事會建議派付股息，股息形式及金額將視乎董事評估不時影響本集團的因素而定。

可供分派儲備

於二零二三年十二月三十一日，本公司擁有314,127,000美元的可供分派儲備可供分派予股東。

董事會報告

銀行貸款

本集團於二零二三年十二月三十一日的銀行貸款的詳情載於財務報表附註26。

於二零二三年十二月三十一日，本集團若干銀行貸款由本集團資產作抵押。有關進一步詳情，請參閱財務報表附註26。

財務摘要

本集團於過往五個財政年度的已公佈業績及資產以及負債摘要載於第392頁。本摘要並不構成經審核財務報表之一部份。

物業、廠房及設備

本集團旗下物業、廠房及設備和投資物業於截至二零二三年十二月三十一日止年度的添置及其他變動詳情載於財務報表附註13及14。

此外，投資物業詳情載列如下：

位置	用途類別	租期	本集團權益	建築樓面面積 (平方米)
中國上海 浦東新區 張江高科技園區 郭守敬路818號 9幢樓宇的一部份	工業用途	按於二零五一年三月八日屆滿的土地使用權持有	100%	91,563.11

報告期後重大事項

於二零二四年三月二十八日，本公司建議派發截至二零二三年十二月三十一日止年度的末期股息每股普通股16.5港仙，合共約36,234,000美元。本年度建議末期股息須待本公司股東於應屆股東週年大會上批准後，方可作實。

股本

本公司截至二零二三年十二月三十一日止年度的股本變動詳情載於財務報表附註30。由二零一四年三月三日起按新公司條例(第622章)附表11第37條，這些變動包括自動將股份溢價賬的進賬額列入股本中，為過渡至無面值股份制度的一部份。

董事會報告

購股權計劃

購股權計劃(「購股權計劃」)已經於二零一五年九月一日舉行的本公司股東特別大會批准。購股權計劃的概要如下:

購股權計劃的目的:	購股權計劃的目的是吸引、挽留參與者(定義見下文)及對其提供獎勵,以讓其有機會獲得本公司股份及將其利益與本公司的經營業績及股價表現密切相連,旨在提升本公司價值。
參與者:	購股權計劃參與者(「參與者」)包括(1)本集團任何成員公司的現時執行及非執行董事;或(2)對本集團任何成員公司的經營業績及可持續發展有直接影響的高級管理層以及主要管理及技術人員之人士(視乎購股權計劃列明的任何限制及約束而定),惟不包括任何獨立非執行董事。
各參與者的最高配額:	倘在任何12個月期間內所配發及因授出及將予授出的全部購股權(「購股權」,包括已行權、已註銷及尚未行使的購股權)獲行使而向參與者配發的股份總數超過本公司當時已發行股本的1%,則不得向該參與者進一步授出購股權。經股東於股東大會上批准,可在任何12個月期間內向任何參與者授予超出1%個人限額的購股權。在授出日期(定義見購股權計劃),任何持有本公司5%以上附有表決權股份的人員,未經股東於股東大會上批准,不得被授予購股權。
購股權可予行使前須持有的最短期間(如有):	2年(除非購股權授予通知另有規定)。
申請或接納購股權所應付的款項及須予付款或催繳或就此須支付貸款的期間:	1.00港元乃由各被授與人自建議授出日期起計28日內支付,作為授出購股權的代價。
於二零二三年初及末可供授出的購股權計劃數目及購股權計劃的餘下期限:	購股權計劃有效期間為採納日期起計七(7)年。因此其已於二零二二年九月一日屆滿。自該日起,購股權計劃項下將不再授出購股權且概無授出購股權。
於本報告日期,購股權計劃項下可供發行的股份總數為21,144,481股,佔已發行股份總數的約1.23%(佔上市公司已發行所有股份含A股)。	

董事會報告

根據購股權計劃授出的購股權

於二零一五年九月四日，本公司根據購股權計劃向若干個人授出30,250,000份購股權（「二零一五年購股權」），以認購合共30,250,000股本公司普通股。二零一五年購股權的詳情如下：

授出日期：	二零一五年九月四日
所授出購股權的行使價：	6.912港元
所授出購股權的數目：	30,250,000份（佔本公司截至二零二三年十二月三十一日止已發行股份的1.76%）
購股權的有效期間：	自二零一五年九月四日起至二零二二年九月三日（七(7)年）止（包括首尾兩日）
購股權的歸屬期間：	購股權的三分之一應分別於二零一七年九月四日、二零一八年九月四日及二零一九年九月四日歸屬

每股行使價6.912港元較以下較高者溢價0%：(i)於授出日期香港聯交所每日報價表所報每股收市價6.87港元；(ii)於緊接授出日期前五個交易日香港聯交所每日報價表所報平均每股收市價6.912港元；及(iii)於緊接授出日期前一天香港聯交所每日報價表所報每股收市價6.800港元。

於二零一八年十二月二十四日，本公司根據購股權計劃向若干個人授出34,500,000份購股權（「二零一八年購股權」），以認購合共34,500,000股本公司普通股。二零一八年購股權的詳情如下：

授出日期：	二零一八年十二月二十四日
所授出購股權的行使價：	15.056港元
所授出購股權的數目：	34,500,000份（佔本公司截至二零二三年十二月三十一日止已發行股份的2.01%）
購股權的有效期間：	自二零一八年十二月二十四日起至二零二五年十二月二十三日（七(7)年）止（包括首尾兩日）
購股權的歸屬期間：	就本公司副總裁（及董事）或以上級別的僱員而言，二零一八年購股權的四分之一應分別於二零二零年十二月二十四日、二零二一年十二月二十四日、二零二二年十二月二十四日及二零二三年十二月二十四日歸屬；就本公司其他僱員而言，二零一八年購股權的三分之一應分別於二零二零年十二月二十四日、二零二一年十二月二十四日及二零二二年十二月二十四日歸屬

董事會報告

每股行使價 15.056 港元為以下各項的較高者：(i) 於授出日期香港聯交所每日報價表所報每股收市價 14.440 港元；(ii) 於緊接授出日期前五個營業日香港聯交所每日報價表所報平均每股收市價 15.056 港元；(iii) 於緊接授出日期前一天香港聯交所每日報價表所報每股收市價 14.380 港元；及(iv) 股份的面值。

於二零一九年三月二十九日，本公司根據購股權計劃向一人授出 500,000 份購股權（「二零一九年三月購股權」），以認購合共 500,000 股本公司普通股。二零一九年三月購股權的詳情如下：

授出日期：	二零一九年三月二十九日
所授出購股權的行使價：	18.400 港元
所授出購股權的數目：	500,000 份（佔本公司截至二零二三年十二月三十一日止已發行股份的 0.03%）
購股權的有效期間：	自二零一九年三月二十九日至二零二六年三月二十八日（七(7)年）止（包括首尾兩日）
購股權的歸屬期間：	購股權的四分之一將分別於二零二一年十二月二十三日、二零二二年八月十二日、二零二三年八月十一日及二零二四年三月二十九日歸屬

每股行使價 18.400 港元為以下各項的較高者：(i) 於授出日期香港聯交所每日報價表所報每股收市價 18.400 港元；(ii) 於緊接授出日期前五個營業日香港聯交所每日報價表所報平均每股收市價 18.176 港元；(iii) 於緊接授出日期前一天香港聯交所每日報價表所報每股收市價 18.220 港元；及(iv) 股份的面值。

於二零一九年十二月二十三日，本公司根據購股權計劃向若干個人授出 2,482,000 份購股權（「二零一九年十二月購股權」），以認購合共 2,482,000 股本公司普通股。二零一九年十二月購股權的詳情如下：

授出日期：	二零一九年十二月二十三日
所授出購股權的行使價：	17.952 港元
所授出購股權的數目：	2,482,000 份（佔本公司截至二零二三年十二月三十一日止已發行股份的 0.14%）
購股權的有效期間：	自二零一九年十二月二十三日至二零二六年十二月二十二日（七(7)年）止（包括首尾兩日）
購股權的歸屬期間：	就華虹無錫副總裁或以上級別的僱員而言，購股權的四分之一將分別於二零二一年十二月二十三日、二零二二年十二月二十三日、二零二三年十二月二十三日及二零二四年十二月二十三日歸屬；就華虹無錫其他僱員而言，購股權的三分之一將分別於二零二一年十二月二十三日、二零二二年十二月二十三日及二零二三年十二月二十三日歸屬

董事會報告

每股行使價17.952港元為以下各項的較高者：(i)於授出日期香港聯交所每日報價表所報每股收市價17.260港元；(ii)於緊接授出日期前五個營業日香港聯交所每日報價表所報平均每股收市價17.952港元；(iii)於緊接授出日期前一天香港聯交所每日報價表所報每股收市價17.200港元；及(iv)股份的面值。

於二零一九年三月購股權中，500,000份購股權已授予本公司董事，惟須待彼等接納。

購股權於截至二零二三年十二月三十一日止年度的變動詳情如下：

購股權數目	參與者姓名或類別						總數
	董事			其他僱員			
	唐均君先生	已離任董事					
於二零一五年九月四日授出	-	988,000	-	29,262,000	-	-	30,250,000
於二零一八年十二月二十四日授出	-	-	680,000	-	33,820,000	-	34,500,000
於二零一九年三月二十九日授出	500,000	-	-	-	-	-	500,000
於二零一九年十二月二十三日授出	-	-	-	-	-	2,482,000	2,482,000
於二零一五年註銷/失效	-	-	-	-130,000	-	-	-130,000
於二零一六年註銷/失效	-	-	-	-1,458,000	-	-	-1,458,000
於二零一七年註銷/失效	-	-	-	-1,353,399	-	-	-1,353,399
於二零一八年註銷/失效	-	-	-	-754,595	-	-	-754,595
於二零一九年註銷/失效	-	-	-600,000	-58,000	-1,035,000	-36,000	-1,729,000
於二零二零年註銷/失效	-	-119,000	-80,000	-	-993,904	-84,000	-1,276,904
於二零二一年註銷/失效	-62,500	-	-	-	-5,751,868	-592,993	-6,407,361
於二零二二年註銷/失效	-	-	-	-	-543,728	-73,983	-617,711
期內行使	-	-	-	-	1,913,454	88,500	2,001,954
期內註銷	-	-	-	-	-	-6,900	-6,900
期內失效	-	-	-	-	-8,168	-	-8,168
於二零二三年一月一日 尚未行使	437,500	-	-	-	21,389,723	1,611,648	23,438,871
於二零二三年十二月三十一日 尚未行使	437,500	-	-	-	19,468,101	1,516,248	21,421,849
購股權之歸屬期	二零一九年 三月二十九日 至二零二六年 三月二十八日	二零一五年 九月四日 至二零二二年 九月三日	二零一八年 十二月二十四日 至二零二五年 十二月二十三日	二零一五年 九月四日 至二零二二年 九月三日	二零一八年 十二月二十四日 至二零二五年 十二月二十三日	二零一九年 十二月二十三日 至二零二六年 十二月二十二日	
購股權之行使期	二零二一年 三月二十九日 至二零二六年 三月二十八日	二零一七年 九月四日 至二零二二年 九月三日	二零二零年 十二月二十四日 至二零二五年 十二月二十三日	二零一七年 九月四日 至二零二二 年九月三日	二零二零年 十二月二十四日 至二零二五年 十二月二十三日	二零二一年 十二月二十三日 至二零二六年 十二月二十二日	
購股權之行使價	18.400港元	6.912港元	15.056港元	6.912港元	15.056港元	17.952港元	
股份於緊接購股權獲行使日期 之前的加權平均收市價					27.58港元	31.15港元	

除上文披露者外，本公司於截至二零二三年十二月三十一日止年度並未採納任何其他購股權計劃。

董事會報告

儲備

本集團截至二零二三年十二月三十一日止年度的儲備變動詳情載於本報告第283至284頁之綜合權益變動表。

證券發行與上市

股票及其衍生證券的種類	發行價格	發行數量	上市日期	獲准上市交易數量
普通股	人民幣52.00元	407,750,000股	2023年8月7日	103,974,252股(無限售條件的流通股); 303,775,748股(有限售條件的流通股)

為了提高公司的綜合競爭力，增強公司的持續發展能力，於二零二二年六月二十七日，本公司召開股東特別大會，審議通過向上交所申請首次公開發行人民幣普通股股票(「人民幣股份」)不超過43,373萬股，並於上海證券交易所科創板上市的議案。董事會認為，公司本次發行上市符合國家有關產業政策和公司發展戰略，有助於進一步擴大產能規模，增強研發實力，豐富工藝平台，以更好地滿足市場需求、提升公司在晶圓代工行業的市場地位和核心競爭力。

於二零二三年八月七日，本公司在上海證券交易所科創板掛牌上市，證券簡稱「華虹公司」，證券代碼「688347」。

通過在上海證券交易所科創板進行人民幣股份發行，本公司407,750,000股普通股已被認購，認購人包括符合資格的網下投資者及已於上海證券交易所開立賬戶並符合條件的自然人、法人、其他機構投資者(中國法律、法規及監管文件禁止購買者除外)或符合中國證券監督管理委員會、上海證券交易所相關資格規定的其他目標認購人。

董事會報告

本次發行募集資金總額為人民幣2,120,300.00萬元，扣除發行費用(包括承銷、保薦費用和其他發行費用)後，募集資金淨額為2,092,067.70萬元，每股普通股的發行價為人民幣52.00元(於本公司公告人民幣股份發行條款當天(即二零二三年八月四日)，本公司股份於香港聯交所的收市價為港幣26.35元)。募集資金到賬後，已全部存放於經公司董事會批准開設的募集資金專項賬戶內，募集所得款項是按照先前披露的所得款項計劃用途來使用的，詳情如下：

單位：人民幣元

先前披露的所得款項計劃用途	承諾投資金額	報告期末未動用 所得款項累計	未動用所得款項 預計使用時間
華虹製造(無錫)項目	12,500,000,000.00	11,721,659,938.34	2025年底前
8英寸廠優化升級項目	2,000,000,000.00	1,965,732,745.52	2025年底前
特色工藝技術創新研發項目	2,500,000,000.00	2,368,704,324.02	2026年底前
補充流動資金	1,000,000,000.00	-	不適用

於報告期間成立合營企業

本公司、華虹宏力、國家集成電路產業基金II及無錫錫虹國芯(統稱為「合營企業股東」)於二零二三年一月十八日訂立合營協議(「合營協議」)，據此訂約方有條件同意透過華虹製造成立合營企業(即無錫二期項目(華虹九廠))並以現金方式分別向華虹製造投資880.38百萬美元、1,169.82百萬美元、1,165.8百萬美元及804百萬美元。根據合營協議，華虹製造將從事集成電路及採用65/55nm至40nm工藝的12英寸(300mm)晶圓的製造及銷售。同日，合營企業股東與華虹製造訂立合營投資協議(「合營投資協議」)以將華虹製造轉為合營企業並將華虹製造的註冊資本由人民幣6.68百萬元增至40.2億美元。合營協議、合營投資協議、土地轉讓協議(定義見下文「關連交易」一節)以及其項下擬進行交易根據上市規則第十四章構成本公司的主要交易並已於二零二三年三月十七日舉行的股東特別大會獲股東批准。

進一步詳情，務請參閱本公司日期為二零二三年一月十八日及二零二三年三月十七日的公告及本公司日期為二零二三年二月二十四日的通函。

董事會報告

持續關連交易

本集團已於二零一四年十月三日發佈的招股章程中披露有關與(其中包括)華力微、華虹置業及華錦物業管理之間的持續關連交易。具體交易詳情概要載於下表。本公司已申請並獲香港聯交所豁免(其中包括)就有關交易嚴格遵守公告及獨立股東批准之規定(視情況而定)。本集團持續關連交易以及二零二三年期間執行的其他持續關聯交易詳情載列如下:

交易	交易日期	交易雙方	關連關係	交易	二零二三年 實際交易金額	二零二三年 建議年度上限
(1)	二零二三年一月一日	華虹集團(作為買方) 本公司(作為賣方)	華虹集團為本公司的主要股東。 虹日及華虹摯芯分別由華虹集團擁有51%及93.02%。	本公司根據華虹集團框架協議向華虹集團、其子公司及聯營公司(包括虹日及華虹摯芯)銷售半導體產品。	20,578,000美元	21,100,000美元
(2)	二零二三年一月一日	華虹集團(作為賣方) 本公司(作為買方)	華虹集團為本公司的主要股東。 虹日及華虹摯芯分別由華虹集團擁有51%及93.02%。	本公司根據華虹集團框架協議自華虹集團、其子公司及聯營公司(包括虹日及華虹摯芯)購買晶圓及化學品。	19,234,000美元	31,500,000美元
(3)	二零二三年一月一日	上海聯和(作為買方) 本公司(作為賣方)	上海聯和為本公司的主要股東。	本公司根據上海聯和銷售框架協議向上海聯和、其子公司及聯營公司(包括新微及白盒子)銷售半導體產品。	357,000美元	2,000,000美元

董事會報告

交易	交易日期	交易雙方	關連關係	交易	二零二三年 實際交易金額	二零二三年 建議年度上限
(4)	二零二一年一月一日	華虹宏力(作為服務提供方) 華虹無錫(作為服務接收方)	華虹無錫為非全資子公司,由本公司主要股東國家集成電路產業基金持有約20.58%。因此,華虹無錫為本公司的關連子公司。	華虹宏力(作為服務提供方)與華虹無錫(作為服務接收方)訂立的服務協議,內容有關華虹宏力向華虹無錫提供公司服務。	人民幣145,000,000元 (約20,644,000美元)	人民幣145,000,000元 (約20,644,000美元)
(5)	二零二三年一月一日	華虹宏力(作為服務接收方) 華虹無錫(作為服務提供方)	華虹無錫為非全資子公司,由本公司主要股東國家集成電路產業基金持有約20.58%。因此,華虹無錫為本公司的關連子公司。	華虹宏力(作為服務接收方)與華虹無錫(作為服務提供方)訂立的服務協議,內容有關提供化學品配售服務。	47,000美元	2,400,000美元
(6)	二零二零年二月二十五日(連同日期為二零一一年六月十日及二零一四年七月二十五日的補充協議)	華力微(作為承租人) 本公司(作為出租人)	華力微由本公司主要股東華虹集團擁有53.85%。	華力微(作為承租人)與本公司(作為出租人)訂立的租賃協議,內容有關本公司將位於中國上海浦東新區張江高科技園區13街坊2丘晶圓廠的物業出租予華力微,供其設置300mm晶圓生產線。總出租建築面積為96,048.2平方米。	人民幣97,189,000元(約13,786,000美元)	人民幣99,000,000元 (約14,095,000美元)
(7)	二零二三年一月一日	華力微(作為承租人) 華虹宏力(作為出租人)	華力微由本公司主要股東華虹集團擁有53.85%。	華力微(作為承租人)與華虹宏力(作為出租人)訂立的租賃協議,內容有關華虹宏力將位於其廠房內的若干清潔室出租予華力微。總出租建築面積為192平方米。	人民幣1,402,000元(約199,000美元)	人民幣4,200,000元 (約598,000美元)

董事會報告

交易	交易日期	交易雙方	關連關係	交易	二零二三年 實際交易金額	二零二三年 建議年度上限
(8)	二零一三年一月十日 (連同日期為 二零一四年六月十日 的補充協議)	華虹置業(作為出租人) 本公司(作為承租人)	華虹置業為華虹科技發展的全資子公司,華虹科技發展為由本公司主要股東華虹集團持有50%並與其綜合入賬及由本公司全資子公司華虹宏力持有50%的公司。	華虹置業(作為出租人)與本公司(作為承租人)訂立的租賃協議,內容有關本公司向華虹置業租賃位於中國上海浦東新區錦綉東路2777弄華虹創新園的宿舍物業(「宿舍物業」)以用作本公司僱員的員工宿舍。租賃總建築面積為17,412.87平方米。	人民幣11,504,000元 (約1,631,000美元) ⁽¹⁾	人民幣12,700,000元 (約1,808,000美元)
(9)	二零二三年一月一日	華錦物業管理(作為物業 管理公司) 本公司(作為承租人)	華錦物業管理為華虹科技發展的全資子公司,華虹科技發展為由本公司主要股東華虹集團持有50%並與其綜合入賬及由本公司全資子公司華虹宏力持有50%的公司。	華錦物業管理(作為物業管理公司)與本公司(作為承租人)訂立的物業管理協議,內容有關本集團委聘華錦物業管理就宿舍物業提供物業管理服務。	人民幣3,993,000元 (約567,000美元)	人民幣5,700,000元 (約812,000美元)
(10)	二零二三年一月一日	華虹置業(作為出租人) 華虹宏力(作為承租人)	華虹置業為華虹科技發展的全資子公司,華虹科技發展為由本公司主要股東華虹集團持有50%並與其綜合入賬及由本公司全資子公司華虹宏力持有50%的公司。	華虹置業(作為出租人)與華虹宏力(作為承租人)訂立的租賃協議,內容有關本公司向華虹置業租賃位於中國上海浦東新區錦綉東路2777弄華虹創新園的宿舍物業(「新增宿舍物業」)以用作本公司僱員的員工宿舍。租賃總建築面積為9,977.17平方米。	人民幣6,285,000元 (約891,000美元) ⁽²⁾	人民幣7,300,000元 (約1,039,000美元)

董事會報告

附註：

- (1) 本集團在採納香港財務報告準則第16號之前就華虹置業的若干宿舍物業訂立一項為期二十年的租約。因此，本集團毋須重新遵守須予公佈或關連交易規則。本集團根據該項租約應付的租金為每年1,631,000美元。於二零二三年十二月三十一日，該等使用權資產及租賃負債的結餘分別為10,932,000美元及13,498,000美元。
- (2) 本集團就華虹置業的宿舍物業訂立另一項租約。本集團根據該項租約應付的租金為每年891,000美元。於二零二三年十二月三十一日，該等使用權資產及租賃負債的結餘分別為7,151,000美元及7,292,000美元。

如上所述持續關連交易的價格及條款乃根據本公司相關公告所載的定價政策及指引釐定。董事會(包括獨立非執行董事)已審閱以上持續關連交易，並確認所訂立之該等交易實則上於二零二三年持續進行：

- (i) 於本公司日常業務過程中進行；
- (ii) 按照一般商務條款進行，或如可供比較的交易不足以判斷該等交易的條款是否為一般商務條款，對本公司而言，該等交易的條款不遜於獨立第三方可取得或提供(視屬何情況而定)的條款；及
- (iii) 根據有關的協議條款進行，而交易條款公平合理，並且符合本公司股東的整體利益。

本公司核數師已致函董事會，認為就上文所述於二零二三年訂立之持續關連交易：

- (i) 核數師並不知悉任何事項使核數師相信，已披露的持續關連交易尚未得到本公司董事會的批准；
- (ii) 就涉及本集團提供商品或服務的交易而言，核數師並不知悉任何事項使核數師相信，這些交易未能在所有重大方面符合本公司的定價政策；
- (iii) 核數師並不知悉任何事項使核數師相信，這些交易的訂立未能在所有重大方面符合關於這些交易的相關協議的規定；及
- (iv) 就各持續關連交易之總額而言，核數師並不知悉任何事項使核數師相信，對於各項已披露的持續關連交易，其交易金額已超過相關公告所披露的相關年度上限。

董事會報告

關連交易

技術開發協議

於二零二三年十二月一日，華虹宏力與華力微訂立技術開發協議（「技術開發協議」），據此，華力微已同意向華虹宏力提供使用若干生產及工藝技術的非獨家許可使用權連同配套性技術諮詢服務，以支持華虹製造的12英寸(300mm)晶圓(採用40nm工藝生產)生產線，代價介乎於人民幣110百萬元及人民幣180百萬元(含稅)。

於技術開發協議日期，華力微由本公司主要股東華虹集團擁有53.85%權益。因此，華力微為本公司的關連人士，及訂立技術開發協議構成上市規則第14A章的關連交易。

進一步詳情，務請參閱本公司日期為二零二三年十二月一日的公告。

國家集成電路產業基金II認購協議

本公司、國家集成電路產業基金II、國泰君安證券股份有限公司及海通證券股份有限公司於二零二三年六月二十八日訂立股份認購協議（「國家集成電路產業基金II認購協議」），據此，國家集成電路產業基金II將作為戰略投資者參與人民幣股份發行，認購人民幣股份發行項下認購總額不超過人民幣3,000,000,000元的人民幣股份(視乎配發情況而定)。

於國家集成電路產業基金II認購協議日期，國家集成電路產業基金II持有本公司非全資子公司華虹製造的29%股權。因此，國家集成電路產業基金II為華虹製造的主要股東及根據上市規則第十四A章，為本公司子公司層面的關連人士。因此，根據上市規則第十四A章，國家集成電路產業基金II認購協議項下擬進行的交易構成本公司之關連交易。

國家集成電路產業基金II及其項下擬進行的交易已於二零二三年七月十四日舉行股東特別大會上獲股東批准。根據國家集成電路產業基金II認購協議向國家集成電路產業基金II配發的人民幣股份最終數目釐定為48,334,249股人民幣股份，獲配金額為人民幣2,513,380,948元。

進一步詳情，務請參閱本公司日期為二零二三年六月二十八日、二零二三年七月十四日及二零二三年七月二十四日的公告及本公司日期為二零二三年六月二十九日通函。

土地轉讓協議

就合營協議及合營投資協議而言，華虹製造與華虹無錫於二零二三年一月十八日訂立土地轉讓協議（「土地轉讓協議」），據此，華虹無錫有條件同意轉讓，而華虹製造有條件同意以總代價人民幣170,100,450元購買位於江蘇無錫的多幅土地，以開發晶圓廠，從而容納華虹製造製造集成電路及12英寸(300mm)晶圓的生產線。

於土地轉讓協議日期，華虹無錫為本公司的非全資子公司，由本公司主要股東國家集成電路產業基金持有約20.58%權益。因此，華虹無錫為本公司的關連子公司，而訂立土地轉讓協議根據上市規則第十四A章構成本公司的關連交易。

董事會報告

土地轉讓協議及其項下擬進行的交易已於二零二三年三月十七日舉行的股東特別大會上獲股東批准。

進一步詳情，務請參閱本公司日期為二零二三年一月十八日及二零二三年三月十七日的公告及本公司日期為二零二三年二月二十四日的通函。

關聯方交易

於截至二零二三年十二月三十一日止年度，本集團根據適用會計準則與被視為「關聯方」的人士進行若干交易。本集團於截至二零二三年十二月三十一日止年度訂立的關聯方交易的詳情於財務報表附註35披露。本公司已遵守上市規則第十四A章所載之披露規定。除本年報「持續關連交易及關連交易」一節所披露者外，於附註35披露的其他關聯方交易並不被視為關連交易，或根據上市規則獲豁免申報、公佈及獲股東批准之規定。

股權投資之表現

下表載列截至二零二三年十二月三十一日止年度有關股權投資之表現詳情。

	華力微 (千美元)	矽睿科技 (千美元)	上海艾為 (千美元)
初始投資成本	229,133	1,704	2,120
於年初之賬面值	174,170	2,020	2,442
公平值變動	94,313	969	28
匯兌調整	(3,355)	(40)	(41)
於年末之賬面值	265,128	2,949	2,429
已收股息	-	-	-
出售之收益	-	-	1,943
認購出資額／持有股數	人民幣 1,400,000,000 元	10,377,050	178,000
所持股權百分比	5.3900%	0.6220%	0.1072%
與本公司資產總值比較之規模	3.8%	0.0%	0.0%

於截至二零二三年十二月三十一日止年度，本集團並無出售任何於華力微、矽睿科技或上海艾為的股權。本公司於華力微、矽睿科技及上海艾為股權投資之公平值變動分別為94,313,000美元、969,000美元及28,000美元。

華力微起步於二零一零年。作為行業內領先的集成電路晶圓製造企業，華力微擁有先進的工藝制程和完備的解決方案，專注於為設計公司、IDM公司及其他系統公司提供65/55納米至28/22納米不同技術節點的一站式晶圓製造技術服務。華力微在中國有兩座12英寸全自動晶圓工廠。

董事會報告

於二零二三年財政年度，本公司於華力微的股權投資賬面值增加90,958,000美元，包括公平值增加94,313,000美元及外幣報表虧損約3,355,000美元。因此，董事會認為，華力微於二零二三年財政年度之表現符合預期。

矽睿科技成立於二零一二年九月，具有全面的知識產權組合，擁有逾83項授權專利。矽睿科技為一家領先的傳感器平台公司，致力於創新型MEMS傳感器及解決方案的開發及營銷，以簡化先進感知、測量及於消費者、汽車的控制及工業應用。

於二零二三年財政年度，本公司於矽睿科技的股權投資賬面值增加930,000美元，包括公平值增加969,000美元及外幣報表虧損約40,000美元。由於矽睿科技業務仍處於早期發展階段，董事會認為矽睿科技於二零二三年的業績表現及戰略規劃符合預期。

上海艾為創立於二零零八年六月，為一家專注於為手機、人工智能、物聯網、汽車電子、可穿戴和消費類電子提供高品質及高性能的數模混合、模擬、射頻IC設計的高科技公司。上海艾為是上海證券交易所科創板上市公司。

於二零二三年財政年度，本公司於上海艾為的股權投資公平值減少13,000美元，包括公平值增加28,000美元且外幣報表虧損約41,000美元。董事會認為上海艾為於二零二三年財政年度的業績表現符合預期。

本公司確認，其已遵守本公司截至二零二三年十二月三十一日止年度的年報所載的投資及其他金融資產之會計政策(自二零一八年一月一日起適用的香港財務報告準則第9號項下的政策)。

本公司預期上述投資的未來前景將與去年基本一致，且投資策略或資金來源預計於來年不會發生重大變動。

股東週年大會

股東週年大會將於二零二四年五月九日(星期四)舉行。

暫停辦理股份過戶登記手續

為釐定股東出席股東週年大會並於會上投票的資格

交回股份過戶文件以作登記的最後時限

二零二四年五月三日下午四時三十分

暫停辦理股份過戶登記手續

二零二四年五月六日至二零二四年五月九日(包括首尾兩日)

記錄日期

二零二四年五月九日

為確保符合資格出席股東週年大會並於會上投票，尚未登記的股份持有人要確保將全部股份過戶文件連同有關股票於上述最後時限前送達本公司的股份過戶登記分處卓佳證券登記有限公司辦理股份過戶登記手續，地址為香港夏慤道16號遠東金融中心17樓。

釐定股東獲派末期股息資格

交回股份過戶文件以作登記的最後時限

二零二四年六月四日下午四時三十分

暫停辦理股份過戶登記手續

二零二四年六月五日至六月六日(包括首尾兩日)

記錄日期

二零二四年六月六日

派付日期

二零二四年六月二十六日

董事會報告

為釐定股東享有建議末期股息之權利，本公司將於二零二四年六月五日至六月六日止期間(首尾兩天包括在內)暫停辦理股份過戶登記手續。為符合收取建議末期股息的資格，尚未登記的股份持有人要確保所有股份過戶表格連同相關股票於二零二四年六月四日下午四時三十分前，送交本公司的股份過戶登記處卓佳證券登記有限公司辦理股份過戶登記手續，地址為香港夏慤道16號遠東金融中心17樓。

董事及董事服務合約

年內及截至本報告日期，本公司的董事如下：

執行董事：

張素心先生(主席)

唐均君先生(總裁)

非執行董事：

葉峻先生

孫國棟先生

周利民先生(於二零二四年一月十九日獲委任)

熊承艷女士(於二零二四年三月二十八日獲委任)

王靖女士(於二零二三年九月一日辭任)

獨立非執行董事：

張祖同先生

王桂壩先生，太平紳士

封松林先生(於二零二四年三月二十八日獲委任)

葉龍蜚先生(於二零二四年三月二十八日辭任)

本公司各董事以三年特定任期獲委任，並須於股東大會上由本公司再次提名及重選，除非其委任已按照相關委任函或董事服務合約的條款及條件提早終止。

根據細則第117條及118條，張素心先生、唐均君先生及王桂壩先生，太平紳士將於股東週年大會上輪席退任董事職務。周利民先生、封松林先生及熊承艷女士分別於二零二四年一月十九日、二零二四年三月二十八日及二零二四年三月二十八日獲董事會委任為非執行董事、獨立非執行董事及非執行董事，將根據細則第122條於股東週年大會上退任。張素心先生、唐均君先生、王桂壩先生，太平紳士、周利民先生、封松林先生及熊承艷女士符合資格並願按照細則膺選連任。

概無擬於股東大會上膺選連任的董事已訂立本集團可於一年內終止而無須補償(法定補償除外)的服務合約。

本公司已接獲現任各獨立非執行董事及葉龍蜚先生按照上市規則第3.13條發出的年度獨立性確認書。本公司認為根據上市規則，所有上述現任及前任獨立非執行董事均為獨立人士。

董事及高級管理層履歷

本公司董事及高級管理層的履歷載於本報告第148至156頁。

董事會報告

最高薪人士及董事及高級管理層的薪酬

董事及5名最高薪人士的薪酬詳情分別載於本年報綜合財務報表附註8及9。

董事及最高行政人員於本公司股份及相關股份的權益

於二零二三年十二月三十一日，除下文披露者外，概無本公司董事及最高行政人員於本公司或任何相聯法團(定義見證券及期貨條例第XV部)的股份、相關股份或債權證中擁有載入根據證券及期貨條例第352條須予存置的登記冊內的任何權益或淡倉，或須按照上市規則所載上市的標準守則須知會本公司及香港聯交所的任何權益或淡倉。

董事姓名	身份	以好倉持有的 相關股份數目 ⁽¹⁾	概約權益百分比
唐均君先生	實益擁有人	448,500	0.03%

附註:

(1) 彼於(a)按購股權計劃授出的購股權項下437,500股份本公司相關股份及(b)11,000股人民幣股份中持有好倉。

董事於競爭業務的權益

於本年度，概無本集團董事於與本公司或本集團業務直接或間接競爭的業務中擁有任何權益。

董事於重大交易、安排或合約的權益

華虹製造與華虹無錫於二零二三年一月十八日訂立土地轉讓協議(「土地轉讓協議」)，據此，華虹無錫有條件同意轉讓，而華虹製造有條件同意以總代價人民幣170,100,450元購買位於江蘇無錫的多幅土地。鑒於(i)華虹無錫於土地轉讓協議日期由國家集成電路產業基金持有20.58%權益，且為土地轉讓協議項下的轉讓人；(ii)華芯投資為國家集成電路產業基金的基金管理人；及(iii)本公司非執行董事孫國棟先生為華芯投資的董事總經理，因此，為避免潛在利益衝突，孫國棟先生於授權訂立土地轉讓協議的董事會會議上放棄投票。土地轉讓協議的進一步詳情，務請參閱「持續關連交易及關連交易 – 關連交易 – 土地轉讓協議」一節。

除上文披露者外，本公司或其任何子公司或聯營公司並無訂立於截至二零二三年十二月三十一日止年度完結時或年內任何時間仍然生效，且有董事或與董事相關之實體直接或間接擁有重大權益的重大交易、安排或合約。

董事的證券交易

本公司已自行頒佈董事買賣本公司證券的行為守則(「公司守則」)，條款不比標準守則寬鬆。經向全體董事進行具體查詢，董事確認他們於二零二三年整個年度一直遵守公司守則及標準守則。

董事會報告

彌償保證及保險

本公司為董事及高級職員提供D&O保險。D&O保險承保日常管理責任及每年續保。

子公司的董事

於截至二零二三年十二月三十一日止年度或於二零二三年末起至本報告日期期間，在本公司子公司董事會任職的董事姓名如下：

子公司名稱	註冊成立地點	董事姓名
Grace Cayman	開曼群島	張素心先生 葉峻先生
華虹宏力	中國上海	張素心先生 唐均君先生 王靖女士 ¹ 馬玉川先生 森田隆之先生 葉峻先生 張祖同先生 王桂壩先生，太平紳士 葉龍蜚先生 周利民 ²
華虹無錫	中國無錫	張素心先生 韋俊先生 唐均君先生 孫國棟先生 王靖女士 ³ 陳琦女士 ⁴ 金新先生 朱小明先生 ⁵ 吳衛華先生 ⁶ 周利民先生 ⁷
華宏置業(無錫)有限公司	中國無錫	周衛平先生
華虹製造	中國無錫	張素心先生 韋俊先生 ⁸ 唐均君先生 ⁸ 孫國棟先生 ⁸ 金新先生 ⁸ 吳衛華先生 ⁸ 周利民先生 ⁸ 王靖女士 ⁹ 陳琦女士 ¹⁰
力鴻科技有限公司	中國香港	王鼎先生 傅城先生
HHGrace Semiconductor USA, Inc.	美國加州	王鼎先生 傅城先生
HHGrace Semiconductor Japan Co., Ltd.	日本東京	中村真紀女士 王鼎先生 傅城先生

董事會報告

附註：

- (1) 王靖女士辭任華虹宏力董事，已於二零二三年十二月二十九日在相關市場監督管理部門登記。
- (2) 周利民先生獲委任為華虹宏力董事，已於二零二四年一月三十一日在相關市場監督管理部門登記。
- (3) 王靖女士辭任華虹無錫董事，已於二零二三年十一月二日在相關市場監督管理部門登記。
- (4) 陳琦女士獲委任為華虹無錫董事，已於二零二三年一月十三日在相關市場監督管理部門登記。陳琦女士辭任華虹無錫董事，已於二零二三年十一月二日在相關市場監督管理部門登記。
- (5) 朱小明先生辭任華虹無錫董事，已於二零二三年一月十三日在相關市場監督管理部門登記。
- (6) 吳衛華先生獲委任為華虹無錫董事，已於二零二三年十一月二日在相關市場監督管理部門登記。
- (7) 周利民先生獲委任為華虹無錫董事，已於二零二三年十一月二日在相關市場監督管理部門登記。
- (8) 韋俊先生、唐均君先生、孫國棟先生、金新先生、吳衛華先生及周利民先生獲委任為華虹製造董事，已於二零二三年十一月八日在相關市場監督管理部門登記。
- (9) 王靖女士辭任華虹製造董事，已於二零二三年十一月八日在相關市場監督管理部門登記。
- (10) 陳琦女士辭任華虹製造董事，已於二零二三年十一月八日在相關市場監督管理部門登記。

主要股東及其他人士於本公司股份和相關股份的權益

於二零二三年十二月三十一日，除本公司董事或最高行政人員外，於本集團股份及相關股份中擁有5%或以上權益或淡倉的人士如下：

主要股東	身份及權益性質	持有股份數目	佔已發行股本權益總額的概約百分比*
上海華虹國際有限公司(「華虹國際」) ⁽²⁾	法定及實益擁有人	347,605,650 ⁽¹⁾	20.25%
華虹集團 ⁽²⁾	受控制法團權益	347,605,650 ⁽¹⁾	20.25%
Sino-Alliance International, Ltd. (「Sino-Alliance International」)	法定及實益擁有人	160,545,541 ⁽¹⁾⁽³⁾	9.35%
Sino-Alliance International	受控制法團權益	28,415,606 ⁽¹⁾	1.66%
上海聯和	受控制法團權益	188,961,147 ⁽¹⁾⁽⁴⁾	11.01%
鑫芯(香港)投資有限公司	法定及實益擁有人	178,705,925 ⁽¹⁾	10.41%
巽鑫(上海)投資有限公司	受控制法團權益	178,705,925 ⁽¹⁾	10.41%
國家集成電路產業基金	受控制法團權益	178,705,925 ⁽¹⁾	10.41%

附註：

- (1) 於本公司股份中的好倉。
- (2) 華虹國際為華虹集團的全資子公司。
- (3) 包括Sino-Alliance International根據一項託管安排，以託管方式持有的3,084股股份。
- (4) 上海聯和透過兩家全資子公司包括Sino-Alliance International間接持有本公司權益。

* 百分比乃按本公司於二零二三年十二月三十一日已發行的股份總數(即1,716,588,694股股份)計算。

董事會報告

除上文披露者外，就本公司董事及最高行政人員所知，於二零二三年十二月三十一日，概無本公司董事或最高行政人員以外的其他人士或法團於本公司任何股份或相關股份中有任何權益或淡倉並已記入根據證券及期貨條例第336條本公司須予存置的記錄冊內。

購買股份或債權證的安排

於截至二零二三年十二月三十一日止年度任何時間，概無向任何董事或彼等各自之配偶或未成年子女授出任何權利以收購本公司股份或債權證方式得到利益，亦無上述人士曾行使上述權益；再者，本公司或其任何控股公司、子公司或同系子公司亦無訂立任何安排，使董事或彼等各自之配偶或未成年子女可購買任何其他法人團體之上述權利。

主要客戶及供應商

於截至二零二三年十二月三十一日止年度，本集團前五名供應商合共應佔的採購額低於總採購額的30%，本集團前五名客戶合共應佔的營業額低於總營業額的30%。

薪酬政策

截至二零二三年十二月三十一日，本集團僱用合共6,863名員工。本集團按其優點及發展潛能招聘及擢升人員。本集團僱員的薪酬政策由薪酬委員會按其優點、資質及勝任程度設立。

董事薪酬由薪酬委員會決定，並會考慮到本集團的經營業績及個人表現。董事薪酬按姓名載列於截至二零二三年十二月三十一日止年度的財務報表附註8。

買賣、銷售或贖回證券

截至二零二三年十二月三十一日止年度，本公司或其任何子公司概無買賣、銷售或贖回本公司任何上市證券。

優先購買權

本公司的細則或香港法律概無優先購買權條文，規定本公司須按比例向現有股東提呈新股份發售。

企業管治

本公司致力保持企業管治在高水平，以保障股東權益及提升企業價值及問責性。

本公司所採納的企業管治常規資料載於本年報企業管治報告內。

遵守相關法律法規

據董事會所知，本公司在各重大方面均已遵守對本公司業務及營運具有重大影響的相關法律法規。

董事會報告

環境及社會責任

本公司堅信穩健有效的環境、社會及管治(ESG)管理是企業可持續高品質發展的基礎，公司將ESG理念深刻融入到戰略、管理和長期發展目標中，貫穿企業運營全過程，推動業務不斷發展，並為所有的利益相關方創造和分享價值。

二零二三年，公司有序推進各項ESG管理目標並監測其進展，積極開展ESG相關工作並取得卓越成果，涵蓋了安全與環保技術專項改造、保障員工權益及生產安全、深耕產品研發創新、打造負責任供應鏈、加強風險合規管控等。報告期內，公司通過全球性企業社會責任(CSR)評估機構EcoVadis的社會責任審核認證並榮獲銅牌勳章。

遵守不競爭契據及優先購買權契據

華虹集團、上海聯和及儀電集團(作為本公司當時的控股股東)訂立日期為二零一四年九月二十三日的不競爭契據(「不競爭契據」)，詳情載於日期為二零一四年十月三日的本公司招股章程(「招股章程」)「與控股股東的關係」一節中「不競爭承諾」一段。另外，華虹集團和上海聯和亦訂立日期為二零一四年六月十日之優先購買權契據(「優先購買權契據」)，詳情載於招股章程「與控股股東的關係」一節中「優先購買權」一段。本公司於截至二零二三年十二月三十一日止年度已覆核上述各控股股東有關他們遵守不競爭契據及優先購買權契據(視情況而定)內承諾的書面聲明。獨立非執行董事已覆核遵守情況，並確認不競爭契據及優先購買權契據(視情況而定)下的全部承諾均獲有關訂約方遵守。

董事會報告

足夠公眾持股量

按本公司可公開取閱的資料，就董事於本報告日期所知，董事信納本公司已維持上市規則下的指定最低公眾持股量。

核數師

股東週年大會上將提呈一項決議案，續聘安永會計師事務所為本公司的核數師。

代表董事會

張素心先生

主席

二零二四年三月二十八日

2023 年度環境、社會及管治報告

董事會管理聲明

公司秉承「知難而進、奮發圖強」的企業精神，弘揚「家國情懷、一諾千金、敬業奉獻、使命必達」的華虹520精神，以「開放、創新、合作」為理念，以「勇敢、堅持、團結」為動力，強化企業經營發展、推動產能規模擴充，創新體系完善，提升工藝能力，實現了經營平穩、協調、可持續發展。

公司堅信環境、社會及管治(ESG)管理是企業可持續高質量發展的基礎。制定水資源管理、能源使用管理、溫室氣體排放管理、廢棄物排放管理、可持續供應鏈管理的2030年ESG管理目標。在ESG議題的識別、評估及管理方面，公司結合自身發展戰略及外部政策趨勢，2023年新增「公司治理」「環境管理」「知識產權保護」三項議題，並將「反腐敗」議題升級為「商業道德議題」，將「排放物管理」議題升級為「排放物與廢棄物管理」議題，以更好地回應利益相關方的關注重點，確保公司ESG管理策略及管理措施的有效性。2023年，公司通過全球性企業社會責任(CSR)評估機構EcoVadis的社會責任審核認證，涵蓋勞工、環境管理、商業道德和可持續採購等內容，並榮獲銅牌勳章。

本報告中有關ESG議題上的管理與實踐進展，均經本公司2024年3月28日召開的董事會會議審議通過。

2023 年度環境、社會及管治報告

1 ESG 管理體系

1.1 ESG 管理架構

公司秉承「持續創新，為全球客戶製造「芯」夢想」的願景，成立了自上而下的環境、社會及管治(ESG)管理架構，並持續完善 ESG 管理體系，創新驅動發展，培養創新人才，努力降低運營對環境產生的影響，並推進供應鏈多元化，促進企業商業價值和社會價值的共同創造。

董事會是公司 ESG 管理的最高決策／管理機構，承擔以下職責：

- 指導公司 ESG 管理方針及策略的制定，確保其與時並進、切合所需，並符合適用的法律及監管要求；
- 指導公司重要 ESG 議題的識別和重要性程度判定；
- 監督公司 ESG 目標的制定和實施，包括：制定公司 ESG 管理績效目標；監督目標實現的進度，並就實現目標所需採取的行動提供建議；
- 審閱並批准公司年度的《環境、社會及管治報告》及其他 ESG 相關披露信息。

經營管理層根據制定的 ESG 目標，負責監督總體落實情況，ESG 工作小組協助開展及落實 ESG 管理工作，並定期向董事會報告 ESG 關鍵績效指標的進度，推進公司 ESG 管理目標的實現。

ESG 管理架構



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1.2 ESG管理策略與目標

公司把ESG管理融入產品、業務運營及企業發展中，形成了「員工責任」「產業責任」「民生責任」「投資人責任」四大維度的ESG管理策略。

ESG管理策略



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公司根據業務發展情況、自身運營過程中的ESG表現，制定了用水效益、能源使用效益、減少溫室氣體排放、減少廢棄物、衝突礦產盡職調查的ESG管理目標，董事會每年審視公司上一年度ESG績效及ESG管理目標達成情況，並在ESG報告中披露進展，從而推動ESG管理目標的實現。

ESG管理目標及2023年度進展

層面	目標	2023年度進展
水資源管理	2030年單位產品用水量(立方米／8英寸晶圓)較2015年減少 12%	2023年單位產品用水量為 2.83 立方米／8英寸晶圓，較2015年減少 11%
能源使用管理	2030年單位產品綜合能源消耗量(兆瓦時／8英寸晶圓)較2015年減少 7%	2023年單位產品綜合能源消耗量為 0.30 兆瓦時／8英寸晶圓，較2015年減少 21%
溫室氣體排放管理	2030年單位產品溫室氣體排放量(噸二氧化碳當量／8英寸晶圓)較2015年減少 12%	2023年單位產品溫室氣體排放量為 0.14 噸二氧化碳當量／8英寸晶圓，較2022年基本持平
廢棄物排放管理	秉承精益生產管理理念，採取減量化措施，不斷減少單位產品有害廢棄物產生量、單位產品無害廢棄物產生量	<ul style="list-style-type: none"> 秉承精益生產管理理念，不斷減少有害廢棄物的產生 2023年單位產品無害廢棄物產生量為2.36千克／8英寸晶圓，與2022年持平
廢水排放管理	100%合規排放	<ul style="list-style-type: none"> 2023年廢水排放100%合規
廢氣排放管理	100%合規排放	<ul style="list-style-type: none"> 2023年廢氣排放100%合規
可持續供應鏈管理	開展供應商衝突礦產盡職調查率達100%，且合規礦產使用率達100%	<ul style="list-style-type: none"> 對「衝突礦產」供應商進行盡職調查，覆蓋率達100%，並完成最新版衝突礦產和擴展礦物調查報告 調查發現，供應商全部使用合規原物料，合規礦產使用率達100%

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2023 年所獲社會認可

序號	榮譽
	全球
1	EcoVadis 銅牌勳章
	全國
2	2022 年度智能製造優秀場景
3	2023 年全國工人先鋒號
4	第十五屆中國半導體創新產品和技術
	上海市
5	上海市科學技術獎一等獎
6	上海市重點用水企業水效領跑者
7	2022 上海市企業社會責任報告十佳企業
8	上海市 100 家智能工廠
9	2023 上海高新技術企業創新百強榜
10	上海市優秀發明金獎
11	上海市廠務公開民主管理先進單位
12	上海市巾幗文明崗
13	上海市工人先鋒號
14	上海市模範職工小家
15	上海市工業水重複利用優秀案例二等獎
	江蘇省
16	無錫市幸福企業建設示範單位
17	無錫市模範職工之家

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1.3 利益相關方參與

根據公司自身業務和運營特點，對標國內外行業的經驗和實踐，華虹半導體將主要利益相關方確定為股東及高級管理層、客戶、員工、政府及監管機構、合作夥伴、社區及公眾，並通過網站、媒體、會議、報告、活動等渠道和方式積極與之溝通。

利益相關方溝通及關注議題

關鍵利益相關方	相關方說明	關注的議題	溝通與回應
股東及高級管理層	對公司進行股權、債權投資的國內外投資人及公司高級管理層員工	<ul style="list-style-type: none"> • 合規運營 • 公司治理 • 風險管理 • 商業道德 • 客戶關係管理 • 水資源管理 • 產品質量與安全 • 研發創新 	<ul style="list-style-type: none"> • 定期開展法律法規盤查、基於盤查結果修訂管理制度，確保運營合規性 • 刊發財務報告、業績報告、通過上證e互動、郵件、路演與投資者交流 • 健全風險管理體系 • 完善反腐敗管理機制 • 開展客戶滿意度調查 • 通過WRI水資源工具查詢用水風險等級、制定完善的水資源管理體系 • 實施產品質量與安全管理措施 • 舉辦技術研討會、行業交流會

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關鍵利益相關方	相關方說明	關注的議題	溝通與回應
客戶	集成器件製造商及無廠半導體公司	<ul style="list-style-type: none"> 數據安全與隱私保護 產品質量與安全 客戶關係管理 研發創新 	<ul style="list-style-type: none"> 制定信息安全與隱私保護制度 實施產品質量與安全管理措施 開展客戶調研 舉辦技術研討會、行業交流會
員工	公司員工，以及常年服務於公司業務的人員	<ul style="list-style-type: none"> 員工權益及福利 員工健康與安全 員工發展與培訓 	<ul style="list-style-type: none"> 制定員工手冊 建立人才發展與學習共享平台 開展安全生產培訓及組織體檢 豐富員工培訓體系
政府及監管機構	製造業、稅務、環保、安全等部門、地方政府、證監會等政府或監管機構	<ul style="list-style-type: none"> 合規經營 綠色產品 排放物與廢棄物管理 能源管理 氣候變化減緩與適應 	<ul style="list-style-type: none"> 健全內控合規體系 綠色生產 研發更低碳更節能的產品 通過循環利用等方式，妥善管理排放物與廢棄物 配合機構考察 開展節能減碳工作

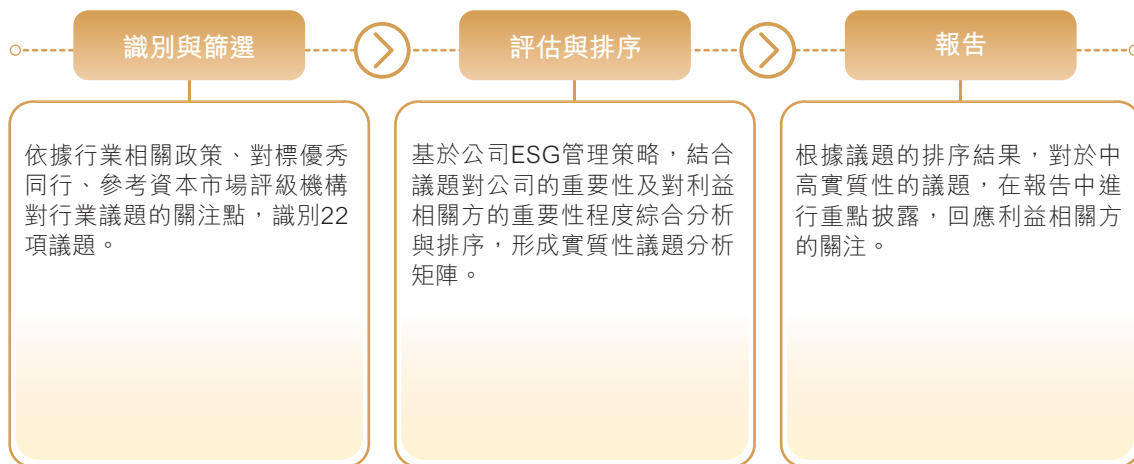
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關鍵利益相關方	相關方說明	關注的議題	溝通與回應
合作夥伴	供應商、研究院校、行業協會等	<ul style="list-style-type: none"> 行業發展 產品質量與安全 研發創新 可持續供應鏈管理 	<ul style="list-style-type: none"> 積極參與行業交流 優化產品質量管理 加大研發投入 推崇責任採購
社區及公眾	運營所在地社區、社會公眾、媒體等	<ul style="list-style-type: none"> 社區與公益 	<ul style="list-style-type: none"> 開展社區活動、志願者活動、公益活動、社會事業支持項目等

1.4 實質性議題識別與分析

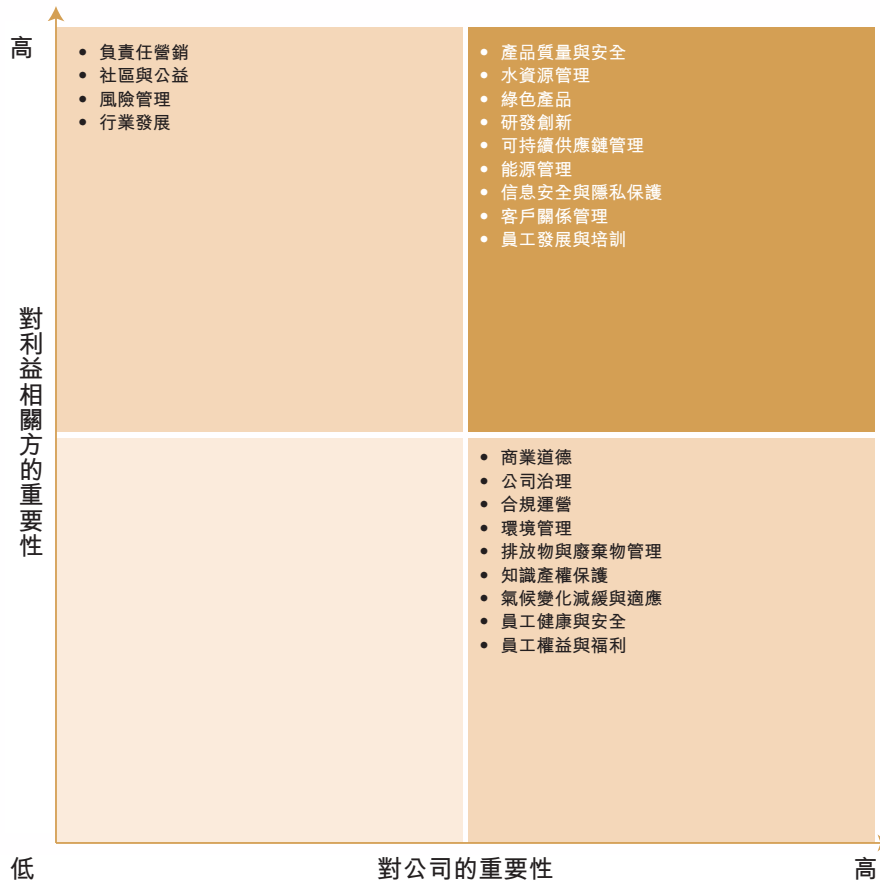
ESG 實質性議題的識別與分析是 ESG 管理的重要環節之一。公司制定完善的實質性議題識別與分析流程，定期開展實質性議題識別與篩選工作。公司結合自身 ESG 管理戰略、業務發展，並由公司董事會、ESG 工作小組聯合外部專家從對公司重要性以及利益相關方重要性兩個維度，對識別實質性議題進行評估與排序。2023 年，公司識別出 22 項實質性議題，其中 9 項為對公司及利益相關方的高實質性重要議題。

實質性議題分析過程



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實質性議題矩陣圖



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2023 年議題調整說明

2022 年議題	2023 年議題	釋義	調整說明
——	環境管理	公司根據法律法規及自身經營特質，形成系統性的管理制度，採取科學的管理方法，減少因企業活動可能造成的環境影響，以達到環境保護的目的。	新增議題，更好回應利益相關方的關注及更符合公司實情。
——	知識產權保護	公司在自身知識產權保護與不侵犯他人知識產權方面的管理制度、管理措施及管理成果等。	新增議題，更好回應利益相關方的關注及更符合公司實情。
反腐敗	商業道德	公司的商業道德管理體系，包括反貪污及反賄賂相關的制度建設、培訓，以及規範不正當競爭行為、反托拉斯或反壟斷的實踐等。	調整表述，擴大議題管理範圍，包括商業道德和反不正當競爭管理，更好回應利益相關方的關注及更符合公司實情。
——	公司治理	公司搭建有效的治理架構，推動董事會多元化與獨立性，確保公司規範運作以及公司治理的科學、規範與透明。	新增議題，更好回應利益相關方的關注。
排放物管理	排放物與廢棄物管理	公司廢水、廢氣、有害及無害廢棄物的分類與處理，減少廢水、廢氣、有害及無害廢棄物排放的管理制度及措施，包括管理方法及排放數據。	調整表述，擴大議題管理範圍，包括排放物和廢棄物管理，更好回應利益相關方的關注及更符合公司實情。

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2 環境責任

2023 年主要進展

具體舉措	取得成效
安環技術改造	安全與環保技術專項改造項目累計46項 安全環保和技改投入達11,196萬元
節能項目開展	完成能源審計報告和清潔生產審計報告編製 開展21項節能項目

2.1 環境管理體系

環境管理

公司堅持環境友好與可持續發展理念，嚴格遵守《中華人民共和國環境保護法》等法律法規，制定《資源、能源管理程序》《用水，電，蒸汽，燃氣計量管理制度》《廢氣排放管理制度》《廢棄物管理程序》等管理制度，積極開展多項環境管理措施，持續優化涵蓋全生命周期的環境管理流程，不斷完善公司環境管理體系。

華虹半導體涉及生產製造的晶圓廠包括上海生產基地¹及無錫生產基地²。

華虹半導體環境管理體系

管理架構	<ul style="list-style-type: none"> 經營管理層負責環境工作的監督和管理 EHS部門負責執行環境管理項目，定期向經管層匯報項目進展情況
管理範圍	<ul style="list-style-type: none"> 能源管理、資源管理、排放物與廢棄物管理等環境管理相關方面
管理制度	<ul style="list-style-type: none"> 《資源、能源管理程序》《用水，電，蒸汽，燃氣計量管理制度》《工業廢棄物管理作業規範》和《工業用水供水系統標準作業程序》等
管理措施	<ul style="list-style-type: none"> 依據法律法規修訂環境管理相關制度，規範環境管理程序 定期識別、評估生產基地的環境風險點，開展環保技改項目，減少運營生產環節對環境的影響 開展環境管理體系認證，積極提高環境管理能力

1 上海生產基地涵蓋華虹一廠、華虹二廠、華虹三廠。

2 無錫生產基地涵蓋華虹七廠、華虹九廠(建設中)。

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公司EHS部門負責統籌公司環境管理體系事宜，涵蓋對能源與資源使用、排放物管理等方面的管理制度制定、績效分析及評估，協助外部機構對公司的環境管理體系開展的審核及檢測工作。此外，公司運用安全管理審核追蹤系統，對在日常管理中發現的不符合環保規定的事項進行分析整理、列出清單，並通過系統定時提醒的方式，進行後續整改並跟蹤記錄。

2023年，公司投入11,196萬元，開展46項安全環保與技改項目，持續完善環境管理設施。公司旗下所有工廠均通過ISO 14001體系認證。報告期內，公司未發生違反環境保護相關法律法規的事件。報告期內，公司足額繳納環境保護相關稅費。同時，公司未發生違反環境保護法相關法律法規的事件。

華虹半導體環境管理相關認證

認證主體	認證名稱	認證有效期
華虹上海生產基地	ISO 14001: 2015環境管理體系	2024年4月18日
華虹無錫生產基地	ISO 14001: 2015環境管理體系	2024年4月18日

綠色文化

公司持續推廣環保理念，定期召開環境管理分享會，組織各生產工廠在分享會上分享優秀環境管理案例及措施，提高員工環境保護、節約使用辦公資源和能源的意識。

綠色文化實踐

節約辦公用紙	<ul style="list-style-type: none"> 推行信息化辦公，減少紙張使用。 大力提倡使用再生紙張，包括打印員工名片等，以支持循環再造。
節約用電	<ul style="list-style-type: none"> 下班或長時間離開時關閉電源。 合理設置空調溫度，夏季不低於26°C，冬季不高於20°C。
節約用水	<ul style="list-style-type: none"> 培養員工的節約意識，張貼節約用水貼士。
廢棄物處置	<ul style="list-style-type: none"> 對各廠區的生活垃圾進行干、濕、可回收、有害垃圾4類分類，並張貼垃圾分類海報，提高員工的意識。
員工出行	<ul style="list-style-type: none"> 鼓勵員工使用公共交通上下班。 公司班車使用新能源汽車。

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2.2 能源管理

公司能源消耗種類主要是電力、熱力、天然氣及汽油、柴油。公司的生產運營對環境及天然能源並無重大影響。公司嚴格遵守《中華人民共和國節約能源法》等法律法規及相關規定，設定節能管理目標，制定能源管理制度，不斷優化完善能源管理體系，通過開展各類節能技改及使用節能設備，持續提升能源使用效率。

能源管理體系

管理理念

- 在滿足和提高生產率的同時進行源頭控制、持續改善，在降低生產成本的同時減少對環境的影響。

管理目標

- 到2030年，公司單位產品綜合能源消耗較2015年減少7%。

管理制度

- 《資源、能源管理程序》
- 《用水，電，蒸汽，燃氣計量管理制度》

管理措施

- 開展節能技術改造。
- 委託有資質的第三方機構開展能源審計工作。
- 組織節能宣貫活動、張貼節能標識。

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為確保電力穩定供應，確保生產順利進行，公司制定了《用電安全管理規定》《外網供電異常應急處置預案》《供電停止情況時動力部現場處置方案》《供電回路開關跳閘應急預案》等管理制度，並在各廠區定期開展能源應急預案培訓及應急演練，通過日常檢查、專項系統排查，配合應急演練，保障電力供應無虞。

2023年，上海基地所有工廠持續響應《上海市工業和通信業節能降碳「百一」行動》，開展15項節能項目，完成能源審計報告和清潔生產審計報告編製，強化制定的「3,000噸標煤的節能項目規劃」成果。

2023 年能源節約舉措及成果

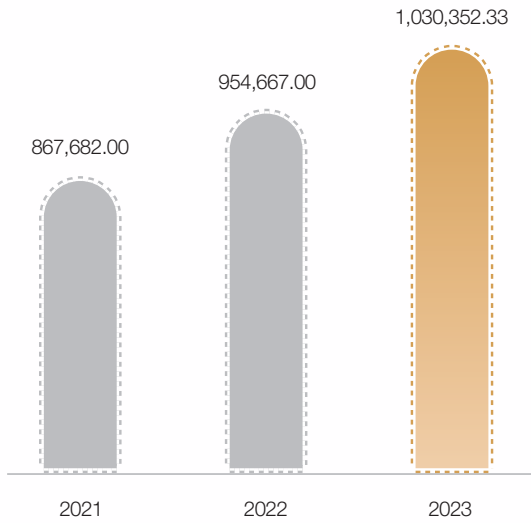
工廠	具體措施	全年節約能源
華虹一廠	<ul style="list-style-type: none"> 開展高能效冷凍機改造項目，更換老舊冷凍機組，提升能源使用效率 使用節能LED 改造純水系統的高壓泵 	<ul style="list-style-type: none"> 2023年，累計節約80萬度電 2023年，累計節約3萬度電 2023年，累計節約10萬度電
華虹二廠	<ul style="list-style-type: none"> 更換冷水系統冷凍機，提升能源使用效率 完成冷凍機冷卻水熱能回收改造 	<ul style="list-style-type: none"> 2023年，累計節約314.4萬度電 2023年，累計節約18.8萬立方米天然氣
華虹三廠	<ul style="list-style-type: none"> 開展高效冷凍機組節能改造 	<ul style="list-style-type: none"> 2023年，累計節約200萬度電
華虹七廠	<ul style="list-style-type: none"> 有機廢氣運行處理設施數量優化 增設一套RO濃水回收設備 MAU夏季模式通過調節MAU的RO補水旁通減少補水用量 	<ul style="list-style-type: none"> 2023年，累計節電17.52萬度、節約天然氣47.45萬立方米 2023年，累計節水26,000噸 2023年，累計節水32,898噸

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報告期內，公司主要能源消耗情況如下：

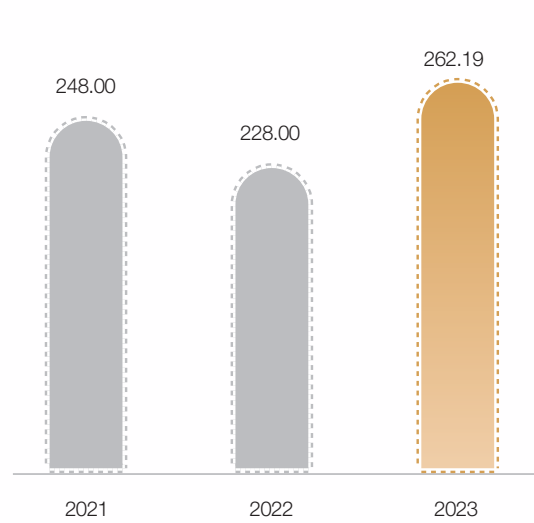
電力消耗總量

單位：兆瓦時



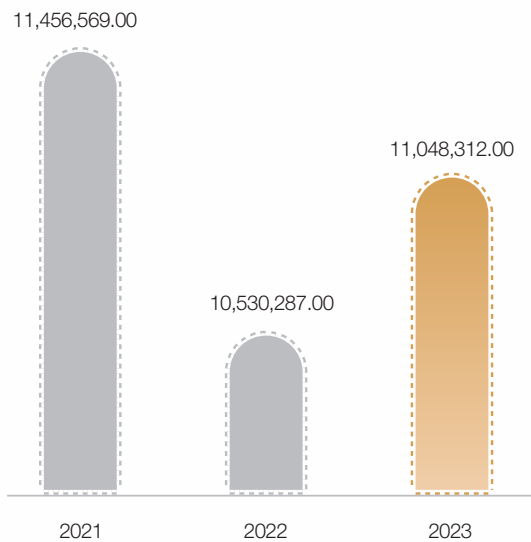
電力消耗強度

單位：千瓦時／8英寸晶圓



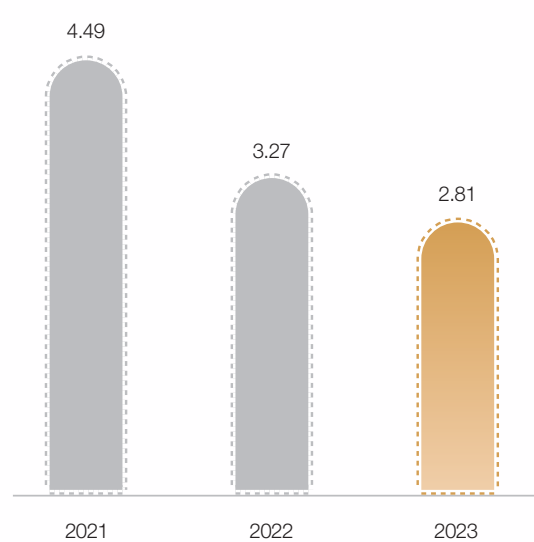
天然氣消耗總量

單位：立方米



天然氣消耗強度

單位：立方米／8英寸晶圓



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2.3 氣候變化減緩與適應

華虹半導體認識到減緩氣候變化對於企業自身和全球都具有重要意義。2023年，公司參考國際可持續準則理事會(ISSB)《國際財務報告可持續披露準則第2號 – 氣候相關披露》(ISSB氣候準則)，完善應對氣候變化的管理體系，定期開展氣候風險及機遇識別、試點開展碳排放核查，在生產、經營過程中不斷提高能源使用效率，並在ESG報告中公開披露能源使用、碳排放信息。同時，公司積極開發低能耗產品，助力國家「30·60」雙碳目標的實現。

華虹半導體氣候變化管理體系

管治	<ul style="list-style-type: none"> • 搭建由上至下的管治架構，董事會負責制定、統籌氣候變化應對策略，定期審閱氣候變化管理事宜工作進度，確保策略及管理措施的有效性，以及檢視目標進度。 • ESG工作小組負責執行氣候變化策略，評估、管理及監察氣候變化管理工作，定期向董事會匯報工作進展及相關績效。 • 各業務部門積極參與氣候變化管理工作，通過實踐助力公司減少碳排放。
策略	<pre> graph TD A[華虹半導體 氣候變化應對機制] --> B[《碳交易管理制度》] A --> C[碳盤查] A --> D[公開披露數據] A --> E[開發低能耗產品] </pre>
風險管理	<ul style="list-style-type: none"> • 基於氣候風險與機遇識別結果，制定相應管理措施，提升自身應對氣候變化能力，捕捉綠色產品機遇。
指標和目標	<ul style="list-style-type: none"> • 制定科學合理的氣候變化管理目標，並在年度ESG報告披露相關績效及目標進度，具體可查閱「ESG管理策略與目標」章節。

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公司定期開展氣候變化風險識別，不斷完善氣候變化應對機制，積極應對氣候變化帶來的風險與機遇。

氣候變化風險與機遇識別及應對

氣候變化主要風險與機遇識別結果		潛在財務影響	應對措施	
風險	轉型風險	<p>聲譽風險 隨着低碳經濟轉型，中國政府以及各利益相關方期望企業在應對氣候行動方面採取積極的管理行動並提升信息披露透明性。如果公司無法很好地回應這些利益相關方的訴求，會對自身的聲譽產生負面影響。</p> <p>政策法律風險 中國已制定碳中和目標，未來對企業碳排放的監管力度也將不斷提升。如果公司在環境管理方面無法滿足監管的要求，將面臨訴訟與罰金等風險，可能導致違約等現象發生。</p> <p>市場風險 近年來客戶以及消費者愈加關注產品的可持續性屬性，這在不斷改變企業運營的外部市場環境。如果公司提供的產品與服務無法有效、及時的去面對這些市場環境的變化，將會對其運營產生影響。</p>	<p>營業收入減少</p> <p>營運成本增加</p> <p>營業收入減少</p>	<ul style="list-style-type: none"> 將氣候變化減緩與適應作為各業務部門的工作重點之一。 積極參與到上海市發改委碳排放交易相關工作中，定期開展碳核算工作。 參考ISSB氣候準則制定應對氣候變化管理體系。 將氣候變化作為重點議題通過ESG報告等渠道與利益相關方溝通。 開發低功耗產品，並積極與客戶和消費者就產品的綠色屬性進行溝通。
	實體風險	<p>急性實體風險 氣候變化導致的颱風、洪水等自然災害增加可能會影響公司晶圓廠運營活動，造成經濟損失。</p> <p>慢性實體風險 氣候變化導致的持續性高溫天氣、海平面上升等可能會導致公司業務運營中斷，造成財務損失。</p>	<p>營運成本增加； 固定資產價值降低</p> <p>營運成本增加； 固定資產價值降低</p>	<ul style="list-style-type: none"> 制定極端天氣應對應急預案。 定期開展自然災害事故應急演練以及培訓。

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氣候變化主要風險與機遇識別結果	潛在財務影響	應對措施
機遇 資源使用效率 提高資源使用效率，包括能源、水資源等的使用效率，能夠幫助公司降低運營過程中的成本。 能源來源 在運營活動中提高對低排放能源／清潔能源的使用，有利於降低未來能源價格上漲風險。 產品與服務 低碳經濟轉型背景下，客戶以及消費者在綠色、低功耗產品等方面的需求也在不斷增加，這對於公司來說也是新的市場機遇。	營運成本降低 營運成本降低 營業收入增加	<ul style="list-style-type: none"> - 積極採用綠色辦公與綠色運營措施。 - 新建廠房在設計階段融入生態環保理念，降低建造與運營環節中的各類資源使用量。 - 不斷提高綠色研發創新投入。 - 不斷提升產品的環境友好與綠色屬性。 - 使用綠色技術及綠色原材料，減少有害物質生成，降低對環境的影響。 - 開發更低功耗與更高效能的產品，助力下游產業能效提升，減少碳排放。 - 提供產品設計、研發及生產一體化服務。

公司溫室氣體排放主要來源於天然氣、少量汽油及柴油使用產生的直接溫室氣體排放，以及外購電力、熱力等產生的間接溫室氣體排放。公司從管理層面和技術層面開展溫室氣體減排工作，減少公司運營活動產生的碳排放，進而減少對於氣候變化的影響。

上海基地工廠屬於上海市政府「碳排放配額管理單位」，積極響應政府政策，定期開展碳排查。報告期內，公司對上海生產基地的華虹一廠、華虹二廠及華虹三廠進行了2022年度碳排放數據的第三方核查，提升碳排放數據管理能力。

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2.4 資源管理

水資源管理

公司嚴格遵守《中華人民共和國水法》《上海市節約用水管理辦法》《江蘇省節約用水條例》等法律法規及相關規定，設定水資源管理目標，制定水資源管理的策略，引進更高效的設備與工藝，持續優化水資源管理措施，提高用水效率。

水資源管理體系

管理目標

- 到2030年，公司單位產品用水量較2015年減少12%。

管理制度

- 《用水管理制度》
- 《工業用水供水系統標準作業程序》
- 《自來水異常處置流程》

管理措施

- 檢測運營區域水資源供給及質量現狀。
- 建立健全的台賬管理，定期對使用情況進行統計、分析和改善。
- 開展節水技改與廢水回用等工作。
- 組織節水宣貫活動、張貼節水標識。

半導體生產對水質要求持有一定標準，且耗水量較大，對天然水資源的需求有一定影響。因此公司持續對工廠運營區域水資源現狀開展監測，通過使用外部工具—世界資源研究所(World Resources Institute, 簡稱「WRI」)「輸水道水源風險地圖」(Aqueduct Water Risk Atlas)，對工廠生產運營的用水合理性及取水可能造成的影響進行分析，並制定有效措施，降低風險以確保水資源能支持公司長期發展。

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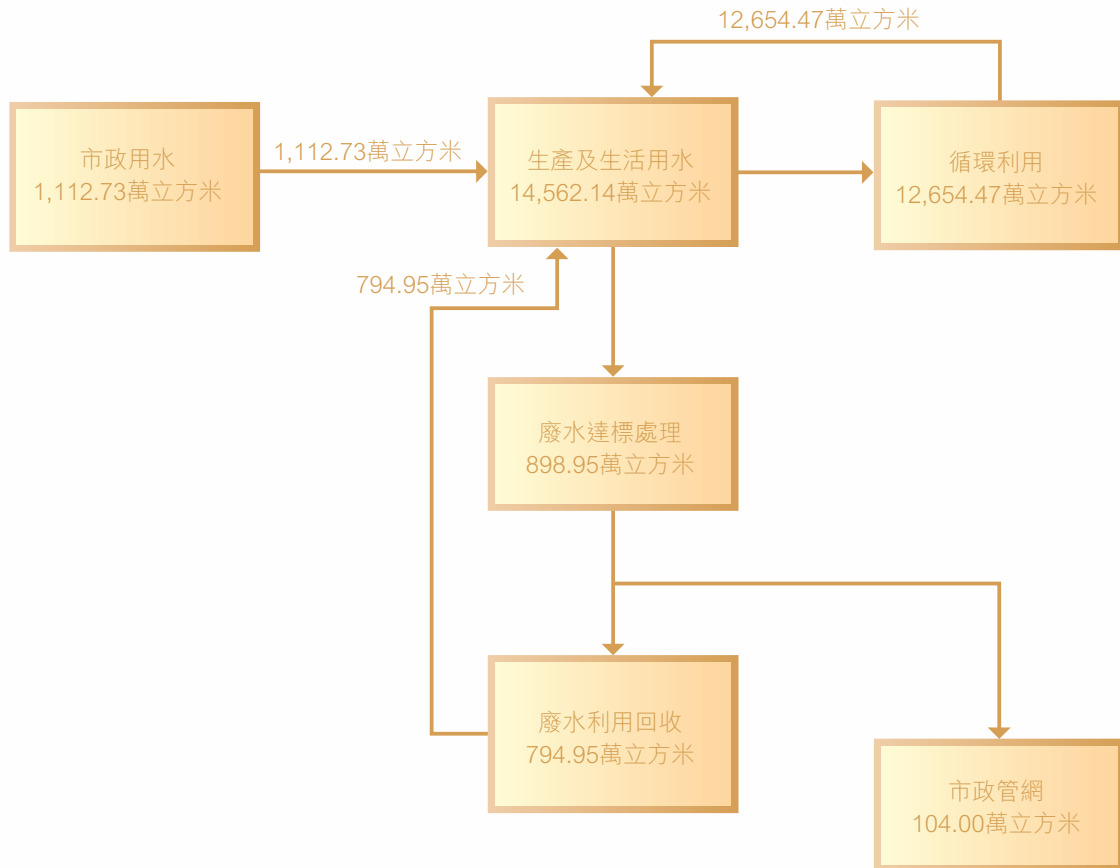
公司WRI風險監測結果及應對措施

水風險檢測指標	<ul style="list-style-type: none">• 物理風險數量：用水風險、乾旱、地下水位下降等。• 物理風險質量：海岸侵蝕、未處理水。• 法律法規及聲譽風險：飲用水質量、衛生條件等。
檢測結果	<ul style="list-style-type: none">• 高風險區域：無錫晶圓廠、上海晶圓廠。
應對措施	<ul style="list-style-type: none">• 建立了用水監測點，定期開展水平衡測試，計算廠內制程用水、回收水、廢水、生活用水。• 掌握用水流向、流量與回收再利用情形，分析是否存在用水異常，並預估各用水單位之間的水量合理調配。• 打造綠色建築，升級或替換耗水較多的設備，提高用水效率。• 拓展水資源來源，回收利用空調冷凝水、有機廢水等，並將回收水再精煉處理為工業用水。• 開展節水意識宣貫活動，張貼節水標識。

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公司的用水主要來源是市政供水，少部分來源於純水製造過程中的回收用水和空調冷凝水。

2023 年公司生產運營用水概覽



報告期內，公司開展多項節水及廢水回用工作。2023年，榮獲上海市經濟和信息化委員會與上海市水務局共同頒發的「上海市重點用水企業水效領跑者」的獎牌與榮譽證書；榮獲上海市水務局工會、上海市節約用水辦公室、上海市供水管理事務中心聯合頒發的「上海市工業水重複利用優秀案例」二等獎。

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2023 年水資源管理工作及成果

行動	措施	取得成效
• 中水回用項目	• 增設中水回收裝置，同時採用除濁膜及特殊RO膜，提高系統出水質量，確保符合純水系統使用要求	2023年，累計節水275,940噸
• 節約RO補水	• 在不影響潔淨室內AMC的情況下，通過調節MAU的RO補水旁通減少補水用量	2023年，累計節水32,898噸
• RO濃水回收	• 增設RO濃水回收設備，提升回水處理量	2023年，累計節水26,000噸
• 在線儀表取樣水回收	• 集中回收中繼水箱在線水質檢測儀表的取樣水，重新供噴淋水系統使用	2023年，累計節水9,125噸
• OAC機組補水流量調整	• 加裝隔膜閥和流量計，根據實際需求調整補水量節約用水	2023年，累計節約55,845噸
• RCM產水再利用項目	• 增設有機回收水管路，使用回收水代替自來水用作沖洗用水	2023年，累計節約14,600噸

原材料管理

公司主要使用原材料涵蓋硅片、石英、靶材、化學品。公司推行精益管理，制定《原物料有效期管控方針》《關鍵物料的風險識別及應對措施》《關鍵物料風險分析表》《物料管理科儲存化學品及氣體作業管理規範》等管理制度，規範原材料管理程序。公司鼓勵員工通過技術創新、持續改進、提出改善建議，減少廢品率，從而提高原材料使用效率。

2.5 排放物與廢棄物管理

公司嚴格遵守《中華人民共和國大氣污染防治法》《中華人民共和國固體廢物污染環境防治法》《中華人民共和國土壤污染防治法》《中華人民共和國水污染防治法》等法律法規及相關規定，規範管理廢氣、廢水及廢棄物排放，確保達到排放標準，減少對環境的影響。報告期內，公司未發生污染物超標或違規排放的事件，也未有上述事項引起的訴訟案件發生。

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廢氣排放管理

公司嚴格遵守《半導體行業污染物排放標準》(DB31/374-2006)以及《江蘇省半導體行業排放標準》(DB32/3247-2020)等國家及地方排放要求，並設定 100% 合規排放的管理目標。針對生產過程中包括硫酸霧(H₂SO₄)、氯化氫(HCl)、氮氧化物(NO_x)、氨(NH₃)、揮發性有機物(VOCs)等廢氣排放，制定了完善的檢測方案及管理措施。另外，公司根據生產情況對主要廢氣制定了檢測方案，定期進行檢測和評估，確保廢氣排放的合規性。

廢氣排放管理

類型	處理方式
廢氣	
酸性廢氣	通過預處理和洗滌塔集中處理，去除絕大部分成分後達標排放。
鹼性廢氣(主要為氨氣)	通過洗滌塔進行淨化。
有機廢氣	通過活性炭吸附或濃縮後燃燒處理進行淨化。
粉塵廢氣(主要為二氧化硅的細小顆粒物)	通過除塵裝置去除。

公司對有機廢氣在線監測管理方面做了規範化要求，提升了生產工廠的現場監管能力；公司的廢氣處理設施通過年度檢修等工作，保持處理效率維持在較高水平。此外，公司優化改進有機廢氣處理系統的處理工藝，不斷提升其處理效率，有效減少有機廢氣的排放。

廢棄物管理

公司秉承「源頭減量」及「循環經濟」的理念，對產生的廢棄物進行規範識別及嚴格歸類，並採取妥當的管理方式處理廢棄物，盡可能提升廢棄物的循環利用率。

公司在廢棄物管理制度執行方面保持一貫的高標準嚴要求，制定了《廢棄物管理程序》《工業廢棄物管理作業規範》等管理制度，建立完善廢棄物處理管理程序，規範管理廢棄物管理操作流程，並通過政府統一的環保管理系統對廢棄物處理進行登記和管理，確保每一筆運輸記錄都可追溯、受控。公司自 2017 年開始，每年開展針對各類危險廢棄物的削減排放工作，不斷減少危險廢棄物排放對環境的影響。

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廢棄物分類及處理方式

類型		處理方式
無害廢棄物	生活垃圾、廚餘垃圾	交由營運所在地環衛部門定期進行統一清運
	生產原料、辦公類用品	廠內循環利用
	污泥等	填埋、制磚
有害廢棄物	廢酸液、異丙醇、廢磷酸、有機廢液等	交由適用企業，其他行業再利用，提高再利用率
	廢玻璃瓶、200L化學桶、實驗室廢液等	物理化學處理
	抹布、塑料瓶、廢活性炭、廢樹脂、含砷廢物等	焚燒

廢水排放管理

公司嚴格遵守所有工廠運營地的廢水排放相關法律法規，上海基地遵守《電子工業水污染物排放標準》(GB39731-2020)《污水綜合排放標準》(DB31/199-2018)《污水排入城鎮下水道水質標準》(GBT 31962-2015)—B級標準。無錫基地遵守《江蘇省半導體行業排放標準》(DB32/3247-2020)《污水綜合排放標準》(GB8978-1996)《污水排入城鎮下水道水質標準》(GB/T31962-2015)制定排水廢棄物管理制度，設定廢水100%合規排放的管理目標，並通過不斷優化工藝製造及廢水回收等措施，減少廢水生成。

在排污監控和信息公示方面，公司執行廢水在線監控管理，上海及無錫生產基地的相關數據在環境信息公開平台上公示，增加公司環境信息的透明性。

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廢水排放管理

	檢測指標	處理方式
廢水	pH, COD, 氨氮, 氟離子等	經處理達標後通過管道排入指定城市污水管網

2.6 綠色產品

綠色產品指在產品設計、製造、使用、報廢、再使用的閉環過程中，將綠色理念貫穿其中，持續打造兼顧資源能源消耗少、污染物排放低、低毒少害、易回收處理和再利用、安全環保和質量品質高等特徵的產品。公司通過特色技術、綠色生產、使用清潔能源等打造綠色「芯」產品，不斷提升產品能效，同時降低生產過程中的能源消耗和廢棄物產生，以減少對環境的影響。

綠色產品打造路徑

特色技術

在技術研發階段融入「綠色」概念，持續研發低功耗、高性能、高可靠、高集成技術平台。

綠色生產

使用綠色產品、開展節能技改降低產品生產環節的能源消耗、廢棄物產生，提升產品的綠色屬性。

清潔能源

通過技術創新提高產品在終端使用的能效，開發低能耗產品。

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產品生產綠色化

公司基於產品全生命周期的環境足跡，識別原材料採購、產品生產、產品運輸過程提升潛在環節綠色屬性。公司通過精益生產管理，實施綠色採購、改進工藝技術等措施，不斷降低產品生產對環境的影響，持續提高產品的綠色屬性。

產品全生命周期環境管理

原材料入庫	產品生產	產品運輸	終端產品使用	產品廢棄
<ul style="list-style-type: none"> 對原材料進行有害物質審查與系統管控 對供應商開展資質、環境合規情況的審查，並要求供應商簽署《環保承諾書》 	<ul style="list-style-type: none"> 選擇低能耗高效的生產設備 實施水資源回收項目，提升水的整體回用率 秉承精益生產管理理念，盡可能減少廢棄物產生 	<ul style="list-style-type: none"> 對產品包裝材料進行回收與重複利用，減少包裝材料用量及廢棄物產生量 	<ul style="list-style-type: none"> 通過幫助客戶生產低能耗產品，減少終端電子產品使用對環境的影響 	<ul style="list-style-type: none"> 公司生產的晶圓均通過有害物質監測，意味着使用晶圓製造的終端電子產品在廢棄後能減少對環境的影響 生產環節中可回收的廢棄物交由有資質的第三方回收處理

把握清潔能源機遇

隨着全球能源結構調整加速推進，促進清潔能源使用成為越來越多企業發展關注的重點。華虹半導體積極把握清潔能源機遇，將主要工藝平台運用在不同應用領域，賦能下游價值鏈綠色產品發展。

公司在新型能源應用領域上游零部件的製造工藝方面積累了大量的技術與經驗，如新能源發電等，有效支持能源轉型發展。目前國際先進的新能源用半導體零部件進一步深化8寸工藝平台技術及可靠性，同時逐漸向12英寸工藝平台轉移。華虹半導體堅持「8英寸+12英寸」雙平台並舉，大力推進先進「特色IC+Power Discrete」產品布局為核心發展戰略，全力支持新能源基礎設施與應用領域零部件高質量供應能力。華虹半導體功率器件、非易失性存儲器、模擬及電源管理工藝在支持新能源運用領域產品發展上起着重要作用，如新能源汽車、光伏儲能、節能家電等。

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支持清潔能源發展產品

功率器件 (Power Discrete)

功率器件是新能源發電與新型能源應用領域的重要設備零部件。如光伏及風能發電設備、電動汽車、電動兩輪車，需要大量使用絕緣柵雙極型晶體管 (IGBT)、金屬-氧化物半導體場效應晶體管 (MOSFET) 等器件。

公司在該領域積累了大量客戶，並長期保持領域內頭部企業的良好合作關係，與深度的共同開發合作。至今，功率器件營收規模已經成為公司佔比最大的部分。

非易失性存儲器工藝

非易失性存儲器工藝被大量使用在如微處理器 (MCU)、專用集成電路 (ASIC) 等芯片應用中，同時這些芯片種類被大量應用於新能源發電設備中。

根據IC Insights統計，全球MCU消耗市場中，車用市場佔比超過30%。華虹所有制造工廠均通過IATF 16949汽車行業質量體系認證，為支持本土製造車用半導體作出重要貢獻。

參與開發的新能源零部件及應用領域

產品	應用領域	營收佔比
功率器件	光伏及風能發電設備、電動汽車、電動兩輪車等	39.4%
非易失性存儲器工藝	新能源發電設備、電動汽車等	35.9%

2023年，公司舉辦「芯聯通、車聯通、鏈聯通」車規芯片生態合作大會，聯合集成電路領域，汽車領域整車、零部件等近百家企業，以「聚技術創新之力，謀產業發展之機」共同推進車規芯片生態合作，促進產業協同聯動發展。公司依託「8英寸+12英寸」和先進「特色IC+Power Discrete」戰略，汽車電子業務不斷擴大，產品在新能源領域的不斷拓展使用，助力低碳綠色發展。

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2023 年助力新能源轉型技術開發進展

汽車電子	工業新能源	高端消費電子
<ul style="list-style-type: none"> 通過供應鏈協同，助力客戶產品加速進入相關模塊廠與整機企業。 與國內主流車企建立直接關係，從成熟芯片替代到重點難點項目合力攻關，共建可持續發展生態體系等多維度合作。推薦成熟芯片種類涉及汽車的動力系統、車身控制、座艙、底盤和安全、遠程控制及通信、ADAS、充電樁等各個領域，實現批量供貨。 建立了公司級汽車電子數據庫並不斷完善。 	<ul style="list-style-type: none"> 功率器件重點產品均實現了批量供貨，並顯著提升市場份額，未來隨着國家對雙碳經濟的布局 and 大力扶持，新能源市場的未來增長可期。 	<ul style="list-style-type: none"> 與國內知名家電品牌公司合作，提升國產替代率，持續推動高端消費電子業務拓展。 國內知名家電品牌公司採用公司工藝平台生產的 IGBT、顯示觸摸控制芯片、指紋鎖芯片、電機控制等產品，已逐步切入空調、冰箱等大家電市場。

未來，公司將進一步推動能夠實現更高能效的硅基功率器件的開發，並啟動具備高功率密度、低能耗等特性的化合物半導體功率器件的開發工作，為變頻家電、新能源汽車等清潔能源運用領域產品提供不斷優化的解決方案，進一步提升能源使用效率。

3 員工責任

2023 年主要進展

具體舉措	取得成效
安全生產	實現員工《安全責任書》、承包商《安全環保承諾書》100%簽訂。
員工培訓	員工培訓覆蓋率 100%。 人均培訓小時數 135.6 小時。

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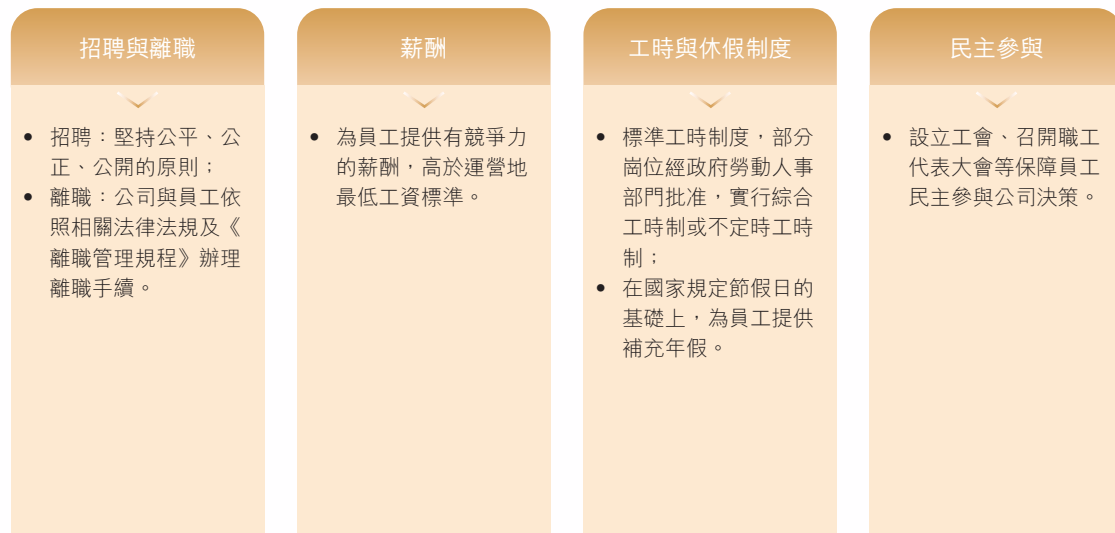
3.1 員工權益與福利

員工僱用與基本權益

華虹半導體嚴格遵守《中華人民共和國勞動法》《中華人民共和國勞動合同法》等法律法規，堅持公平用工，貫徹同工同酬的原則，確保員工不因其年齡、性別、籍貫、宗教信仰、婚姻狀況或殘疾等非工作因素受到歧視或差別待遇，並嚴禁僱用童工或強制勞工。

公司制定《僱用規程》《實習生管理規程》相關管理制度，嚴格核查員工身份信息，不招聘未滿16周歲的員工，如若核查發現有此類情況，將即刻停用並調查整改，針對疏漏環節完善招聘審查流程。截至報告期末，公司擁有正式員工6,863人，未發生與員工招聘與解僱、工時與假期、晉升與平等機會、反歧視及多元化、僱用童工及強制勞工相關的違法違規事件，也未有上述事項引起的訴訟案件發生。

員工權益概覽



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員工多元化

公司重視員工的多樣性，相信人才多元化能為團隊帶來新朝氣，並持續提高研發生產效率，助力公司實現業務增長。公司通過多元化的人才招聘渠道，為來自不同文化背景、學歷背景、技術專業的人才提供就業機會。

員工多元化實踐

性別多元化

- ▶ 在招聘、僱用、晉升環節，秉承「性別平等」理念，將員工能力及績效表現等作為僱用、晉升標準。

年齡多元化

- ▶ 秉承「年齡平等」理念，為不同年齡層的員工提供工作、晉升機會。

職能多元化

- ▶ 為員工提供管理、技術和職能支持等多個崗位序列，員工可基於自身發展規劃選擇。

公司制定相關規定與流程，持續營造一個開放、包容、尊重、多元的用工環境。公司尊重各類員工的生活方式，盡量為員工提供滿足其生活習慣的便利條件，為員工創造更好的辦公與生活服務設施，提高員工的幸福感。

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員工關愛

公司心系員工，將員工關愛融入日常實踐中。公司為員工提供辦公、飲食、住宿、出行等方面的福利及關愛舉措，傾力為其打造溫暖、有愛、活力的工作環境。

員工關愛舉措

辦公	<ul style="list-style-type: none"> 所有辦公場所均配置新風系統，同時還增加空氣淨化裝置，改善辦公室空氣質量。 在辦公室區域增加綠化。
飲食	<ul style="list-style-type: none"> 各廠區設有員工餐廳、咖啡廳。 成立食品安全監督小組，建立食材集中採購及合格供應鏈管理模式，邀請員工、部門代表等進行監督。 推出食堂菜餚製作指導書，對員工食堂飲食進行營養均衡搭配和控油控鹽管理。
住宿	<ul style="list-style-type: none"> 建立員工宿舍，內含獨立衛生間、24小時熱水和WIFI網絡等。 住宿區內設有圖書室、電腦室、桌球室、洗衣房、電視房、豐巢快遞櫃等設施。
出行	<ul style="list-style-type: none"> 為全體員工發放交通補貼。 在園區、地鐵站、員工宿舍區之間提供免費班車服務。 對交通不便區域的員工開行通勤班線、以及對有周末需求的部門安排加班車。
慰問	<ul style="list-style-type: none"> 節日慰問，開展節假日慶祝活動。
健康	<ul style="list-style-type: none"> 為全體員工提供一年一次的健康體檢，包含多發性癌症項目篩查等項目。

此外，公司建立了員工幫扶機制，除了日常傷病慰問外，在特殊節日如春節、五一、中秋等，為困難職工提供慰問扶持；對遭遇重大變故的同事，第一時間送去關心和支持，通過愛心捐款、愛心幫困、愛心關懷、愛心護理多種形式幫助員工盡早走出困境。

在女性員工關懷方面，每年組織女員工專項體檢，並持續健全哺乳期員工的人性化管理並提供相關服務設施，保證懷孕和哺乳期間的女性員工享受到工作中的便利。

員工溝通

通暢的溝通渠道有利於打造和諧的勞動關係。公司致力於建設和完善員工溝通與反饋機制，制定了《員工溝通規程》，鼓勵公司與員工之間、主管與下屬之間、員工相互之間的多向溝通。

公司通過滿意度調查、青年員工座談會、OA線上平台、部門內部一對一溝通等多樣溝通渠道，了解員工心聲與需求。同時，公司設立工會，定期召開職工代表大會等，積極與員工溝通。

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3.2 員工健康與安全

華虹半導體重視員工的職業健康與安全，嚴格遵守《中華人民共和國職業病防治法》《中華人民共和國安全生產法》《工傷保險條例》等法律法規及有關規定，建立完善的職業健康安全管理體系，明確職業健康安全方針，為員工提供良好的工作環境和職業健康保障。報告期內，公司工傷死亡事故數、職業病發生次數、火災事故數皆為0。

職業健康與安全管理體系

職業健康與安全管理方針

嚴格遵循安全健康環保法律法規，致力於清潔生產，持續改善，為員工營造出安全健康舒適的工作環境，不懈追求「零災害」和永續經營的最高目標，成為模範全球企業公民。

制度構建	<ul style="list-style-type: none"> 公司貫徹執行安全生產委員會安全生產責任制實施辦法，成立安全生產委員會，並落實安全例會制度。 逐級覆蓋全員人人簽署《安全責任書》，落實全員安全生產責任制。 	管理要素	<ul style="list-style-type: none"> 危險源/環境因素緊急響應。 特種設備與特殊崗位。 化學品管理。 職業健康監控與防護。
內審、檢查及隱患排查	<ul style="list-style-type: none"> 安全技術改造。 建立安全風險分級管控與隱患排查治理雙重預防工作機制。 	安全文化建設	<ul style="list-style-type: none"> 安全意識與安全培訓。 應急演練。

安全生產

公司重視生產過程中員工安全保障，嚴格遵守《中華人民共和國安全生產法》，制定《安全生產委員會安全生產責任制實施辦法》，建立安全生產委員會與安全生產周例會制度，持續優化安全生產各項管理程序，加強企業安全文化建設，確保公司安全生產體系穩固運行。目前，上海基地和無錫基地工廠均已通過了國際職業健康安全管理體系ISO 45001認證。

生產基地名稱	通過ISO 45001認證的情況	認證有效期
上海基地、無錫基地	已通過	2024年4月18日

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公司積極踐行安全工作標準化、系統化、智能化建設，健全全員安全生產責任體系。公司按照「一崗一責」和「誰主管誰負責，誰使用誰負責」的原則，結合崗位職能，編製覆蓋全員的《安全責任書》。同時，公司要求承包商簽訂《安全環保承諾書》，做到層層負責、人人有責、各負其責，深化了全員安全生產責任制。2023年，公司實現員工《安全責任書》、承包商《安全環保承諾書》100%簽訂。

此外，公司結合運行經驗完善系統化程序管理，建立健全安全事故／事件／隱患排查跟蹤系統、特種設備登記系統、設備端紅外檢測記錄系統等安全管理系統，用數據記錄保障整改措施的落實，讓流程得以規範化執行，提高公司的安全管理效率及安全運營水平。

員工安全風險防範設施和措施

消防設施：

建立完備的自動消防滅火系統、自動火災報警系統、防排煙系統、消防應急廣播系統、疏散指示和應急照明系統。

報警監控系統：

潔淨廠房內設有有毒、有害、易燃氣體報警系統、液體洩漏檢測系統以及極早期煙霧報警系統。

應急措施：

成立應急搶險隊(ERT)並開展專業技能訓練、制定針對不同災害的應急處置預案；定期組織專項處置演練，對發現的問題及時整改。

2023年，華虹半導體推進《安全生產專項整治三年行動(2023-2025)》項目，涵蓋危險化學品、建築施工、消防、燃氣、電力以及特種設備等，累計完成整改397項安全隱患。

化學品安全管理

針對化學品安全保障，公司建立多項化學品管理制度，如《化學品管理程序》《化學物質審查規程》《化學品洩漏專項應急預案》《化學品出入庫核查登記制度》《危險化學品安全管理規定》《危害性化學品turn on管理辦法》等管理制度和作業規程，規範化學品管理程序，提升化學品使用合規性。

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華虹半導體芯片製造過程中使用的危險化學品

類型	名稱
易燃液體	異丙醇、光刻膠、柴油
氧化劑和有機過氧化物	過氧化氫
有毒品	磷化氫、氟
腐蝕品	硫酸、鹽酸、氫氟酸、磷酸、混酸、氨水、氫氧化鈉
壓縮氣體和液化氣體	氫氣、甲烷、硅烷、氮氣、氧氣、氫氣、氫氣、氨、氯

公司設立了工廠化學品審查委員會，事前綜合評估化學品供應商環保安全資質與風險防控能力，運用化學物質管理系統實施化學品使用、保管、廢棄的管理，管控化學品最大保管量，對使用消耗情況進行動態監控。此外，公司通過優先採用新技術，無毒化學品替代有毒易燃危險化學品等措施，消除現場危險源，源頭降低安全風險。

危險化學品管理流程



員工職業病危害因素防護

公司嚴格遵守《中華人民共和國職業病防治法》等法律法規，開展員工職業病危害因素識別並制定相應防護措施，為員工提供職業健康保障。公司涉及職業病危害因素的崗位主要包括離子注入、擴散、刻蝕、化學機械研磨、動力氣化等設備作業崗位。

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員工職業病危害因素識別及防護

職業病危害崗位	職業病危害因素	防護措施	職業健康監護
離子注入、擴散、刻蝕、化學機械研磨、動力氣化等設備作業崗位。	氟及其無機化合物、氫氟酸、鹽酸、硝酸、硫酸、磷酸、氨水、過氧化氫、砷及其化合物、磷及其化合物、異丙醇等。	<ul style="list-style-type: none"> 潔淨室機台設備為自動化密閉運行，並設有密閉式工藝設備排氣系統。 為員工配備個人防護用品和應急防護用品，定期檢查器材確保防護用品的有效性。 	<ul style="list-style-type: none"> 實施年度職業健康監測以及職業危害現狀評價。 接觸職業病危害崗位員工嚴格實施崗前、崗中、離崗體檢。

此外，公司每年委託外部機構對生產環境進行職業病危害因素檢測，確保生產環境符合有害因素職業接觸限值標準，並將檢測結果通報給全體員工。公司在研發及生產過程中，堅持綠色化學理念，不斷降低員工職業危害接觸風險。

公司為全體員工提供一年一次的健康體檢，包含多發性癌症項目篩查等項目，並建立員工健康檔案用於系統性追蹤員工健康狀況的變化。2023年，公司通過建立「健康守護專欄」，同時開展各項活動向員工普及健康生活方式，例如開展主題健康講座「如何遠離「三高」風險」「新冠病毒感染者居家指引」「季節交替防面癱」等，倡導員工以健康方式的生活和工作。

塑造安全生產文化

為深入開展安全生產文化建設，加強全員安全文化意識，公司組織開展「安全生產月」「安康杯」「消防月」等活動系列活動，開展加強宣傳教育培訓、安全知識技能競賽活動。通過各種安全宣傳和展示主題活動，有效提升員工安全意識、安全知識儲備，促進全員履行安全承諾與安全責任。

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2023 年安全生產文化創建行動

行動名稱	行動內容及成效
深化安全培訓	<ul style="list-style-type: none"> 組織開展安全生產主體責任專題等安全教育培訓131場，參與人次逾28,000，安全教育培訓參訓率達100%、人員持證上崗率達100%。
強化應急能力	<ul style="list-style-type: none"> 各生產基地組織實施開展385場綜合與專項應急預案演練，參與人次逾29,770。 完成生產安全應急預案的專家評審及備案，建立完善生產基地異常快速應急處置流程等規範性文件，並做到了周周訓練、季季拉練、年年比賽。 舉辦ERT個人技能競技大賽及ERT消防技能比賽，以活動的形式搭建應急管理體系交流平台。 組織開展「消防月」消防知識展板宣傳，全員消防技能訓練和疏散逃生演習，提升全員安全意識和應急響應能力。
安全技改評比	<ul style="list-style-type: none"> 進行年度優秀安全技改評比，並組織學習交流。 隱患排查典型案例評選活動。

3.3 員工發展與培訓

員工培訓

公司建立了完善的員工教育培訓體系，制定了《內部培訓體系審核操作規程》、《教育培訓規程》和部門級培訓規程，根據戰略發展和員工需求不斷進行調整，滿足不同崗位員工全方位、多層次的培訓需求。

公司擁有完善的培訓設施，各廠區均設有專用的培訓教室與設備，以及學習分享平台，包括在線培訓報名管理、培訓教材與崗位題庫，多媒體學習課件等，必要時利用外部的資源，為員工的學習與發展提供了基本保障。

2023年，公司持續深入開展「新進大學生特訓營」培養項目，除專業理論與實踐訓練等內容提煉濃縮形成「芯時代」「芯揭秘」「芯達人」三大系列課程，進一步開設企業文化、政治素養課程，參觀紅色基地，幫助企業新人迅速融入團隊，並以飽滿的熱情迎接未來工作的挑戰。

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員工體系

培訓對象	培訓內容	2023 年績效
基層管理者	角色認知、自我管理、管理他人、工作管理	<ul style="list-style-type: none"> 員工培訓覆蓋率100% 人均培訓小時數135.6小時
一線主管	一線班組長管理技能，培養高素質、高業務能力的一線管理隊伍，夯實公司管理基礎	
新進大學生	職業素養、企業文化、專業入門等課程	
一線員工	半導體製造工藝模塊的理論與實訓課程	

職業發展

公司為員工提供明確、透明的晉升通道，定期評估員工績效並為員工提供個人工作表現反饋，為員工的發展提供個人職業發展規劃。公司根據行業特點，建立了管理、技術、職能支持三個職稱系列和相應的崗位培訓。員工可以按照自己的特長、潛能和意願，可以在單一的職稱系列中不斷成長，也支持員工從技術走向管理。

為持續推進公司高質量發展，提供高質量人才儲備，通過專場培訓、技術交流會、專題講座等形式着力淬煉綜合能力，不斷完善人才培養機制。

此外，公司制定了《學歷教育補貼實施辦法》，鼓勵員工提高專業技術知識水平，2023年為18名員工提供在職學歷教育補貼，以促進工作績效和效率提升，持續培養符合公司現有及未來對高素質人才的需求，從而進一步提高公司綜合競爭力。

截至報告期末，公司員工整體流失率³約為10.0%，其中，按員工性別、年齡及地區的流失率如下。

華虹半導體2023年員工流失率

員工類型	流失率(%)
男性員工	11.3%
女性員工	7.1%
小於30歲員工	14.0%
30-50歲員工	7.5%
大於50歲員工	1.9%
大陸員工	10.0%
海外員工	9.7%

3 員工流失率=該類員工流失人數/該類員工總人數*100%

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4 產品與服務

2023 年主要進展

具體舉措	取得成效
研發創新	<ul style="list-style-type: none"> 完成專利申請672件 評審通過論文12篇
產品質量	<ul style="list-style-type: none"> 入選第五屆中國質量獎提名獎候選名單 榮獲2022年上海市質量攻關(二等獎)
客戶服務	<ul style="list-style-type: none"> 客戶調查問卷滿意度均分為8.97(滿分10分)

4.1 產品研發與創新

創新技術研發體系建設

持續的創新研發是企業取得長足發展的重要保障，是推動高質量發展的戰略支撐。公司遵守《中華人民共和國科學技術進步法》《中華人民共和國專利法》等法律法規的要求，秉承「持續創新，為全球客戶製造‘芯’夢想」的願景，持續對標國際主流，推動工藝、器件、設計和產品聯動創新，打造業界領先的特色工藝技術。

2023年，公司開展「車規級存儲器」專利布局，持續推動工藝、器件、設計和產品的聯動創新，集中力量攻堅重點研發項目，加快研發差異化先進技術，持續推進新型功率器件開發，以專利為壁壘，主動布局業界領先的研究領域。

華虹半導體2023年研發體系

研發戰略	研發成果
<ul style="list-style-type: none"> 「8英寸+12英寸」和先進「特色IC+Power Discrete」戰略。 	<ul style="list-style-type: none"> 完成一批先進特色IC和高端功率器件技術開發，實現新產品量產投入超過20萬片。
<ul style="list-style-type: none"> 深化嵌入式／獨立式非易失性存儲器、功率器件、模擬與電源管理、邏輯與射頻等多元化特色工藝平台的高質量發展。 	<ul style="list-style-type: none"> 圖像傳感器、嵌入式閃存等平台關鍵器件指標和產品性能實現重大突破，陸續打入汽車電子供應鏈。

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2023 年華虹半導體研發創新榮譽

- √ 成功上榜工業和信息化部、國家發展改革委、財政部、市場監管總局四部委聯合公布的「**2022 年度智能製造優秀場景**」名單。
- √ 「一種新型鏡像浮柵閃存存儲單元及應用」榮獲上海市人民政府頒發的**上海市科學技術獎一等獎**。
- √ 「12 英寸 IGBT 成套製造工藝開發與產業化」項目榮獲中國半導體行業協會「**第十五屆中國半導體創新產品和技術**」獎。
- √ 成功入選上海市經濟和信息化委員會「**上海市 100 家智能工廠**」名單。

知識產權保護

公司遵守《中華人民共和國專利法》《中華人民共和國著作權法》《中華人民共和國商標法》，堅持量質並舉推進知識產權工作，制定《知識產權管理制度》，規範自身知識產權管理措施。

公司每年制定專利申報目標，積極維護自身知識產權。同時，公司也承諾不侵犯任何單位或個人的知識產權，對上下游合作夥伴的產品技術信息進行嚴格保密。為避免涉及侵犯他人知識產權，公司在接受產品訂單前對客戶進行聲譽及潛在風險的相關審核，並與主要技術公司訂立多項技術授權協議。

截至 2023 年末，公司累計申請國內外專利 8,969 件，獲得國內外授權專利 4,427 件。

2023 年華虹半導體知識產權成果及榮譽

- √ 完成專利申請 672 件
- √ 已獲批專利數 270 件
- √ 華虹無錫登榜 2023 年「無錫高新區知識產權榜單」
- √ 華虹無錫獲「2022 年新增發明專利前 20 強」的第 2 名
- √ 華虹無錫獲「2022 年累計發明專利前 30 強」的第 6 名

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4.2 產品質量與安全

質量管理體系

公司深化健全質量管理體系，在市場波動的嚴峻形勢下，提高「研發 – 量產 – 質控」過程的管理效率，通過《質量手冊》《質量管理流程》《質量目標管理實施規程》、《供應商管理規程》等制度開展質量管理工作。2023年公司開展「特色工藝零缺陷、華虹發展高質量」主題活動，評審結項2,578個。在效率提升、供應鏈安全、節能減排、人才培養、安全生產等方面碩果累累。

認證主體	認證的情況	認證有效期
華虹上海生產基地	ISO 9001質量管理體系	2024.05.21
	IECQ QC 080000有害物質過程管理體系	2026.12.11
	IATF 16949汽車行業質量管理體系	2024.05.21
華虹無錫生產基地	ISO 9001質量管理體系	2025.11.11
	IECQ QC 080000有害物質過程管理體系	2026.12.11
	IATF 16949汽車行業質量管理體系	2026.05.07

公司嚴格秉承零缺陷理念，由品保部負責產品質量與安全管理的統籌規劃及執行落地，向管理層及董事會匯報相關工作，並通過定期組織質量管理評審會、推進落實產品質量監測、加強客戶溝通等措施，旨在保障產品質量符合預期，向市場提供優質產品。

2023年，品保部攜手研發、生產、安環、市場等部門對產品的「研發 – 生產 – 售後」全生命周期進行監控測試，對可能出現的異常情況進行預測、分析，及時糾正，預防產品質量風險。

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2023 年在質量管理方面取得的成果

質量管理方面	成果
客戶認證	<ul style="list-style-type: none"> √ 通過 14 家汽車客戶和 25 家重要客戶審核，完成全球領先的汽車電子廠商客戶預審。 √ 在金融 IC 卡安全體系建設上取得突破，通過金融卡客戶 EMVCO 認證審核，質量體系獲得客戶的認可。
可靠性管理	<ul style="list-style-type: none"> √ 建立 40nm 及以下先進工藝節點完整的工藝考核方案，為後續工藝驗證奠定理論基礎。
良率管理	<ul style="list-style-type: none"> √ 全年解決各平台工藝基線系統性問題 15 項，各主要量產平台良率均穩定在 97% 以上。
新產品質量管理	<ul style="list-style-type: none"> √ 全年實現超過 500 顆新產品導入，車規產品導入超過 30 顆。 √ 全年完成 8 項產品和平台從技術研發向工廠量產轉移。

2023 年，公司將「特色工藝零缺陷，華虹發展高質量」主題活動與質量月活動相結合，以「築質量之基，行卓越之路」為目標，在滬錫兩地各部門、所有員工的通力合作下，開展了高管講堂、質量知識培訓、知識競賽、質量主題徵文和質量主題辯論賽等一系列活動，一起推進公司高質量發展，追求卓越品質。

為進一步提升公司的質量管理水平，激發員工學習積極性，公司面向全員開展了線上「零缺陷質量意識培訓」、「質量知識競賽」等系列活動，將「高質量與零缺陷」理念傳遞給每一位員工心中，進一步固化員工質量意識。

華虹半導體 2023 年質量管理獎項及榮譽

- √ 2022 年上海市質量攻關二等獎
- √ 華虹一廠製造部獲得上海市現場管理創新活動：優秀級
- √ 華虹二廠入選第五屆中國質量獎提名獎候選名單
- √ 華虹三廠獲授牌上海市智能工廠，國家級示範場景

產品安全保障

在產品安全保障方面，公司建立有害物質管理體系，定期進行有害物質風險評估和法律法規合規性評價，制定《有害物質管理規程》及三級管理制度對產品有害物質進行有效管控。

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產品有害物質管控體系

流程	舉措內容
產品研發	將產品有害物質的管理納入產品研發過程，在源頭降低有害物質使用風險。
原料檢測	要求供應商提供產品有害物質檢測報告並簽署《產品環保承諾書》，並對部分原料進行抽樣檢測，確保原料安全性。
產品有害物質管控認證	委託第三方機構開展《關於限制在電子電器設備中使用某些有害成分的指令》(RoHS)、《關於化學品註冊、評估、許可和限制規定》(REACH)檢測，確保產品符合相關認證標準要求。

不合格品管理

針對不合格品，公司制定《不合格品控制規程》管理制度進行管理，同時建立健全產品召回制度，對於符合質保條件的產品，客戶可於質保期內退換不合格產品。報告期內，公司產品在終端客戶端的失效率低於十億分之一。

4.3 客戶關係管理

客戶服務體系

公司秉承「為客戶提供更加便捷安全的服務」理念，始終遵循《中華人民共和國消費者權益保護法》，建立《客戶投訴處理規程》，傾聽客戶反饋，包括主動交流、設立投訴渠道、滿意度調查等主要方式，不斷提升客戶服務效能。

客戶服務體系



客戶交流

- 客戶調研、定期季度／年度業務回顧、技術研討會、培訓等多種與客戶交流的方式。



客戶投訴

- 設立客戶投訴渠道並制定《客戶投訴處理規程》，及時處理並反饋客戶投訴。



客戶滿意度調查

- 每年抽樣實施滿意度調查，根據調查結果制訂改善計劃。

公司暢通客戶投訴渠道，制定《客戶投訴處理規程》，對客戶投訴的處理流程、應對方案等進行規範。客戶可通過電子郵件、熱線、信函等渠道向公司進行投訴與反饋。報告期內，公司共計收到4起來自客戶的投訴，相關投訴均得到了妥善的處置並獲得客戶認可。

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客戶投訴處理流程



投訴發生

正常投訴發生後24小時之內與客戶進行溝通與確認，並給出初步回覆。



失效原因調查

需要進行產品失效分析的投訴移交給相關部門處理，根據調查結果制定糾正與預防措施並回覆客戶。



預防與糾正

落實糾正與預防措施，並通過定期對客戶反饋的相關信息進行整理和分析，對整改效果進行審核。

公司定期開展客戶滿意度調查。2023年度，公司採用調查問卷方式開展客戶滿意度調查，收集客戶意見，客戶調查問卷滿意度均分為8.97(滿分10分)，較2022年度上升了0.11分，客戶滿意度基本保持穩定。公司管理層評審年度滿意度調查結果，組織開展差異分析並實施改善措施，將相應改進舉措及結果答覆給客戶。

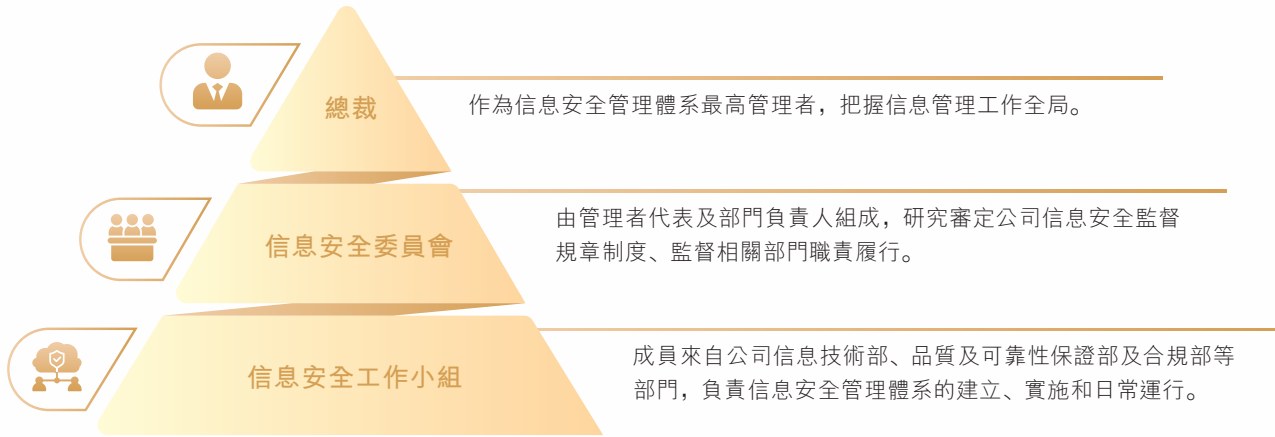
數據安全與隱私保護

公司遵守《中華人民共和國網絡安全法》《中華人民共和國密碼法》《商用密碼管理條例》等法律法規，制定《信息安全體系手冊》《信息安全適用性聲明(SOA)》等信息安全管理制度。同時，不斷優化組織架構和管理流程，組織員工集中學習、開展宣傳和警示教育、落實相關措施等，不斷提高思想意識，進一步加強數據信息的保護和管控，堅決杜絕洩密事件的發生。

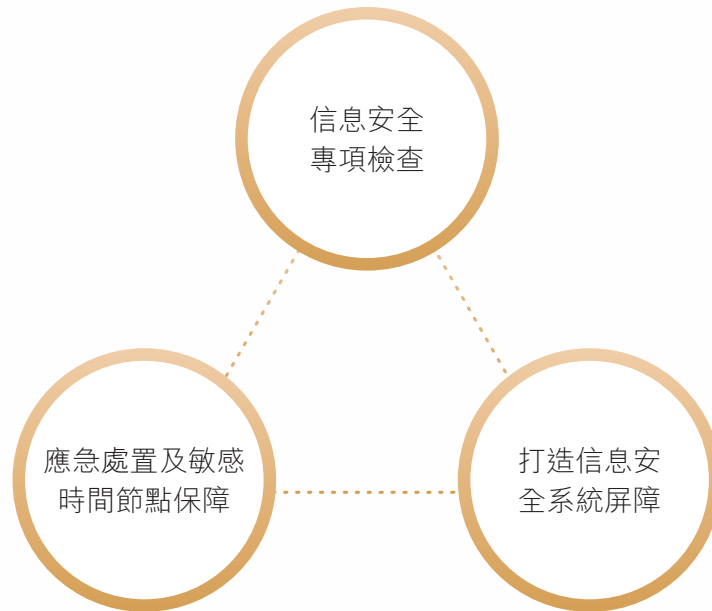
公司成立信息安全委員會，全面負責公司的信息安全保護工作，建立信息安全管理體系(ISMS)，從信息資產管理、人員安全、物理管控、邏輯管控等方面層層把控信息安全風險，保障信息安全，並通過了ISO 27001認證(有效期至2025年2月)。2023年，公司未發生侵犯客戶隱私及遺失客戶資料的投訴事件。

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信息安全管理體系架構



2023年華虹半導體在信息安全方面開展的重點工作



2023年，公司在各生產運營基地開展了系列信息安全保護相關培訓，加強員工預防信息洩露的知識儲備和應對能力，築牢信息安全保障的中堅力量。

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2023 年信息安全保護培訓

培訓主題	覆蓋範圍	參與人數
信息安全管理體系培訓2023Q1	上海基地和無錫基地	8,233
信息安全管理體系培訓2023Q2		6,554
信息安全管理體系培訓2023Q3		6,476
信息安全管理體系培訓2023Q4		6,919
保密、信息安全合規性培訓		6,802
企業信息安全及商業秘密保護培訓		1,044

負責任營銷

誠信、準確、基於事實的溝通和宣傳，是公司對客戶應盡的責任。公司嚴格遵守《中華人民共和國商標法》《中華人民共和國廣告法》等法律法規，在產品標籤管理方面均按照合規流程執行，並與客戶達成的統一的規範產品標識，將合規意識貫穿在合同制定、業務拓展等內外部營銷過程中，杜絕因主觀因素造成不當營銷的可能性。

報告期內，公司在標籤使用及宣傳信息方面未發生任何違法違規的事件。

5 負責任運營

2023 年主要進展

具體舉措	取得成效
負責任供應鏈	通過多維度評定風險，多渠道展開調研，科學規劃，分類施策，全力推進供應鏈管理工作。例如，對69家原材料／設備／零部件供應商進行審核。
衝突礦產	供應商盡職調查共涉及11家次，覆蓋100%「衝突礦產」的供應商，調查未發現涉及「衝突礦產」的供應商，經第三方驗證，不使用衝突礦產的供應商比例為100%。
經濟績效	2023年每股社會貢獻值3.59元。

5.1 責任價值鏈

可持續供應鏈管理

公司主要的供應商類型為硅片、化學品、氣體供應商。公司致力於降低供應鏈風險，遵從責任商業聯盟(RBA)等行業行為標準規範，制定《供應商風險識別策劃控制管理程序》《供貨商社會責任要求》等供應鏈管理制度，發揮集團一體化優勢，多維度評定供應商風險，多渠道展開調研，科學規劃，分類施策。

華虹半導體主要供應商

供應商類型	數量(家)
硅片	16
化學品	54
氣體	33

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與社會責任表現良好的供應商合作，是公司實現生產運營穩定運行的前提。公司建立了適用於所有供應商的管理體系，涵蓋供應商選擇與准入、供應商審核與評估、支持供應商成長以及供應商淘汰等環節。

供應鏈管理體系

供應鏈管理環節	管理行動
供應商選擇與准入	<ul style="list-style-type: none"> • 遵從責任商業聯盟行為準則(RBA)制定《供貨商社會責任要求》，對供貨商提出在勞工、健康與安全、環境保護、商業道德以及管理體系五大方面的要求； • 對於在環境、勞工、道德方面表現突出的供應商，在供貨和採購方面會優先採用； • 除了要求所有合作的供貨商遵守《供貨商社會責任要求》以外，公司也要求其上游的供貨商認同並依照《供貨商社會責任要求》進行管理。
供應商審核與評估	<ul style="list-style-type: none"> • 制定《供應商風險識別策劃控制管理程序》，每年對供貨商的環境、社會風險進行全面的評估與管控，識別供應商環境及社會風險，並制定相應對策； • 對於有重大違規記錄的供應商，要求其開展第三方社會責任風險稽核，並提供稽核通過的證明，或者取消其供應商資格； • 公司反腐敗政策覆蓋所有供應商，要求供應商符合反腐敗要求，並在年度評價時，對供應商合規情況進行確認。
支持供應商成長	<ul style="list-style-type: none"> • 每年對供應商定期開展「企業社會責任」「RBA行為準則」等的主題宣導培訓，內容包含環境、勞工、道德等方面； • 2023年開展的供應商培訓宣導覆蓋了硅片、化學品、氣體、靶材等類別的供應商。通過實地審核評估、聯合相關部門對供應商開展宣講工作，同步產品質量要求及標準，為供應商提升產品質量提供技術支持。
供應商淘汰	<ul style="list-style-type: none"> • 對在環境、勞工、道德方面表現不佳的供應商，公司督促其整改，並確認整改達到要求。對於不能滿足整改要求的供應商，將取消其供應商資格。

此外，半導體硅片製造過程需要大量的水資源，同時半導體製造也是高污染環節，如果不能在生產環節中解決好污染排放、廢水處理等問題，將進一步威脅到水資源再生。因此，公司對硅片供應商開展水資源管理相關行動與績效調查，降低其生產運營對水源的影響。2023年，公司對硅片供應商開展水資源調查覆蓋率達100%。

2023 年度環境、社會及管治報告

〈華虹半導體供應商社會責任要求〉概覽



勞工

- 自由選擇職業
- 青年員工
- 工作時間
- 工資與福利
- 人道的待遇
- 非歧視
- 自由結社



職業與健康

- 職業安全
- 應急準備
- 職業傷害與疾病
- 衛生管理
- 體力需求高的工作
- 機器防護
- 公共衛生，餐廳和宿舍
- 健康與安全溝通



環境保護

- 環境許可和報告
- 預防污染和節約資源
- 有害物質
- 固體廢棄物
- 空氣排放
- 材料限制
- 水資源管理
- 能源消耗和溫室氣體排放



商業道德

- 廉潔經營
- 無不正當利益
- 信息披露
- 知識產權
- 公平交易，廣告和競爭
- 身份保密
- 在採購礦物時秉承負責任的態度
- 隱私



管理體系

- 管理職責與責任
- 法律和客戶要求
- 風險評估和風險管理
- 附有實施計劃和措施的績效指標
- 培訓
- 溝通
- 員工反饋、參與和投訴
- 審核與評估
- 矯正措施

2023年，公司進一步完善汽車電子供應鏈管理體系，團結生態鏈內上下游企業協同合作，建立可靠高效的汽車電子芯片供應鏈。

2023 年度環境、社會及管治報告

2023年華虹半導體開展的供應鏈管理工作

供應商准入	供應商評估	供應商多元化
<ul style="list-style-type: none"> 新引入國產供應商28家，提高與優秀國產供應商的合作廣度和深度。 	<ul style="list-style-type: none"> 調研相關企業500多次，其中實地考察100多次，與近20家國內重要供應商建立聯繫。 向硅片供應商開展水資源管理評估，覆蓋率達100%。 	<ul style="list-style-type: none"> 全力推進供應鏈多元化工作，「8英寸+12英寸」原材料供應商多元化率較2022年提高20.2%，達到65.4%。 8寸原材料供應商多元化率提高20.1%，達到72%，其中靶材和硅片的多元化率超過90%。 12寸原材料供應商多元化率提高20.4%，達到55%。

外部環境影響原材料供應穩定性，公司為應對供應鏈風險，通過實地調研、加大尋源力度等方式提高本土供應商採購比例。此外，公司建立有效的緊急狀態應對體系，提高設備自主維修能力，開源節流，降本增效，密切關注市場需求，不斷優化產品組合，進一步提升優勢工藝平台的生產柔性，為持續、安全、穩定的運營保駕護航。

負責任礦產管理

「衝突礦產」是通過當地武裝民兵長期以暴力脅迫勞工童工、破壞環境生態的方式取得，也是資助非法武裝組織的主要資金來源。根據《多德 - 弗蘭克華爾街金融改革與消費者保護法》和部分國際非政府組織的研究報告，此類礦產很可能被信息、通信和技術(ICT)產業應用於手機，計算機等電子電氣產品中。

公司在生產運營過程中會涉及到金(Au)、鉭(Ta)、鎢(W)、錫(Sn)、鈷(Co)等金屬礦產資源的使用。公司依據《多德 - 弗蘭克華爾街金融改革與消費者保護法》，制定《衝突礦產管理政策》，避免採購及資助對社會、環境造成重大負面影響的礦產來源。

除開展自身管理外，公司按照負責任礦產倡議(RMI)、經濟合作與發展組織(OECD)《受衝突影響和高風險地區礦產供應鏈盡職調查指南》等國際公認的調查框架，對供應商進行溯源和盡職調查，要求所有供貨商承諾不採購受衝突影響和高風險區域的「衝突礦產」，確保供應鏈礦產安全。

2023 年度環境、社會及管治報告



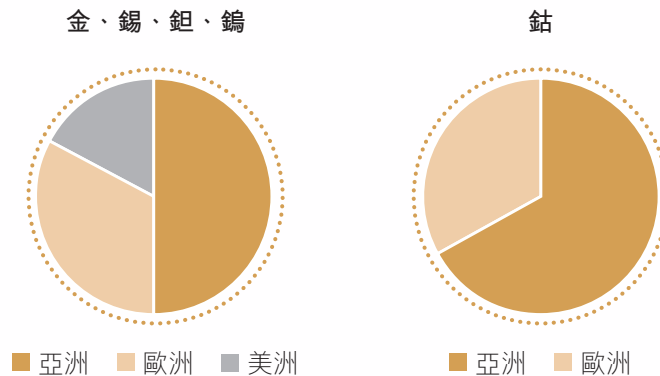
華虹半導體衝突礦產管理政策

將全球社會環境責任作為公司的目標，踐行綠色採購原則，承諾在金屬供應鏈中承擔社會及環境責任：

- 1、承諾要求原物料中含有金(Au)、鉭(Ta)、鎢(W)、錫(Sn)的供應商遵循負責任礦物政策採購，要求原物料含鈷(Co)的供應商披露鈷的來源冶煉廠。
- 2、承諾要求供貨商提供金(Au)、鉭(Ta)、鎢(W)、錫(Sn)、鈷(Co)金屬不使用「衝突礦產」的聲明，向供應商發出衝突礦產調查問卷(CMRT)和擴展礦物報告(EMRT)。

公司生產過程中使用的金，錫，鉭和鎢超過50%來自亞洲，超過33%來自歐洲，其餘來自美洲。使用的鈷三分之二來自亞洲，三分之一來自歐洲。報告期內，公司所使用的金(Au)、鉭(Ta)、鎢(W)、錫(Sn)均不來自武裝衝突地區。

礦產使用類型及來源



2023年，公司對11家涉及礦產的供應商開展衝突礦產問卷調查，回收率及覆蓋率為100%。公司要求供貨商追溯礦產來源以及冶煉廠信息，如經查所使用的衝突礦產是來源於受衝突影響和高風險地區的非合法礦產，則該供應商的違規物料須停止採購，並要求供應商限期整改，確保供貨商及其上游原材料符合公司的衝突礦產管理要求。

2023年，公司在供應鏈盡責調查過程中，未發現涉及僱用童工、侵犯人權、強迫勞動、生態破壞等重大問題。經第三方驗證，公司不使用衝突礦產的供應商比例為100%。

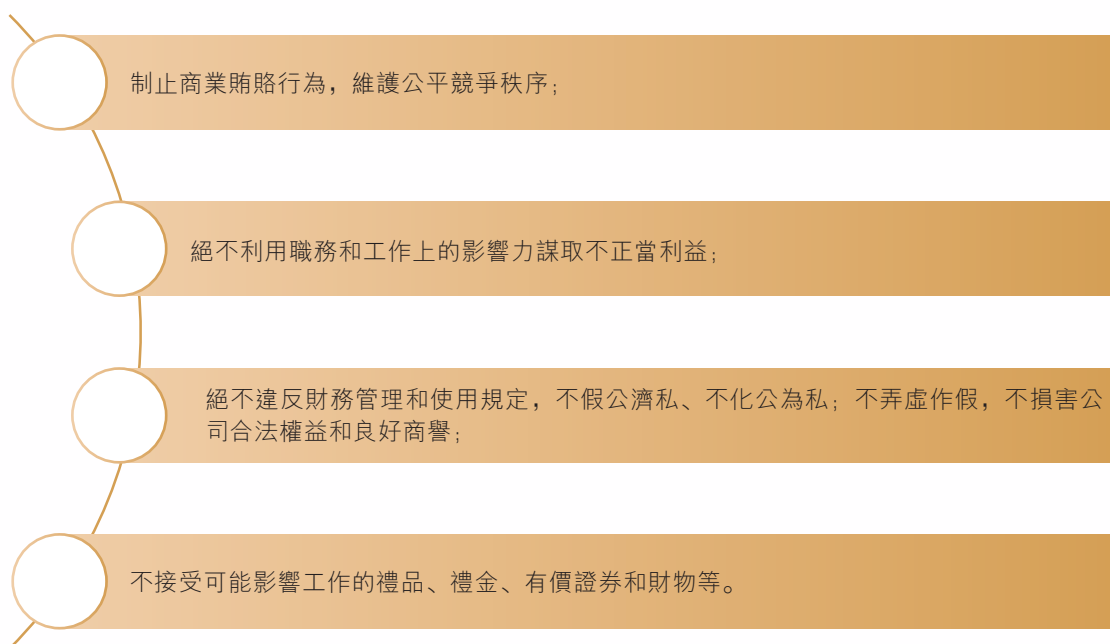
2023 年度環境、社會及管治報告

5.2 反貪污與賄賂

公司致力於打造清正廉潔、誠信公平的企業文化，嚴格遵守《中華人民共和國反不正當競爭法》《關於禁止商業賄賂行為的暫行規定》等法律法規及相關規定，制定了《反腐倡廉廉潔從業承諾制度》《反貪污與反賄賂政策》等內部管理制度，要求與全體合作夥伴及供應商簽署《反商業賄賂承諾書》，全體員工簽署《廉潔從業承諾書》。

公司要求所有員工(包括兼職員工)、高級管理人員、董事成員均需遵守法律法規，廉潔奉公，勤勉自律，禁止任何形式的貪污與賄賂行為，包括：

華虹半導體反貪污與反賄賂政策



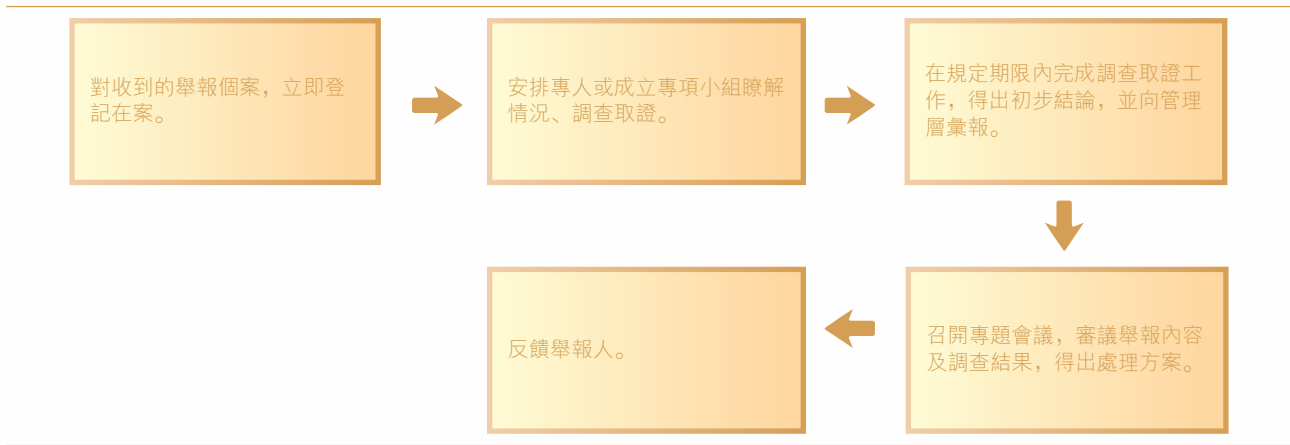
公司致力營造廉潔的商業道德從業環境，建立內部專欄定期推送警示文章和案例，開展反腐敗與商業道德相關培訓活動，做好廉潔文化陣地建設，用廉潔文化滋養身心。2023年5月，滬錫兩地分別召開2023年廉潔從業責任書簽訂儀式，簽訂對象為公司部門負責人及以上人員，進一步加強廉潔從業的責任落實，營造公司風清氣正的良好環境。

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公司支持員工自主監督和舉報，維護清正的工作環境，提供郵件、電話、信箱等清晰的舉報渠道，員工可以採用實名或匿名的方式進行投訴和舉報，公司隨時接受來電、來信舉報，做到早發現、早解決、早控制，妥善處理。

公司已建立完善的商業道德監督及舉報處理程序，對舉報案件進行調查舉證，經審議後反饋給舉報人處理方案。在舉報人保護層面，舉報人的信息將被嚴格保密，確保員工或外部人員不會因經合法途徑進行舉報而受到解僱、降級、停職、恐嚇、騷擾等不公平待遇或任何其他形式的報復行為。

商業道德監督及舉報處理程序



報告期內，公司未發生貪污、賄賂、勒索、欺詐及洗黑錢的事件，也未有上述事項引起的訴訟案件發生。

5.3 風險管理

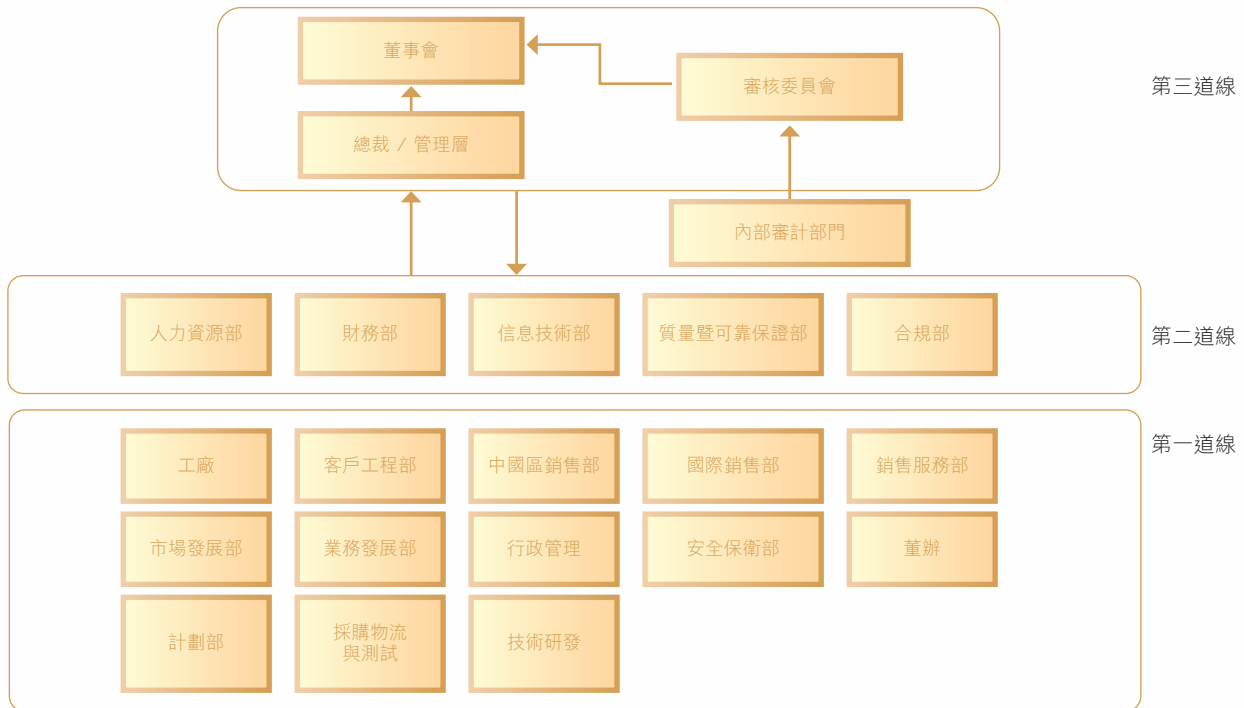
公司建立覆蓋各業務流程的《全面風險管理制度》，定期識別、梳理、研判風險清單，形成長效機制，分層級、分條線防範公司各大風險領域，有針對性地落實重大風險管控。

組織架構層面，在審核委員會及管理層授權下，公司依據國際內審協會(IIA)最新的風險管理「三線模型」，形成了具有公司特色的風險管理組織架構，明確了重大風險應對的分管領導、牽頭部門以及職責分工。內審部每年向審核委員會報告內部控制及風險管理重點、風險評估及應對控制措施，確保相關重大風險的應對形成閉環。

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華虹半導體經濟領域風險管理三道防線

組織治理機構(對利益相關方負責、承擔監督職責)



- 第一道線職能：為客戶提供產品 / 服務，管理風險；
- 第二道線職能：為風險相關的事務提供專業知識、支持、監督並提出合理質疑；
- 第三道線職能：對所有與實現目標相關的事務提供獨立和客觀的確認程建議。

在風險管理「三線模型」的基礎上，公司兼顧全面性和重要性的原則，持續優化公司風險地圖，合併部分同類風險因素，共辨析出公司59個主要風險因素，全面防範並監督公司內外風險。2023年，公司在上海、無錫基地開展年度風險評估，通過發放問卷、訪談、座談會、現場查看、數據分析等方式識別和梳理風險領域，對研發、產品質量、供應鏈管理、人才儲備及發展等重點風險領域的進行梳理，形成年度風險管理報告。

華虹半導體風險管理體系

風險評估	風險上報	溝通與培訓
通過發放問卷、訪談、座談會等方式識別和梳理風險領域，對風險領域進行打分，形成年度風險管理報告。	實行季度風險溝通上報機制，各業務條線每季度或不定期搜集並上報條線內風險事件。	不定期召開風險條線管理會議，開展風險培訓，溝通各業務條線及公司層面風險問題。

2023 年度環境、社會及管治報告

華虹半導體風險應對機制

風險類別	風險內容	策略
戰略	戰略規劃	公司自上而下擬定戰略目標，並進行適當的分解，落實到企業經營的具體業務模塊中，確保戰略目標的達成。
運營	研究與開發	持續完善研發項目管理體系，對研發的立項、執行、後評估全方位監控，不斷提升項目經理能力，及時開發有商業價值的新技術、新產品。
	產品質量	以生產質量體系為依託，全面推行卓越績效管理，嚴格秉承零缺陷理念，按時交付綠色優質的產品，確保所有產品尤其是車規級產品的質量穩定性，不斷提升客戶滿意度。
	人才儲備及發展	建立人才簡歷數據庫、開展人才庫存、不斷探索招聘渠道、優化薪酬結構、完善配套福利政策，全面提升企業的吸引力和員工滿意度。
	供應鏈	通過自身技術優勢提升產業鏈內話語權，與供貨商簽訂中長期戰略協議；針對各生產物料設置安全庫存值，定期審閱安全庫存值的合理性，及時隨市場變化進行調整；持續評估供應商供貨能力及產品質量，開發多元化供應渠道，確保供應鏈的穩定。
	信息安全	建立信息安全框架和管理方針，每年度執行信息安全風險評估程序，同時通過DLP數據保護系統對各項關鍵信息進行持續監控，確保公司、股東、客戶、供貨商及公司員工的最佳利益得以保障。
環境及安全	環境	公司根據環境因素識別、評價和控制策劃管理程序，列出重大環境因素清單。
	安全檢查	持續並定期開展以隱患排查和設備故障診斷為主的安全檢查。
	職業健康	公司根據安全健康環境管理體系目標指標及方案管理程序，制定環境職業健康安全目標、指標及方案管理表。

2023 年度環境、社會及管治報告

5.4 合規運營

公司尊重並遵守適用的當地法律法規，具體法律法規及相關政策詳見附錄中「公司遵守的法律法規及相關政策」列表。公司密切地監控法律法規頒布、修訂情況，識別與公司運營生產有關的條例，及時完善內部政策和管理制度，以確保運營符合法律法規。公司設立內審部，定期對供應鏈採購、商業道德及反腐敗等方面開展審計，以確保業務行為的合規性。

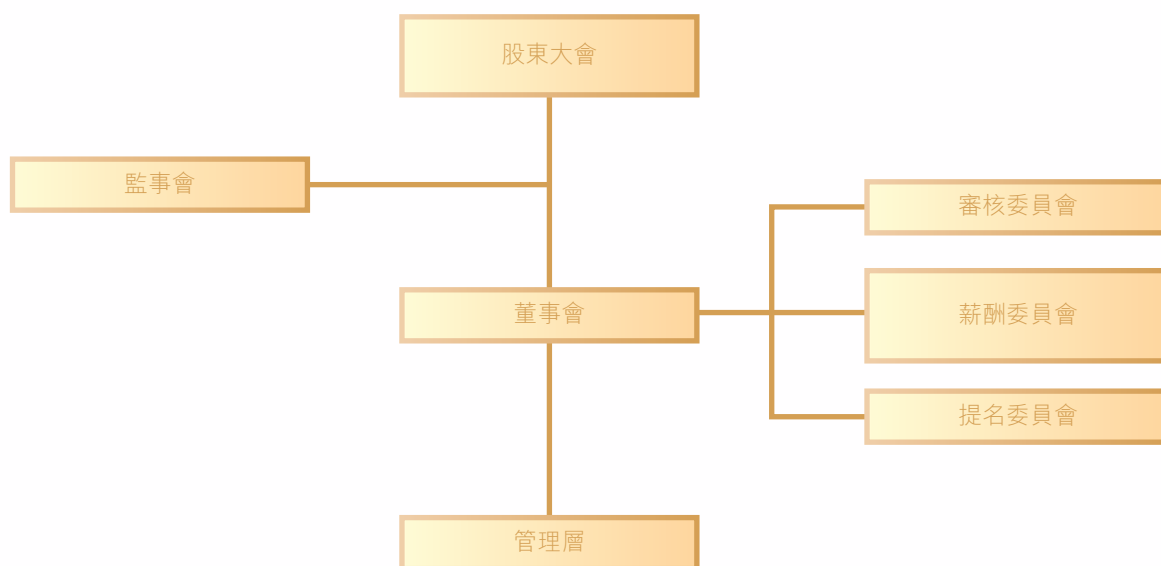
5.5 公司治理

公司治理

公司按照《中華人民共和國公司法》《中華人民共和國證券法》等法律法規，制定《公司章程》《股東大會議事規則》《董事會議事規則》等各項規章制度。2023年，公司在上海交易所科創板上市，按照《上市公司治理準則》《上市公司信息披露管理辦法》等法律法規，更新《公司章程》等公司治理規則，保持公司規範運作。

公司建立由股東大會、董事會及其下屬各專責委員會(包括審核委員會、薪酬委員會、提名委員會)及管理層人員組成的規範有序的治理結構，形成了權力機構、決策機構和執行機構之間權責分明、相互協調和制衡的治理機制。

公司治理架構



2023 年度環境、社會及管治報告

董事會監事會成員構成及相關會議開展情況

董事會監事會組成	三會召開情況
董事會董事7名	股東大會5次 共審議議案18項
其中，獨立董事3名	董事會會議10次 共審議議案31項

在規範信息披露方面，公司制定《信息披露管理制度》等管理文件，真實、準確、及時、公平、完整地披露有關信息，確保公司利益相關方獲得所需信息。報告期內，公司及時報告公司有關事項，按照信息披露的規範要求，保證信息披露的質量。

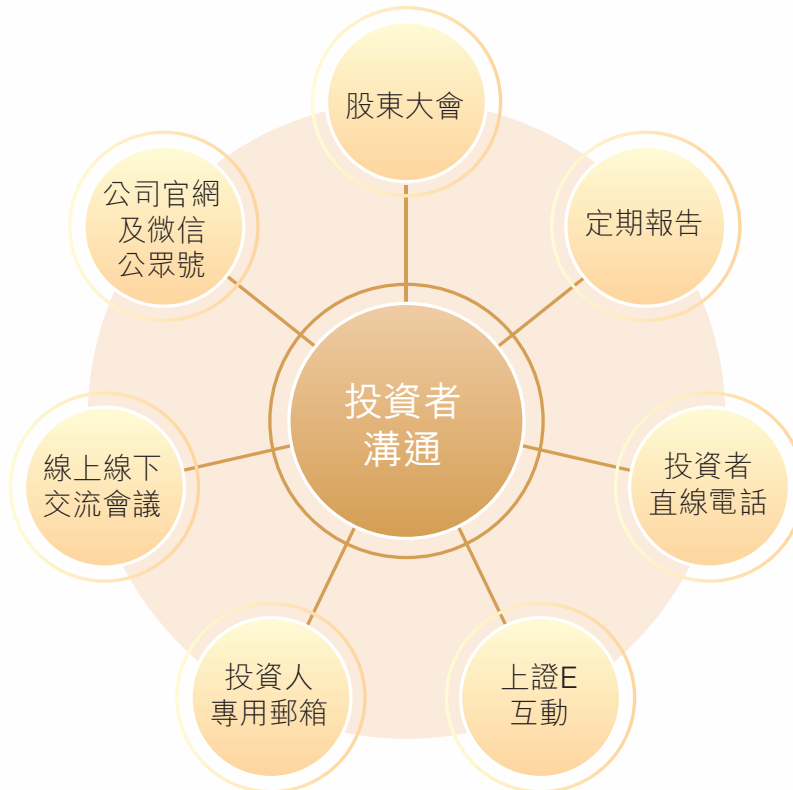
投資者權益保障

公司作為香港聯合交易所主板和上海證券交易所科創板上市公司，嚴格遵守香港的《公司條例》、香港聯合交易所《主板上市規則》、中國證券監督管理委員會《上市公司信息披露管理辦法》以及上海證券交易所《上海證券交易所科創板股票上市規則》等法律法規及相關政策要求，設立投資者關係管理小組，與各利益相關方保持溝通和互動，保障投資者合理訴求得到解決。

公司以「平等對待所有投資者」為原則，以「合規信息披露」為要求，以「誠實守信、互動溝通」為準繩，多渠道與資本市場溝通公司經營管理狀況、財務狀況、產品技術、重大事項等信息，並且主動披露投資者關心的與公司相關信息，充分保護投資者合法權益。

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投資者溝通渠道



為落實股東權益保障，公司制定合理的利潤分配政策及分紅方案，積極回報股東為投資者持續帶來穩健回報。

2023 年度，公司共召開 1 次股東大會以及 4 次股東特別大會，會議以投票表決的形式通過 18 項決議案。會議均邀請公司所有股東參與，包括所有中小投資者，保障中小投資者參與權。此外，報告期內公司開展了 4 次業績交流會議。

6 行業與社區

2023 年主要進展

具體舉措	取得成效
行業發展	<ul style="list-style-type: none"> 舉辦「芯聯通、車聯通、鏈聯通」車規芯片生態合作大會，推進車規芯片生態合作及高質量發展
志願服務與公益慈善	<ul style="list-style-type: none"> 連續 18 年開展養老院慰問活動 開展 4 場集成電路專場青少年科普活動

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6.1 行業發展

公司積極參與行業共建活動，助力集成電路產業高質量發展，積極參加行業峰會，攜手推動行業的高質量發展。

2023年，公司舉辦「芯聯通、車聯通、鏈聯通」車規芯片生態合作大會，聯合集成電路領域，汽車領域整車、零部件等近百家企業，以「聚技術創新之力，謀產業發展之機」共同推進車規芯片生態合作，促進產業協同聯動發展。

6.2 志願服務與公益慈善

為了增加社區居民安全意識，公司連續六年在總部運營所在地社區開展《意外急救課程》，包括急救常識及心肺復甦術應用等。

公司熱心公益事業，定期組織員工志願者們到社區養老院慰問老年人，與他們話家常、包餛飩、搞活動，給老人們送去歡樂和關心。公司連續18年慰問美馨養老院，開展志願服務。此外，利用早間時間公司員工利用早間時間到社區幼兒園擔任志願者，以實際行動踐行「華虹520精神」。

公司心系青少年教育，在「以光育光，探索‘童’行」的張江科學會堂科普季活動中開展4場集成電路專場科普活動，通過科普課程的講授，向逾130名孩子科普芯片製造的過程以及芯片在日常生活中的日常應用。同時，公司向四川省涼山彝族自治州布拖縣特木里鎮拉達小學及學生們捐贈了書包和體育用品。2023年，公司開展結對幫扶工作，向上海市崇明區油橋村捐贈人民幣5萬元。

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7 附錄

7.1 量化績效

環境

績效指標	單位	2021 年	2022 年	2023 年
排放物				
廢氣排放總量	萬立方米	2,319,307	2,391,024	2,747,929
氮氧化物(NOx)排放量	千克	36,857	32,650	33,719
二氧化硫(SO ₂)排放量	千克	2,239	3,546.12	5,251.56
廢水排放總量	萬立方米	704	832	898
有害廢棄物總量 ¹	噸	17,363	20,385	20,797
單位產量有害廢棄物產生量	千克/8英寸晶圓	4.96	4.88	5.29
無害廢棄物總量 ²	噸	8,981	9,864	9,269
單位產量無害廢棄物產生量	千克/8英寸晶圓	2.57	2.36	2.36
能源及資源使用				
用電總量 ¹	兆瓦時	867,682	954,667	1,030,352
天然氣用量 ¹	立方米	11,456,569	10,530,287	11,048,312
汽油用量 ¹	升	/	/	43,949
柴油用量 ¹	升	/	/	15,911
外購熱力 ¹	吉焦	/	/	134,940
氬氣 ¹	立方米	/	/	1,149,860
綜合能源 ³	兆瓦時	991,663	1,065,002	1,168,170
單位產量綜合能源消耗量	兆瓦時/8英寸晶圓	0.28	0.25	0.30
用水總量 ⁴	立方米	15,707,212	18,010,226	19,076,734
其中，來源於市政供水的水量	立方米	8,928,040	10,284,063	11,127,266
廢水回用	立方米	6,788,287	7,726,163	7,949,468
單位產品用水量 ⁵	立方米/8英寸晶圓	2.55	2.46	2.83
循環/再利用水量	立方米	86,119,337	107,163,560	126,544,660
成品出貨所用包裝材料的總量	噸	253.5	313.32	336.92
單位成品出貨所用包裝材料	千克/8英寸晶圓	0.07	0.07	0.09
成品出貨所用包裝材料的回收量	噸	48.5	54.9	66.33
溫室氣體排放				
溫室氣體排放量 ⁶	噸CO ₂ 當量	713,649	497,938	537,070
其中，直接溫室氣體排放量	噸CO ₂ 當量	24,803	24,877	22,881
間接溫室氣體排放量 ⁷	噸CO ₂ 當量	697,899	473,060	514,189
單位產量溫室氣體排放量	噸CO ₂ 當量/8英寸晶圓	0.21	0.12	0.14

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註：

- 1 2023年無錫生產基地擴產項目投產，能源消耗、廢氣、廢水、有害及無害廢棄物產生量有所增加。
- 2 無害廢棄物包括廢水處理產生的污泥量和一般廢棄物。
- 3 綜合能耗涵蓋外購電力、天然氣、汽油、柴油、外購熱力及氬氣。
- 4 用水總量=市政供水的用水量+廢水回用的用水量。
- 5 單位產品用水量的統計口徑僅包含市政供水。
- 6 溫室氣體排放所採取的統計口徑及核算依據遵循國家標準委《GB/T 32150工業企業溫室氣體排放核算和報告通則》及《GB/T 32151溫室氣體排放核算與報告要求》。
- 7 2022及2023年，間接溫室氣體排放量上海、無錫廠區分別依據《上海市溫室氣體排放核算與報告指南(試行)(滬發改環資[2012]180號)》及《關於做好2023 - 2025年發電行業企業溫室氣體排放報告管理有關工作的通知》計算。其中，上海廠區採用電力排放因子缺省值 $4.2\text{tCO}_2/10^4\text{kWh}$ ，無錫廠區採用全國平均電網排放因子 $0.5703\text{tCO}_2/\text{MWh}$ 進行計算。

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僱傭與勞務實踐

績效指標	單位	2021 年	2022 年	2023 年
員工僱傭				
全職員工總數	人	6,084	6,760	6,863
其中，男性員工數	人	4,426	4,932	5,039
女性員工數	人	1,658	1,828	1,824
勞動合同制員工數	人	6,084	6,760	6,863
勞務派遣制員工數	人	85	81	53
兼職員工	人	0	0	0
小於30歲員工數	人	2,676	2,983	2,894
30-50歲員工數	人	3,271	3,624	3,811
大於50歲員工數	人	137	153	158
大陸員工數	人	6,075	6,751	6,855
海外員工數	人	9	9	8
健康與安全				
員工職業病發病率	%	0	0	0
因公亡故的人數	人	0	0	0
因公亡故的比例	%	0	0	0
因工傷損失工作天數	天	367	83	61
員工培訓				
全職員工人均接受培訓時長	小時	119.9	122.2	133.7
其中：普通員工人均培訓時長	小時	121.5	123.7	135.6
管理層員工人均培訓時長	小時	23.5	26.5	31.6
女性員工人均培訓時長	小時	123.8	124.3	125.1
男性員工人均培訓時長	小時	118.5	121.4	136.8
全職員工受訓覆蓋率	%	100	100	100
其中：普通員工受訓覆蓋率	%	100	100	100
管理層員工受訓覆蓋率	%	100	100	100
女性員工受訓覆蓋率	%	100	100	100
男性員工受訓覆蓋率	%	100	100	100

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產品責任與客戶服務

績效指標	單位	2021 年	2022 年	2023 年
產品責任與客戶服務				
產品退貨率	%	0.05	0.11	0.087
已售產品因安全與健康問題回收的比例	%	0	0	0
客戶服務				
接獲關於產品及服務的投訴數目	件	0	0	4
客戶投訴辦結率	%	/	/	100%

供應鏈管理

績效指標	單位	2021 年	2022 年	2023 年
供應商總數 ¹	家	545	551	561
本土供應商總數	家	410	413	420
海外供應商總數	家	136	138	141
接受評估的供應商數目 ²	家	115	112	114
要求整改的供應商數目	家	0	0	0
原輔料供應商簽訂《環保承諾書》的百分比	%	100	100	100
原材料採購本土化比例 ³	%	29	31	32

註：

- 1 經覆核，供應商總數相關績效指標的近三年數據，以本年度報告表格中披露數據為準。
- 2 指公司對其實施了勞工、健康安全、環境、道德方面的評估的供貨商數目。
- 3 原材料採購包括：硅片、石英、靶材、氣體、化學品等生產原材料。

反貪污

績效指標	單位	2021 年	2022 年	2023 年
於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目	件	0	0	0
員工接受反貪污培訓的累計時長	小時	/	/	2,542

社區投資

績效指標	單位	2021 年	2022 年	2023 年
員工參與志願服務的人數	人	1,324	4,189	1,108
志願者活動累計時長	小時	1,986	6,283	1,364
社區投入	元	/	/	50,000

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經濟績效

績效指標	單位	2021 年	2022 年	2023 年
每股社會貢獻值 ¹	元	3.31	5.46	3.59

註：

- 1 每股社會貢獻值=(公司淨利潤+年內為國家創造的稅收+向員工支付的工資+向銀行等債權人給付的借款利息+對外捐贈額等為其他利益相關者創造的價值額 - 因環境污染等造成的其他社會成本) / 公司股份總數。

7.2 公司遵守的法律法規及相關政策列表

領域	法律法規名稱
環境責任	
環境保護	《中華人民共和國環境保護法》《中華人民共和國大氣污染防治法》《中華人民共和國城鄉規劃法》《中華人民共和國海洋環境保護法》《中華人民共和國節約能源法》等
產品責任	
產品與服務	《中華人民共和國會計法》《中華人民共和國公司法》《中華人民共和國憲法》《中華人民共和國產品質量法》《中華人民共和國海關法》《中華人民共和國計量法》《中華人民共和國對外貿易法》《中華人民共和國反不正當競爭法》關於化學品註冊、評估、許可和限制(簡稱「REACH」)系列法規、Waste Electrical and Electronic Equipment (WEEE)、關於限制在電子電器設備中使用某些有害成分的指令(簡稱「RoHS」)等
信息安全與隱私保護	《中華人民共和國網絡安全法》《中華人民共和國密碼法》《商用密碼管理條例》《中華人民共和國個人信息保護法》
知識產權保護	《中華人民共和國專利法》《中華人民共和國著作權法》《中華人民共和國商標法》等
員工責任	
員工僱傭	《中華人民共和國勞動合同法》《中華人民共和國婦女權益保障法》《中華人民共和國就業促進法》《中華人民共和國社會保險法》《中華人民共和國民法典》《中華人民共和國勞動法》《中華人民共和國刑法》《健康保險管理辦法》《失業保險金申領發放辦法》等
職業健康與安全	《中華人民共和國職業病防治法》《中華人民共和國安全生產法》《工傷保險條例》等
公司治理	
公司治理	《中華人民共和國公司法》《中華人民共和國證券法》等

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7.3 對標索引

香港聯合交易所《環境、社會及管治報告指引》(2023年12月31日起生效版)

B部分：強制披露規定

強制披露項	報告章節
管治架構	1.ESG管理體系
匯報原則	7.5報告編製原則
匯報範圍	7.4報告編製說明

C部分：「不遵守就解釋」條文

層面、一般披露及關鍵績效指標	披露章節
主要範疇A.環境	
層面A1.排放物	
一般披露A1	2.5排放物與廢棄物管理
KPI A1.1	7.1量化績效
KPI A1.2	2.5排放物與廢棄物管理 2.3氣候變化減緩與適應 7.1量化績效
KPI A1.3	7.1量化績效
KPI A1.4	7.1量化績效
KPI A1.5	2.5排放物與廢棄物管理 1.2ESG管理策略與目標
KPI A1.6	2.5排放物與廢棄物管理 1.2ESG管理策略與目標
層面A2.資源使用	
一般披露A2	2.2能源管理 2.4水資源管理
KPI A2.1	7.1量化績效
KPI A2.2	7.1量化績效
KPI A2.3	2.2能源管理 1.2ESG管理策略與目標
KPI A2.4	2.4水資源管理 1.2ESG管理策略與目標
KPI A2.5	7.1量化績效
層面A3.環境及天然資源	
一般披露A3	2.2能源管理 2.4水資源管理
KPI A3.1	2.2能源管理 2.4水資源管理
層面A4.應對氣候變化	
一般披露A4	2.3氣候變化減緩與適應
KPI A4.1	2.3氣候變化減緩與適應

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層面、一般披露及關鍵績效指標	披露章節
主要範疇B.社會僱傭及勞工常規	
層面B1.僱傭	
一般披露B1	3.1員工權益及福利
KPI B1.1	7.1量化績效
KPI B1.2	3.3員工發展與培訓
層面B2.健康與安全	
一般披露B2	3.2員工健康與安全
KPI B2.1	7.1量化績效
KPI B2.2	7.1量化績效
KPI B2.3	3.2員工健康與安全
層面B3.發展及培訓	
一般披露B3	3.3員工發展與培訓
KPI B3.1	7.1量化績效
KPI B3.2	7.1量化績效
層面B4.勞工準則	
一般披露B4	3.1員工權益與福利
KPI B4.1	3.1員工權益與福利
KPI B4.2	3.1員工權益與福利
主要範疇B.社會營運慣例	
層面B5.供應鏈管理	
一般披露B5	5.1責任價值鏈
KPI B5.1	7.1量化績效
KPI B5.2	5.1責任價值鏈
KPI B5.3	5.1責任價值鏈
KPI B5.4	5.1責任價值鏈
層面B6.產品責任	
一般披露B6	4.2產品質量與安全 4.3客戶關係管理
KPI B6.1	7.1量化績效
KPI B6.2	4.3客戶關係管理 7.1量化績效
KPI B6.3	4.3客戶關係管理
KPI B6.4	4.3客戶關係管理
KPI B6.5	4.3客戶關係管理

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層面、一般披露及關鍵績效指標	披露章節
層面B7.反貪污	
一般披露B7	5.2反貪污與賄賂
KPI B7.1	7.1量化績效
KPI B7.2	5.2反貪污與賄賂
KPI B7.3	5.2反貪污與賄賂
層面B8.社區投資	
一般披露B8	6.2志願服務與公益慈善
KPI B8.1	6.2志願服務與公益慈善
KPI B8.2	7.1量化績效

《上海證券交易所科創板股票上市規則》(2023年8月修訂)

披露要求	報告章節
4.4.1 綜述	1 ESG管理體系
4.4.2 環境保護責任	2環境責任
4.4.2(一) 遵守環境保護法律法規與行業標準	2.1環境管理體系
4.4.2(二) 制訂執行公司環境保護計劃	2.1環境管理體系
4.4.2(三) 高效使用能源、水資源、原材料等自然資源	2.4資源管理
4.4.2(四) 合規處置污染物	2.5排放物與廢棄物管理
4.4.2(五) 建設運行有效的污染防治設施;	2.1環境管理體系
4.4.2(六) 足額繳納環境保護相關稅費	2.5排放物與廢棄物管理
4.4.2(七) 保障供應鏈環境安全	2.1環境管理體系
4.4.2(八) 其他應當履行的環境保護責任事項	5.1責任價值鏈
4.4.3 生產及產品安全保障責任	2.1環境管理體系
4.4.3(一) 遵守產品安全法律法規與行業標準	4產品與服務
4.4.3(二) 建立安全可靠的生產環境和生產流程	4.2產品質量與安全
4.4.3(三) 建立產品質量安全保障機制與產品安全事故應急方案	4.2產品質量與安全
4.4.3(四) 其他應當履行的生產與產品安全責任	4.2產品質量與安全
4.4.4 員工權益保障責任	4.1產品研發與創新
4.4.4(一) 建立員工聘用解僱、薪酬福利、社會保險、工作時間等管理制度及違規處理措施	4.2產品質量與安全
4.4.4(二) 建立防範職業性危害的工作環境與配套安全措施	4.3客戶關係管理
4.4.4(三) 開展必要的員工知識和職業技能培訓	3員工責任
4.4.4(四) 其他應當履行的員工權益保護責任	3.1員工權益與福利
4.4.5 科學倫理	3.2員工健康與安全
	3.3員工發展與培訓
	3.1員工權益與福利
	4.1產品研發與創新

2023 年度環境、社會及管治報告

《上海市證券交易所科創板上市公司自律監管指引第2號 – 自願信息披露》(2022年修訂)

條款及披露內容	報告章節
(六)-1 研發基本情況	4.1產品研發與創新、6.1行業發展
(六)-2 研發可行性	2.6綠色產品、4.1產品研發與創新
(六)-3 必要的風險提示	5.3風險管理
(六)-4 研發對公司的影響	2.6綠色產品、4.1產品研發與創新
(十四)-1 環境責任	2.1環境管理體系、2.2能源管理、2.3氣候變化減緩與適應、2.4資源管理、2.5排放物與廢棄物管理
(十四)-2 員工保護與發展	3.1員工權益與福利、3.2員工健康與安全、3.3員工發展與培訓
(十四)-3 產品安全、合規經營、公益活動	4.1產品質量與安全、5.4合規運營、5.5公司治理、6.2志願服務與公益慈善
(十四)-4 公司治理和投資者保護	5.5公司治理

7.4 報告編製說明

本報告是華虹半導體有限公司第8份《環境、社會及管治報告》，向投資者等利益相關方披露了公司在經營中對於ESG議題所秉持的理念、建立的管理方法、推行的工作與達到的成效。

報告範圍

本報告範圍涵蓋華虹半導體有限公司及其子公司(簡稱「華虹半導體」公司)。除非特別說明，與華虹半導體(股票代碼：01347.HK/688347.SH)同期合併財務報表範圍一致。

報告期間

本報告期間為2023年1月1日至2023年12月31日。本報告中的數據如無特別說明，均為此期間內數據。

2023 年度環境、社會及管治報告

編製依據

本報告依據香港證券交易所刊發的《上市規則》附錄C2《環境、社會及管治報告指引》(2023年12月31日起生效版)，並參考《上海市證券交易所科創板股票上市規則》(2023年8月修訂)以及《上海市證券交易所科創板上市公司自律監管指引第2號—自願信息披露》(2022年修訂)編製。

數據說明

報告中數據和案例來自公司實際運行的正式記錄。

報告中的財務數據均以人民幣為單位。財務數據與公司年度財務報告不符的，以年度財務報告為準。

報告獲取方式

本報告通過電子版形式發布，發布平台包括公司官方網站(公司官網：<https://www.huahonggrace.com>)

聯繫我們

如對報告有建議，可通過以下方式與我們聯繫：

聯繫地址：中國上海市張江高科技園區哈雷路288號

聯繫郵箱：IR@hhgrace.com

7.5 報告編製原則

- **重要性**
公司識別出投資者等利益相關方關注的與經營相關的實質性議題，作為本報告匯報重點。本報告中對實質性議題的匯報同時關注公司運營涉及的行業特徵以及所在地區特徵。實質性議題的分析過程及結果詳見本報告「ESG管理體系」章節。同時，本報告對環境、社會及管治方面可能對投資人及其他相關方產生重要影響的事項進行重點匯報。
- **準確性**
本報告盡可能確保信息準確。其中，定量信息的測算已說明數據口徑、計算依據與假定條件，以保證計算誤差範圍不會對信息使用者造成誤導性影響。定量信息及附註信息詳見本報告章節。

董事會對報告的內容進行保證，不存在虛假記載、誤導性陳述或重大遺漏。

2023 年度環境、社會及管治報告

- **平衡性**
本報告內容反映客觀事實，對涉及公司正面、負面的信息均予以不偏不倚地披露。公司對本報告範圍內的對象，通過上海青悅信用數據庫開展檢索，在報告期間內未發現應當披露而未披露的負面事件。
- **清晰性**
本報告以簡體中文發布。本報告中包含表格、模型圖等信息，作為本報告中文字內容的輔助，便於利益相關方更好地理解報告中文字內容。為便於利益相關方更快獲取信息，本報告提供目錄及ESG標準的對標索引表。
- **量化及一致性**
本報告披露關鍵定量績效指標，並盡可能披露歷史數據。本報告對同一指標在不同報告期內的統計及披露方式保持一致；若統計及披露方式有更改，在報告附註中予以充分說明，以便利益相關方進行有意義的分析，評估公司ESG績效水平發展趨勢。具體請見本報告「量化績效」章節。
- **完整性**
本報告披露對象範圍涵蓋與公司合併財務報表範圍保持一致。
- **時效性**
本報告為年度報告，覆蓋時間範圍為2023年1月1日至2023年12月31日公司盡力在報告年度結束後盡快發布報告，為利益相關方決策提供及時的信息參考。
- **可驗證性**
本報告中案例和數據來自公司實際運行的原始記錄或財務報告。公司採用HiESG績效管理系統管理歷年ESG量化績效，所披露數據來源及計算過程均可追溯，可用於支持外部鑑證工作檢查。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告



Ernst & Young
27/F, One Taikoo Place
979 King's Road
Quarry Bay, Hong Kong

安永會計師事務所
香港鰂魚涌英皇道979號
太古坊一座27樓

Tel電話: +852 2846 9888
Fax傳真: +852 2868 4432
ey.com

To the members of Hua Hong Semiconductor Limited
(Incorporated in Hong Kong with limited liability)

Opinion

We have audited the consolidated financial statements of Hua Hong Semiconductor Limited (the “Company”) and its subsidiaries (the “Group”) set out on pages 279 to 391, which comprise the consolidated statement of financial position as at 31 December 2023, and the consolidated statement of profit or loss, the consolidated statement of 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 material accounting policy information.

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 2023, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards (“HKFRSs”) issued by the Hong Kong Institute of Certified Public Accountants (“HKICPA”) and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

致華虹半導體有限公司列位股東
(於香港註冊成立之有限公司)

意見

吾等已審核華虹半導體有限公司(「貴公司」)及其子公司(「貴集團」)載於第279至391頁的綜合財務報表，當中包括於二零二三年十二月三十一日的綜合財務狀況表，以及截至該日止年度的綜合損益表、綜合全面收益表、綜合權益變動表及綜合現金流量表，以及綜合財務報表附註(包括重大會計政策資料)。

吾等認為，該等綜合財務報表已根據香港會計師公會(「香港會計師公會」)頒佈的香港財務報告準則(「香港財務報告準則」)真實而公平地反映 貴集團於二零二三年十二月三十一日的綜合財務狀況，及其截至該日止年度的綜合財務表現及綜合現金流量，並已按照香港公司條例妥為編製。

INDEPENDENT AUDITOR'S REPORT

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Basis for opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing (“HKSAAs”) issued by the HKICPA. 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 the HKICPA’s *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 judgement, 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. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor’s responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

意見的基礎

吾等已根據香港會計師公會頒佈的香港審計準則(「香港審計準則」)進行審計。根據該等準則，吾等的責任於本報告核數師就審計綜合財務報表承擔的責任一節進一步闡述。根據香港會計師公會專業會計師道德守則(「守則」)，吾等獨立於貴集團，並已遵循守則履行其他道德責任。吾等相信，吾等所獲得的審計憑證能充足和適當地為吾等的意見提供基礎。

關鍵審計事項

關鍵審計事項是根據吾等的專業判斷，認為對本期綜合財務報表的審計最為重要的事項。這些事項是在對綜合財務報表整體進行審計並形成意見的背景下進行處理的，吾等不對這些事項提供單獨的意見。吾等對下述每一事項在審計中是如何應對的描述也以此為背景。

吾等已經履行本報告核數師就審計綜合財務報表承擔的責任一節所述的責任，包括有關該等事項的責任。因此，吾等的審計包括執行為應對綜合財務報表重大錯誤陳述風險的評估而設計的程序。吾等執行審計程序的結果，包括應對以下事項所執行的程序，為吾等就隨附的綜合財務報表的審計意見提供基礎。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

Key audit matters (continued)

Key audit matter	How our audit addressed the key audit matter
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Impairment of long-term assets

As at 31 December 2023, the carrying amount of property, plant and equipment, right-of-use assets and intangible assets was US\$3,648 million, representing a significant proportion of the Group's total assets. Management made a judgement that certain cash-generating unit had indicators of impairment at balance sheet date and performed an impairment test using discounted cash flow method to estimate its recoverable amount. This matter was significant to our audit because the carrying amount of long-lived assets was material to the consolidated financial statements and the impairment test process was complex and involved significant judgements.

The Group's disclosures about the impairment of long-lived assets are included in notes 3 and 13 to the financial statements.

Our audit procedures included, amongst others, evaluating management's identification of the CGUs and judgement of impairment indicators thereon, involving our internal specialists to assist us in evaluating the methodology of the impairment test and key assumptions such as discount rate, evaluating the other key assumptions, in particular, the projection period length, revenue growth rate, gross profit margin and net profit margin, and reviewing relevant disclosures in the consolidated financial statements.

關鍵審計事項(續)

關鍵審計事項	關鍵審計事項在審計中是如何應對的
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長期資產減值

於二零二三年十二月三十一日，物業、廠房及設備、使用權資產及無形資產的賬面值為3,648百萬美元，相當於本集團大部分資產總值。管理層於資產負債表日期判斷若干現金產生單位有減值跡象，並採用貼現現金流量法進行減值測試，估計其可收回金額。該事項對吾等的審計而言屬重大，原因是長期資產的賬面值對綜合財務報表而言屬重要，且減值測試過程複雜並涉及重大判斷。

本集團有關長期資產減值的披露載於財務報表附註3及13。

我們的審計程序包括(其中包括)評估管理層對現金產生單位的識別以及對相關減值指標的判斷；請內部專家協助我們評估減值測試的方法及貼現率等關鍵假設；評估其他關鍵假設，特別是預測期長度、收入增長率、毛利率及淨利率；以及審查綜合財務報表中的相關披露。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

Key audit matters (continued)

Key audit matter

How our audit addressed the key audit matter

Fair value of an investment property

The Group recognised an investment property amounting to US\$167 million as at 31 December 2023. The Group measures its investment property at fair value at the end of each reporting period and engages external experts to assess its fair value. During the year, this matter was significant to our audit because the carrying amount of the investment property was material to the consolidated financial statements and the valuation process was complex and involved significant judgements.

The Group's disclosures about the valuation of the investment property are included in notes 3 and 14 to the financial statements, which explain the key assumptions that management used in the valuation.

Our audit procedures included, amongst others, assessing the competency, capabilities and objectivity of the independent external valuers engaged by the Group, comparing property-related data used for the valuation with the underlying documentation and involving our internal specialists to assist us in evaluating the methodology of the valuation and the key assumptions used in the valuation such as the estimated rental value, term yield, reversionary yield and long-term vacancy rate, and reviewing relevant disclosures in the consolidated financial statements.

關鍵審計事項(續)

關鍵審計事項

關鍵審計事項在審計中是如何應對的

一項投資產物的公平值

於二零二三年十二月三十一日，本集團確認的投資物業金額為167百萬美元。本集團於各報告期末按公平值計量其投資物業，並聘請外部專家評估其公平值。於年內，該事項對吾等的審計而言屬重大，因為投資物業的賬面值對綜合財務報表而言屬重要，且估值過程複雜並涉及重大判斷。

本集團對投資物業估值的披露載於財務報表附註3及14，其中解釋了管理層於估值中使用的關鍵假設。

我們的審計程序包括評估本集團聘請的獨立外部估值師的能力、實力及客觀性，將估值所用的物業相關資料與相關文件進行比較，並邀請內部專家協助吾等評估估值方法及於估值中使用的關鍵假設，如估計租賃價值、年期回報率、復歸回報率及長期空置率並審閱綜合財務報表的相關披露。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

Other information included in the Annual Report

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than 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.

Responsibilities of the directors for the consolidated financial statements

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and 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 of the Company 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 of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

年報所載的其他資料

貴公司董事須對其他資料負責。其他資料包括年報所載資料(綜合財務報表及吾等就此發出的核數師報告除外)。

吾等對綜合財務報表的意見並不涵蓋其他資料，吾等亦不會就其發表任何形式的鑒證結論。

就審計綜合財務報表而言，吾等的責任是閱讀其他資料，及在此過程中，考慮其他資料是否與綜合財務報表或吾等在審計過程中所了解的情況有重大不符，或者似乎有重大錯誤陳述。倘我們基於已進行的工作認為其他資料出現重大錯誤陳述，我們須報告有關事實。就此，我們並無報告事項。

董事對綜合財務報表須承擔的責任

貴公司董事須負責根據香港會計師公會頒佈的香港財務報告準則和香港公司條例編製綜合財務報表以作出真實而公平的反映，並落實董事認為必須之內部控制，以使綜合財務報表之編製不存在由於欺詐或錯誤而導致的重大失實陳述。

在編製綜合財務報表時，貴公司董事負責評估貴集團持續經營的能力，並在適用情況下披露與持續經營有關的事項，以及使用持續經營為會計基礎，除非貴公司董事有意將貴集團清盤或停止經營，或別無其他實際的替代方案。

審核委員會協助貴公司董事履行監督貴集團財務報告過程的責任。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

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 an auditor's report that includes our opinion. Our report is made solely to you, as a body, in accordance with section 405 of the Hong Kong Companies Ordinance, 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 HKSA's 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 HKSA's, we exercise professional judgement and maintain professional scepticism 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.

核數師就審計綜合財務報表承擔的責任

吾等的目標，是對綜合財務報表整體是否不存在由於欺詐或錯誤而導致的重大錯誤陳述取得合理保證，並出具包括吾等意見的核數師報告。吾等按照香港公司條例第405條僅向整體股東報告，除此之外本報告別無其他目的。吾等不會就本報告的內容向任何其他人士負責或承擔任何責任。

合理保證是高水平的保證，但不能保證按照香港審計準則進行的審計，在某一重大錯誤陳述存在時總能發現。錯誤陳述可以由欺詐或錯誤引起，如果合理預期它們單獨或匯總起來可能影響綜合財務報表使用者依賴綜合財務報表所作出的經濟決定，則有關的錯誤陳述可被視作重大。

我們根據香港審計準則進行審計的工作之一，是運用專業判斷，在整個審計過程中保持專業懷疑態度。我們亦：

- 識別及評估綜合財務報表由於欺詐或錯誤而導致的重大錯誤陳述風險，因應該等風險設計及執行審計程序，以及獲得充足及適當的審計憑證為我們的意見提供基礎。由於欺詐涉及合謀串通、偽造、故意遺漏、誤導性陳述或凌駕於內部控制之上，因此未能發現由此造成的重大錯誤陳述風險比未能發現由於錯誤而導致的重大錯誤陳述風險更高。
- 了解與審計有關的內部控制，以設計恰當的審計程序，但並非旨在對貴集團內部控制的有效性發表意見。
- 評估所用會計政策的恰當性，以及董事所作出的會計估算和相關披露的合理性。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

Auditor's responsibilities for the audit of the consolidated financial statements (continued)

- 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, actions taken to eliminate threats or safeguards applied.

核數師就審計綜合財務報表承擔的責任(續)

- 總結董事採用以持續經營為基礎的會計法的恰當性，並根據已獲取的審計憑證，總結是否有可能對貴集團持續經營能力構成重大疑問的事件或情況等重大不確定因素。倘若我們總結認為有重大不確定因素，我們需要在核數師報告中提請注意綜合財務報表內的相關披露，或如果相關披露不足，則修訂我們的意見。我們的結論是基於截至核數師報告日期所獲得的審計憑證。然而，未來事件或情況可能導致貴集團不再具有持續經營的能力。
- 評估綜合財務報表(包括披露)的整體列報、架構和內容，以及綜合財務報表是否中肯反映相關交易及事項。
- 就貴集團內各實體或業務活動的財務資料獲得充足適當的審計憑證，以便就綜合財務報表發表意見。我們須負責指導、監督和執行貴集團的審計工作。我們須為我們的審計意見承擔全部責任。

我們就(其中包括)審計工作的計劃範圍和時間以及重大審計發現(包括我們在審計過程中發現的任何內部控制的重大缺失)與審核委員會進行溝通。

我們亦向審核委員會提交聲明，確認我們已遵守有關獨立性的道德要求，並就所有被合理認為可能影響我們獨立性的關係和其他事宜以及為消除威脅而採取的行動或應用的保障措施(如適用)，與審核委員會進行溝通。

INDEPENDENT AUDITOR'S REPORT

獨立核數師報告

Auditor's responsibilities for the audit of the consolidated financial statements (continued)

From the matters communicated with the Audit Committee, 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.

The engagement partner on the audit resulting in this independent auditor's report is Lawrence K.W. Lau.

Ernst & Young
Certified Public Accountants
Hong Kong
28 March 2024

核數師就審計綜合財務報表承擔的責任(續)

我們通過與審核委員會溝通，確定哪些是本期綜合財務報表審計工作的最重要事項，即關鍵審計事項。除非法律或法規不容許公開披露此等事項或在極罕有的情況下，我們認為披露此等事項可合理預期的不良後果將超過公眾知悉此等事項的利益而不應在報告中予以披露，否則我們會在核數師報告中描述此等事項。

出具本獨立核數師報告的審計項目合夥人為劉國華。

安永會計師事務所
執業會計師
香港
二零二四年三月二十八日

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

綜合損益表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

			2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
	Notes 附註			
Revenue	銷售收入	5	2,286,113	2,475,488
Cost of sales	銷售成本		(1,799,017)	(1,631,832)
Gross profit	毛利		487,096	843,656
Other income and gains	其他收入及收益	5	144,370	70,986
Fair value gain on an investment property	投資物業的公平值收益		103	78
Selling and distribution expenses	銷售及分銷費用		(10,189)	(12,464)
Administrative expenses	管理費用		(322,868)	(266,666)
Other expenses	其他費用	5	(33,666)	(111,360)
Finance costs	財務費用	7	(100,497)	(40,331)
Share of profits of associates	分佔聯營公司溢利		9,230	12,171
PROFIT BEFORE TAX	稅前溢利	6	173,579	496,070
Income tax expense	所得稅開支	10	(47,154)	(89,499)
PROFIT FOR THE YEAR	年內溢利		126,425	406,571
Attributable to:	下列人士應佔:			
Owners of the parent	母公司擁有人		280,034	449,912
Non-controlling interests	非控股權益		(153,609)	(43,341)
			126,425	406,571
EARNINGS PER SHARE	母公司普通股權持有人			
ATTRIBUTABLE TO ORDINARY	應佔每股盈利:			
EQUITY HOLDERS OF THE PARENT:		12		
Basic	基本			
– For profit for the year	–年內溢利		US\$0.189	US\$0.345
			0.189美元	0.345美元
Diluted	攤薄			
– For profit for the year	–年內溢利		US\$0.188	US\$0.342
			0.188美元	0.342美元

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

綜合全面收益表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
PROFIT FOR THE YEAR	年內溢利	126,425	406,571
OTHER COMPREHENSIVE INCOME/(LOSS)	其他全面收益／(虧損)		
Other comprehensive loss that may be reclassified to profit or loss in subsequent periods:	於其後期間可能重新分類至損益的其他全面虧損:		
Exchange differences on translation of foreign operations	換算海外業務產生的外匯差額	(56,005)	(309,458)
Net other comprehensive loss that may be reclassified to profit or loss in subsequent periods	於其後期間可能重新分類至損益的其他全面虧損淨額	(56,005)	(309,458)
Other comprehensive income/(loss) that will not be reclassified to profit or loss in subsequent periods:	於其後期間不會重新分類至損益的其他全面收益／(虧損):		
Equity investments designated at fair value through other comprehensive income:	指定按公平值計入其他全面收益的股權投資:		
Changes in fair value	公平值變動	95,310	(53,707)
Income tax effect	所得稅影響	(14,628)	8,348
		80,682	(45,359)
Share of other comprehensive income of associates	分佔聯營公司的其他全面收益	1,352	-
Net other comprehensive income/(loss) that will not be reclassified to profit or loss in subsequent periods	於其後期間不會重新分類至損益的其他全面收益／(虧損)淨額	82,034	(45,359)
OTHER COMPREHENSIVE INCOME/(LOSS) FOR THE YEAR, NET OF TAX	年內其他全面收益／(虧損), 扣除稅項	26,029	(354,817)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	年內全面收益總額	152,454	51,754
Attributable to:	下列人士應佔:		
Owners of the parent	母公司擁有人	331,980	153,027
Non-controlling interests	非控股權益	(179,526)	(101,273)
		152,454	51,754

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

綜合財務狀況表

31 December 2023
二零二三年十二月三十一日

			31 December 2023 二零二三年 十二月三十一日 US\$'000 千美元	31 December 2022 二零二二年 十二月三十一日 US\$'000 千美元
	Notes 附註			
NON-CURRENT ASSETS		非流動資產		
Property, plant and equipment	13	物業、廠房及設備	3,519,292	3,367,716
Investment property	14	投資物業	166,643	169,363
Right-of-use assets	15	使用權資產	78,545	78,425
Intangible assets	16	無形資產	49,827	32,986
Investments in associates	17	於聯營公司的投資	139,099	130,721
Equity investments designated at fair value through other comprehensive income	18	指定按公平值計入其他全面收益的權益投資	270,506	178,632
Long-term prepayments to third parties		應付第三方之長期預付款項	149,953	7,742
Deferred tax assets	28	遞延稅項資產	—	14,066
Total non-current assets		非流動資產總額	4,373,865	3,979,651
CURRENT ASSETS		流動資產		
Properties under development	19	開發中物業	178,828	134,723
Inventories	20	存貨	449,749	578,060
Trade and notes receivables	21	貿易應收款項及應收票據	278,669	291,856
Prepayments, other receivables and other assets	22	預付款項、其他應收款項及其他資產	33,821	48,273
Due from related parties	35(c)	應收關聯方款項	11,219	13,006
Pledged deposits	23	已抵押存款	32,088	1,042
Cash and cash equivalents	23	現金及現金等價物	5,585,181	2,008,765
Total current assets		流動資產總額	6,569,555	3,075,725
CURRENT LIABILITIES		流動負債		
Trade payables	24	貿易應付款項	235,410	236,999
Other payables and accruals	25	其他應付款項及暫估費用	430,478	593,971
Interest-bearing bank borrowings	26	計息銀行借款	193,035	426,756
Lease liabilities	27	租賃負債	3,076	4,704
Government grants	29	政府補助	35,017	37,714
Due to related parties	35(c)	應付關聯方款項	13,876	6,096
Income tax payable		應付所得稅	61,495	76,176
Total current liabilities		流動負債總額	972,387	1,382,416
NET CURRENT ASSETS		流動資產淨額	5,597,168	1,693,309
TOTAL ASSETS LESS CURRENT LIABILITIES		資產總值減流動負債	9,971,033	5,672,960

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CONSOLIDATED STATEMENT OF FINANCIAL POSITION

綜合財務狀況表 31 December 2023
二零二三年十二月三十一日

			31 December 2023	31 December 2022
			二零二三年 十二月三十一日	二零二二年 十二月三十一日
		<i>Notes</i>	US\$'000	US\$'000
		<i>附註</i>	千美元	千美元
NON-CURRENT LIABILITIES	非流動負債			
Interest-bearing bank borrowings	計息銀行借款	26	1,906,526	1,481,580
Lease liabilities	租賃負債	27	19,129	14,644
Deferred tax liabilities	遞延稅項負債	28	30,834	41,268
Total non-current liabilities	非流動負債總額		1,956,489	1,537,492
Net assets	資產淨額		8,014,544	4,135,468
EQUITY	權益			
Share capital	股本	30	4,933,559	1,994,462
Reserves	儲備	32	1,367,436	1,036,008
Total equity attributable to owners of the parent	母公司擁有人應佔權益總額		6,300,995	3,030,470
Non-controlling interests	非控股權益	40	1,713,549	1,104,998
Total equity	權益總額		8,014,544	4,135,468

Suxin Zhang
張素心
Director
董事

Jun Ye
葉峻
Director
董事

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

綜合權益變動表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

		Attributable to owners of the parent 母公司擁有人應佔												
		Share capital	Merger reserve	Share option reserve	Other capital reserve and contributed surplus	Share of other comprehensive income of associates	Fair value reserve of financial assets at fair value through other comprehensive income	Revaluation surplus#	Statutory reserve funds	Exchange fluctuation reserve	(Accumulated losses)/ Retained profits	Total	Non-controlling interests	Total equity
		US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元
		(note 30)	(note 30)	(note 32)	(note 32)	(note 32)	(note 32)	(note 31)	(note 31)	(note 31)	(note 31)	(note 31)	(note 40)	(note 40)
		(附註30)	(附註30)	(附註32)	(附註32)	(附註32)	(附註32)	(附註31)	(附註31)	(附註31)	(附註31)	(附註31)	(附註40)	(附註40)
At 1 January 2023	於二零二三年一月一日	1,994,462	645,494*	13,346*	35,685*	-	(22,247)*	99,257*	191,125*	(30,145)*	103,493*	3,030,470	1,104,998	4,135,468
Profit/(loss) for the year	年內溢利/(虧損)	-	-	-	-	-	-	-	-	-	280,034	280,034	(153,609)	126,425
Other comprehensive income for the year:	年內其他全面收益:													
Change in fair value of equity investments designated at fair value through other comprehensive income, net of tax	指定按公平值計入其他全面收益的股權投資的公平值變動，扣除稅項	-	-	-	-	-	80,682	-	-	-	-	80,682	-	80,682
Share of other comprehensive income of associates	分佔聯營公司的其他全面收益	-	-	-	-	1,352	-	-	-	-	-	1,352	-	1,352
Exchange differences related to foreign operations	有關海外業務的外匯差額	-	-	-	-	-	-	-	-	(30,088)	-	(30,088)	(25,917)	(56,005)
Total comprehensive income for the year	年內全面收益總額	-	-	-	-	1,352	80,682	-	-	(30,088)	280,034	331,980	(179,526)	152,454
Issue of shares	發行股份	30	2,939,097	(1,248)	-	-	-	-	-	-	-	2,937,849	-	2,937,849
Equity-settled share option arrangements	以權益結算的購股權安排	31	-	696	-	-	-	-	-	-	-	696	157	853
Capital contribution from non-controlling interests	非控股權益出資	-	-	-	-	-	-	-	-	-	-	-	787,920	787,920
Transfer from retained profits generated by a subsidiary	轉撥自一間子公司產生的留存溢利	-	-	-	-	-	-	-	41,917	-	(41,917)	-	-	-
At 31 December 2023	於二零二三年十二月三十一日	4,933,559	645,494*	12,794*	35,685*	1,352*	58,435*	99,257*	233,042*	(60,233)*	341,610*	6,300,995	1,713,549	8,014,544

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CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

綜合權益變動表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

	Attributable to owners of the parent 母公司擁有人應佔												
	Share capital	Merger reserve	Share option reserve	Other contributed surplus	Fair value reserve of financial assets at fair value through other comprehensive income	Revaluation surplus [#]	Statutory reserve funds	Exchange fluctuation reserve	(Accumulated losses)/ Retained profits	Total	Non-controlling interests	Total equity	
	股本	合併儲備	購股權儲備	儲備及供款盈餘	按公平值計入其他全面收益的金融資產之公平值儲備	重估盈餘 [#]	法定儲備基金	外匯波動儲備	虧損/留存溢利	總計	非控股權益	權益總額	
Notes	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	
附註	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	
	(note 30)		(note 32)				(note 31)				(note 40)		
	(附註30)		(附註32)				(附註31)				(附註40)		
At 1 January 2022	於二零二二年一月一日	1,986,152	645,494*	14,572*	35,685*	25,055*	99,257*	140,426*	221,381*	(297,663)*	2,870,359	814,188	3,684,547
Profit/(loss) for the year	年內溢利/(虧損)	-	-	-	-	-	-	-	449,912	449,912	(43,341)	406,571	
Other comprehensive income for the year	年內其他全面收益	-	-	-	-	-	-	-	-	-	-	-	
Change in fair value of equity investments designated at fair value through other comprehensive income, net of tax	指定按公平值計入其他全面收益的股權投資的公平值變動，扣除稅項	-	-	-	(45,359)	-	-	-	-	(45,359)	-	(45,359)	
Exchange differences related to foreign operations	有關海外業務的外匯差額	-	-	-	-	-	-	(251,526)	-	(251,526)	(57,932)	(309,458)	
Total comprehensive income for the year	年內全面收益總額	-	-	-	(45,359)	-	-	(251,526)	449,912	153,027	(101,273)	51,754	
Transfer of fair value reserve upon the disposal of equity investments at fair value through other comprehensive income	於出售按公平值計入其他全面收益的股權投資時轉撥公平值儲備	-	-	-	(1,943)	-	-	-	1,943	-	-	-	
Issue of shares	發行股份	30	8,310	(2,369)	-	-	-	-	-	5,941	-	5,941	
Equity-settled share option arrangements	以權益結算的購股權安排	31	-	1,143	-	-	-	-	-	1,143	83	1,226	
Capital contribution from non-controlling interests	非控股權益出資	-	-	-	-	-	-	-	-	-	392,000	392,000	
Transfer from retained profits generated by a subsidiary	轉撥自一間子公司產生的留存溢利	-	-	-	-	-	50,699	-	(50,699)	-	-	-	
At 31 December 2022	於二零二二年十二月三十一日	1,994,462	645,494*	13,346*	35,685*	(22,247)*	99,257*	191,125*	(30,145)*	103,493*	3,030,470	1,104,998	4,135,468

Revaluation surplus arose from a change in use from an owner-occupied property to an investment property carried at fair value.

重估盈餘源於按公平值列賬之一項自用物業的用途更改為投資物業。

* These reserve accounts comprise the consolidated reserves of US\$1,367,436,000 (2022: US\$1,036,008,000) in the consolidated statement of financial position.

* 該等儲備賬合計為綜合財務狀況表中的綜合儲備1,367,436,000美元(二零二二年: 1,036,008,000美元)。

CONSOLIDATED STATEMENT OF CASH FLOWS

綜合現金流量表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

	Notes 附註	2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
CASH FLOWS FROM OPERATING ACTIVITIES	經營活動所得現金流量		
Profit before tax	稅前溢利	173,579	496,070
Adjustments for:	就以下各項作出的調整:		
Finance costs	財務費用	7 100,497	40,331
Share of profits of associates	分佔聯營公司溢利	(9,230)	(12,171)
Interest income	利息收入	5 (61,345)	(26,944)
Dividend income from financial assets at fair value through other comprehensive income	按公平值計入其他全面收益的金融資產所產生之股息收入	5 -	(63)
Loss/(gain) on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損/(收益)	5 206	(5)
Depreciation of property, plant and equipment	物業、廠房及設備折舊	13 481,664	439,917
Changes in fair value of an investment property	投資物業公平值變動	14 (103)	(78)
Depreciation of right-of-use assets	使用權資產折舊	15 6,427	5,842
Amortisation of intangible assets	無形資產攤銷	16 12,348	11,101
Write-down of inventories to net realisable value	存貨撇減至可變現淨值	6 113,271	19,612
Impairment/(reversal of impairment) of trade receivables	貿易應收款項減值/(減值轉回)	6 1,120	(16)
Impairment of items of property, plant and equipment	物業、廠房及設備項目減值	13 2,476	858
Equity-settled share option expense	以權益結算的購股權開支	31 853	1,226
		821,763	975,680
Increase in properties under development	發展中物業增加	(44,105)	(29,624)
Decrease/(increase) in inventories	存貨減少/(增加)	15,559	(154,646)
Decrease/(increase) in trade and notes receivables	貿易應收款項及應收票據減少/(增加)	12,082	(110,684)
Decrease/(increase) in prepayments, other receivables and other assets	預付款項、其他應收款項及其他資產減少/(增加)	11,851	(4,248)
Decrease/(increase) in amounts due from related parties	應收關聯方款項減少/(增加)	1,787	(6,096)
(Increase)/decrease in pledged deposits	已抵押存款(增加)/減少	(168)	1,880
(Decrease)/increase in trade payables	貿易應付款項(減少)/增加	(1,589)	42,614
(Decrease)/increase in other payables and accruals	其他應付款項及暫估費用(減少)/增加	(106,503)	110,940
Decrease in government grants	政府補助減少	(5,257)	(22,645)
Increase/(decrease) in amounts due to related parties	應付關聯方款項增加/(減少)	7,780	(1,405)
Cash generated from operations	經營活動產生的現金	713,200	801,766
Income tax paid	已付所得稅	(71,505)	(50,901)
Net cash flows generated from operating activities	經營活動所得現金流量淨額	641,695	750,865

continued 續/...

CONSOLIDATED STATEMENT OF CASH FLOWS

綜合現金流量表

Year ended 31 December 2023
截至二零二三年十二月三十一日止年度

	Notes 附註	2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
CASH FLOWS FROM INVESTING ACTIVITIES	投資活動所得現金流量		
Interest received	已收利息	61,551	28,450
Purchases of items of property, plant and equipment, prepaid lease payments and intangible assets	購買物業、廠房及設備項目、預付租賃款項及無形資產	(906,607)	(996,182)
Purchases of an investment in an associate	購買於一家聯營公司的投資	—	(6,717)
Proceeds from disposal of items of property, plant and equipment	出售物業、廠房及設備項目所得款項	52	109
Receipt of government grants for property, plant and equipment	收到政府對物業、廠房及設備的補助	11,692	38,414
Proceeds from disposal of financial assets at fair value through other comprehensive income	出售按公平值計入其他全面收益的金融資產所得款項	—	5,707
Dividends received from financial assets at fair value through other comprehensive income	收到按公平值計入其他全面收益的金融資產股息	—	63
Net cash flows used in investing activities	投資活動所用現金流量淨額	(833,312)	(930,156)
CASH FLOWS FROM FINANCING ACTIVITIES	融資活動所得現金流量		
Proceeds from issue of shares	發行股份所得款項	2,941,945	6,248
New bank loans	新增銀行貸款	615,415	514,622
Capital contribution from non-controlling interests	非控股權益出資	787,920	392,000
Interest paid	已付利息	(106,570)	(47,286)
Repayment of bank loans	償還銀行貸款	(422,120)	(199,670)
Principal portion of lease payments	支付租賃本金部份	(4,597)	(3,246)
Receipt of government grants for finance costs	收到政府對財務費用的補助	2,997	11,100
Payment of share issue expenses	支付股份發行開支	(2,030)	(832)
Increase in a pledged deposit	一項已抵押存款增加	(31,214)	(759)
Net cash flows generated from financing activities	融資活動所得現金流量淨額	3,781,746	672,177
NET INCREASE IN CASH AND CASH EQUIVALENTS	現金及現金等價物增加淨額	3,590,129	492,886
Cash and cash equivalents at beginning of year	年初現金及現金等價物	2,008,765	1,610,140
Effect of foreign exchange rate changes, net	外匯匯率變動影響，淨額	(13,713)	(94,261)
CASH AND CASH EQUIVALENTS AT END OF YEAR	年末現金及現金等價物	5,585,181	2,008,765
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS	現金及現金等價物結餘分析		
Cash and bank balances	現金及銀行結餘	4,638,292	735,800
Non-pledged time deposits with original maturity of less than three months when acquired	於獲得時原到期日少於三個月的非抵押定期存款	946,889	1,272,965
Cash and cash equivalents as stated in the statement of financial position and in the statement of cash flows	財務狀況表及現金流量表中所列現金及現金等價物	5,585,181	2,008,765

NOTES TO FINANCIAL STATEMENTS

財務報表附註

31 December 2023
二零二三年十二月三十一日

1. CORPORATE AND GROUP INFORMATION

Hua Hong Semiconductor Limited (the “Company”) is a limited liability company incorporated in Hong Kong on 21 January 2005. The registered office of the Company is located at Room 2212, Bank of America Tower, 12 Harcourt Road, Central, Hong Kong. The principal place of business is located at No. 288, Halei Road, Zhangjiang Hi-Tech Park, Shanghai.

The principal activity of the Company is investment holding. During the year, the Company’s subsidiaries were principally engaged in the manufacture and sale of semiconductor products and real estate development.

In the opinion of the directors, the parent of the Company is Shanghai Huahong (Group) Co., Ltd. (“Huahong Group”), which is a state-owned company established in the People’s Republic of China (“PRC”) and supervised by the Shanghai State-owned Assets Supervision and Administration Commission (“Shanghai SASAC”). The ultimate parent of the Company is Shanghai SASAC.

Information about subsidiaries

Particulars of the Company’s subsidiaries are as follows:

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 登記地點及業務	Issued ordinary/ registered share capital ('000) 已發行普通/ 註冊股本(千元)	Percentage of equity attributable to the Company 本公司應佔權益百分比		Principal activities 主要業務活動
			Direct 直接	Indirect 間接	
Grace Semiconductor Manufacturing Corporation (“Grace Cayman”) Grace Semiconductor Manufacturing Corporation (「Grace Cayman」)	Cayman Islands 開曼群島	US\$0.001 0.001美元	100%	–	Investment holding 投資控股
Shanghai Huahong Grace Semiconductor Manufacturing Corporation (“HHGrace”)* 上海華虹宏力半導體製造有限公司 (「華虹宏力」)*	PRC/Chinese Mainland 中國/中國內地	RMB20,460,928 人民幣 20,460,928元	100%	–	Manufacture and sale of semiconductor products 生產及銷售半導體產品
Huahong Semiconductor (Wuxi) Co., Ltd. (“Hua Hong Wuxi”)** 華虹半導體(無錫)有限公司(「華虹無錫」)**	PRC/Chinese Mainland 中國/中國內地	US\$2,536,852 2,536,852美元	22.2%	28.8%	Manufacture and sale of semiconductor products 生產及銷售半導體產品
Shanghai Huahong Real Estate (Wuxi) Co., Ltd. (“Huahong Real Estate Wuxi”)** 上海華宏置業(無錫)有限公司(「華宏置業無錫」)**	PRC/Chinese Mainland 中國/中國內地	RMB30,000 人民幣30,000元	22.2%	28.8%	Real estate development 房地產開發

1. 公司及集團資料

華虹半導體有限公司(「本公司」)為一家於二零零五年一月二十一日在香港註冊成立的有限公司。本公司的註冊辦事處為香港中環夏慤道12號美國銀行中心2212室。主要營業地點為上海市張江高科技園區哈雷路288號。

本公司的主要活動為投資控股。於年內，本公司的子公司主要從事半導體產品的生產及銷售及房地產開發。

董事認為，本公司的母公司為上海華虹(集團)有限公司(「華虹集團」)，該公司為於中華人民共和國(「中國」)成立並由上海市國有資產監督管理委員會(「上海市國資委」)監管的國有公司。本公司的最終控股公司為上海市國資委。

有關子公司的資料

本公司的子公司詳情如下：

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日1. CORPORATE AND GROUP INFORMATION
(continued)

Information about subsidiaries (continued)

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 登記地點及業務	Issued ordinary/ registered share capital ('000) 已發行普通/ 註冊股本(千元)	Percentage of equity attributable to the Company 本公司應佔權益百分比		Principal activities 主要業務活動
			Direct 直接	Indirect 間接	
Huahong Semiconductor Manufacturing (Wuxi) Co., Ltd. ("Hua Hong Manufacturing")** 華虹半導體製造(無錫)有限公司(「華虹製造」)**	PRC/Chinese Mainland 中國/中國內地	US\$4,020,000 4,020,000美元	21.9%	29.1%	Manufacture and sale of semiconductor products 生產及銷售半導體產品
Global Synergy Technology Limited ("GST") 力鴻科技有限公司(「力鴻科技」)	PRC/Hong Kong 中國/香港	HK\$10 10港元	100%	-	Trading 貿易
HHGrace Semiconductor USA, Inc.	USA 美國	- -	100%	-	Sales office 銷售辦事處
HHGrace Semiconductor Japan Co., Ltd.	Japan 日本	JPY10,000 10,000日圓	100%	-	Sales office 銷售辦事處
* HHGrace is registered as a wholly-foreign-owned company under PRC law.					* 華虹宏力根據中國法律註冊為外商獨資公司。
** Hua Hong Wuxi and Hua Hong Manufacturing are registered as Sino-foreign joint companies under PRC law.					** 華虹無錫及華虹製造根據中國法律註冊為中外合資公司。
*** Huahong Real Estate Wuxi is registered as a domestic company under PRC law.					*** 華宏置業無錫根據中國法律註冊為內資公司。

1. 公司及集團資料(續)

有關子公司的資料(續)

NOTES TO FINANCIAL STATEMENTS

31 December 2023
二零二三年十二月三十一日 財務報表附註

2. ACCOUNTING POLICIES

2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards (“HKFRSs”) (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards (“HKASs”) and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants (“HKICPA”) and the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for an investment property and equity investments designated at fair value through other comprehensive income which have been measured at fair value. These financial statements are presented in United States dollars (“US\$”) and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the “Group”) for the year ended 31 December 2023. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

Generally, there is a presumption that a majority of voting rights results in control. When the Company has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group’s voting rights and potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

2. 會計政策

2.1 編製基準

該等財務報表乃根據由香港會計師公會(「香港會計師公會」)頒佈的香港財務報告準則(「香港財務報告準則」,包括所有香港財務報告準則、香港會計準則(「香港會計準則」)及詮釋)以及香港公司條例編製。財務報表乃根據歷史成本慣例編製,惟已按公平值計量的投資物業及指定按公平值計入其他全面收益的股權投資除外。該等財務報表以美元(「美元」)呈列,而除另有指明外,所有數值已約整至最接近的千位數。

綜合基準

綜合財務報表包括本公司及其子公司(統稱為「本集團」)截至二零二三年十二月三十一日止年度的財務報表。子公司指受本公司直接或間接控制的實體(包括結構性實體)。倘本集團透過參與被投資方業務而享有或有權取得被投資方的可變回報,且有能力行使在被投資方的權力影響有關回報,則本集團擁有該實體的控制權(即現時賦予本集團指導被投資方相關活動能力的現有權利)。

於一般情況下均存在多數投票權形成控制權之推定。倘本公司擁有的被投資方投票權或類似權利不及大半,則評估本公司對被投資方是否擁有權力時,本集團會考慮所有相關事實及情況,包括:

- (a) 與該被投資方其他投票權擁有人的合約安排;
- (b) 根據其他合約安排所享有的權利;及
- (c) 本集團的投票權及潛在投票權。

子公司與本公司的財務報表的報告期間相同,並採用一致會計政策編製。子公司的業績由本集團取得控制權之日起計綜合入賬,並繼續綜合入賬至該等控制權終止時為止。

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023 二零二三年十二月三十一日

2. ACCOUNTING POLICIES (continued)

2.1 BASIS OF PREPARATION (continued)

Basis of consolidation (continued)

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises the related assets (including goodwill), liabilities, any non-controlling interest and the exchange fluctuation reserve; and recognises the fair value of any investment retained and any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following new and revised HKFRSs for the first time for the current year's financial statements.

HKFRS 17 Amendments to HKAS 1 and HKFRS Practice Statement 2	<i>Insurance Contracts Disclosure of Accounting Policies</i>
Amendments to HKAS 8	<i>Definition of Accounting Estimates</i>
Amendments to HKAS 12	<i>Deferred Tax related to Assets and Liabilities arising from a Single Transaction</i>
Amendments to HKAS 12	<i>International Tax Reform – Pillar Two Model Rules</i>

2. 會計政策(續)

2.1 編製基準(續)

綜合基準(續)

損益及其他全面收益的各部份乃歸屬於本集團母公司擁有人及非控股權益，即使導致非控股權益產生虧絀結餘。本集團成員公司之間交易所產生的集團內部資產及負債、權益、收入、支出及現金流量均在綜合入賬時全數對銷。

倘事實及情況顯示上述三項控制因素之一項或多項出現變動，本集團會重新評估其是否控制被投資方。子公司的所有權益變動(沒有失去控制權)，按權益交易入賬。

倘本集團失去對一間子公司的控制權，則其取消確認相關資產(包括商譽)、負債、任何非控制權益及外匯波動儲備；並確認所保留任何投資的公平值及損益中任何因此產生的盈餘或虧損。先前於其他全面收益內確認的本集團應佔部份重新分類為損益或留存溢利(如適用)，倘本集團已直接出售相關資產或負債則須以同一基準確認。

2.2 會計政策的變動及披露

本集團已採納並在本年度財務報表首次應用以下新訂及經修訂香港財務報告準則。

香港財務報告準則第17號 香港會計準則第1號及香港 財務報告準則實務報告 第2號(修訂本)	<i>保險合約 會計政策披露</i>
香港會計準則第8號 (修訂本)	<i>會計估計的定義</i>
香港會計準則第12號 (修訂本)	<i>與單一交易產生 的資產及負債 相關的遞延稅 項</i>
香港會計準則第12號 (修訂本)	<i>國際稅務改革 – 第二支柱模型 規則</i>

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2. ACCOUNTING POLICIES (continued)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

The nature and the impact of the new and revised HKFRSs that are applicable to the Group are described below:

- (a) Amendments to HKAS 1 require entities to disclose their material accounting policy information rather than their significant accounting policies. Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. Amendments to HKFRS Practice Statement 2 *Making Materiality Judgements* provide non-mandatory guidance on how to apply the concept of materiality to accounting policy disclosures. The Group has disclosed the material accounting policy information in note 2 to the financial statements. The amendments did not have any impact on the measurement, recognition or presentation of any items in the Group's financial statements.
- (b) Amendments to HKAS 8 clarify the distinction between changes in accounting estimates and changes in accounting policies. Accounting estimates are defined as monetary amounts in financial statements that are subject to measurement uncertainty. The amendments also clarify how entities use measurement techniques and inputs to develop accounting estimates. Since the Group's approach and policy align with the amendments, the amendments had no impact on the Group's financial statements.

2. 會計政策(續)

2.2 會計政策的變動及披露(續)

適用於本集團之新訂及經修訂香港財務報告準則的性質及影響載於下文：

- (a) 香港會計準則第1號(修訂本)要求實體披露其重要會計政策資料，而非其主要會計政策。倘連同實體財務報表內其他資料一併考慮，會計政策資料可合理預期會影響通用目的財務報表的主要使用者基於該等財務報表作出的決策，則該資料屬重要。香港財務報告準則實務報告第2號(修訂本)作出重要性判斷就如何將重要性概念應用於會計政策披露提供非強制性指引。本集團已於財務報表附註2中披露重要會計政策資料。該等修訂對本集團財務報表中任何項目的計量、確認或呈列並無任何影響。
- (b) 香港會計準則第8號(修訂本)澄清會計估計變更與會計政策變更之間的區別。會計估計的定義為財務報表中存在計量不確定性的貨幣金額。該等修訂亦澄清實體如何使用計量方法及輸入數據編製會計估計。由於本集團的方法及政策與修訂一致，因此修訂對本集團的財務報表並無影響。

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2. ACCOUNTING POLICIES (continued)

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

- (c) Amendments to HKAS 12 *Deferred Tax related to Assets and Liabilities arising from a Single Transaction* narrow the scope of the initial recognition exception in HKAS 12 so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences, such as leases and decommissioning obligations. Therefore, entities are required to recognise a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability for temporary differences arising from these transactions. The adoption of these amendments to HKAS12 did not have significant impact to the Group.
- (d) Amendments to HKAS 12 *International Tax Reform – Pillar Two Model Rules* introduce a mandatory temporary exception from the recognition and disclosure of deferred taxes arising from the implementation of the Pillar Two model rules published by the Organisation for Economic Co-operation and Development. The amendments also introduce disclosure requirements for the affected entities to help users of the financial statements better understand the entities' exposure to Pillar Two income taxes, including the disclosure of current tax related to Pillar Two income taxes separately in the periods when Pillar Two legislation is effective and the disclosure of known or reasonably estimable information of their exposure to Pillar Two income taxes in periods in which the legislation is enacted or substantively enacted but not yet in effect. The Group has not yet applied the temporary exception during the current year because the entities comprising the Group are operating in jurisdictions in which the Pillar Two tax law has not yet been enacted or substantively enacted. The Group will disclose known or reasonably estimable information related to its exposure to Pillar Two income taxes in the consolidated financial statements by the time when the Pillar Two tax law has been enacted or substantively enacted and will disclose separately the current tax expense or income related to Pillar Two income taxes when it is in effect.

2. 會計政策(續)

2.2 會計政策的變動及披露(續)

- (c) 香港會計準則第12號(修訂本)與單一交易產生的資產及負債相關的遞延稅項縮小了初步確認香港會計準則第12號中例外的範圍,使其不再適用於產生相等的應課稅和可扣減暫時差額的交易,例如租賃和退役責任。因此,實體須就此類交易產生的暫時差額確認遞延稅項資產(前提是有足夠應課稅溢利)及遞延稅項負債。採用香港會計準則第12號(修訂本)對本集團並無重大影響。
- (d) 香港會計準則第12號(修訂本)國際租稅變革 – 支柱二規則範本對因實施經濟合作與發展組織發佈的支柱二規則範本而產生的遞延稅項的確認及披露引入強制性臨時例外情況。該等修訂亦為受影響實體引入披露規定,以幫助財務報表使用者更好地了解實體面臨的支柱二所得稅風險,包括在支柱二立法生效期間單獨披露與支柱二所得稅相關的當期稅項,以及在立法已頒佈或實質上已頒佈但尚未生效期間披露其面臨的支柱二所得稅風險的已知或可合理估計的資料。於年內,本集團尚未適用臨時例外規定,因為組成集團的實體所處的司法管轄區尚未頒佈或實質上頒佈支柱二稅法。到支柱二稅法頒佈或實質上頒佈時,本集團將於合併財務報表中披露與支柱二所得稅風險相關的已知或可合理估計的資料,並將在支柱二稅法生效時單獨披露與支柱二所得稅有關的當期稅務支出或收入。

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2. ACCOUNTING POLICIES (continued)

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS

The Group has not applied the following revised HKFRSs, that have been issued but are not yet effective, in these financial statements. The Group intends to apply these revised HKFRSs, if applicable, when they become effective.

Amendments to HKFRS 10 and HKAS 28	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture</i> ³
Amendments to HKFRS 16	<i>Lease Liability in a Sale and Leaseback</i> ¹
Amendments to HKAS 1	<i>Classification of Liabilities as Current or Non-current (the "2020 Amendments")</i> ^{1, 4}
Amendments to HKAS 1	<i>Non-current Liabilities with Covenants (the "2020 Amendments")</i> ^{1, 4}
Amendments to HKAS 7 and HKFRS 7	<i>Supplier Finance Arrangements</i> ¹
Amendments to HKAS 21	<i>Lack of Exchangeability</i> ²

¹ Effective for annual periods beginning on or after 1 January 2024

² Effective for annual periods beginning on or after 1 January 2025

³ No mandatory effective date yet determined but available for adoption

⁴ As a consequence of the 2020 Amendments and 2022 Amendments, Hong Kong Interpretation 5 Presentation of Financial Statements – Classification by the Borrower of a Term Loan that Contains a Repayment on Demand Clause was revised to align the corresponding wording with no change in conclusion

2. 會計政策(續)

2.3 已頒佈但尚未生效之香港財務報告準則

本集團並無於該等財務報表內應用下列已頒佈但尚未生效之經修訂香港財務報告準則。本集團擬於該等經修訂香港財務報告準則生效後應用該等經修訂香港財務報告準則(如適用)。

香港財務報告準則第10號及香港會計準則第28號(修訂本)	投資者與其聯營公司或合營企業之間的資產出售或注資 ³
香港財務報告準則第16號(修訂本)	售後回租的租賃負債 ¹
香港會計準則第1號(修訂本)	負債分類為流動或非流動(「二零二零年修訂」) ^{1, 4}
香港會計準則第1號(修訂本)	具契諾之非流動負債(「二零二零年修訂」) ^{1, 4}
香港會計準則第7號及香港財務報告準則第7號(修訂本)	供應商融資安排 ¹
香港會計準則第21號(修訂本)	缺乏可兌換性 ²

1 於二零二四年一月一日或之後開始之年度期間生效

2 於二零二五年一月一日或之後開始之年度期間生效

3 尚未釐定強制生效日期但可供採納

4 由於二零二零年修訂及二零二二年修訂，香港詮釋第5號財務報表的呈報 – 借款人對載有按要求償還條款的定期貸款的分類已進行修訂，以使相應措詞保持一致而結論不變

NOTES TO FINANCIAL STATEMENTS

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2. ACCOUNTING POLICIES (continued)

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS (continued)

Further information about those HKFRSs that are expected to be applicable to the Group is described below.

Amendments to HKFRS 10 and HKAS 28 address an inconsistency between the requirements in HKFRS 10 and in HKAS 28 in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The amendments require a full recognition of a gain or loss resulting from a downstream transaction when the sale or contribution of assets constitutes a business. For a transaction involving assets that do not constitute a business, a gain or loss resulting from the transaction is recognised in the investor's profit or loss only to the extent of the unrelated investor's interest in that associate or joint venture. The amendments are to be applied prospectively. The previous mandatory effective date of amendments to HKFRS 10 and HKAS 28 was removed by the HKICPA. However, the amendments are available for adoption now.

Amendments to HKFRS 16 specify the requirements that a seller-lessee uses in measuring the lease liability arising in a sale and leaseback transaction to ensure the seller-lessee does not recognise any amount of the gain or loss that relates to the right of use it retains. The amendments are effective for annual periods beginning on or after 1 January 2024 and shall be applied retrospectively to sale and leaseback transactions entered into after the date of initial application of HKFRS 16 (i.e., 1 January 2019). Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

2. 會計政策(續)

2.3 已頒佈但尚未生效之香港財務報告準則(續)

有關預期適用於本集團之香港財務報告準則之進一步資料載列如下。

香港財務報告準則第10號及香港會計準則第28號(修訂本)解決香港財務報告準則第10號與香港會計準則第28號之間有關處理投資者與其聯營公司或合營企業之間的資產出售或注資的規定的不一致情況。該等修訂規定,倘資產出售或注資構成一項業務,則須悉數確認下游交易產生的收益或虧損。倘交易涉及不構成一項業務的資產,則該交易產生的收益或虧損於投資者的損益內確認,惟以不相關投資者於該聯營公司或合營企業的權益為限。該等修訂將予以前瞻性應用。香港會計師公會剔除香港財務報告準則第10號及香港會計準則第28號(修訂本)的以往強制生效日期。然而,該等修訂目前可供採納。

香港財務報告準則第16號(修訂本)訂明計量售後回租交易產生的租賃負債所用的賣方-承租人之規定,以確保賣方-承租人不確與所保留使用權有關的任何損益金額。修訂於二零二四年一月一日或之後開始的年度期間生效,並須追溯適用於香港財務報告準則第16號首次應用之日(即二零一九年一月一日)之後簽訂的售後回租交易,亦可提早應用。預期修訂對本集團的財務報表並無任何重大影響。

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The 2020 Amendments clarify the requirements for classifying liabilities as current or non-current, including what is meant by a right to defer settlement and that a right to defer must exist at the end of the reporting period. Classification of a liability is unaffected by the likelihood that the entity will exercise its right to defer settlement. The amendments also clarify that a liability can be settled in its own equity instruments, and that only if a conversion option in a convertible liability is itself accounted for as an equity instrument would the terms of a liability not impact its classification. The 2022 Amendments further clarify that, among covenants of a liability arising from a loan arrangement, only those with which an entity must comply on or before the reporting date affect the classification of that liability as current or non-current. Additional disclosures are required for non-current liabilities that are subject to the entity complying with future covenants within 12 months after the reporting period. The amendments shall be applied retrospectively with early application permitted. An entity that applies the 2020 Amendments early is required to apply simultaneously the 2022 Amendments, and vice versa. The Group is currently assessing the impact of the amendments and whether existing loan agreements may require revision. Based on a preliminary assessment, the amendments are not expected to have any significant impact on the Group's financial statements.

Amendments to HKAS 7 and HKFRS 7 clarify the characteristics of supplier finance arrangements and require additional disclosure of such arrangements. The disclosure requirements in the amendments are intended to assist users of financial statements in understanding the effects of supplier finance arrangements on an entity's liabilities, cash flows and exposure to liquidity risk. Earlier application of the amendments is permitted. The amendments provide certain transition reliefs regarding comparative information, quantitative information as at the beginning of the annual reporting period and interim disclosures. The amendments are not expected to have any significant impact on the Group's financial statements.

2. 會計政策(續)**2.3 已頒佈但尚未生效之香港財務報告準則(續)**

二零二零年修訂澄清將負債分類為流動或非流動負債的要求，包括延遲結算權利的涵義及延遲權利須於報告期末發生。負債的分類不受實體行使其延遲結算權利的可能性的影響。修訂亦澄清，負債可以用其自身的權益工具結算，僅有當可轉換負債中的轉換選擇權本身作為權益工具入帳時，負債的條款方不會影響其分類。二零二零年修訂進一步澄清，於貸款協議產生的負債契諾中，只有實體在報告日期或之前必須遵守的契諾方會影響該負債的流動或非流動分類。對於實體於報告期後十二個月內必須遵守未來契約的非流動負債，需要進行額外披露。修訂應追溯應用，並允許提早應用。提早應用二零二零年修訂的實體必須同時應用二零二二年修訂本，反之亦然。本集團目前正在評估修訂的影響，以及現有貸款協議是否需要修訂。根據初步評估，預計修訂不會對本集團財務報表產生任何重大影響。

香港會計準則第7號及香港財務報告準則第7號(修訂本)澄清供應商融資安排的特點，並規定須就該等安排作出額外披露。修訂的披露規定旨在協助財務報表使用者了解供應商融資安排對實體的負債、現金流及流動資金風險的影響。允許提早應用。該等修訂為比較資料、截至年度報告期期初的定量資料及中期披露提供了若干過渡性減免。預期該等修訂不會對本集團的財務報表產生任何重大影響。

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2. ACCOUNTING POLICIES (continued)

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS (continued)

Amendments to HKAS 21 specify how an entity shall assess whether a currency is exchangeable into another currency and how it shall estimate a spot exchange rate at a measurement date when exchangeability is lacking. The amendments require disclosures of information that enable users of financial statements to understand the impact of a currency not being exchangeable. Earlier application is permitted. When applying the amendments, an entity cannot restate comparative information. Any cumulative effect of initially applying the amendments shall be recognised as an adjustment to the opening balance of retained profits or to the cumulative amount of translation differences accumulated in a separate component of equity, where appropriate, at the date of initial application. The amendments are not expected to have any significant impact on the Group's financial statements.

2. 會計政策(續)

2.3 已頒佈但尚未生效之香港財務 報告準則(續)

香港會計準則第21號(修訂本)指明實體應如何評估某種貨幣是否可兌換為另一種貨幣,以及在缺乏可兌換性的情況下,實體應如何估計計量日期的即期匯率。修訂要求披露資料,使財務報表使用者能夠了解貨幣不可兌換的影響。允許提早應用。在應用該等修訂時,實體不能重列比較資料。初始應用該等修訂的任何累積影響應在初始應用之日確認為對留存利潤期初餘額的調整或對權益單獨組成部分中累積的換算差額的調整(如適用)。預期該等修訂不會對本集團的財務報表產生任何重大影響。

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An associate is an entity in which the Group has a long term interest of generally not less than 20% of the equity voting rights and over which it has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

The Group's investments in associates is stated in the consolidated statement of financial position at the Group's share of net assets under the equity method of accounting, less any impairment losses.

Adjustments are made to bring into line any dissimilar accounting policies that may exist.

The Group's share of the post-acquisition results and other comprehensive income of an associate is included in the consolidated statement of profit or loss and consolidated other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate, the Group recognises its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and its associate are eliminated to the extent of the Group's investment in the associate, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of an associate is included as part of the Group's investment in an associate.

If an investment in an associate becomes an investment in a joint venture, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method. In all other cases, upon loss of significant influence over the associate, the Group measures and recognises any retained investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

When an investment in an associate is classified as held for sale, it is accounted for in accordance with HKFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

2. 會計政策(續)**2.4 重大會計政策****於聯營公司的投資**

聯營公司為一間本集團對其擁有一般不少於20%股本投票權的長期權益，且本集團對其有重大影響力的實體。重大影響力指有權力參與投資對象的財務及經營政策決策，但並非對該等政策擁有控制或聯合控制權。

本集團於聯營公司的投資於綜合財務狀況表內按使用權益會計法計算的本集團應佔淨資產扣減任何減值虧損列賬。

為使任何可能存在之不同會計政策貫徹一致而作出調整。

本集團應佔其聯營公司的收購後業績及其他全面收益分別列入綜合損益表及綜合其他全面收益表。此外，倘聯營公司的權益內直接確認某一變動，則本集團會於綜合權益變動表內確認其於任何變動(如適用)的應佔部份。本集團及其聯營公司進行交易所產生的未變現收益及虧損按本集團於該聯營公司的投資進行撇銷，惟未變現虧損有證據顯示所轉讓資產出現減值者除外。收購聯營公司產生的商譽計入本集團於該聯營公司投資的一部分。

倘於一家聯營公司的投資變成於合營企業的投資，保留權益不會重新計量。相反，該投資將繼續按權益法列賬。於所有其他情形下，倘本集團不再對聯營公司擁有重大影響力，本集團將按其公平值計量及確認任何保留投資。於失去重大影響力或共同控制權後聯營公司的賬面值與保留投資的公平值及出售所得款項之間的任何差額於損益內確認。

倘於一家聯營公司的投資被分類為持作出售，則根據香港財務報告準則第5號持作出售非流動資產及終止持續經營業務列賬。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Fair value measurement

The Group measures its investment property and equity investments designated at fair value through other comprehensive income at the end of each reporting period. 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 fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

2. 會計政策(續)

2.4 重大會計政策(續)

公平值計量

本集團於各報告期末按公平值計量投資物業及指定按公平值計入其他全面收益的股權投資。公平值指於計量日市場參與者之間的有序交易中，就出售資產所收取的價格或轉讓負債所支付的價格。公平值計量乃基於假設出售資產或轉讓負債的交易於資產或負債的主要市場或(在未有主要市場的情況下)資產或負債的最有利市場進行。主要或最有利市場須為本集團能參與的市場。假設市場參與者基於彼等最佳經濟利益行事，資產或負債的公平值使用市場參與者為資產或負債定價所用假設計量。

非金融資產的公平值計量會計及市場參與者將資產用於最高增值及最佳用途或售予會將資產用於最高增值及最佳用途的另一名市場參與者而創造經濟利益的能力。

本集團針對不同情況使用不同估值技術，確保有足夠數據計量公平值，並盡量利用相關可觀察輸入數據，減少使用不可觀察輸入數據。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Fair value measurement (continued)

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly
- Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, contract assets, deferred tax assets, investment properties and non-current assets/a disposal group classified as held for sale), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs. In testing a cash-generating unit for impairment, a portion of the carrying amount of a corporate asset (e.g., a headquarters building) is allocated to an individual cash-generating unit if it can be allocated on a reasonable and consistent basis or, otherwise, to the smallest group of cash-generating units.

2. 會計政策(續)

2.4 重大會計政策(續)

公平值計量(續)

公平值於財務報表計量或披露的所有資產及負債，均基於對公平值計量整體而言屬重大的最低層級輸入數據按下述公平值層級分類：

- 第1級 – 基於相同資產或負債於活躍市場的市場報價(未經調整)
- 第2級 – 基於對公平值計量而言屬重大的直接或間接可觀察最低層級輸入數據的估值技術
- 第3級 – 基於對公平值計量而言屬重大的不可觀察最低層級輸入數據的估值技術

對於按經常性基準於財務報表確認的資產及負債，本集團於各報告期末重新評估分類(基於對公平值計量整體而言屬重大的最低層級輸入數據)，確定有否在不同層級之間轉移。

非金融資產減值

倘一項非金融資產(存貨、合約資產、遞延稅項資產、投資物業及非流動資產／分類為持作出售的出售組別除外)存在減值跡象，或需要進行年度減值測試，則會估計資產的可收回金額。資產可收回金額按該資產或現金產生單位的使用價值及其公平值減出售成本兩者中的較高金額計算，並按個別資產釐定，除非該資產所產生的現金流入基本上不能獨立於其他資產或資產組別所產生的現金流入，在此情況下，可收回金額將按該資產所屬現金產生單位釐定。於進行現金產生單位減值測試時，倘可按合理且一致基準分配，或如否，則分配至最小現金產生單位組別，企業資產(如，總部大樓)賬面值的一部份分配至個別現金產生單位。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Impairment of non-financial assets (continued)

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is charged to the statement of profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to the statement of profit or loss in the period in which it arises.

Related parties

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 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;

or

2. 會計政策(續)

2.4 重大會計政策(續)

非金融資產減值(續)

減值虧損僅於資產賬面值超逾其可收回金額時確認。於評估使用價值時，估計未來現金流量乃按稅前貼現率貼現至其現值。稅前貼現率反映當時市場對貨幣時間值的評估及該資產的特有風險。減值虧損於其產生期間的損益表內在與減值資產的功能一致的相關開支類別中扣除。

於各報告期末，會評估是否有跡象顯示先前確認的減值虧損可能不再存在或可能已減少。倘有該等跡象存在，便會估計可收回金額。先前就資產(商譽除外)確認的減值虧損，僅於用以釐定該資產的可收回金額的估計有變時予以撥回，但撥回金額不得高於倘過往年度並無就該資產確認減值虧損情況下原應釐定的賬面值(扣除任何折舊／攤銷)。撥回的減值虧損於其產生期間計入損益表。

關聯方

以下人士將被視為與本集團有關聯：

- (a) 倘為以下人士或其近親
 - (i) 控制或共同控制本集團；
 - (ii) 對本集團有重大影響力；或
 - (iii) 為本集團或本集團母公司的主要管理層成員；

或

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財務報表附註

2. ACCOUNTING POLICIES (continued)**2.4 MATERIAL ACCOUNTING POLICIES (continued)****Related parties (continued)**

A party is considered to be related to the Group if: (continued)

- (b) the party is an entity where 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 of a parent, subsidiary or fellow subsidiary of the other entity);
 - (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, provides key management personnel services to the Group or to the parent of the Group.

2. 會計政策(續)**2.4 重大會計政策(續)****關聯方(續)**

以下人士將被視為與本集團有關聯：
(續)

- (b) 該人士為符合下列任何條件的實體：
- (i) 該實體與本集團屬同一集團的成員公司；
 - (ii) 實體為另一實體(或另一實體的母公司、子公司或同系子公司)的聯營公司或合營企業；
 - (iii) 該實體與本集團為同一第三方的合營企業；
 - (iv) 實體為一名第三方實體的合營企業，而另一實體為該第三方實體的聯營公司；
 - (v) 該實體為本集團或與本集團有關聯的實體就僱員利益設立的離職後福利計劃；
 - (vi) 該實體由(a)項所列人士控制或共同控制；
 - (vii) (a)(i)項所列人士對該實體具有重大影響力或為該實體(或該實體的母公司)的主要管理層成員；及
 - (viii) 該實體或該實體所屬集團的任何成員公司為本集團或本集團的母公司提供主要管理人員服務。

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財務報表附註 31 December 2023 二零二三年十二月三十一日

2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with HKFRS 5. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to the statement of profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The principal annual rates used for this purpose are as follows:

Buildings	3.8%
Plant and machinery	9.5% to 19.0%
Office equipment	19.0%
Motor vehicles	19.0%
Leasehold improvements	20.0%

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

2. 會計政策(續)

2.4 重大會計政策(續)

物業、廠房及設備以及折舊

物業、廠房及設備(在建工程除外)乃按成本減累計折舊及任何減值虧損列賬。倘物業、廠房及設備項目被分類為持作出售或倘其為分類為持作出售的出售組別的一部份,則不會對此進行折舊,而根據香港財務報告準則第5號列賬。物業、廠房及設備項目的成本包括其購買價及任何使資產達致操作狀況及地點作擬定用途的直接應佔成本。

物業、廠房及設備項目投入運作後所產生維修保養等支出,一般於其產生期間自損益表內扣除。倘達到確認標準,重大檢修的開支於該資產的賬面值中資本化為重置資產。倘物業、廠房及設備須定期替換其重大部份,則本集團將該等部份確認為具有特定可使用年期的獨立資產,並相應對此進行折舊。

折舊的計算是按直線法,在其估計可使用年期內將物業、廠房及設備各項目的成本撇銷至剩餘價值。就此所用的主要年率如下:

樓宇	3.8%
廠房及機器	9.5%至19.0%
辦公設備	19.0%
汽車	19.0%
租賃物業裝修	20.0%

倘物業、廠房及設備項目的部份的可使用年期不同,該項目的成本會按合理基準分配至有關部份,而各部份均分開計提折舊。剩餘價值、可使用年期及折舊方法至少於各財政年度末檢討及按需要作出調整。

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An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal or retirement recognised in the statement of profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress is stated at cost less any impairment losses and is not depreciated. It is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

Investment properties

Investment properties are interests in land and buildings (including right-of-use assets) held to earn rental income and/or for capital appreciation. Such properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at fair value, which reflects market conditions at the end of the reporting period.

Gains or losses arising from changes in the fair value of the investment property are included in the statement of profit or loss in the year in which they arise.

Any gains or losses on the retirement or disposal of an investment property are recognised in the statement of profit or loss in the year of the retirement or disposal.

2. 會計政策(續)**2.4 重大會計政策(續)****物業、廠房及設備以及折舊(續)**

物業、廠房及設備項目(包括任何初始確認的重大部份)於出售或預期使用或出售有關項目不會產生未來經濟利益時終止確認。於終止確認資產年度在損益表內確認的出售或報廢資產的任何收益或虧損，為出售有關資產所得款項淨額與其賬面值兩者間的差額。

在建工程乃按成本減任何減值虧損列賬，但不會計提折舊。其於完工且可供使用時將重新分類至物業、廠房及設備的適當類別。

投資物業

投資物業是指為賺取租金收入及／或資本增值而持有的土地及樓宇權益(包括使用權資產)。該等物業初步以成本(包括交易費用)計量。於初始確認後，投資物業以反映報告期末市況的公平值列賬。

投資物業公平值變動產生的收益或虧損計入其產生年度的損益表內。

因投資物業報廢或出售而產生的任何收益或虧損於報廢或出售年度的損益表內確認。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value as at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

Process technology licence and software

Process technology licence and software are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives of 5 to 10 years of the underlying products, commencing from the date when the products are put into commercial production.

Research and development costs

All research costs are charged to the statement of profit or loss as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

2. 會計政策(續)

2.4 重大會計政策(續)

投資物業(續)

無形資產(商譽除外)單獨取得的無形資產於初始確認時按成本計量。通過業務合併取得的無形資產的成本為於收購日期的公平值。無形資產的可使用年期評定為有限期或無限期。有限期的無形資產隨後按可使用經濟年期攤銷,並於有跡象顯示無形資產可能出現減值時評估減值。有限可使用年期的無形資產的攤銷期及攤銷方法至少於各財政年度末檢討。

工藝技術許可及軟件

工藝技術許可及軟件按成本減任何減值虧損列賬,並自相關產品投入商業生產日期起計在其五至十年估計可使用年限內以直線法攤銷。

研發成本

所有研究成本於產生時列支於損益表。

研發新產品項目所產生的開支僅在本集團能夠顯示其在技術上能夠完成無形資產以供使用或出售、打算完成資產並能夠加以使用或將之出售、資產在未來如何帶來經濟利益、有足夠資源以完成項目並且有能力可靠地計量開發期間的開支的情況下,才會被資本化及遞延。未能符合以上標準的產品研發開支會在產生時列作開支。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Leases

The Group assesses at contract inception whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

(a) Right-of-use assets

Right-of-use assets are recognised at the commencement date of the lease (that is the date the underlying asset is available for use). Right-of-use assets are measured at cost, less accumulated depreciation and any impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease terms and the estimated useful lives of the assets as follows:

Land use rights	42 to 50 years
Buildings	2 to 20 years

If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

2. 會計政策(續)

2.4 重大會計政策(續)

租賃

本集團於合約開始時評估合約是否為或包含租賃。倘合約為換取代價而授予在一段時間內控制已識別資產使用的權利，則合約為或包含租賃。

本集團作為承租人

本集團對所有租賃(惟短期租賃及低價值資產租賃除外)採取單一確認及計量方法。本集團確認租賃負債(以作出租賃付款)及使用權資產(即使用相關資產的權利)。

(a) 使用權資產

於租賃開始日期(即相關資產可供使用的日期)確認使用權資產。使用權資產按成本減累計折舊及任何減值虧損計量，並就任何重新計量租賃負債作出調整。使用權資產成本包括已確認租賃負債款額、已產生初始直接成本及於開始日期或之前作出的租賃付款減任何已收取租賃優惠。使用權資產於其租期及估計可使用年期的較短者內按直線法折舊如下：

土地使用權	42至50年
樓宇	2至20年

倘租賃資產的所有權於租賃期末轉移至本集團或成本反映購買選擇權獲行使，則使用資產的估計可使用年期計算折舊。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Leases (continued)

Group as a lessee (continued)

(b) Lease liabilities

Lease liabilities are recognised at the commencement date of the lease at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for termination of a lease, if the lease term reflects the Group exercising the option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in lease payments (e.g., a change to future lease payments resulting from a change in an index or rate) or a change in assessment of an option to purchase the underlying asset.

(c) Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for lease of low-value assets to leases of office equipment that is considered to be of low value.

Lease payments on short-term leases and leases of low-value assets are recognised as an expense on a straight-line basis over the lease term.

2. 會計政策(續)

2.4 重大會計政策(續)

租賃(續)

本集團作為承租人(續)

(b) 租賃負債

於租賃開始日期，租賃負債按租賃期內作出的租賃付款的現值予以確認。租賃付款包括固定付款(包括實質固定付款)減任何應收租賃優惠、取決於某一指數或比率的可變租賃付款，以及預期在剩餘價值擔保下支付的金額。租賃付款亦包括合理確定將由本集團行使的購買選擇權的行使價，及倘若租賃期限反映本集團行使終止租賃選擇權，則終止租賃而需支付的罰款。不取決於某一指數或比率的可變租賃付款於觸發付款的事件或條件發生的期間確認為開支。

在計算租賃付款的現值時，由於租賃中所隱含的利率不易確定，則本集團在租賃開始日期使用增量借貸利率。在開始日期之後，租賃負債的金額將會增加，以反映利息的增加及就已作出的租賃付款作出扣減。此外，如有修改、租期發生變化、租賃付款變化(如未來租賃付款因指數或比率變動而出現變動)或購買相關資產的選擇權評估變更，租賃負債的賬面值將重新計量。

(c) 短期租賃及低價值資產租賃

本集團將短期租賃確認豁免應用於其短期租賃(即自租賃開始日期起計租期為十二個月或以下，並且不包含購買選擇權的租賃)。低價值資產租賃的確認豁免亦應用於被認為低價值的辦公室設備租賃。

短期租賃及低價值資產租賃的租賃付款在租期內按直線法確認為支出。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Leases (continued)

Group as a lessor

When the Group acts as a lessor, it classifies at lease inception (or when there is a lease modification) each of its leases as either an operating lease or a finance lease.

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. When a contract contains lease and non-lease components, the Group allocates the consideration in the contract to each component on a relative stand-alone selling price basis. Rental income is accounted for on a straight-line basis over the lease terms and is included in other income and gains in the statement of profit or loss due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as other income and gains in the period in which they are earned.

Leases that transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee are accounted for as finance leases.

Investments and other financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under HKFRS 15 in accordance with the policies set out for "Revenue recognition" below.

2. 會計政策(續)

2.4 重大會計政策(續)

租賃(續)

本集團作為出租人

倘本集團為出租人，於租賃開始時(或發生租賃變更時)將其各個租賃分類為經營租賃或融資租賃。

本集團並未轉讓資產所有權所附帶的絕大部份風險及回報的租賃歸類為經營租賃。當合約包含租賃及非租賃組成部分時，本集團以相對獨立的銷售價格為基準將合約中的代價分配予各個組成部分。租金收入於租期內按直線法列賬，且因其經營性質計入損益表之其他收入及收益。於磋商及安排經營租賃時產生的初始直接成本乃計入租賃資產的賬面值，並於租期內按相同方法確認為租金收入。或然租金乃於所賺取的期間內確認為其他收入及收益。

將相關資產所有權所附帶的絕大部份風險及回報轉讓至承租人的租賃，則作為融資租賃入賬。

投資及其他金融資產

初始確認及計量

金融資產於初始確認時分類為其後按攤銷成本、按公平值計入其他全面收益及按公平值計入損益計量。

於初始確認時，金融資產分類取決於金融資產的合約現金流量特點及本集團管理該等金融資產的業務模式。除並無重大融資成分或本集團已應用並未就重大融資成分的影響作出調整的可行權宜方法的貿易應收款項外，本集團初步按公平值加上(倘金融資產並非按公平值計入損益)交易成本計量金融資產。並無重大融資成分或本集團已應用可行權宜方法的貿易應收款項乃根據下文「銷售收入確認」所載政策按香港財務報告準則第15號釐定的交易價格計量。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Investments and other financial assets (continued)

Initial recognition and measurement (continued)

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest (“SPPI”) on the principal amount outstanding. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

The Group’s business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Financial assets classified and measured at amortised cost are held within a business model with the objective to hold financial assets in order to collect contractual cash flows, while financial assets classified and measured at fair value through other comprehensive income are held within a business model with the objective of both holding to collect contractual cash flows and selling. Financial assets which are not held within the aforementioned business models are classified and measured at fair value through profit or loss.

Purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset.

2. 會計政策(續)

2.4 重大會計政策(續)

投資及其他金融資產(續)

初始確認及計量(續)

為使金融資產按攤銷成本或按公平值計入其他全面收益進行分類及計量，需產生純粹為支付本金及未償還本金利息(「純粹支付本金及利息」)的現金流量。現金流量並非純粹支付本金及利息的金融資產按公平值計入損益分類及計量(無論何種業務模式)。

本集團管理金融資產的業務模式指其如何管理其金融資產以產生現金流量。業務模式確定現金流量是否來自收集合約現金流量、出售金融資產，或兩者兼有。按攤銷成本分類及計量的金融資產於一種業務模式中持有，旨在持有金融資產以收取合約現金流量，而以公平值計入其他全面收益的已分類及計量金融資產則於一種業務模式中持有，旨在持有以收取合約現金流量及出售。未於上述業務模式中持有的金融資產，按公平值計入損益分類及計量。

按照一般市場規定或慣例須在一定期間內交付資產的金融資產買賣於交易日期(即本集團承諾買賣該資產之日)確認。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Investments and other financial assets (continued)

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at amortised cost (debt instruments)

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

Financial assets at fair value through other comprehensive income (debt instruments)

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to the statement of profit or loss.

Financial assets designated at fair value through other comprehensive income (equity investments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under HKAS 32 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

2. 會計政策(續)

2.4 重大會計政策(續)

投資及其他金融資產(續)

後續計量

金融資產其後視乎以下分類作出計量:

按攤銷成本計量的金融資產(債務工具)

按攤銷成本計量的金融資產其後使用實際利率法計量,並受減值影響。當資產終止確認、修訂或減值時,收益及虧損於損益中確認。

按公平值計入其他全面收益的金融資產(債務工具)

就按公平值計入其他全面收益的債務工具而言,利息收入、外匯重估及減值虧損或撥回於損益表中確認,並按與按攤銷成本計量的金融資產相同的方式計量。其餘公平值變動於其他全面收益中確認。終止確認時,於其他全面收益中確認的累計公平值變動將重新計入損益表。

指定按公平值計入其他全面收益的金融資產(股本投資)

於初始確認時,本集團可選擇於股本投資符合香港會計準則第32號金融工具:呈報項下的股本定義且並非持作買賣時,將其股本投資不可撤回地分類為指定按公平值計入其他全面收益的股本投資。分類乃按個別工具基準釐定。

該等金融資產的收益及虧損概不會被重新計入損益表。當支付權確立,股息於損益表中確認為其他收入,惟當本集團於作為收回金融資產一部份成本的所得款項中獲益時則除外,於此等情況下,該等收益於其他全面收益入賬。指定按公平值計入其他全面收益的股本投資不受減值評估影響。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Investments and other financial assets (continued)

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes derivative instruments and equity investments which the Group had not irrevocably elected to classify at fair value through other comprehensive income. Dividends on the equity investments are also recognised as other income in the statement of profit or loss when the right of payment has been established.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

2. 會計政策(續)

2.4 重大會計政策(續)

投資及其他金融資產(續)

按公平值計入損益的金融資產

按公平值計入損益的金融資產按公平值於財務狀況表列賬，而公平值變動淨額於損益表中確認。

該類別包括本集團並無不可撤回地選擇按公平值計入其他全面收益進行分類的衍生工具及股本投資。股本投資的股息在支付權確立亦於損益表中確認為其他收入。

當嵌入混合合約(包含金融負債或非金融主體)的衍生工具的經濟特徵及風險與主體不緊密相關；與嵌入式衍生工具相同條款的單獨工具符合衍生工具的定義；及混合合約並非以按公平值計入損益計量，則該衍生工具與主體分開並作為單獨衍生工具列賬。嵌入式衍生工具按公平值計量，且其公平值變動於損益表確認。僅當合約條款出現變動，大幅改變其他情況下所需現金流量時，或當原分類至按公平值計入損益的金融資產獲重新分類時，方進行重新評估。

嵌入混合合約(包含金融資產主體)的衍生工具不得單獨列賬。金融資產主體連同嵌入式衍生工具須整體分類為按公平值計入損益的金融資產。

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2. ACCOUNTING POLICIES (continued)**2.4 MATERIAL ACCOUNTING POLICIES (continued)****Derecognition of financial assets**

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset, or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

2. 會計政策(續)**2.4 重大會計政策(續)****終止確認金融資產**

出現以下情形時，金融資產(或(如適用)部份金融資產或一組同類金融資產的一部份)一般會終止確認(即自本集團綜合財務狀況表移除):

- 從資產收取現金流量的權利已屆滿; 或
- 本集團已根據「轉手」安排轉讓從資產收取現金流量的權利, 或已承擔向第三方無重大延誤全額支付所收現金流量的責任; 及(a)本集團已轉讓資產的絕大部份風險及回報, 或(b)本集團雖未轉讓或保留資產的絕大部份風險及回報, 但已轉讓資產的控制權。

倘本集團已轉讓從資產收取現金流量的權利或訂立轉手安排, 則評估有否保留資產所有權的風險及回報及保留程度。倘本集團並無轉讓或保留資產的絕大部份風險及回報, 亦無轉讓資產控制權, 則本集團將以本集團持續參與程度為限繼續確認所轉讓資產。在該情況下, 本集團亦確認相關負債。已轉讓資產及相關負債根據反映本集團所保留權利及責任的基準計量。

通過對已轉讓資產作出擔保的形式持續參與的計量, 按資產原賬面值與本集團或須償還的最高代價兩者中的較低者計算。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Impairment of financial assets

The Group recognises an allowance for expected credit losses (“ECLs”) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, 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 and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information. The Group considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due.

2. 會計政策(續)

2.4 重大會計政策(續)

金融資產減值

本集團確認對並非按公平值計入損益的所有債務工具預期信貸虧損(「預期信貸虧損」)的撥備。預期信貸虧損乃基於根據合約到期的合約現金流量與本集團預期收取的所有現金流量之間的差額而釐定、以原實際利率的近似值貼現。預期現金流量將包括出售所持抵押的現金流量或組成合約條款的其他信貸提升措施。

普通法

預期信貸虧損分兩個階段進行確認。就自初始確認起信貸風險並無大幅增加的信貸敞口而言，會就未來12個月內可能發生違約事件而導致的信貸虧損(12個月預期信貸虧損)計提預期信貸虧損。就自初始確認起信貸風險大幅增加的該等信貸敞口而言，不論何時發生違約，於敞口的餘下年期內的預期信貸虧損均須計提虧損撥備(全期預期信貸虧損)。

於各報告日期，本集團評估金融工具信貸風險是否自初始確認起大幅增加。於進行評估時，本集團比較金融工具於報告日期發生違約的風險及金融工具於初始確認日期發生違約的風險，認為在無需付出過多成本或努力的情況下即可獲得合理可靠的資料(包括歷史及前瞻性資料)。本集團認為，當合約付款逾期30天以上時，信貸風險顯著增加。

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財務報表附註

2. ACCOUNTING POLICIES (continued)**2. 會計政策(續)****2.4 MATERIAL ACCOUNTING POLICIES (continued)****2.4 重大會計政策(續)****Impairment of financial assets (continued)***General approach (continued)*

The Group considers a financial asset in default when contractual payments are 90 days to 150 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group.

A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Debt investments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables which apply the simplified approach as detailed below.

- Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs
- Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs
- Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs

金融資產減值(續)*普通法(續)*

本集團會在合約付款逾期90日至150日時考慮金融資產違約。然而，在若干情況下，當內部或外部資料顯示，在並無計及本集團持有的任何信貸提升措施時，本集團不大可能悉數收到未償還合約款項，則本集團亦可認為金融資產違約。

倘無法合理預期收回合約現金流量，則撇銷金融資產。

按公平值計入其他全面收益之債務投資及按攤銷成本計量的金融資產乃根據普通法減值，且於以下階段就預期信貸虧損計量予以分類，惟採用下文所述簡化法的貿易應收款項除外。

- 第一階段 – 信貸風險自初始確認起並未大幅增加且其虧損撥備按等於12個月預期信貸虧損的數額計量的金融工具
- 第二階段 – 信貸風險自初始確認起大幅增加但並非信貸減值金融資產且其虧損撥備按等於全期預期信貸虧損的數額計量的金融工具
- 第三階段 – 於報告日期出現信貸減值(但並非購入或源生信貸減值)且其虧損撥備按等於全期預期信貸虧損的數額計量的金融資產

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Impairment of financial assets (continued)

Simplified approach

For trade receivables that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings or payables.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade payables, financial liabilities included in other payables and accruals, amounts due to related parties, interest-bearing bank borrowings and lease liabilities.

Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as follows:

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

2. 會計政策(續)

2.4 重大會計政策(續)

金融資產減值(續)

簡化法

就並無重大融資成分或本集團已應用並未就重大融資成分的影響作出調整的可行權宜方法的貿易應收款項而言，本集團採用簡化法計算預期信貸虧損。根據簡化法，本集團並未追蹤信貸風險變動，轉而於各報告日期根據全期預期信貸虧損確認虧損撥備。本集團已根據其歷史信貸虧損經驗建立撥備矩陣，並就債務人及經濟環境特定的前瞻性因素作出調整。

金融負債

初始確認及計量

金融負債於初始確認時分類為按公平值計入損益的金融負債、貸款及借貸或應付款項。

所有金融負債初始按公平值確認，貸款及借貸以及應付款項則須扣除直接應佔交易成本。

本集團的金融負債包括貿易應付款項、計入其他應付款項及應計費用的金融負債、應付關聯方款項、計息銀行借款以及租賃負債。

後續計量

金融負債其後視乎以下分類作出計量：

按公平值計入損益的金融負債

按公平值計入損益的金融負債包括持作買賣的金融負債及於初始確認時指定為按公平值計入損益的金融負債。

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2. ACCOUNTING POLICIES (continued)**2.4 MATERIAL ACCOUNTING POLICIES (continued)****Financial liabilities (continued)***Financial liabilities at fair value through profit or loss (continued)*

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by HKFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognised in the statement of profit or loss. The net fair value gain or loss recognised in the statement of profit or loss does not include any interest charged on these financial liabilities.

Financial liabilities designated upon initial recognition as at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in HKFRS 9 are satisfied. Gains or losses on liabilities designated at fair value through profit or loss are recognised in the statement of profit or loss, except for the gains or losses arising from the Group's own credit risk which are presented in other comprehensive income with no subsequent reclassification to the statement of profit or loss. The net fair value gain or loss recognised in the statement of profit or loss does not include any interest charged on these financial liabilities.

Financial liabilities at amortised cost (trade and other payables, and borrowings)

After initial recognition, trade and other payables, and interest-bearing borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss.

2. 會計政策(續)**2.4 重大會計政策(續)****金融負債(續)***按公平值計入損益的金融負債(續)*

倘金融負債是為近期回購而產生，則歸類為持作買賣。該類別亦包括本集團訂立的衍生金融工具，其並未於香港財務報告準則第9號界定的對沖關係中指定為對沖工具。獨立嵌入式衍生工具亦分類為持作買賣，除非其被指定為有效的對沖工具則另作別論。持作買賣的負債的損益於損益表確認。於損益表確認的公平值淨收益或虧損不包括就該等金融負債收取的任何利息。

於初始確認時指定為按公平值計入損益的金融負債於初始確認日期指定，及僅於符合香港財務報告準則第9號的標準時方會進行。指定按公平值計入損益的負債的收益或虧損於損益表中確認，惟於其他全面收益呈列的本集團自身信貸風險所產生的收益或虧損除外，其後續未重新分類至損益表。於損益表確認的公平值淨收益或虧損不包括就該等金融負債收取的任何利息。

按攤銷成本計量的金融負債(貿易及其他應付款項及借貸)

初始確認後，貿易及其他應付款項以及計息借貸其後以實際利率法按攤銷成本計量，若貼現影響不大，則按成本列賬。收益及虧損於負債終止確認時透過實際利率攤銷程序於損益表確認。

計算攤銷成本時已計及任何收購折讓或溢價及屬實際利率不可分割部份的費用或成本。實際利率攤銷則計入損益表的財務費用。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Derecognition of financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in the statement of profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the weighted average basis, and in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Costs for properties under development include land costs, construction costs and other direct and indirect development expenses in relation to property development. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash on hand and at banks, and short-term highly liquid deposits with a maturity of generally within three months that are readily convertible into known amounts of cash, subject to an insignificant risk of changes in value and held for the purpose of meeting short-term cash commitments.

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and at banks, and short-term deposits as defined above, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

2. 會計政策(續)

2.4 重大會計政策(續)

終止確認金融負債

金融負債於負債的責任解除、註銷或屆滿時終止確認。

當現有金融負債被同一貸款人以條款明顯不同的負債取代時，或現有負債的條款有重大修改時，有關替換或修改則視為終止確認原有負債並確認一項新負債，而相關賬面值的差額於損益表確認。

抵銷金融工具

當且僅當有現行可強制執行的法律權利抵銷已確認金額，並且擬以淨額基準進行結算或同時將資產變現及清償負債，方可將金融資產及金融負債抵銷，而淨額於財務狀況表呈報。

存貨

存貨按成本及可變現淨值兩者中的較低者列賬。成本按加權平均基準釐定，而就在製品及製成品而言，成本包括直接材料、直接勞工及適當比例的生產費用。發展中物業成本包括土地成本、建造成本及其他與物業開發有關的直接及間接開發開支。可變現淨值按估計售價減去任何在完成及出售過程中產生的估計費用計。

現金及現金等價物

財務狀況表內的現金及現金等價物包括手頭現金及銀行存款，及為履行短期現金承諾而持有、通常於三個月內到期、可隨時轉換為已知金額現金且價值變動風險不大的短期高變現能力存款。

就綜合現金流量表而言，現金及現金等價物包括手頭現金及銀行存款以及上文界定的短期存款，減須按要償還的銀行透支，為本集團現金管理的組成部分。

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財務報表附註

2. ACCOUNTING POLICIES (continued)**2.4 MATERIAL ACCOUNTING POLICIES (continued)****Provisions**

A provision is recognised when there is a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the statement of profit or loss net of any reimbursement.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in the statement of profit or loss.

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

2. 會計政策(續)**2.4 重大會計政策(續)****撥備**

倘因過往事件而產生現時法定或推定責任，而履行該責任可能導致未來資源流出，且該責任所涉金額能夠可靠估計，則確認撥備。當本集團預計部分或全部撥備將得到報銷時，報銷金額將確認為單獨資產，但僅當報銷金額幾乎確定時才予以確認。與撥備相關的費用在扣除任何報銷後的損益表中呈列。

倘貼現影響重大，則確認撥備的數額為預期日後履行有關責任所需開支於報告期末的現值。倘已貼現的現值隨時間而有所增加，則該等增幅將於損益表列作財務費用。

所得稅

所得稅包括即期及遞延稅項。與於損益外確認的項目有關的所得稅於損益外確認為其他全面收益或直接於權益中確認。

即期稅項資產及負債，根據於報告期末已頒佈或實質上已頒佈的稅率(及稅法)，按預期獲稅務機關退回或向稅務機關支付的款項，並計及本集團經營所在國家現行法律詮釋及慣例計量。

遞延稅項於報告期末採用負債法就資產及負債稅基與其就財務報告目的所使用的賬面值的所有暫時差額撥備。

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Income tax (continued)

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- when the deferred tax liability arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss and does not give rise to equal taxable and deductible temporary differences; and
- in respect of taxable temporary differences associated with investments in subsidiaries and associates when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, and the carryforward of unused tax credits and any unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary differences arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss and does not give rise to equal taxable and deductible temporary differences; and
- in respect of deductible temporary differences associated with investments in subsidiaries and associates, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

2. 會計政策(續)

2.4 重大會計政策(續)

所得稅(續)

除下列情況外，會就所有應課稅暫時差額確認遞延稅項負債：

- 倘遞延稅項負債因非業務合併交易中初始確認資產或負債而產生，且於交易時遞延稅項負債不會影響會計溢利或應課稅溢利或虧損及不會產生相等的應課稅及可扣減暫時差額；及
- 就於子公司及聯營公司投資相關的應課稅暫時差額而言，倘可控制暫時差額的撥回時間，且於可見未來可能不會撥回暫時差額。

於有可能動用應課稅溢利以抵銷可扣減暫時差額以及未動用稅項抵免及未動用稅項虧損結轉的情況下，就所有可扣減暫時差額以及未動用稅項抵免及任何未動用稅項虧損結轉確認遞延稅項資產，惟下列情況除外：

- 倘涉及可扣減暫時差額的遞延稅項資產因非業務合併交易中初始確認資產或負債而產生，且於交易時遞延稅項資產不會影響會計溢利或應課稅溢利或虧損及不會產生相等的應課稅及可扣減暫時差額；及
- 就於子公司及聯營公司投資相關的可扣減暫時差額而言，遞延稅項資產僅於可見未來可能撥回暫時差額，且可動用應課稅溢利以抵銷暫時差額的情況下確認。

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財務報表附註

2. ACCOUNTING POLICIES (continued)**2.4 MATERIAL ACCOUNTING POLICIES (continued)****Income tax (continued)**

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, for which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

2. 會計政策(續)**2.4 重大會計政策(續)****所得稅(續)**

遞延稅項資產賬面值於各報告期末檢討，並於不再可能有足夠應課稅溢利可容許動用全部或部份遞延稅項資產的情況下予以扣減。未確認遞延稅項資產於各報告期末重新評估，並在可能有足夠應課稅溢利可容許收回全部或部份遞延稅項資產的情況下予以確認。

遞延稅項資產及負債，根據於報告期末已頒佈或實質上已頒佈的稅率(及稅法)，按預期適用於變現資產或清償負債期間的稅率計量。

當且僅當本集團有可強制執行的法律權利可將即期稅項資產與即期稅項負債抵銷，且遞延稅項資產與遞延稅項負債與同一稅務機關對同一應課稅實體或於預期有大額遞延稅項負債或資產需要結算或清償的各未來期間擬按淨額基準結算即期稅項負債及資產或同時變現資產及結算負債之不同稅務實體徵收之所得稅相關，則遞延稅項資產與遞延稅項負債可予抵銷。

政府補助

政府補助在合理確定將會收取補助及將會符合一切所附條件時，按其公平值確認。如補助與開支項目有關，其將於擬用作補償的成本支銷期間按系統基準確認為收入。

倘補助與資產有關，則公平值計入遞延收入賬，並在相關資產的預期可使用年期內逐年按等額分期撥回損益表，或自資產賬面值扣減並通過減少折舊開支方式撥回損益表。

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財務報表附註 31 December 2023 二零二三年十二月三十一日

2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Revenue recognition

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

Revenue from other sources

Rental income is recognised on a time proportion basis over the lease terms. Variable lease payments that do not depend on an index or a rate are recognised as income in the accounting period in which they are incurred.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Contract liabilities

A contract liability is recognised when a payment is received or a payment is due (whichever is earlier) from a customer before the Group transfers the related goods or services. Contract liabilities are recognised as revenue when the Group performs under the contract (i.e., transfers control of the related goods or services to the customer).

Share-based payments

The Company operates a share option scheme. Employees (including directors) of the Group receive remuneration in the form of share-based payments, whereby employees render services in exchange for equity instruments ("equity-settled transactions"). The cost of equity-settled transactions with employees is measured by reference to the fair value at the date at which they are granted. The fair value is determined by an external valuer using a binomial model, further details of which are given in note 31 to the financial statements.

2. 會計政策(續)

2.4 重大會計政策(續)

銷售收入確認

客戶合約收益

於貨品或服務的控制權按反映本集團預期就交換該等貨品或服務有權收取的代價的金額轉移予客戶時確認客戶合約收益。

由其他來源產生之收入

租金收入於租賃期按時間比例確認。不取決於某一指數或比率的可變租賃付款於產生的會計期間確認為收入。

其他收入

利息收入按應計基準使用實際利率法，透過採用將金融工具在預期可使用年期或較短期間(如適用)內的估計未來現金收入準確貼現至金融資產之賬面淨值的比率予以確認。

合約負債

合約負債於本集團向客戶轉移相關貨品或服務前收取或付款到期時(以較早者為準)確認。合約負債於本集團履行合約時(即相關商品或服務的控制權轉移至客戶時)確認為收入。

以股份付款

本公司實施一項購股權計劃。本集團僱員(包括董事)以股份付款的方式收取報酬，僱員提供服務以換取股本工具(「股權結算交易」)。與僱員進行股權結算交易的成本，乃參照授出日期的公平值而計量。公平值由外聘估值師採用二項式模式釐定，進一步詳情載於財務報表附註31。

NOTES TO FINANCIAL STATEMENTS

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The cost of equity-settled transactions is recognised in employee benefit expense, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to the statement of profit or loss for a period represents the movement in the cumulative expense recognised as at the beginning and end of that period.

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

For awards that do not ultimately vest because non-market performance and/or service conditions have not been met, no expense is recognised. Where awards include a market or non-vesting condition, the transactions are treated as vesting irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified, if the original terms of the award are met. In addition, an expense is recognised for any modification that increases the total fair value of the share-based payments, or is otherwise beneficial to the employee as measured at the date of modification.

2. 會計政策(續)**2.4 重大會計政策(續)****以股份付款(續)**

股權結算交易成本連同權益相應增加部份，在績效及／或服務條件達成時於期內在僱員福利開支確認。截至歸屬日期前於報告期末確認的股權結算交易的累計開支，反映歸屬期已到期部份及本集團對最終將會歸屬的股本工具數目的最佳估計。期內在損益表扣除或進賬，乃指期初與期終已確認的累計開支的變動。

釐定獎勵的授出日期公平值並不考慮服務及非市場表現條件，惟能達成條件的可能性則被評定為將最終歸屬為本集團股本工具數目的最佳估計的一部份。市場表現條件將反映在授出日期的公平值。附帶於獎勵中但並無相關聯服務要求的其他任何條件皆視為非歸屬條件。反映非歸屬條件的獎勵公平值若當中不包含服務及／或表現條件乃即時予以支銷。

因未能達至非市場表現及／或服務條件，而導致最終並無歸屬的獎勵並不會確認支銷，惟包括一項市場或非歸屬條件之獎勵，無論市場或非歸屬條件是否達成，其均會被視為已歸屬，前提是所有其他表現及／或服務條件須已達成。

倘股權結算獎勵的條款有變更，假設符合獎勵原條款，則所確認之開支最少須達到猶如條款並無任何變更的水平。此外，倘按變更日期之計量，任何變更導致以股份付款的公平值總額增加，或為僱員帶來其他利益，則就該等變更確認開支。

NOTES TO FINANCIAL STATEMENTS

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Share-based payments (Continued)

Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the Group or the employee are not met. However, if a new award is substituted for the cancelled award, and is designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share.

Other employee benefits

Pension scheme

The employees of the Group's subsidiary which operates in Chinese Mainland are required to participate in a central pension scheme operated by the local municipal government. This subsidiary is required to contribute a certain percentage of its payroll costs to the central pension scheme. The contributions are charged to the statement of profit or loss as they become payable in accordance with the rules of the central pension scheme.

Termination benefits

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises restructuring costs involving the payment of termination benefits.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets. The capitalisation of such borrowing costs ceases when the assets are substantially ready for their intended use or sale. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

2. 會計政策(續)

2.4 重大會計政策(續)

以股份付款(續)

倘股權結算獎勵註銷，則視為已於註銷日期歸屬，任何尚未確認之獎勵(包括未能符合本集團或僱員可控制的非歸屬條件的任何獎勵)開支，均即時確認。然而，若已授出新獎勵代替已註銷的獎勵，並於授出日期指定為替代獎勵，則如前段所述，已註銷獎勵及新獎勵均視為原有獎勵的變更。

計算每股盈利時，未行使購股權的攤薄效應，反映為額外股份攤薄。

其他僱員福利

退休金計劃

本集團於中國內地營運的子公司屬下的僱員須參與由有關地方市政府營運的中央退休金計劃。該子公司須按僱員薪金若干百分比對中央退休金計劃供款。供款於按中央退休金計劃規則應付時在損益表內支銷。

離職福利

離職福利於本集團不再能取消提供該等福利時及本集團確認涉及支付離職福利之重組成本時之較早者確認。

借款成本

收購、建設或生產合資格資產(即需要一段較長時間方可達致擬定用途或出售的資產)直接應佔的借款成本會撥充資本，作為該等資產的部份成本。當資產已大致可作擬定用途或出售時，則不會再將該等借款成本撥充資本。所有其他借款成本於產生期間支銷。借款成本包括一間實體借款時產生的利息及其他成本。

NOTES TO FINANCIAL STATEMENTS

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Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the financial statements.

Interim dividends are simultaneously proposed and declared, because the Company's memorandum and articles of association grant the directors the authority to declare interim dividends. Consequently, interim dividends are recognised immediately as a liability when they are proposed and declared.

Foreign currencies

These financial statements are presented in US\$, which is the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

2. 會計政策(續)**2.4 重大會計政策(續)****股息**

末期股息於股東在股東大會上批准時確認為負債。擬派末期股息乃於財務報表附註披露。

由於本公司的組織章程大綱及細則授權董事宣派中期股息，故中期股息乃同時予以擬派及宣派。因此，中期股息於擬派及宣派後隨即確認為負債。

外幣

該等財務報表以本公司的功能貨幣美元呈列。本集團各實體自行決定其功能貨幣，而各實體財務報表所載項目均採用該功能貨幣計量。本集團實體記錄的外幣交易初步採用其各自於交易日期的功能貨幣匯率入賬。以外幣計值的貨幣資產及負債按各報告期末的功能貨幣匯率換算。結算或換算貨幣項目產生的差額於損益表確認。

根據以外幣計值的歷史成本計量的非貨幣項目採用首次交易日期的匯率換算。按外幣公平值計量的非貨幣項目採用計量公平值當日的匯率換算。換算以公平值計量的非貨幣項目產生的收益或虧損按與確認項目公平值變動的收益或虧損一致的方式處理(即公平值收益或虧損於其他全面收益或損益確認的項目的換算差額亦分別於其他全面收益或損益確認)。

NOTES TO FINANCIAL STATEMENTS

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2. ACCOUNTING POLICIES (continued)

2.4 MATERIAL ACCOUNTING POLICIES (continued)

Foreign currencies (continued)

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration.

The functional currencies of certain Chinese Mainland and overseas subsidiaries and associate are currencies other than US\$. As at the end of the reporting period, the assets and liabilities of these entities are translated into US\$ at the exchange rates prevailing at the end of the reporting period and their statements of profit or loss are translated into US\$ at the exchange rates that approximate to those prevailing at the dates of the transactions.

The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange fluctuation reserve, except to the extent that the differences are attributable to non-controlling interests. On disposal of a foreign operation, the cumulative amount in the reserve relating to that particular foreign operation is recognised in the statement of profit or loss.

For the purpose of the consolidated statement of cash flows, the cash flows of Chinese Mainland and overseas subsidiaries are translated into US\$ at the weighted average exchange rates for the year of the cash flows. Frequently recurring cash flows of Chinese Mainland and overseas subsidiaries which arise throughout the year are translated into US\$ at the weighted average exchange rates for the year.

2. 會計政策(續)

2.4 重大會計政策(續)

外幣(續)

就釐定於初步確認有關資產、開支或收入就非貨幣性資產或與墊支代價相關的非貨幣性負債的終止確認所用的匯率時，首次交易日期為本集團最初確認非貨幣性資產或墊支代價產生的非貨幣性負債的日期。倘存在多筆預付款或預收款，本集團須就每筆支付墊支代價或收取墊支代價釐定交易日期。

若干中國內地及海外子公司及聯營公司的功能貨幣為美元以外的貨幣。於報告期末，該等實體的資產及負債按報告期末的通行匯率換算為美元，而其損益表按與交易日期通行匯率大致相若的匯率換算為美元。

由此產生的匯兌差額於其他全面收益確認，並於匯率波動儲備中累計，除非有關差額來自非控股權益。出售國外業務時，儲備內有關特定國外業務的累計金額於損益表確認。

就綜合現金流量表而言，中國內地及海外子公司的現金流量乃按年內現金流量的加權平均匯率換算為美元。中國內地及海外子公司年內重複產生的現金流量乃按年內的加權平均匯率換算為美元。

NOTES TO FINANCIAL STATEMENTS

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The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements, apart from those involving estimations, which have the most significant effect on the amounts recognised in the financial statements:

Property lease classification – Group as lessor

The Group has entered into commercial property leases on its investment property portfolio. The Group has determined, based on an evaluation of the terms and conditions of the arrangements, such as the lease term not constituting a major part of the economic life of the commercial property and the present value of the minimum lease payments not amounting to substantially all the fair value of the commercial property, that it retains substantially all the significant risks and rewards incidental to ownership of these properties which are leased out and accounts for the contracts as operating leases.

3. 重要會計估計及假設

管理層在編製本集團財務報表時須作出判斷、估計及假設，而有關判斷、估計及假設會對收入、開支、資產及負債的呈報金額及其隨附披露，以及或然負債披露造成影響。該等假設及估計的不確定性或會導致須對在未來遭受影響的資產或負債的賬面值進行重大調整。

判斷

於採納本集團會計政策的過程中，除涉及估計的會計政策外，管理層已作出對財務報表已確認金額構成最重大影響的判斷如下：

物業租賃分類 – 本集團作為出租人

本集團訂立有關投資物業組合的商務物業租賃。根據對有關安排條款及條件之評估，如租期不構成商用物業之經濟壽命的主要部分且最低租賃款項現值不等於商用物業之絕大部分公平值，本集團已釐定其保留該等物業所有權附帶的絕大部分風險及回報，並將有關合約以經營租賃入賬。

NOTES TO FINANCIAL STATEMENTS

財務報表附註

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二零二三年十二月三十一日

3. SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS (continued)

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

Impairment of non-financial assets (other than goodwill)

The Group assesses whether there are any indicators of impairment for all non-financial assets (including the right-of-use assets) at the end of each reporting period. Indefinite life intangible assets are tested for impairment annually and at other times when such an indicator exists. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. The calculation of the fair value less costs of disposal is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. When value in use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and choose a suitable discount rate in order to calculate the present value of those cash flows.

Fair value of an investment property

In the absence of current prices in an active market for similar properties, the Group considers information from the discounted cash flow projections.

Discounted cash flow projections based on reliable estimates of future cash flows, supported by the terms of any existing lease and other contracts and (when possible) by external evidence such as current market rents for similar properties in the same location and condition, and using discount rates that reflect current market assessments of the uncertainty in the amount and timing of the cash flows.

The carrying amount of the investment property as at 31 December 2023 was US\$166,643,000 (31 December 2022: US\$169,363,000). Further details, including the key assumptions used for fair value measurement and a sensitivity analysis, are given in note 14 to the financial statements.

3. 重要會計估計及假設(續)

估計不確定性

於報告期末，有關未來的主要假設及估計不確定的其他主要來源(存在導致於下一財政年度內對資產及負債的賬面值作出重大調整的重大風險)論述如下。

非金融資產(商譽除外)減值

本集團於各報告期末評估所有非金融資產(包括使用權資產)有否任何減值跡象。年期無限的無形資產每年及於該跡象存在的其他時間作減值測試。其他非金融資產在有跡象表明可能無法收回賬面值時進行減值測試。當資產或現金產生單位賬面值超過可收回金額時，即存在減值，可收回金額按公平值減出售費用或使用價值兩者的較高者計算。公平值減出售費用按類似資產按公平原則進行具約束力的銷售交易所獲得的數據或可觀察市場價格減出售資產的增量成本計算。計算使用價值時，管理層須估計資產或現金產生單位的預期未來現金流量，並選擇適合的折現率計算該等現金流量的現值。

投資物業公平值

倘類似物業於活躍市場中並無現行市價，則本集團會考慮貼現現金流量預測資料。

根據可靠的未來現金流量估算、任何現有租約及其他合約的年期及(如可能)外在證據(如於同一地點及狀況下，類似物業的現行市值租金)，以及使用可反映現金流量金額及出現時間不明朗因素的現時市場評估的貼現率計算而得出的貼現現金流量預測。

於二零二三年十二月三十一日，投資物業的賬面值為166,643,000美元(二零二二年十二月三十一日：169,363,000美元)。進一步詳情(包括公平值計量及敏感度分析所採用的主要假設)載於財務報表附註14。

NOTES TO FINANCIAL STATEMENTS

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二零二三年十二月三十一日 財務報表附註

4. OPERATING SEGMENT INFORMATION

For management purposes, the Group is organised into one single business unit that includes primarily the manufacture and sale of semiconductor products. Management reviews the consolidated results when making decisions about allocating resources and assessing the performance of the Group. Accordingly, no segment analysis is presented.

The principal assets employed by the Group are located in Shanghai and Wuxi, the PRC. Therefore, no segment information based on the geographical location of non-current assets is presented for the year.

Revenues are attributed to geographical areas based on the locations of customers. Revenues by geographical segment based on the locations of customers for the year are presented as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
China (including Hong Kong)	中國(包括香港)	1,774,178	1,811,269
North America	北美	204,882	297,683
Asia (excluding China and Japan)	亞洲(不包括中國及日本)	149,087	210,610
Europe	歐洲	134,760	114,728
Japan	日本	23,206	41,198
		2,286,113	2,475,488

The Group is involved in the business of the manufacture and sale of semiconductor products. Revenue from the sale of semiconductor products is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the semiconductor products, where the performance obligation is satisfied. The normal credit term is 30 to 45 days upon delivery. Payment in advance is required for some contracts.

Information about major customers

No revenue amounting to 10% or more of the Group's revenue was derived from sales to a single customer for the year ended 31 December 2023 (31 December 2022: Nil).

4. 經營分部資料

出於管理需要，本集團僅構組一個業務單元，主要包括製造及銷售半導體產品。管理層在作出分配資源的相關決策及評估本集團表現時審核綜合業績。因此，並無呈列分部分析。

本集團使用的主要資產位於中國上海及無錫，故並無按非流動資產的地理位置於年內呈列分部資料。

地理區域應佔收入乃按客戶所在地劃分。年內按客戶所在地劃分的地區分部收入呈列如下：

本集團從事製造及銷售半導體產品業務。來自銷售半導體產品的收益於資產的控制權轉移予客戶時(一般於交付半導體產品時)(即達成履約責任時)確認。一般信貸期為交付後30至45天。若干合約須提前付款。

有關主要客戶的資料

截至二零二三年十二月三十一日止年度並無對單一客戶的銷售所得收入金額達本集團收入的10%或以上(二零二二年十二月三十一日：無)。

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日5. REVENUE, OTHER INCOME AND GAINS
AND OTHER EXPENSES

An analysis of revenue, other income and gains and other expenses is as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Revenue from contracts with customers	客戶合約收益		
Sale of goods	銷售貨品	2,286,113	2,475,488
Other income	其他收入		
Gross rental income from investment property operating leases:	來自投資物業經營租賃的租金收入		
	總額:		
Fixed lease payments	固定租賃付款	14,259	14,358
Interest income	利息收入	61,345	26,944
Government subsidies	政府補貼	66,466	27,679
Sale of scrap materials	銷售廢料	1,418	1,476
Others	其他	882	524
		144,370	70,981
Gains	收益		
Gain on disposal of items of property, plant and equipment	出售物業、廠房及設備項目所得收益	-	5
		144,370	70,986
Other expenses	其他費用		
Foreign exchange loss, net	外匯匯兌虧損淨額	33,055	106,804
Loss on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損	206	-
Others	其他	405	4,556
		33,666	111,360
		2,286,113	2,475,488
Types of goods	貨品類型		
Sales of semiconductor products and total revenue from contracts with customers	半導體產品的銷售和來自客戶合約的總收入	2,286,113	2,475,488
Timing of revenue recognition	收入確認時間		
Goods transferred at a point in time and total revenue from contracts with customers	在某一時點轉讓的貨品及來自客戶合約的總收入	2,286,113	2,475,488

The disaggregation of the Group's revenue based on the geographical region for the year ended 31 December 2023 is given in note 4.

5. 收入、其他收入及收益及其他費用

對收入、其他收入及收益及其他費用的分析如下：

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Revenue from contracts with customers	客戶合約收益		
Sale of goods	銷售貨品	2,286,113	2,475,488
Other income	其他收入		
Gross rental income from investment property operating leases:	來自投資物業經營租賃的租金收入		
	總額:		
Fixed lease payments	固定租賃付款	14,259	14,358
Interest income	利息收入	61,345	26,944
Government subsidies	政府補貼	66,466	27,679
Sale of scrap materials	銷售廢料	1,418	1,476
Others	其他	882	524
		144,370	70,981
Gains	收益		
Gain on disposal of items of property, plant and equipment	出售物業、廠房及設備項目所得收益	-	5
		144,370	70,986
Other expenses	其他費用		
Foreign exchange loss, net	外匯匯兌虧損淨額	33,055	106,804
Loss on disposal of items of property, plant and equipment	出售物業、廠房及設備項目的虧損	206	-
Others	其他	405	4,556
		33,666	111,360
		2,286,113	2,475,488
Types of goods	貨品類型		
Sales of semiconductor products and total revenue from contracts with customers	半導體產品的銷售和來自客戶合約的總收入	2,286,113	2,475,488
Timing of revenue recognition	收入確認時間		
Goods transferred at a point in time and total revenue from contracts with customers	在某一時點轉讓的貨品及來自客戶合約的總收入	2,286,113	2,475,488

截至二零二三年十二月三十一日止年度，本集團基於地區的收入分類載列於附註4。

NOTES TO FINANCIAL STATEMENTS

31 December 2023
二零二三年十二月三十一日 財務報表附註

6. PROFIT BEFORE TAX

The Group's profit before tax is arrived at after charging/
(crediting):

6. 稅前溢利

本集團的稅前溢利乃於扣除/(計入)下列各項後達致:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Cost of inventories sold	已售存貨成本	1,799,017	1,631,832
Depreciation of property, plant and equipment	物業、廠房及設備折舊	13 481,664	439,917
Depreciation of right-of-use assets	使用權資產折舊	15 6,427	5,842
Amortisation of intangible assets	無形資產攤銷	16 12,348	11,101
Research and development costs	研發成本	206,522	160,936
Lease payments not included in the measurement of lease liabilities	未計入租賃負債計量的租賃付款	33(b) 2,383	2,625
Auditor's remuneration	核數師薪酬	749	1,395
Employee benefit expense (including directors' and chief executive's remuneration (note 8)):	僱員福利開支(包括董事及最高行政人員的薪酬(附註8)):		
Wages, salaries and other benefits	工資、薪金及其他福利	282,762	382,804
Equity-settled share option expense	以權益結算的購股權開支	31 853	1,226
Pension scheme contributions (defined contribution scheme) *	退休金計劃供款(定額供款計劃)*	36,909	31,660
		320,524	415,690
Impairment of items of property, plant and equipment	物業、廠房及設備項目減值	13 2,476	858
Provision/(reversal of) for impairment of trade receivables	貿易應收款項減值撥備/(撥回)	21 1,120	(16)
Write-down of inventories to net realisable value	存貨撇減至可變現淨值	113,271	19,612
Changes in fair value of an investment property	投資物業公平值變動	14 (103)	(78)

* There are no forfeited contributions that may be used by the Group as the employer to reduce the existing level of contributions.

* 本集團作為僱主概無可能將沒收的供款用於降低現有的供款水平。

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日

7. FINANCE COSTS

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Interest on bank borrowings	銀行借款利息	99,429	39,451
Interest on lease liabilities	租賃負債利息	1,068	880
Total	總計	100,497	40,331

7. 財務費用

8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION

Directors' and chief executive's remuneration for the year, disclosed pursuant to the Listing Rules, section 383(1)(a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation, is as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Fees	袍金	216	234
Other emoluments:	其他酬金:		
Salaries, allowances and benefits in kind	薪酬、津貼及實物利益	196	206
Performance related bonuses	與表現掛鉤的花紅	196	452
Equity-settled share option expense	以權益結算的購股權開支	28	57
Pension scheme contributions	退休金計劃供款	10	9
Subtotal	小計	430	724
Total fees and other emoluments	費用及其他報酬總額	646	958

8. 董事及最高行政人員的薪酬

根據上市規則及香港公司條例第383(1)(a)、(b)、(c)及(f)節及《公司(披露董事利益資料)規例》第2部披露的本年度董事及最高行政人員薪酬如下:

In prior year, certain directors were granted share options, in respect of their services to the Group, under the share option scheme of the Company, further details of which are set out in note 31 to the financial statements. The fair value of such options, which has been recognised in the statement of profit or loss over the vesting period, was determined as at the date of grant and the amount included in the financial statements for the current year is included in the above directors' and chief executive's remuneration disclosures.

於過往年度，若干董事根據本公司的購股權計劃因其向本集團提供的服務獲授購股權，其進一步詳情載於財務報表附註31。相關購股權的公平值已按歸屬期於損益表確認，並於授出日期釐定且於本年度財務報表入賬的金額已計入前述董事及最高行政人員的薪酬披露中。

NOTES TO FINANCIAL STATEMENTS

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8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION (continued)

(a) Independent non-executive directors

The fees paid to independent non-executive directors during the year were as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Stephen Tso Tung Chang	張祖同	72	78
Kwai Huen Wong, JP	王桂壘, 太平紳士	72	78
Long Fei Ye	葉龍蜚	72	78
Total	總計	216	234

There were no other emoluments payable to the independent non-executive directors during the year (2022: Nil).

8. 董事及最高行政人員的薪酬 (續)

(a) 獨立非執行董事

年內向獨立非執行董事支付的袍金如下:

年內並無應付予獨立非執行董事的其他酬金(二零二二年: 無)。

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日8. DIRECTORS' AND CHIEF EXECUTIVE'S
REMUNERATION (continued)

(b) A non-executive director and the chief executive

		Salaries, allowances and benefits Fees	in kind 袍金	Performance related bonuses 與表現掛鈎 的花紅	Equity-settled share option expense 以權益結算的 購股權開支	Pension scheme contributions 退休金計劃 供款	Total remuneration 薪酬總額
		US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元
2023	二零二三年						
Chief executive:	最高行政人員:						
Mr. Junjun Tang	唐均君先生	-	196	196	28	10	430

		Salaries, allowances and benefits Fees	in kind 袍金	Performance related bonuses 與表現掛鈎 的花紅	Equity-settled share option expense 以權益結算的 購股權開支	Pension scheme contributions 退休金計劃 供款	Total remuneration 薪酬總額
		US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元	US\$'000 千美元
2022	二零二二年						
Chief executive:	最高行政人員:						
Mr. Junjun Tang	唐均君先生	-	206	452	57	9	724

Save as disclosed above, none of the directors received any emoluments during 2023 and 2022.

There was no arrangement under which a director waived or agreed to waive any remuneration during the year.

8. 董事及最高行政人員的薪酬
(續)

(b) 非執行董事及最高行政人員

除前述披露者外，概無董事於二零二三年及二零二二年收取任何薪酬。

於年內，概無董事作出安排放棄或同意放棄任何薪酬。

NOTES TO FINANCIAL STATEMENTS

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二零二三年十二月三十一日 財務報表附註

9. FIVE HIGHEST PAID EMPLOYEES

The five highest paid employees during the year included one director, who is also the chief executive (2022: one director being also the chief executive), details of whose remuneration are set out in note 8 above. Details of the remuneration for the year of the remaining four (2022: four) highest paid employees who are not directors of the Company are as follows:

		2023	2022
		二零二三年	二零二二年
		US\$'000	US\$'000
		千美元	千美元
Salaries, allowances and benefits in kind	薪酬、津貼及實物利益	1,163	1,127
Performance related bonuses	與表現掛鉤的花紅	336	771
Equity-settled share option expense	以權益結算的購股權開支	6	121
Pension scheme contributions	退休金計劃供款	29	9
Total	總計	1,534	2,028

The number of highest paid employees who are not directors of the Company and whose remuneration fell within the following bands is as follows:

		Number of employees	
		僱員人數	
		2023	2022
		二零二三年	二零二二年
HK\$2,000,001 to HK\$2,500,000	2,000,001港元至2,500,000港元	1	-
HK\$2,500,001 to HK\$3,000,000	2,500,001港元至3,000,000港元	2	2
HK\$3,000,001 to HK\$3,500,000	3,000,001港元至3,500,000港元	-	1
HK\$4,000,001 to HK\$4,500,000	4,000,001港元至4,500,000港元	1	-
HK\$5,000,001 to HK\$5,500,000	5,000,001港元至5,500,000港元	-	1
Total	總計	4	4

In prior years, share options were granted to four non-director and non-chief executive highest paid employees in respect of their services to the Group, further details of which are included in the disclosures in note 31 to the financial statements. The fair value of such options, which has been recognised in the statement of profit or loss over the vesting period, was determined as at the date of grant and the amount included in the financial statements for the current year is included in the above non-director and non-chief executive highest paid employees' remuneration disclosures.

9. 五名最高薪僱員

年內，五名最高薪僱員包括一名董事(亦為最高行政人員)(二零二二年：一名董事(亦為最高行政人員))，其薪酬詳情載於上文附註8。年內，其餘四名(二零二二年：四名)並非本公司董事的最高薪僱員的薪酬詳情如下：

薪酬屬於以下範疇的並非本公司董事的最高薪僱員人數如下：

於過往年度，四名非董事及非最高行政人員的最高薪僱員因其向本集團提供服務獲授購股權，其進一步詳情於財務報表附註31披露。相關購股權的公平值已按歸屬期於損益表確認，並於授出日期釐定且於本年度財務報表入賬的金額已計入前述非董事及非最高行政人員的最高薪僱員的薪酬披露中。

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10. INCOME TAX

Profits arising in Hong Kong were subject to profits tax at the rate of 16.5% during the year (2022: 16.5%). No provision for Hong Kong profits tax has been made as the Company and a subsidiary incorporated in Hong Kong had no assessable income during the year (2022: Nil).

The Company's subsidiary incorporated in the Cayman Islands is not subject to corporate income tax ("CIT") as it does not have a place of business (other than a registered office) or carry on any business in the Cayman Islands.

All of the Company's subsidiaries registered in the PRC and only having operations in Chinese Mainland are subject to PRC enterprise income tax on the taxable income as reported in their PRC statutory accounts adjusted in accordance with relevant PRC income tax laws based on a statutory rate of 25%.

Pursuant to the relevant laws and regulations in the PRC and with approval from the tax authorities in charge, one of the Group's subsidiaries, HHGrace, is qualified as a "High and New Technology Enterprise" and was therefore entitled to a preferential tax rate of 15% from 2023 to 2025.

Pursuant to the relevant laws and regulations in the PRC and with the approval from the tax authorities in charge, the Group's subsidiaries, Hua Hong Wuxi and Hua Hong Manufacturing, are entitled to an exemption from CIT for five years, commencing from the first year that Hua Hong Wuxi and Hua Hong Manufacturing generate taxable profits, and a deduction of 50% on the CIT rate for the following five years. Hua Hong Wuxi and Hua Hong Manufacturing were in accumulated tax loss positions as at 31 December 2023 and the tax holiday has not yet begun.

The Company's subsidiary incorporated and operating in Japan was subject to corporation tax at a rate of 33.58% (2022: 33.58%).

The Company's subsidiary incorporated and operating in the United States was subject to federal corporation income tax at a rate of 21% during the year (2022: 21%), as well as state tax at 8.84% (2022: 8.84%).

10. 所得稅

於年內的香港溢利須按16.5%(二零二二年: 16.5%)的稅率繳納利得稅。由於本公司及一家在香港註冊成立的子公司於年內並無取得應評稅收入,故並無就香港利得稅作出撥備(二零二二年: 無)。

由於本公司在開曼群島註冊成立的子公司在開曼群島並無擁有營業地點(註冊辦事處除外)或經營任何業務,故有關子公司毋須繳納企業所得稅(「企業所得稅」)。

所有本公司在中國註冊且僅在中國內地營運的子公司,應就其根據相關中國所得稅法調整的中國法定賬目所呈報應稅收入按25%的法定稅率繳納中國企業所得稅。

根據中國相關法律及法規及獲稅務主管機關批准,本集團一家子公司華虹宏力符合資格成為「高新技術企業」,故有權於二零二三年至二零二五年期間按15%的優惠稅率繳稅。

根據中國相關法律及法規獲稅務主管機關批准,本集團的子公司華虹無錫及華虹製造可從華虹無錫及華虹製造產生應課稅溢利的第一年起五年獲豁免繳納企業所得稅,及隨後五年內享受企業所得稅稅率減免50%的優惠。於二零二三年十二月三十一日,華虹無錫及華虹製造處於累計稅務虧損狀態,且免稅期尚未開始。

本公司在日本註冊成立及營運的子公司應按33.58%(二零二二年: 33.58%)的企業稅率繳稅。

本公司在美國註冊成立及營運的子公司應於年內按21%(二零二二年: 21%)的聯邦企業所得稅率及8.84%(二零二二年: 8.84%)的州稅稅率繳稅。

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10. INCOME TAX (continued)

The major components of income tax expense of the Group are as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Current income tax – PRC	當期所得稅 – 中國	57,969	74,516
Current income tax – elsewhere	當期所得稅 – 其他地區	43	43
Withholding tax on the distribution of dividend from a PRC subsidiary	中國子公司分派股息的預扣稅	–	2,500
Deferred tax (note 28)	遞延稅項(附註28)	(10,858)	12,440
Total	總計	47,154	89,499

10. 所得稅(續)

本集團所得稅開支的主要組成部份如下:

A reconciliation of the tax expense applicable to profit before tax at the statutory rate of 25% for the jurisdiction in which the Company and the majority of its subsidiaries are domiciled to the tax expense at the effective tax rate is as follows:

按本公司及其大部份子公司經營所在司法權區的法定稅率25%計算的稅前溢利的適用稅項開支，與按實際稅率計算的稅項開支的對賬如下:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Profit before tax	稅前溢利	173,579	496,070
Tax at the statutory tax rate of 25%	按法定稅率25%計算的稅項	43,395	124,018
Effect of different tax rates for specific provinces and countries or enacted by local authority	特定省份及國家或地方當局頒佈的不同稅率的影響	(47,962)	(57,612)
Adjustments in respect of current tax of previous periods	就上一期間當期稅項的調整	(108)	309
Profits attributable to associates	聯營公司應佔溢利	(1,387)	(1,826)
Income not subject to tax	免稅收入	(1,548)	–
Expenses not deductible for tax	不可扣稅開支	1,063	434
Tax losses not recognised due to tax holiday	因免稅期而未確認的稅項虧損	119,932	50,695
Tax losses not recognised due to improbable future taxable profits	因未來不大可能產生應課稅溢利而未確認的稅項虧損	1,551	1,481
Temporary differences not recognised	未確認暫時差額	397	129
Additional deduction of research and development costs	研發成本其他扣減	(56,503)	(42,532)
Additional deduction of equipment	設備其他扣減	–	(3,630)
Effect of withholding tax at 10% (2022: 10%) on the distributable profits of the Group's PRC subsidiary	按本集團中國子公司可供分派溢利以10%(二零二二年: 10%)計算預扣稅影響	(11,676)	18,033
Tax charge at the Group's effective rate	按本集團實際稅率計算的稅項開支	47,154	89,499

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11. DIVIDEND

11. 股息

	2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Proposed final – HK\$16.5 cents (2022: Nil) per ordinary share	建議末期股息 – 每股普通股 16.5 港仙(二零二二年：無)	36,234

The proposed final dividend for the year is subject to the approval of the Company's shareholders at the forthcoming annual general meeting.

The Board recommended the payment of a final dividend of HK\$0.165 per Share (2022: nil), equivalent to US\$36,234,000 (2022: nil) in respect of the year ended 31 December 2023(the "Final Dividend"). The Final Dividend is denominated and declared in Hong Kong dollars, among which, dividends for RMB Shares will be paid in RMB calculated using the average central parity rate between Hong Kong dollars and RMB announced by the People's Bank of China for the week immediately preceding the date of the declaration of dividend by the Board. Dividends for Hong Kong Shares will be paid in Hong Kong dollars.

本年度的建議末期股息須待本公司股東於應屆股東週年大會上批准後方可作實。

董事會建議就截至二零二三年十二月三十一日止年度派發末期股息每股0.165港元(二零二二年：無)，相當於36,234,000美元(二零二二年：無)(「末期股息」)。末期股息以港元計值及宣派，其中人民幣股份的股息以人民幣支付，按緊接董事會宣派股息日期前一週中國人民銀行公佈的港元與人民幣平均中間價計算。香港股份的股息將以港元支付。

12. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

12. 母公司普通股權持有人應佔每股盈利

The calculation of the basic earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 1,477,978,482 (2022: 1,303,399,389) in issue during the year.

The calculation of the diluted earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent. The weighted average number of ordinary shares used in the calculation is the number of ordinary shares in issue during the year, as used in the basic earnings per share calculation, and the weighted average number of ordinary shares assumed to have been issued at the exercise price on the deemed exercise or conversion of all dilutive potential ordinary shares into ordinary shares.

每股基本盈利乃基於母公司普通股權持有人應佔年內溢利及於年內已發行1,477,978,482股(二零二二年：1,303,399,389股)普通股的加權平均數計算。

每股已攤薄盈利金額乃根據母公司普通股權持有人應佔年內溢利計算。計算時採用之普通股加權平均數為計算每股基本盈利時採用之年內已發行普通股數目加上假設所有潛在攤薄普通股被視為行使或兌換為普通股時以行使價發行之普通股加權平均數。

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12. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT (continued)

The calculations of basic and diluted earnings per share are based on:

12. 母公司普通股權持有人應佔每股盈利(續)

每股基本及攤薄盈利的計算乃基於：

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Earnings	盈利		
Profit attributable to ordinary equity holders of the parent	母公司普通股權持有人應佔溢利	280,034	449,912
		Number of shares 股份數目	
		2023 二零二三年	2022 二零二二年
Shares	股份		
Weighted average number of ordinary shares in issue during the year used in the basic earnings per share calculation	用於計算每股基本盈利的年內已發行普通股加權平均數	1,477,978,482	1,303,399,389
Effect of dilution – weighted average number of ordinary shares:	普通股攤薄加權平均數的影響：		
Share options	購股權	8,553,472	10,545,888
Total	總計	1,486,531,954	1,313,945,277

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13. PROPERTY, PLANT AND EQUIPMENT

13. 物業、廠房及設備

		Buildings 樓宇 US\$' 000 千美元	Plant and machinery 廠房及機器 US\$' 000 千美元	Office equipment 辦公設備 US\$' 000 千美元	Motor vehicles 汽車 US\$' 000 千美元	Leasehold improvements 租賃物業裝修 US\$' 000 千美元	Construction in progress 在建工程 US\$' 000 千美元	Total 總計 US\$' 000 千美元
31 December 2023	二零二三年十二月三十一日							
At 1 January 2023:	於二零二三年一月一日:							
Cost	成本	442,247	6,640,233	49,805	1,506	3,968	703,329	7,841,088
Accumulated depreciation and impairment	累計折舊及減值	(235,767)	(4,184,182)	(32,973)	(1,079)	(3,910)	(15,461)	(4,473,372)
Net carrying amount	賬面淨值	206,480	2,456,051	16,832	427	58	687,868	3,367,716
At 1 January 2023, net of accumulated depreciation and impairment	於二零二三年一月一日, 扣除累計折舊及減值	206,480	2,456,051	16,832	427	58	687,868	3,367,716
Additions	添置	-	-	-	-	-	692,950	692,950
Transfers	轉撥	158	613,202	5,378	79	-	(618,817)	-
Disposal	處置	-	(44)	(5)	(16)	-	-	(65)
Depreciation provided during the year	年內計提折舊	(15,021)	(460,965)	(5,528)	(134)	(16)	-	(481,664)
Impairment	減值	-	(2,476)	-	-	-	-	(2,476)
Exchange realignment	匯兌調整	(3,372)	(41,672)	(280)	(7)	(1)	(11,837)	(57,169)
At 31 December 2023 net of accumulated depreciation and impairment	於二零二三年十二月三十一日, 扣除累計折舊及減值	188,245	2,564,096	16,397	349	41	750,164	3,519,292
At 31 December 2023:	於二零二三年十二月三十一日:							
Cost	成本	423,230	7,138,922	66,032	1,236	3,901	765,367	8,398,688
Accumulated depreciation and impairment	累計折舊及減值	(234,985)	(4,574,826)	(49,635)	(887)	(3,860)	(15,203)	(4,879,396)
Net carrying amount	賬面淨值	188,245	2,564,096	16,397	349	41	750,164	3,519,292

NOTES TO FINANCIAL STATEMENTS

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二零二三年十二月三十一日 財務報表附註

13. PROPERTY, PLANT AND EQUIPMENT (continued)

13. 物業、廠房及設備(續)

		Buildings 樓宇 US\$'000 千美元	Plant and machinery 廠房及機器 US\$'000 千美元	Office equipment 辦公設備 US\$'000 千美元	Motor vehicles 汽車 US\$'000 千美元	Leasehold improvements 租賃物業裝修 US\$'000 千美元	Construction in progress 在建工程 US\$'000 千美元	Total 總計 US\$'000 千美元
31 December 2022	二零二二年十二月三十一日							
At 1 January 2022:	於二零二二年一月一日:							
Cost	成本	480,349	6,752,780	64,260	1,805	4,289	252,902	7,556,385
Accumulated depreciation and impairment	累計折舊及減值	(239,948)	(4,133,223)	(44,323)	(1,244)	(4,257)	(16,889)	(4,439,884)
Net carrying amount	賬面淨值	240,401	2,619,557	19,937	561	32	236,013	3,116,501
At 1 January 2022, net of accumulated depreciation and impairment	於二零二二年一月一日, 扣除累計折舊及減值	240,401	2,619,557	19,937	561	32	236,013	3,116,501
Additions	添置	-	-	-	-	-	955,100	955,100
Transfers	轉撥	1,609	478,395	3,556	53	42	(483,655)	-
Disposal	處置	-	(194)	(236)	(11)	-	-	(441)
Depreciation provided during the year	年內計提折舊	(15,646)	(419,467)	(4,655)	(136)	(13)	-	(439,917)
Impairment	減值	-	(822)	(36)	-	-	-	(858)
Exchange realignment	匯兌調整	(19,884)	(221,418)	(1,734)	(40)	(3)	(19,590)	(262,669)
At 31 December 2022, net of accumulated depreciation and impairment	於二零二二年十二月三十一日, 扣除累計折舊及減值	206,480	2,456,051	16,832	427	58	687,868	3,367,716
At 31 December 2022:	於二零二二年十二月三十一日:							
Cost	成本	442,247	6,640,233	49,805	1,506	3,968	703,329	7,841,088
Accumulated depreciation and impairment	累計折舊及減值	(235,767)	(4,184,182)	(32,973)	(1,079)	(3,910)	(15,461)	(4,473,372)
Net carrying amount	賬面淨值	206,480	2,456,051	16,832	427	58	687,868	3,367,716

For the year ended 31 December 2023, certain items of the Group's machinery and office equipment of US\$2,476,000 (31 December 2022: US\$858,000) were obsolete with a minimal recoverable amount determined based on their fair value less costs of disposal and were therefore fully impaired.

截至二零二三年十二月三十一日止年度，本集團機器及辦公設備中若干項目2,476,000美元(二零二二年十二月三十一日：858,000美元)已過時，而根據彼等公平值減出售成本確定的可收回金額極小，因而完全減值。

As at 31 December 2023, certain of the Group's property, plant and equipment with a net carrying value of US\$1,487,211,000 (31 December 2022: US\$1,803,095,000) were pledged to banks to secure the Group's banking facilities (note 26).

於二零二三年十二月三十一日，本集團賬面淨值為1,487,211,000美元(二零二二年十二月三十一日：1,803,095,000美元)的若干物業、廠房及設備已抵押予銀行以取得本集團的銀行融資(附註26)。

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二零二三年十二月三十一日13. PROPERTY, PLANT AND EQUIPMENT
(continued)

As management concluded there are impairment indicators for long-term assets of Hua Hong Wuxi as at 31 December 2023. Therefore, an impairment assessment was performed for the year ended 31 December 2023. The impairment test is based on the recoverable amount of the CGU to which the long-term assets is allocated. The key assumptions that management used in the valuation are as follows:

13. 物業、廠房及設備(續)

誠如管理層認為，於二零二三年十二月三十一日，華虹無錫長期資產存在減值跡象。因此，對截至二零二三年十二月三十一日止年度進行了減值評估。減值測試以分配長期資產的現金產生單位的可收回金額為基礎。管理層於評估中使用的主要假設如下：

		Carrying amount 賬面值 US\$'000 千美元	Recoverable amount 可收回金額 US\$'000 千美元	Impairment amount 減值金額	Years of the forecast period 預測期年份	Key assumptions for the forecast period 預測期的主要假設
Hua Hong Wuxi	華虹無錫	2,770,066	2,907,190	-	5 years based on the budget or forecast and 3 years based on stable growth rate 按預算或預測計為5年及按穩定增長率計為3年	Discount rate: 14.5%; revenue growth rate: 3.6%-32.4%; gross profit margin: (2.1)%-53.4%; net profit margin: (16.5)%-43.7% 貼現率: 14.5%; 收入增長率: 3.6%至32.4%; 毛利率: (2.1)%至53.4%; 淨利率: (16.5)%至43.7%
		2,770,066	2,907,190	-		

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14. INVESTMENT PROPERTY

14. 投資物業

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Carrying amount at 1 January	於一月一日的賬面值	169,363	184,883
Net gain from a fair value adjustment	公平值調整的收益淨額	103	78
Exchange realignment	匯兌調整	(2,823)	(15,598)
Carrying amount at 31 December	於十二月三十一日的賬面值	166,643	169,363

The Group's investment property is situated in Shanghai, the PRC. The directors have determined that the investment property is an industrial property based on the nature, characteristics and risks of the property.

The Group's investment property was revalued on 31 December 2023 based on valuation performed by Jones Lang LaSalle Corporate Appraisal and Advisory Limited, an independent professionally qualified valuer, on an open market value basis. The valuation is based on capitalisation of income derived from the existing tenancy with allowance for the reversionary income potential of the property.

Every year, the Group's property manager and the chief financial officer decide to appoint which external valuer to be responsible for the external valuations of the Group's properties. Selection criteria include market knowledge, reputation, independence and whether professional standards are maintained. The Group's property manager and the chief financial officer have discussions with the valuer on the valuation assumptions and valuation results annually when the valuation is performed for annual financial reporting.

The investment property is leased to a related party under an operating lease (note 33 and note 35(b)).

本集團的投資物業位於中國上海。董事已基於物業的性質、特點及風險釐定投資物業為工業物業。

於二零二三年十二月三十一日，本集團的投資物業已根據一家具專業資格的獨立估值師仲量聯行企業評估及諮詢有限公司按公開市值進行了重估。該估值參考了現有租約扣除物業潛在可復歸收入後所得收入資本化確定。

每年，本集團的物業經理及財務總監決定委任外聘估值師負責本集團物業的外部估值。選聘標準包括對市場的了解、聲譽、獨立性及是否具備專業水準。本集團的物業經理及財務總監就年度財務報告進行估值時，已與估值師每年討論一次估值假設及估值結果。

投資物業根據經營租約出租予關聯方(附註33和附註35(b))。

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14. INVESTMENT PROPERTY (continued)

Fair value hierarchy

The recurring fair value measurement for the Group's investment property, which is an industrial property, was made using significant unobservable inputs (Level 3) as at 31 December 2023 and 2022. During the year, there were no transfers of fair value measurements between Level 1 and Level 2 and no transfers into or out of Level 3 (2022: Nil).

Below is a summary of the valuation techniques used and the key inputs to the valuation of the investment property:

14. 投資物業(續)

公平值層級

本集團投資物業(為工業物業)於二零二三年及二零二二年十二月三十一日的週期公平值計量乃使用重大不可觀察輸入數據(第3級)作出。於年內,第1級與第2級間並無公平值計量轉移,且第3級並無轉入或轉出(二零二二年:無)。

下文為投資物業估值所用估值技術及主要輸入數據概要:

Industrial property 工業物業	Valuation techniques 估值技術	Significant unobservable inputs 重大不可觀察輸入數據	Weighted average 加權平均
As at 31 December 2023	Term and reversion method	Estimated rental value (per sq.m. per month)	US\$13.1 (equivalent to RMB92.00)
於二零二三年十二月三十一日	年期及復歸法	估計租賃價值(每平方米每月)	13.1美元(相當於 人民幣92.00元)
		Term yield 年期回報率	6.75%
		Reversionary yield 復歸回報率	7.25%
		Long term vacancy rate 長期空置率	10.00%
As at 31 December 2022	Term and reversion method	Estimated rental value (per sq.m. per month)	US\$13.2 (equivalent to RMB89.00)
於二零二二年十二月三十一日	年期及復歸法	估計租賃價值(每平方米每月)	13.2美元(相當於 人民幣89.00元)
		Term yield 年期回報率	6.75%
		Reversionary yield 復歸回報率	7.25%
		Long term vacancy rate 長期空置率	10.00%

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14. INVESTMENT PROPERTY (continued)

Fair value hierarchy (continued)

Under the term and reversion method, fair value is measured by taking into account the rental income derived from the existing lease with due allowance for the reversionary income potential of the lease, which is then capitalised into the value at appropriate rates.

The term value was estimated based on the existing rent, the tenancy period as stated in the lease agreement and the yield during the term period (tenancy period). The reversionary value was estimated based on the market rents, the market yield and the reversionary periods.

A significant increase/(decrease) in the estimated rental value and the market rent growth rate per annum in isolation would result in a significant increase/(decrease) in the fair value of the investment property. A significant increase/(decrease) in the long-term vacancy rate and the discount rate in isolation would result in a significant decrease/(increase) in the fair value of the investment property. Generally, a change in the assumption made for the estimated rental value is accompanied by a directionally similar change in the rent growth per annum and the discount rate and an opposite change in the long-term vacancy rate.

14. 投資物業(續)

公平值層級(續)

根據年期及復歸法，公平值乃經計及現有租約產生的租金收入，並就該等租約的潛在可復歸收入計提適當撥備，其後按適用資本化比率撥充資本計算價值而達致。

定期價值乃根據租賃協議所訂明的現有租金、租期及年期內(租期)回報率估計。復歸價值乃根據市值租金、市場回報率及復歸期估計。

估計租賃價值及市場租金年增長率單獨大幅上升/(下降)將導致投資物業的公平值大幅增加/(減少)。長期空置率及貼現率單獨大幅上升/(下降)將導致投資物業的公平值大幅減少/(增加)。一般而言，就估計租賃價值作出的假設變動同時，租金年增長率及貼現率出現同向變動，而長期空置率出現反向變動。

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15. RIGHT-OF-USE ASSETS

2023

		Land use rights 土地使用權 US\$'000 千美元	Buildings 樓宇 US\$'000 千美元	Total 總計 US\$'000 千美元
At 1 January 2023, net of accumulated depreciation	於二零二三年一月一日， 扣除累計折舊	62,262	16,163	78,425
Additions	添置	—	7,862	7,862
Depreciation provided during the year	年內計提折舊	(1,641)	(4,786)	(6,427)
Exchange realignment	匯兌調整	(1,030)	(285)	(1,315)
At 31 December 2023	於二零二三年十二月三十一日	59,591	18,954	78,545

2022

		Land use rights 土地使用權 US\$'000 千美元	Buildings 樓宇 US\$'000 千美元	Total 總計 US\$'000 千美元
At 1 January 2022, net of accumulated depreciation	於二零二二年一月一日， 扣除累計折舊	60,191	15,140	75,331
Additions	添置	9,393	6,394	15,787
Depreciation provided during the year	年內計提折舊	(1,952)	(3,890)	(5,842)
Exchange realignment	匯兌調整	(5,370)	(1,481)	(6,851)
At 31 December 2022	於二零二二年十二月三十一日	62,262	16,163	78,425

As at 31 December 2023, certain of the Group's land use rights with a carrying value of US\$44,319,000 as at 31 December 2023 (31 December 2022: US\$50,231,000) were pledged to banks to secure the Group's banking facilities (note 26).

於二零二三年十二月三十一日，本集團於二零二三年十二月三十一日賬面值為44,319,000美元(二零二二年十二月三十一日：50,231,000美元)的若干土地使用權已抵押予銀行以取得本集團的銀行融資(附註26)。

15. 使用權資產

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16. INTANGIBLE ASSETS

16. 無形資產

		Process technology licence 工藝技術許可 US\$' 000 千美元	Software 軟件 US\$' 000 千美元	Total 總計 US\$' 000 千美元
31 December 2023	二零二三年十二月三十一日			
At 1 January 2023:	於二零二三年一月一日:			
Cost	成本	270,734	147,145	417,879
Accumulated amortisation and impairment	累計攤銷及減值	(259,246)	(125,647)	(384,893)
Net carrying amount	賬面淨值	11,488	21,498	32,986
At 1 January 2023, net of accumulated amortisation and impairment	於二零二三年一月一日, 扣除累計攤銷及減值	11,488	21,498	32,986
Additions	添置	17,112	12,606	29,718
Amortisation provided during the year	年內作出攤銷	(4,646)	(7,702)	(12,348)
Exchange realignment	匯兌調整	(147)	(382)	(529)
At 31 December 2023, net of accumulated amortisation and impairment	於二零二三年十二月三十一日, 扣除累計攤銷及減值	23,807	26,020	49,827
At 31 December 2023:	於二零二三年十二月三十一日:			
Cost	成本	283,354	157,237	440,591
Accumulated amortisation and impairment	累計攤銷及減值	(259,547)	(131,217)	(390,764)
Net carrying amount	賬面淨值	23,807	26,020	49,827

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16. INTANGIBLE ASSETS (continued)

16. 無形資產(續)

		Process technology licence 工藝技術許可 US\$'000 千美元	Software 軟件 US\$'000 千美元	Total 總計 US\$'000 千美元
31 December 2022	二零二二年十二月三十一日			
At 1 January 2022:	於二零二二年一月一日:			
Cost	成本	297,366	146,577	443,943
Accumulated amortisation and impairment	累計攤銷及減值	(279,314)	(129,317)	(408,631)
Net carrying amount	賬面淨值	18,052	17,260	35,312
At 1 January 2022, net of accumulated amortisation and impairment	於二零二二年一月一日, 扣除累計攤銷及減值	18,052	17,260	35,312
Additions	添置	-	11,718	11,718
Amortisation provided during the year	年內作出攤銷	(5,248)	(5,853)	(11,101)
Exchange realignment	匯兌調整	(1,316)	(1,627)	(2,943)
At 31 December 2022, net of accumulated amortisation and impairment	於二零二二年十二月三十一日, 扣除累計攤銷及減值	11,488	21,498	32,986
At 31 December 2022:	於二零二二年十二月三十一日:			
Cost	成本	270,734	147,145	417,879
Accumulated amortisation and impairment	累計攤銷及減值	(259,246)	(125,647)	(384,893)
Net carrying amount	賬面淨值	11,488	21,498	32,986

As management concluded there are impairment indicators for long-term assets of Hua Hong Wuxi as at 31 December 2023. Therefore, an impairment assessment was performed for the year ended 31 December 2023. The impairment test is based on the recoverable amounts of the CGU to which the long-term assets is allocated. The key assumptions that management used in the valuation can be found in note 13.

誠如管理層認為，於二零二三年十二月三十一日，華虹無錫的長期資產存在減值跡象。因此，對截至二零二三年十二月三十一日止年度進行了減值評估。減值測試以分配長期資產的現金產生單位的可收回金額為基礎。管理層於評估中使用的主要假設參閱附註13。

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17. INVESTMENTS IN ASSOCIATES

17. 於聯營公司的投資

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Carrying amount	賬面值	139,099	130,721

Particulars of the material associate are as follows:

主要聯營公司詳情如下:

Name of company 公司名稱	Place of registration and business 登記及營業地點	Paid-in capital 實繳股本 RMB'000 人民幣千元	Percentage of equity interest attributable to the Group 本集團應佔股權百分比	Principal activities 主要業務
Shanghai Huahong Technology Development Co., Ltd. ("Huahong Technology Development") 上海華虹科技發展有限公司 ([華虹科技發展])	PRC/Chinese Mainland 中國/中國內地	548,000	50%	Technology development and investment 科技開發及投資
Shanghai Huahong Investment Development Co., Ltd ("Huahong Investment Development") 上海華虹投資發展有限公司 ([華虹投資發展])	PRC/Chinese Mainland 中國/中國內地	480,000	20%	Investment 投資

The Group's voting power held and profit sharing arrangement in relation to Huahong Technology Development are 40% and 50%, respectively.

本集團有關華虹科技發展持有的投票權及溢利分配安排分別為40%及50%。

The Group's shareholding in the associate is held through a wholly-owned subsidiary of the Company.

本集團透過本公司的全資子公司持有該聯營公司的股權。

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17. INVESTMENTS IN ASSOCIATES (continued)

17. 於聯營公司的投資(續)

The following table illustrates the summarised financial information of Huahong Technology Development and Huahong Investment Development:

下表概述華虹科技發展及華虹投資發展的財務資料：

		Huahong Technology Development 華虹科技發展		Huahong Investment Development 華虹投資發展	
		31 December 2023 二零二三年十二月三十一日 US\$'000 千美元	31 December 2022 二零二二年十二月三十一日 US\$'000 千美元	31 December 2023 二零二三年十二月三十一日 US\$'000 千美元	31 December 2022 二零二二年十二月三十一日 US\$'000 千美元
Current assets	流動資產	24,581	31,186	8,917	24,365
Non-current assets	非流動資產	295,158	307,918	115,646	76,980
Current liabilities	流動負債	(63,265)	(91,340)	(169)	(186)
Non-current liabilities	非流動負債	(22,763)	(23,606)	(13,177)	(7,949)
Net assets	淨資產	233,711	224,158	111,217	93,210
Net assets, excluding goodwill	淨資產，不包括商譽	233,711	224,158	111,217	93,210
Reconciliation to the Group's interest in the associate:	本集團於聯營公司的權益對賬：				
Proportion of the Group's interest in the associate	本集團於聯營公司的權益比例	50%	50%	20%	20%
Carrying amount of the investment	投資賬面值	116,856	112,079	22,243	18,642
		Huahong Technology Development 華虹科技發展		Huahong Investment Development 華虹投資發展	
		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Revenue	收入	51,500	26,283	811	850
Profit and total comprehensive income	溢利及全面收益總額	13,341	14,832	19,655	23,775

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18. FINANCIAL INVESTMENTS

18. 金融投資

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Equity investments designated at fair value through other comprehensive income:	指定為按公平值計入其他全面收益的股本投資：		
Listed equity investments	上市股本投資	2,429	2,442
Unlisted equity investments	非上市股本投資	268,077	176,190
Total	總計	270,506	178,632

Equity investments designated at fair value through other comprehensive income are listed equity investment in Shanghai Aiwei Electronic Technology Service Co., Ltd. and unlisted equity investments in Shanghai Huali Microelectronics Co., Ltd. ("Huali Micro") and QST Corporation ("QST") with carrying amounts of US\$265,128,000 and US\$2,949,000, respectively, which were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

指定為按公平值計入其他全面收益的股本投資為Shanghai Aiwei Electronic Technology Service Co., Ltd.的上市股本投資以及賬面值分別為265,128,000美元及2,949,000美元的上海華力微電子有限公司(「華力微」)及上海矽睿科技有限公司(「矽睿科技」)的非上市股本投資，而本集團認為該等投資不可撤回地指定為按公平值計入其他全面收益，乃由於該等投資屬策略性質。

19. PROPERTIES UNDER DEVELOPMENT

19. 發展中物業

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Carrying amount at 1 January	於一月一日的賬面值	134,723	114,492
Additions	添置	44,105	20,231
As at 31 December	於十二月三十一日	178,828	134,723

The Group's properties under development are recognised in leasehold land situated in Chinese Mainland.

本集團發展中物業於中國內地租賃土地內確認。

As at 31 December 2023, the Group's properties under development with an aggregate carrying amount of approximately US\$86,565,000 (31 December 2022: US\$88,033,000) were pledged to secure bank and other borrowings granted to the Group (note 26).

於二零二三年十二月三十一日，本集團發展中物業賬面總值約86,565,000美元(二零二二年十二月三十一日：88,033,000美元)已抵押以換取授予本集團銀行及其他借款(附註26)。

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20. INVENTORIES

20. 存貨

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Raw materials	原材料	261,359	255,511
Work in progress	在製品	149,321	179,510
Finished goods	製成品	111,912	171,039
		522,592	606,060
Provision for inventories	存貨撥備	(72,843)	(28,000)
Total	總計	449,749	578,060

21. TRADE AND NOTES RECEIVABLES

21. 貿易應收款項及應收票據

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Trade receivables	貿易應收款項	214,414	229,409
Notes receivables	應收票據	66,951	64,038
		281,365	293,447
Impairment of trade receivables	貿易應收款項減值	(2,696)	(1,591)
Net carry amount	賬面淨值	278,669	291,856

The Group's trading terms with its customers are mainly on credit and the credit period is generally 30 to 90 days. There is no significant concentration of credit risk. The Group does not hold any collateral or other credit enhancements over its trade receivable balances. Trade receivables are non-interest-bearing.

An ageing analysis of the trade and bills receivables, based on the invoice date and net of loss allowance, is as follows:

本集團與其客戶的貿易賬期以信貸為主，信貸期一般為30至90天。本集團並無重大集中信貸風險。本集團並無就其貿易應收款項餘額持有任何抵押品或採取其他信貸提升措施。貿易應收款項為免息。

按發票日期計，貿易應收款項及應收票據(扣除虧損撥備)的賬齡分析如下：

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Within 3 months	3個月以內	232,485	221,849
3 to 6 months	3至6個月	43,762	20,475
Over 6 months but within one year	超過六個月但於一年內	2,422	49,532
Total	總計	278,669	291,856

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(continued)

The movements in loss allowance for impairment of trade and bills receivables are as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
At 1 January	於一月一日	1,591	1,721
Impairment losses, net (note 6)	減值虧損淨額(附註6)	1,120	(16)
Write-off	撇銷	—	—
Exchange realignment	匯兌調整	(15)	(114)
As at 31 December	於十二月三十一日	2,696	1,591

The Group applies a simplified approach in calculating ECLs prescribed by HKFRS 9, which permits the use of the lifetime expected loss for all trade and notes receivables. To measure the expected credit losses, trade and notes receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit losses have also incorporated forward-looking information. The expected credit loss rates for trade and notes receivables that were not yet past due or aged within 3 months are minimal.

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type and rating, and coverage by letters of credit or other forms of credit insurance). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables are written off if past due for more than one year and are not subject to enforcement activity.

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

21. 貿易應收款項及應收票據(續)

貿易應收款項及應收票據減值虧損撥備的變動如下:

本集團採用香港財務報告準則第9號訂明計算預期信貸虧損之簡化方法，該準則允許就所有貿易應收款項及應收票據採用整個存續期的預期虧損。為計量預期信貸虧損，貿易應收款項及應收票據已根據共同信貸風險特性及逾期天數進行分組。預期信貸虧損亦包含前瞻性資料。尚未逾期或賬齡為3個月以內的貿易應收款項及應收票據的預期信貸損失率極低。

於各報告日期採用撥備矩陣進行減值分析，以計量預期信貸虧損。撥備率乃基於具有類似虧損模式的多個客戶分部組別(即按地區、產品類型、客戶類型及評級、以及信用證或其他形式的信用保險承保範圍劃分)的逾期天數釐定。該計算反映概率加權結果、貨幣時值及於報告日期可得的有關過往事項、當前狀況及未來經濟條件預測的合理及可靠資料。一般而言，倘貿易應收款項逾期超過一年及毋須受限於強制執行活動，則予以撇銷。

下文載列本集團使用撥備矩陣計算的貿易應收款項信用風險敞口的資料:

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(continued)

The credit quality of the trade and bills receivables is as follows:

As at 31 December 2023

		Current 即期	Past due 逾期			Total 合計
			Less than 3 months 少於3個月	3 to 6 months 3至6個月	Over 6 months 6個月以上	
Expected credit loss rate	預期信貸虧損率	0.06%	1.45%	28.57%	100.00%	0.96%
Gross carrying amount (US\$'000)	賬面總值(千美元)	273,399	5,505	14	2,447	281,365
Expected credit losses (US\$'000)	預期信貸虧損(千美元)	165	80	4	2,447	2,696

As at 31 December 2022

		Current 即期	Past due 逾期		Total 合計
			Less than 3 months 少於3個月	Over 1 year 一年以上	
Expected credit loss rate	預期信貸虧損率	0.05%	1.63%	100.00%	0.54%
Gross carrying amount (US\$'000)	賬面總值(千美元)	288,999	3,065	1,383	293,447
Expected credit losses (US\$'000)	預期信貸虧損(千美元)	158	50	1,383	1,591

21. 貿易應收款項及應收票據(續)

貿易應收款項及應收票據的信貸質量如下:

於二零二三年十二月三十一日

於二零二二年十二月三十一日

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22. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

22. 預付款項、其他應收款項及其他資產

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Other receivables	其他應收款項	12,520	24,476
Prepayments and other assets	預付款項及其他資產	11,393	4,009
Value-added input tax	增值稅進項稅額	10,796	20,687
		34,709	49,172
Impairment of other receivables	其他應收款項減值	(888)	(899)
Total	總計	33,821	48,273

Other receivables are repayable on demand.

其他應收款項須按要求償還。

The movements in the loss allowance for impairment of other receivables are as follows:

其他應收款項減值撥備虧損的變動如下：

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
At 1 January	於一月一日	899	955
Exchange realignment	匯兌調整	(11)	(56)
As at 31 December	於十二月三十一日	888	899

The Group applies a general approach in calculating ECLs for other receivables. Other receivables related to debtors that are in default are classified as Stage 3 and the lifetime ECL rate was estimated to be 100% based on historical credit loss experience, resulting in an impairment balance of US\$888,000 (2022: US\$899,000). The remaining other receivables are classified as Stage 1 without any significant increase in credit risk tracked since initial recognition. Their recoverability was assessed with reference to the credit status of the debtors, and the expected credit losses as at 31 December 2023 and 2022 were considered to be insignificant.

本集團採用一般方法計算其他應收款項的預期信貸虧損。與違約債務人相關的其他應收款項歸類為第三階段，根據歷史信貸虧損經驗估計全期預期信貸虧損率為100%，因此減值結餘為888,000美元(二零二二年：899,000美元)。其餘其他應收款項歸類為第一階段，自初步確認後追蹤的信貸風險並無任何重大增加。其可收回性參照債務人的信用狀況評定，而於二零二三年及二零二二年十二月三十一日的預期信貸虧損被視為不重大。

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23. CASH AND CASH EQUIVALENTS AND PLEDGED DEPOSITS

23. 現金及現金等價物以及已抵押存款

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Cash and bank balances	現金及銀行結餘	4,638,292	736,530
Time deposits	定期存款	978,977	1,273,277
		5,617,269	2,009,807
Less:	減:		
Pledged deposits	已抵押存款	(32,061)	(1,015)
Others	其他	(27)	(27)
Cash and cash equivalents	現金及現金等價物	5,585,181	2,008,765

At the end of the reporting period, the cash and bank balances and time deposits of the Group denominated in Renminbi ("RMB") amounted to US\$4,849,390,000 (2022: US\$1,305,378,000). The RMB is not freely convertible into other currencies, however, under Chinese Mainland's Foreign Exchange Control Regulations and Administration of Settlement, and Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short term time deposits are made for varying periods of between seven days and three months depending on the immediate cash requirements of the Group and earn interest at the respective short term time deposit rates. The bank balances are deposited with creditworthy banks with no recent history of default.

於報告期末，本集團的現金及銀行結餘以及定期存款乃以人民幣（「人民幣」）計值，為4,849,390,000美元（二零二二年：1,305,378,000美元）。人民幣不可自由兌換為其他貨幣。然而，根據中國內地的《外匯管理條例》及《結匯、售匯及付匯管理規定》，本集團獲准透過獲授權開展外匯業務的銀行將人民幣兌換為其他貨幣。

銀行現金乃根據每日銀行存款利率按浮動利率計息。短期的定期存款乃視乎本集團的即時現金需求為期七天至三個月不等，按各短期定期存款的利率賺取利息。銀行結餘乃存放於信譽良好且近期並無違約記錄的銀行。

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24. TRADE PAYABLES

An ageing analysis of the trade payables of the Group as at the end of the reporting period, based on the invoice date, is as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Within 1 month	1個月以內	149,116	141,338
1 to 3 months	1至3個月	42,579	60,772
3 to 6 months	3至6個月	16,166	11,699
6 to 12 months	6至12個月	11,158	9,388
Over 12 months	12個月以上	16,391	13,802
Total	總計	235,410	236,999

The trade payables are unsecured, non-interest-bearing and are normally settled on terms of 30 to 60 days.

於報告期末按發票日期計，本集團貿易應付款項的賬齡分析如下：

貿易應付款項為無抵押、不計息及一般於30天至60天期限內結清。

25. OTHER PAYABLES AND ACCRUALS

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Other payables and accruals	其他應付款項及暫估費用	251,248	318,917
Contract liabilities	合約負債	86,545	192,588
Payroll and bonus payables	應付薪金及花紅	92,658	82,439
Others	其他	27	27
Total	總計	430,478	593,971

Other payables are unsecured, non-interest-bearing and repayable on demand.

其他應付款項無抵押、免息及須於要求時償還。

As at 1 January 2022, the carrying amount of contract liabilities was US\$182,453,000.

於二零二二年一月一日，合約負債賬面值為182,453,000美元。

During the year ended 31 December 2023, contract liabilities of US\$192,588,000 (2022: US\$182,453,000) at the beginning of the year were recognised as revenue. The decrease in contract liabilities in 2023 was mainly due to the decrease in short-term advances received from customers in relation to the sale of semiconductor products.

截至二零二三年十二月三十一日止年度，年初192,588,000美元(二零二二年：182,453,000美元)的合約負債被確認為收入。於二零二三年的合約負債減少主要是由於與銷售半導體產品有關的客戶短期墊款減少。

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26. INTEREST-BEARING BANK BORROWINGS

26. 計息銀行借款

		2023 二零二三年		
		Effective interest rate (%) 實際利率(%)	Maturity 到期	US\$'000 千美元
Current	流動			
Current portion of long-term bank loans – secured	長期銀行貸款的即期部份 – 有抵押	1.20 – 5.50 1.20至5.50	2024 二零二四年	193,035
Total – current	總計 – 流動			193,035
Non-current	非流動			
Secured bank loans	有抵押銀行貸款	1.20 – 5.50 1.20至5.50	2025-2033 二零二五年 – 二零三三年	1,786,526
Unsecured bank loans	無抵押銀行貸款	2.00	2025-2034 二零二五年 – 二零三四年	120,000
Total – non-current	總計 – 非流動			1,906,526
Total	總計			2,099,561

		2022 二零二二年		
		Effective interest rate (%) 實際利率(%)	Maturity 到期	US\$'000 千美元
Current	流動			
Bank loans – unsecured	銀行貸款 – 無抵押	0.55-5.50 0.55至5.50	2023 二零二三年	314,039
Current portion of long-term bank loans – secured	長期銀行貸款的即期部份 – 有抵押	1.20-6.30 1.20至6.30	2023 二零二三年	112,717
Total – current	總計 – 流動			426,756
Non-current	非流動			
Secured bank loans	有抵押銀行貸款	1.20-6.63 1.20至6.63	2024-2030 二零二四年至二零三零年	1,451,580
Unsecured bank loans	無抵押銀行貸款	2.00 2.00	2024-2030 二零二四年至二零三零年	30,000
Total – non-current	總計 – 非流動			1,481,580
Total	總計			1,908,336

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26. INTEREST-BEARING BANK BORROWINGS (continued)

26. 計息銀行借款(續)

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Analysed into:	分析為:		
Bank loans repayable:	應償還銀行貸款:		
Within one year	一年內	193,035	426,756
In the second year	第二年	266,809	183,281
In the third to fifth years, inclusive	第三至第五年 (包括首尾兩年)	989,585	827,919
After five years	五年後	650,132	470,380
Total	總計	2,099,561	1,908,336

Except for bank loans of US\$446,551,000 (2022: US\$132,562,000) which are denominated in RMB, all borrowings are dominated in United States dollars.

除 446,551,000 美元(二零二二年: 132,562,000 美元)的銀行貸款以人民幣計值外,所有借款均以美元計值。

As at 31 December 2023 and 2022, certain of the Group's bank loans were secured by pledges of the Group's assets with carrying values as follows:

於二零二三年及二零二二年十二月三十一日,本集團的若干銀行貸款由抵押本集團的資產作擔保,資產的賬面值如下:

		Notes 附註	2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Property, plant and equipment	物業、廠房及設備	13	1,487,211	1,803,095
Right-of-use assets	使用權資產	15	44,319	50,231
Properties under development	發展中物業	19	86,565	88,033
Total	總計		1,618,095	1,941,359

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27. LEASE LIABILITIES

27. 租賃負債

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Carrying amount at 1 January	於一月一日的賬面值	19,348	17,813
Additions	添置	7,862	6,394
Accretion of interest	利息增加	1,068	880
Payments	付款	(5,674)	(4,144)
Exchange realignment	匯兌調整	(399)	(1,595)
Carrying amount at 31 December	於十二月三十一日的賬面值	22,205	19,348

The maturity profile of lease liabilities as at 31 December 2023 is as follows:

租賃負債於二零二三年十二月三十一日的到期情況如下：

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Within one year	一年內	3,981	5,458
In the second year	第二年	2,554	2,615
In the third to fifth years, inclusive	第三至第五年(包括首尾兩年)	7,663	5,059
After five years	五年後	12,771	10,119
Total undiscounted lease liabilities	未貼現租賃負債總額	26,969	23,251
Discount amount	貼現額	(4,764)	(3,903)
Total present value of lease liabilities	租賃負債的總現值	22,205	19,348
Current portion	即期部分	3,076	4,704
Non-current portion	非即期部分	19,129	14,644

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Analysed into:	分析為:		
Within one year	一年內	3,076	4,704
In the second year	第二年	1,742	2,014
In the third to fifth years, inclusive	第三至第五年(包括首尾兩年)	5,755	3,622
After five years	五年後	11,632	9,008
Total present value of lease liabilities	租賃負債的總現值	22,205	19,348

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28. DEFERRED TAX

The movements in deferred tax liabilities and assets during the year are as follows:

Deferred tax liabilities

		Fair value gains on financial investments	Fair value gain on an investment property	Withholding tax	Difference of fixed assets between accounting and tax basis	Right-of-use assets	Total
		金融投資的公平值收益	投資物業的公平值收益	預扣稅	固定資產稅會差異	使用權資產	總計
		US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元	千美元	千美元
At 31 December 2021	於二零二一年十二月三十一日	4,528	626	25,735	-	-	30,889
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	-	-	2,271	2,271
At 1 January 2022 (restated)	於二零二二年一月一日(經重列)	4,528	626	25,735	-	2,271	33,160
Deferred tax charged/(credited) to profit or loss during the year (note 10)	年內扣自/(計入)損益的遞延稅項(附註10)	-	12	15,533	3,566	376	19,487
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	(4,528)	-	-	-	-	(4,528)
Exchange realignment	匯兌調整	-	(48)	-	55	(223)	(216)
Gross deferred tax liabilities as at 31 December 2022 (restated)	二零二二年十二月三十一日遞延稅項負債總額(經重列)	-	590	41,268	3,621	2,424	47,903
At 31 December 2022	於二零二二年十二月三十一日	-	590	41,268	3,621	-	45,479
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	-	-	2,424	2,424
At 1 January 2023 (restated)	於二零二三年一月一日(經重列)	-	590	41,268	3,621	2,424	47,903
Deferred tax charged to profit or loss during the year (note 10)	年內扣自損益的遞延稅項(附註10)	-	16	(11,676)	(565)	461	(11,764)
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	10,749	-	-	-	-	10,749
Exchange realignment	匯兌調整	(335)	(10)	-	(65)	(42)	(452)
Gross deferred tax liabilities as at 31 December 2023	於二零二三年十二月三十一日遞延稅項負債總額	10,414	596	29,592	2,991	2,843	46,436

The Group is liable for withholding taxes on dividends distributed by those subsidiaries established in Chinese Mainland in respect of earnings generated from 1 January 2008. A lower withholding tax rate may be applied if there is a tax treaty between Chinese Mainland and the jurisdiction of the foreign investors.

28. 遞延稅項

年內遞延稅項負債及資產的變動如下：

遞延稅項負債

		Fair value gains on financial investments	Fair value gain on an investment property	Withholding tax	Difference of fixed assets between accounting and tax basis	Right-of-use assets	Total
		金融投資的公平值收益	投資物業的公平值收益	預扣稅	固定資產稅會差異	使用權資產	總計
		US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元	千美元	千美元
At 31 December 2021	於二零二一年十二月三十一日	4,528	626	25,735	-	-	30,889
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	-	-	2,271	2,271
At 1 January 2022 (restated)	於二零二二年一月一日(經重列)	4,528	626	25,735	-	2,271	33,160
Deferred tax charged/(credited) to profit or loss during the year (note 10)	年內扣自/(計入)損益的遞延稅項(附註10)	-	12	15,533	3,566	376	19,487
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	(4,528)	-	-	-	-	(4,528)
Exchange realignment	匯兌調整	-	(48)	-	55	(223)	(216)
Gross deferred tax liabilities as at 31 December 2022 (restated)	二零二二年十二月三十一日遞延稅項負債總額(經重列)	-	590	41,268	3,621	2,424	47,903
At 31 December 2022	於二零二二年十二月三十一日	-	590	41,268	3,621	-	45,479
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	-	-	2,424	2,424
At 1 January 2023 (restated)	於二零二三年一月一日(經重列)	-	590	41,268	3,621	2,424	47,903
Deferred tax charged to profit or loss during the year (note 10)	年內扣自損益的遞延稅項(附註10)	-	16	(11,676)	(565)	461	(11,764)
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	10,749	-	-	-	-	10,749
Exchange realignment	匯兌調整	(335)	(10)	-	(65)	(42)	(452)
Gross deferred tax liabilities as at 31 December 2023	於二零二三年十二月三十一日遞延稅項負債總額	10,414	596	29,592	2,991	2,843	46,436

本集團須就於中國內地成立的該等子公司自二零零八年一月一日起產生的盈利所分派的股息繳納預扣稅。倘中國內地與外國投資者所屬司法權區間訂有稅務協定，可能適用較低的預扣稅率。

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28. DEFERRED TAX (Continued)

There are no income tax consequences attaching to the payment of dividends by the Company to its shareholders.

Deferred tax is not recognised in respect of the Group's investments in associates where the Group is able to control the timing of remittance or other realisation and where remittance or realisation is not probable in the foreseeable future. The aggregate temporary differences relating to unrecognised deferred tax liabilities arising on investments in associates is US\$86,825,000 (2022: US\$77,595,000).

Deferred tax assets

		Write-down of inventories and impairment of receivables 存貨撇減及 應收款項減值 US\$'000 千美元	Accruals 暫估費用 US\$'000 千美元	Lease Liabilities 租賃負債 US\$'000 千美元	Fair value loss on financial investments 金融投資的 公平值虧損 US\$'000 千美元	Government grants 政府補助 US\$'000 千美元	Total 總計 US\$'000 千美元
As at 31 December 2021	於二零二一年十二月三十一日	2,534	5,698	401	-	-	8,633
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	2,271	-	-	2,271
At 1 January 2022 (restated)	於二零二二年一月一日(經重列)	2,534	5,698	2,672	-	-	10,904
Deferred tax credited to profit or loss during the year (note 10) (restated)	年內計入損益的遞延稅項(附註10)(經重列)	571	1,469	400	-	4,607	7,047
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	-	-	-	3,820	-	3,820
Exchange realignment	匯兌調整	(241)	(702)	(257)	59	70	(1,071)
Gross deferred tax assets as at 31 December 2022 and 1 January 2023 (restated)	於二零二二年十二月三十一日及二零二三年一月一日遞延稅項資產總額(經重列)	2,864	6,465	2,815	3,879	4,677	20,700
At 31 December 2022	於二零二二年十二月三十一日	2,864	6,465	391	3,879	4,677	18,276
Effect of adoption of amendments to HKAS 12 (note 2.2(c))	採納經修訂香港會計準則第12號的影響(附註2.2(c))	-	-	2,424	-	-	2,424
At 1 January 2023 (restated)	於二零二三年一月一日(經重列)	2,864	6,465	2,815	3,879	4,677	20,700
Deferred tax credited/(charged) to profit or loss during the year (note 10)	年內計入/(扣自)損益的遞延稅項(附註10)	571	(1,715)	488	-	(250)	(906)
Deferred tax charged to other comprehensive income during the year	年內扣自其他全面收益的遞延稅項	-	-	-	(3,879)	-	(3,879)
Exchange realignment	匯兌調整	(45)	(139)	(49)	-	(80)	(313)
Gross deferred tax assets as at 31 December 2023	於二零二三年十二月三十一日遞延稅項資產總額	3,390	4,611	3,254	-	4,347	15,602

28. 遞延稅項(續)

本公司向其股東派付股息並無附帶任何所得稅後果。

若本集團可控制其於聯營公司的投資的匯款或以其他方式變現的時間，以及於可見未來匯款或變現的機會不大，本集團將不會就此等投資確認遞延稅項。有關於聯營公司投資產生的未確認遞延稅項負債之暫時差異總額為86,825,000美元(二零二二年：77,595,000美元)。

遞延稅項資產

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28. DEFERRED TAX (continued)

For presentation purposes, certain deferred tax assets and liabilities have been offset in the statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Net deferred tax assets recognised in the consolidated statement of financial position	於綜合財務狀況表確認的遞延稅項資產淨額	—	14,066
Net deferred tax liabilities recognised in the consolidated statement of financial position	於綜合財務狀況表確認的遞延稅項負債淨額	30,834	41,268

Deferred tax assets have not been recognised due to improbable future taxable profits in respect of the following items:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Unused tax losses	未動用稅項虧損	36,538	29,540
Deductible temporary differences	可扣減暫時差額	20,554	17,876
Total	總計	57,092	47,416

The Group has tax losses arising in Hong Kong of US\$24,916,000 (2022: US\$22,576,000) that are available indefinitely for offsetting against future taxable profits of the companies in which the losses arose. The Group also has tax losses arising in Chinese Mainland of US\$11,622,000 (2022: US\$6,964,000) that will expire in one to five years for offsetting against future taxable profits.

Deferred tax assets have not been recognised in respect of these losses as they have arisen in subsidiaries that have been loss-making for some time and it is not considered probable that taxable profits will be available against which the tax losses can be recognised.

Deferred tax assets have not been recognised in respect of the temporary differences as it is not considered probable that the above items can be recognised.

28. 遞延稅項(續)

出於呈列目的，若干遞延稅項資產及負債已在財務狀況表中抵銷。以下為就財務報告目的對本集團遞延稅項結餘進行的分析：

以下項目因未來不大可能產生應課稅溢利而並無確認遞延稅項資產：

本集團在香港產生的稅項虧損為24,916,000美元(二零二二年：22,576,000美元)，可無限期抵銷產生虧損的公司的未來應課稅溢利。本集團亦於中國內地產生稅項虧損11,622,000美元(二零二二年：6,964,000美元)，將於一至五年內到期以抵銷未來應課稅溢利。

由於遞延稅項資產乃源自已虧損多時的子公司，且不大可能有應課稅溢利可用以抵銷可予確認的稅項虧損，故並無就該等虧損確認遞延稅項資產。

由於認為上述項目不大可能得到確認，故並無就暫時差額確認遞延稅項資產。

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29. GOVERNMENT GRANTS

29. 政府補助

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
At 1 January	於一月一日	37,714	66,837
Additions	添置	18,976	58,237
Released to offsetting research and development costs	撥入以抵銷研發成本	(6,408)	(31,368)
Released to offset finance costs	撥入以抵銷財務費用	(3,015)	(11,100)
Offset with long term assets	抵銷長期資產	(11,632)	(38,414)
Exchange realignment	匯兌調整	(618)	(6,478)
As at 31 December	於十二月三十一日	35,017	37,714

The Group received government funding for several government-sponsored projects focusing on the research and development of advanced technologies.

本集團的多個政府資助項目均獲得政府撥付資金資助，該等項目專注於研發先進技術。

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30. SHARE CAPITAL

30. 股本

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Issued and fully paid:	已發行及繳足:		
1,716,588,694 (2022: 1,306,836,740) ordinary shares	1,716,588,694股(二零二二年: 1,306,836,740股)普通股	4,933,559	1,994,462

A summary of movements in the Company's share capital is as follows:

本公司股本的變動概述如下:

		Number of shares in issue 已發行股份數目 '000 千股	Amount of share capital 股本金額 US\$'000 千美元
At 1 January 2022	於二零二二年一月一日	1,301,192	1,986,152
Share options exercised (note (a))	行使購股權(附註(a))	5,645	8,310
At 31 December 2022 and 1 January 2023	於二零二二年十二月三十一日及 二零二三年一月一日	1,306,837	1,994,462
Share options exercised (note (a))	行使購股權(附註(a))	2,002	5,126
Shares issued (note (b))	已發行股份(附註(b))	407,750	2,933,971
At 31 December 2023	於二零二三年十二月三十一日	1,716,589	4,933,559

Notes:

附註:

(a) The subscription rights attaching to nil (2022: 4,738,000) share options under the 2015 Options were exercised at the subscription price of HK\$6.912 per share (2022: HK\$6.912 per share), resulting in the issue of nil (2022: 4,738,000) shares for a total cash consideration of nil (2022: US\$4,173,000). An amount of US\$ nil (2022: US\$1,803,000) was transferred from the share option reserve to share capital upon exercise of the share options.

(a) 根據二零一五年購股權, 零份(二零二二年: 4,738,000份)購股權附帶之認購權已按認購價每股6.912港元(二零二二年: 每股6.912港元)行使, 引致發行零股(二零二二年: 4,738,000股)股份, 總現金代價為零(二零二二年: 4,173,000美元)。購股權獲行使後, 零美元(二零二二年: 1,803,000美元)款項已由購股權儲備轉撥至股本。

The subscription rights attaching to 2,002,000 (2022: 907,000) share options under the 2018 Options were exercised at the subscription prices of HK\$15.056 and HK\$17.952 per share (2022: HK\$15.056 and HK\$17.952), resulting in the issue of 2,002,000 (2022: 907,000) shares for a total cash consideration of US\$3,878,000 (2022: US\$1,768,000). An amount of US\$1,248,000 (2022: US\$566,000) was transferred from the share option reserve to share capital upon exercise of the share options.

根據二零一八年購股權, 2,002,000份(二零二二年: 907,000份)購股權附帶之認購權已按認購價每股15.056港元及17.952港元(二零二二年: 15.056港元及17.952港元)行使, 引致發行2,002,000股(二零二二年: 907,000股)股份, 總現金代價為3,878,000美元(二零二二年: 1,768,000美元)。購股權獲行使後, 1,248,000美元(二零二二年: 566,000美元)款項已由購股權儲備轉撥至股本。

(b) On 7 August 2023, the Company became listed on the SSE STAR Market. By way of the share issue, 407,750,000 ordinary shares of the Company were subscribed with gross proceeds of RMB21,203 million (equivalent to US\$2,974 million). After deducting issuance costs including underwriting fees and other issuance costs, the net proceeds were RMB20,921 million (equivalent to US\$2,934 million), which resulted in an increase of RMB20,921 million (equivalent to US\$2,934 million) in the share capital of ordinary shares.

(b) 於二零二三年八月七日, 本公司於上交所科創板上市。通過發行股份的方式, 本公司407,750,000股普通股已獲認購, 所得款項總額為人民幣21,203百萬元(相當於2,974百萬美元)。經扣除發行成本(包括承銷費用及其他發行費用)後, 所得款淨額為人民幣20,921百萬元(相當於2,934百萬美元), 因此普通股股本增加人民幣20,921百萬元(相當於2,934百萬美元)。

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31. SHARE OPTION SCHEME

The Company operates a share option scheme (the “Scheme”) for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group’s operations. The Scheme includes two batches, each of which was effective on 4 September 2015 (the “2015 Options”) and on 24 December 2018 (the “2018 Options”), respectively. Eligible participants of the Scheme include the Company’s directors, including a non-executive director, an executive director and other employees of the Group. The share options, unless otherwise cancelled or amended, will remain in force for 7 years from the respective effective dates.

The maximum number of unexercised share options currently permitted to be granted under the Scheme is an amount equivalent, upon their exercise, to 10% of the shares of the Company in issue at any time. The maximum number of shares issuable under share options to each eligible participant in the Scheme within any 12-month period is limited to 1% of the shares of the Company in issue at any time. Any further grant of share options in excess of this limit is subject to shareholders’ approval in a general meeting.

Share options granted to a director, chief executive or substantial shareholder of the Company, or to any of their associates, are subject to approval in advance by the independent non-executive directors. In addition, any share options granted to a substantial shareholder or an independent non-executive director of the Company, or to any of their associates, in excess of 0.1% of the shares of the Company in issue at any time or with an aggregate value (based on the price of the Company’s shares at the date of grant) in excess of HK\$5 million, within any 12-month period, are subject to shareholders’ approval in advance in a general meeting.

The exercise period of the share options granted is determinable by the directors, and commences after a vesting period of two to five years and ends on a date which is not later than the expiry date of the Scheme.

The exercise price of share options is determinable by the directors, but may not be less than the higher of (i) the Stock Exchange closing price of the Company’s shares on the date of offer of the share options; and (ii) the average Stock Exchange closing price of the Company’s shares for the five trading days immediately preceding the date of offer.

31. 購股權計劃

本公司設有一項購股權計劃(「該計劃」),旨在為對本集團順利發展有所貢獻之符合資格參與者提供激勵及獎勵。該計劃分為兩批,各自分別於二零一五年九月四日(「二零一五年購股權」)及二零一八年十二月二十四日(「二零一八年購股權」)生效。該計劃之符合資格參與者包括本公司董事(包括一名非執行董事、一名執行董事)及本集團其他僱員。除非另被取消或修訂,該等購股權將由各生效日期起計7年內有效。

現時可根據該計劃授出之未行使購股權數目不得超過該等購股權行使後本公司不時已發行股份之10%。於任何十二個月期間,該計劃各符合資格參與者根據購股權可獲發行之股份數目不得超過本公司任何時候已發行股份之1%。進一步授予超出此限額之購股權則須股東在股東大會上批准。

向本公司董事、最高行政人員或主要股東或彼等之任何聯繫人士授予購股權須事先取得獨立非執行董事批准。此外,倘若於任何十二個月期間,授予本公司主要股東或獨立非執行董事或彼等各自之任何聯繫人士之購股權超出本公司任何時候已發行股份之0.1%或總值(根據授出日期本公司股份價格計算)超過500萬港元,則須事先在股東大會上取得股東批准。

已授出購股權之行使期由董事決定,並於二至五年歸屬期後開始以及於該計劃屆滿之日前終止。

購股權之行使價為由董事釐定,惟不得少於以下兩者之最高者:(i)本公司股份於授予購股權日期在聯交所之收市價;及(ii)本公司股份於緊接授出日期前五個交易日在聯交所之平均收市價。

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31. SHARE OPTION SCHEME (continued)

There are no cash settlement alternatives. The Group does not have a past practice of cash settlement for these share options. The Group accounts for the Scheme as an equity-settled plan.

Share options do not confer rights on the holders to dividends or to vote at shareholders' meetings.

2015 Options

The following 2015 Options were outstanding during the year:

		2022 二零二二年	
		Weighted average exercise price HK\$ per share 加權平均行使價 每股港元	Number of options '000 購股權數目 千份
At 1 January	於一月一日	6.912	4,738
Exercised during the year	年內行使	6.912	(4,738)
At 31 December	於十二月三十一日	—	—

2018 Options

The following 2018 Options were outstanding during the year:

		2023 二零二三年		2022 二零二二年	
		Weighted average exercise price HK\$ per share 加權平均 行使價 每股港元	Number of options '000 購股權數目 千份	Weighted average exercise price HK\$ per share 加權平均 行使價 每股港元	Number of options '000 購股權數目 千份
At 1 January	於一月一日	15.318	23,438	15.317	24,963
Exercised during the year	年內行使	15.184	(2,002)	15.244	(907)
Forfeited during the year	年內沒收	16.382	(14)	15.403	(618)
At 31 December	於十二月三十一日	15.329	21,422	15.318	23,438

31. 購股權計劃(續)

不可選擇以現金結算。本集團過往並無以現金結算該等購股權。本集團將該計劃作為權益結算計劃入賬。

購股權並非附帶可令持有人獲得股息或於股東大會投票的權利。

二零一五年購股權

年內，以下購股權尚未根據二零一五年購股權獲行使：

二零一八年購股權

年內，以下購股權尚未根據二零一八年購股權獲行使：

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31. SHARE OPTION SCHEME (continued)

2018 Options (Continued)

The exercise prices and exercise periods of the 2018 Options outstanding as at the end of the reporting period are as follows:

2023 二零二三年 Number of options 購股權數目 '000 千份	2022 二零二二年 Number of options 購股權數目 '000 千份	Exercise price* 行使價* HK\$ per share 每股港元	Exercise period 行使期
5,883	6,523	15.056	24 December 2020 to 23 December 2025 二零二零年十二月二十四日至二零二五年十二月二十三日
3,872	4,512	15.056	24 December 2021 to 23 December 2025 二零二一年十二月二十四日至二零二五年十二月二十三日
8,788	9,429	15.056	24 December 2022 to 23 December 2025 二零二二年十二月二十四日至二零二五年十二月二十三日
925	925	15.056	24 December 2023 to 23 December 2025 二零二三年十二月二十四日至二零二五年十二月二十三日
63	62	18.400	29 March 2021 to 28 March 2026 二零二一年三月二十九日至二零二六年三月二十八日
125	125	18.400	29 March 2022 to 28 March 2026 二零二二年三月二十九日至二零二六年三月二十八日
125	125	18.400	29 March 2023 to 28 March 2026 二零二三年三月二十九日至二零二六年三月二十八日
125	125	18.400	29 March 2024 to 28 March 2026 二零二四年三月二十九日至二零二六年三月二十八日
211	256	17.952	23 December 2021 to 22 December 2026 二零二一年十二月二十三日至二零二六年十二月二十二日
594	639	17.952	23 December 2022 to 22 December 2026 二零二二年十二月二十三日至二零二六年十二月二十二日
636	642	17.952	23 December 2023 to 22 December 2026 二零二三年十二月二十三日至二零二六年十二月二十二日
75	75	17.952	23 December 2024 to 22 December 2026 二零二四年十二月二十三日至二零二六年十二月二十二日
21,422	23,438		

* The exercise price of the share options is subject to adjustment in the case of rights or bonus issues, or other similar changes in the Company's share capital.

31. 購股權計劃(續)

二零一八年購股權(續)

於報告期末二零一八年購股權項下尚未行使購股權的行使價及行使期如下:

* 倘若進行供股或紅股發行，或本公司之股本有其他類似改動，則購股權之行使價可予調整。

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The Group recognised a share option expense of the 2018 Options of US\$853,000 (2022: US\$1,226,000) during the year.

The 2,002,000 (2022: 907,000) share options exercised under the 2018 Options during the year, resulting in the issue of 2,002,000 (2022: 907,000) ordinary shares of the Company for a total cash consideration of US\$3,878,000 (2022: US\$1,768,000). An amount of US\$1,248,000 (2022: US\$566,000) was transferred from the share option reserve to share capital upon the exercise of the share options, as further detailed in note 30 to the financial statements.

At the end of the reporting period, the Company had 21,422,000 2018 Options outstanding. The exercise in full of the outstanding share options would, under the present capital structure of the Company, result in the issue of 21,422,000 additional ordinary shares of the Company and additional share capital of US\$55,522,000 (including US\$13,506,000 transferred from the share option reserve to share capital).

At the date of approval of these financial statements, the Company had 21,144,481 2018 Options outstanding, which represented approximately 1.23% of the Company's shares in issue as at that date.

32. RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity on pages 283 to 284 of the financial statements.

According to the relevant PRC laws and regulations for wholly-foreign-owned enterprises, which are applicable to the Company's subsidiaries in the PRC, profits of the PRC subsidiaries, as determined in accordance with the applicable accounting rules and regulations in the PRC, are available for distribution in the form of cash dividends to the Company after the PRC subsidiaries have (1) satisfied all tax liabilities; (2) provided for losses in previous years; and (3) made appropriations to the statutory reserve funds. The Company's subsidiaries in the PRC are required to appropriate not less than 10% of their profit after taxation to the statutory reserve funds until the reserve balance reaches 50% of their registered capital.

31. 購股權計劃(續)**二零一八年購股權(續)**

本集團於年內根據二零一八年購股權確認購股權開支853,000美元(二零二二年: 1,226,000美元)。

年內,二零一八年購股權項下2,002,000份(二零二二年: 907,000份)購股權獲行使,引致本公司發行2,002,000股(二零二二年: 907,000股)普通股,總現金代價為3,878,000美元(二零二二年: 1,768,000美元)。如財務報表附註30進一步詳述,購股權獲行使後,1,248,000美元(二零二二年: 566,000美元)的款項已由購股權儲備轉撥至股本。

於報告期末,本公司擁有21,422,000份尚未行使的二零一八年購股權。根據本公司現時的資本架構,悉數行使尚未行使的購股權可能會導致額外發行21,422,000股本公司普通股及增加股本55,522,000美元(包括由購股權儲備轉撥至股本的13,506,000美元)。

於批准該等財務報表日期,本公司擁有21,144,481份尚未行使的二零一八年購股權,佔該日期本公司已發行股份的約1.23%。

32. 儲備

本集團於本年度及過往年度的儲備及相關變動金額於財務報表第283至284頁綜合權益變動表中呈列。

根據中國有關外商獨資企業的法律及法規(適用於本公司的中國子公司),按照適用的中國會計規則及規例釐定的中國子公司的溢利,可於中國子公司(1)償付所有稅務負債;(2)就過往年度虧損作出撥備;及(3)就法定儲備金作出撥備後以現金股息形式向本公司作出分派。本公司的中國子公司須劃撥不少於其除稅後溢利的10%作為法定儲備金,直至儲備結餘達到其註冊資本的50%。

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33. LEASES

As lessor

The Group leases its investment property (note 14) to Huali Micro, under an operating lease arrangement, with a lease term of 20 years. The terms of the lease generally also require the tenant to provide for periodic rent adjustments according to the then prevailing market conditions. Rental income recognised by the Group during the year was US\$14,259,000 (31 December 2022: US\$14,358,000), details of which are included in note 5 to the financial statements.

At 31 December 2023 and 2022, undiscounted lease payments receivable by the Group in future periods under non-cancellable operating leases with its tenant are as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Within one year	一年內	13,884	14,641
After one year but within two years	一年後但於兩年內	13,884	14,641
After two years but within three years	兩年後但於三年內	13,884	14,641
After three years but within four years	三年後但於四年內	13,884	14,641
After four years but within five years	四年後但於五年內	13,884	14,641
More than five years	超過五年	17,097	32,636
Total	總計	86,517	105,841

As lessee

The Group has various lease contracts for land use rights, offices and dormitory properties used in its operation. Lump sum payments were made upfront to acquire the leased land from the owners with lease periods of 42 to 50 years, and no ongoing payments will be made under the terms of these land leases. Leases of offices and dormitory properties generally have lease terms between 2 and 20 years. Generally, the Group is restricted from assigning and subleasing the leased assets outside the Group.

33. 租賃

作為出租人

本集團根據一項經營租賃安排，將其投資物業(附註14)出租予華力微，租期為20年。該租約的條款一般亦規定承租人根據當時市況就定期租金調整作出撥備。本集團於年內確認的租賃收入為14,259,000美元(二零二二年十二月三十一日：14,358,000美元)，其詳情載於財務報表附註5。

於二零二三年及二零二二年十二月三十一日，本集團根據不可撤銷經營租約於未來期間應收其租戶的未貼現租賃付款如下：

作為承租人

本集團擁有用於其業務營運的土地使用權、辦公室及宿舍物業的若干租賃合約。已提前作出一次性付款以向業主收購租賃土地，租期介乎42至50年，而根據該等土地租賃的條款，將不會繼續支付任何款項。辦公室及宿舍物業的租期通常介乎2至20年。一般而言，本集團不可向本集團以外人士轉讓及分租租賃資產。

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33. LEASES (Continued)

As lessee (Continued)

(a) Right-of-use assets and lease liabilities

Detailed information regarding right-of-use assets and lease liabilities is set out in notes 15 and 27, respectively, to the financial statements.

(b) The amounts recognised in profit or loss in relation to leases are as follows:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Interest on lease liabilities	租賃負債利息	1,068	880
Depreciation charge of right-of-use assets	使用權資產折舊開支	6,427	5,842
Expense relating to short-term leases	與短期租賃有關的開支	2,383	2,625
Total amount recognised in profit or loss	於損益確認的總金額	9,878	9,347

(c) Total cash outflows for leases and non-cash additions to right-of-use assets and lease liabilities are disclosed in note 39 to the financial statements.

33. 租賃(續)

作為承租人(續)

(a) 使用權資產及租賃負債

與使用權資產及租賃負債有關的資料詳情分別載於財務報表附註15及27。

(b) 於損益中確認的租賃相關金額如下:

(c) 租賃現金流出總額以及使用權資產及租賃負債的非現金添置於財務報表附註39內披露。

34. COMMITMENTS

The Group had the following contractual commitments at the end of the reporting period:

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Contracted, but not provided for: Property, plant and equipment	已訂約, 但未撥備: 物業、廠房及設備	1,258,232	284,304

34. 承擔

本集團於報告期末有以下合約承擔:

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35. RELATED PARTY TRANSACTIONS AND BALANCES

35. 關聯方交易及結餘

(a) Name and relationship

(a) 名稱及關係

Name of related party 關聯方名稱	Relationship with the Group 與本集團的關係
Huahong Group and its subsidiaries 華虹集團及其子公司	
– Hua Hong International Inc. (“Huahong International”) – 華虹國際有限公司(「華虹國際」)	20.25% shareholder of the Company 持股20.25%之本公司股東
– Shanghai Huahong Zealcore Electronics Co., Ltd. (“Huahong Zealcore”) – 上海華虹摯芯科技有限公司(「華虹摯芯」)	Subsidiary of Huahong Group 華虹集團子公司
– Shanghai Hongri International Electronics Co., Ltd. (“Hongri”) – 上海虹日國際電子有限公司(「虹日」)	Subsidiary of Huahong Group 華虹集團子公司
– Shanghai Integrated Circuit Research and Development Center (“ICRD”)* – 上海集成電路研發中心(「集成電路研發」)*	Subsidiary of Huahong Group 華虹集團子公司
– Shanghai Hua Hong Jitong Smart System Co., Ltd. (“Jitong”) – 上海華虹計通智能系統股份有限公司(「計通」)	Subsidiary of Huahong Group 華虹集團子公司
– Huali Micro – 華力微	Subsidiary of Huahong Group 華虹集團子公司
SAIL and its subsidiaries 上海聯和及其子公司	
– Shanghai Alliance Investment Ltd. (“SAIL”) – 上海聯和投資有限公司(「上海聯和」)	Holding company of Sino-Alliance International Ltd. Sino-Alliance International Ltd.的控股公司
– Sino-Alliance International Ltd. (“SAIL International”) – Sino-Alliance International Ltd.(「SAIL International」)	11.01% shareholder of the Company 持股11.01%之本公司股東
Huahong Technology Development 華虹科技發展	
– Shanghai Huahong Real Estate Co., Ltd. (“Huahong Real Estate”) – 上海華虹置業有限公司(「華虹置業」)	Associate of the Group 本集團聯營公司
– Shanghai Huajin Property Management Co., Ltd. (“Huajin”) – 上海華錦物業管理有限公司(「華錦」)	Subsidiary of Huahong Technology Development 華虹科技發展子公司 Subsidiary of Huahong Technology Development 華虹科技發展子公司

* ICRD, a subsidiary of Huahong Group is no longer a related party to the Group since 1 January 2023.

* 華虹集團子公司集成電路研發自二零二三年一月一日起不再為本集團的關聯方。

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35. RELATED PARTY TRANSACTIONS AND BALANCES (continued)

(b) Related party transactions

The Group had the following material transactions with related parties during the year:

35. 關聯方交易及結餘(續)

(b) 關聯方交易

本集團於年內已與關聯方進行以下重大交易：

		2023 二零二三年 US\$' 000 千美元	2022 二零二二年 US\$' 000 千美元
Sales of goods to related parties (note (i))	向關聯方出售貨品(附註(i))		
Huahong Zealcore#	華虹摯芯#	18,495	9,711
Hongri#	虹日#	—	4,394
ICRD#	集成電路研發#	2,083	3,342
Purchases of goods from related parties (note (ii))	自關聯方購買貨品(附註(ii))		
Hongri#	虹日#	18,433	18,422
Huahong Zealcore#	華虹摯芯#	801	825
Jitong	計通	32	20
Huali Micro	華力微	—	69
Purchases of intangible assets from a related party (note (iii))	自關聯方購買無形資產(附註(iii))		
Huali Micro	華力微	17,112	—
Rental income from a related party (note (iv))	來自關聯方的租金收入(附註(iv))		
Huali Micro#	華力微#	13,985	14,254
Service fees charged by related parties (note (v))	關聯方收取的服務費(附註(v))		
Huajin#	華錦#	567	400
Interest expense charged by a related party (notes (vi) and (vii))	關聯方收取的利息開支(附註(vi)及(vii))		
Huahong Real Estate	華虹置業	709	714
Expense paid on behalf of a related party (note (vi))	代關聯方支付的開支(附註(vi))		
Huali Micro	華力微	29,026	32,728

The related party transactions also constitute continuing connected transactions as defined in Chapter 14A of the Listing Rules.

關聯方交易亦構成上市規則第十四A章所界定的持續關連交易。

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財務報表附註 31 December 2023
二零二三年十二月三十一日**35. RELATED PARTY TRANSACTIONS AND BALANCES (continued)****(b) Related party transactions (continued)**

Note (i) The sales of goods to related parties were made according to the prices and terms agreed between the related parties.

Note (ii) The purchases of goods and intangible assets from related parties were made according to the prices and terms offered by the related parties.

Note (iii) The purchases of intangible assets from a related party were made according to the prices and terms offered by the related party.

Note (iv) The rental income received from a related party was based on the prices and terms agreed between the related parties.

Note (v) The service fees and interest expense charged by related parties were based on the prices and terms agreed between the related parties.

Note (vi) The expense paid on behalf of the related party is interest-free and repayable on demand.

Note (vii) The Group entered into leases in respect of certain dormitory properties from Huahong Real Estate. The amount of rent payable by the Group under the leases is US\$2,522,000 per year. At 31 December 2023, the balances of those right-of-use assets and lease liabilities were US\$18,083,000 (31 December 2022: US\$12,229,000) and US\$20,790,000 (31 December 2022: US\$14,772,000), respectively.

35. 關聯方交易及結餘(續)**(b) 關聯方交易(續)**

附註(i) 向關聯方出售的貨品乃根據與關聯方協定的價格及條款作出。

附註(ii) 自關聯方購買的貨品及無形資產乃根據關聯方提供的價格及條款作出。

附註(iii) 自關聯方購買無形資產乃根據關聯方提供的價格及條款作出。

附註(iv) 來自關聯方的租金收入乃根據與關聯方協定的價格及條款收取。

附註(v) 服務費及利息開支乃由關聯方根據與關聯方協定的價格及條款收取。

附註(vi) 代關聯方支付的開支為不計息，及須按要求償還。

附註(vii) 本集團就自華虹置業租賃的若干宿舍物業訂立租約。本集團於租賃項下應付的租金為每年2,522,000美元。於二零二三年十二月三十一日，該等使用權資產及租賃負債的結餘分別為18,083,000美元(二零二二年十二月三十一日：12,229,000美元)及20,790,000美元(二零二二年十二月三十一日：14,772,000美元)。

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35. RELATED PARTY TRANSACTIONS AND BALANCES (continued)

35. 關聯方交易及結餘(續)

(c) Outstanding balances with related parties

(c) 與關聯方之間的未結清餘額

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Amounts due from related parties	應收關聯方款項		
Huali Micro	華力微	6,933	10,996
Huahong Zealcore	華虹摯芯	4,286	1,457
ICRD	集成電路研發	—	553
Total	總計	11,219	13,006
Amounts due to related parties	應付關聯方款項		
Huali Micro	華力微	11,304	3,115
Hongri	虹日	2,126	2,613
Huajin	華錦	221	53
Huahong Zealcore	華虹摯芯	190	211
Jitong	計通	35	28
ICRD	集成電路研發	—	76
Total	總計	13,876	6,096

(d) Compensation of key management personnel of the Group

(d) 本集團主要管理人員的酬金

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Short term employee benefits	短期僱員福利	5,744	5,622
Pension scheme contributions	退休金計劃供款	183	103
Equity-settled share option expense	以權益結算的購股權開支	113	419
Total compensation paid to key management personnel	支付予主要管理人員的酬金總額	6,040	6,144

Further details of directors' remuneration are included in note 8 to the financial statements.

董事薪酬之進一步詳情載於財務報表附註8。

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36. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows:

Financial assets – at amortised cost

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Trade and notes receivables	貿易應收款項及應收票據	278,669	291,856
Financial assets included in prepayments, other receivables and other assets (note 22)	計入預付款項、其他應收款項及其他資產的金融資產 (附註22)	11,632	23,577
Due from related parties	應收關聯方款項	11,219	13,006
Restricted and time deposits	已凍結及定期存款	32,088	1,042
Cash and cash equivalents	現金及現金等價物	5,585,181	2,008,765
Total	合計	5,918,789	2,338,246

Financial assets – at fair value through other comprehensive income without recycling to profit or loss

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益的股權投資	270,506	178,632

Financial liabilities – at amortised cost

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Trade payables	貿易應付款項	235,410	236,999
Financial liabilities included in other payables and accruals (note 25)	計入其他應付款項及暫估費用的金融負債(附註25)	252,963	318,944
Interest-bearing bank borrowings	計息銀行借款	2,099,561	1,908,336
Due to related parties	應付關聯方款項	13,876	6,096
Total	合計	2,601,810	2,470,375

36. 按類別劃分的金融工具

各類金融工具於報告期末的賬面值如下：

金融資產 – 按攤銷成本

金融資產 – 按公平值計入其他全面收益 (不得重新計入損益)

金融負債 – 按攤銷成本

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

The carrying amounts and fair values of the Group's financial instruments, other than those with carrying amounts that reasonably approximate to fair values, are as follows:

37. 金融工具的公平值及公平值層級

本集團金融工具(不包括賬面值與公平值大致相若的金融工具)的賬面值及公平值載列如下:

	Carrying amounts		Fair values	
	賬面值		公平值	
	2023	2022	2023	2022
	二零二三年	二零二二年	二零二三年	二零二二年
	US\$' 000	US\$' 000	US\$' 000	US\$' 000
	千美元	千美元	千美元	千美元
Financial assets	金融資產			
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益的股權投資			
	270,506	178,632	270,506	178,632
Financial liabilities	金融負債			
Interest-bearing bank borrowings	計息銀行借款			
	1,906,526	1,481,580	1,911,206	1,537,685

Management has assessed that the fair values of cash and cash equivalents, restricted and time deposits, trade and notes receivables, financial assets included in prepayments, other receivables, trade payables, financial liabilities included in other payables and accruals, amounts due from/to related parties and the current portion of interest-bearing bank borrowings and lease liabilities approximate to their carrying amounts largely due to the short term maturities of these instruments.

The Group's finance department headed by the finance manager is responsible for determining the policies and procedures for the fair value measurement of financial instruments. The finance department reports directly to the chief financial officer. At each reporting date, the finance department analyses the movements in the values of financial instruments and determines the major inputs applied in the valuation. The valuation is reviewed and approved by the chief financial officer. The valuation process and results are discussed with the board of directors twice a year for interim and annual financial reporting.

管理層已評估現金及現金等價物、已凍結及定期存款、貿易應收款項及應收票據、計入預付款項的金融資產、其他應收款項、貿易應付款項、計入其他應付款項及暫估費用的金融負債、應收／應付關聯方款項及計息銀行借款及租賃負債的流動部份的公平值與其賬面值相若，主要是由於該等工具均於短期內到期。

本集團旗下以財務經理為首的財務部負責釐定金融工具公平值計量的政策及程序。財務部直接向財務總監報告。於各報告日期，財務部分析金融工具的價值變動並釐定估值中適用的主要輸入數據。估值由財務總監審核及批准。估值過程及結果由董事會每年討論兩次，以進行中期及年度財務申報。

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values:

The fair values of the non-current portion of interest-bearing bank borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities. The changes in fair value as a result of the Group's own non-performance risk for the non-current portion of interest-bearing bank borrowings as at 31 December 2023 were assessed to be insignificant.

The fair values of unlisted equity investments designated at fair value through other comprehensive income have been estimated using the market approach. If there is a recent deal regarding the unlisted investments, the fair values are estimated based on the dealing price. If there is no such deal to be referenced, the directors will determine comparable public companies (peers) based on industry, size, leverage and strategy, and calculate an appropriate price multiple, such as price to book value ("P/B") multiple, for each comparable company identified. The multiple is calculated by dividing the enterprise value of the comparable company by net assets. The trading multiple is then discounted for considerations such as illiquidity based on company-specific facts and circumstances. The discounted multiple is applied to the corresponding net assets of the unlisted equity investments to measure the fair value. The directors believe that the estimated fair values resulting from the valuation technique, which are recorded in the consolidated statement of financial position, and the related changes in fair values, which are recorded in other comprehensive income, are reasonable, and that they were the most appropriate values at the end of the reporting period.

37. 金融工具的公平值及公平值層級(續)

金融資產及負債的公平值是按當前與自願方交易(而非被迫或清盤出售)中可交換有關工具的金額列賬。估計公平值乃使用以下的方法及假設:

計息銀行借款的非流動部份的公平值乃透過採用具有類似年期、信貸風險及剩餘到期期限的工具的現有利率貼現預期未來現金流量而計算。本集團評估後認為,於二零二三年十二月三十一日因其自身的計息銀行借款的非流動部分不履約風險而導致的公平值變動並不重大。

指定為按公平值計入其他全面收益的非上市股本投資之公平值採用市場法估算。倘最近成交交易有關未上市投資,公平值乃基於交易價估算。倘並無該等交易可供參考,董事將根據行業、規模、影響力及策略釐定可比較上市公司(同行),且就已確定的各可資比較公司計算適當的價格倍數,如市賬率(「市賬率」)倍數。該倍數乃按可資比較公司之企業價值除以淨資產所得。交易倍數隨後根據公司特定情況及狀況就非流動性等因素予以貼現。貼現倍數適用於非上市股本投資的相應淨資產以計量公平值。董事認為,計入綜合財務狀況表的估值技術所產生的估計公平值以及計入其他全面收益的公平值相關變動屬合理,而於報告期末的價值最為恰當。

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Financial assets measured at fair value
31 December 2023

37. 金融工具的公平值及公平值層級(續)

公平值層級

下表顯示本集團金融工具的公平值計量層級:

按公平值計量的金融資產
二零二三年十二月三十一日

		Fair value measurement using 公平值計量採用以下基準			
		Quoted prices in active markets 於活躍市場 的市場報價 Level 1 第1級 US\$'000 千美元	Quoted prices in active markets 於活躍市場 的市場報價 Level 2 第2級 US\$'000 千美元	Quoted prices in active markets 於活躍市場 的市場報價 Level 3 第3級 US\$'000 千美元	Total 總計 US\$'000 千美元
Equity investments designated at fair value through other comprehensive income	指定為按公平值 計入其他全面 收益的股權投資	2,429	265,128	2,949	270,506

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二零二二年十二月三十一日

		Fair value measurement using 公平值計量採用以下基準			
		Quoted prices in active markets 於活躍市場 的市場報價 Level 1 第1級 US\$'000 千美元	Quoted prices in active markets 於活躍市場 的市場報價 Level 2 第2級 US\$'000 千美元	Quoted prices in active markets 於活躍市場 的市場報價 Level 3 第3級 US\$'000 千美元	Total 總計 US\$'000 千美元
Equity investments designated at fair value through other comprehensive income	指定為按公平值 計入其他全面 收益的股權投資	2,442	–	176,190	178,632

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財務報表附註 31 December 2023 二零二三年十二月三十一日

37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

Fair value hierarchy (Continued)

Financial assets measured at fair value (Continued)

The Group's policy is to recognise transfers between levels of the fair value hierarchy at the end of the reporting period.

During the year, there were no transfers of fair value measurements between Level 1 and Level 2 (2022:Nil).

During the year 2023, there was a transfer from Level 3 to Level 2 for an equity investment designated at fair value through other comprehensive income with a carrying amount of US\$265,128,000 as at 31 December 2023 because there was a recent dealing price to be referenced and the significant inputs used in the fair value measurements were observable.

During the year 2022, there was a transfer from Level 2 to Level 3 for an equity investment designated at fair value through other comprehensive income with a carrying amount of US\$2,236,000 as at 31 December 2022 because there was no recent dealing price to be referenced and the significant inputs used in the fair value measurements were unobservable.

37. 金融工具的公平值及公平值層級(續)

公平值層級(續)

按公平值計量的金融資產(續)

於報告期末，本集團的政策為確認公平值層級之間的轉移。

於年內，第1級與第2級公平值計量之間並無轉移(二零二二年：無)。

於二零二三年內，於二零二三年十二月三十一日，賬面值為265,128,000美元的指定為按公平值計入其他全面收益的股權投資自第3級轉入第2級，因為並無近期交易價可供參考，且公平值計量所用重大輸入數據為不可觀察。

於二零二二年內，於二零二二年十二月三十一日，賬面值為2,236,000美元的指定為按公平值計入其他全面收益的股權投資自第2級轉入第3級，因為並無近期交易價可供參考，且公平值計量所用重大輸入數據為不可觀察。

NOTES TO FINANCIAL STATEMENTS

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

Fair value hierarchy (continued)

The recurring fair value measurement for the Group's financial assets at fair value through profit or loss was performed using significant unobservable inputs (Level 3) as at 31 December 2023 and 2022. Below is a summary of the valuation technique used and the key inputs to the valuation:

37. 金融工具的公平值及公平值層級(續)

公平值層級(續)

本集團按公平值計入損益的金融資產的週期公平值計量乃使用二零二三年及二零二二年十二月三十一日的重大不可觀察輸入數據(第3級)作出。下文為估值所用估值技術及主要輸入數據概要:

		Valuation technique 估值技術	Significant unobservable input 重大不可觀察輸入數據	Range 範圍	Sensitivity of fair value to the input 公平值對輸入數據之敏感度
Equity investments designated at fair value through other comprehensive income	指定為按公平值計入其他全面收益的股本投資	Valuation multiples 估值倍數	Average P/B multiple of peers 同業平均市賬率	2022: 1.3x-2.7x 二零二二年: 1.3x-2.7x	5% (2022: 5%) increase/decrease would result in increase/decrease in fair value by 5% (2022: 5%) 5% (二零二二年: 5%) 的增加/減少將導致公平值增加/減少5% (二零二二年: 5%)
			Average P/S multiple of peers 同業平均市銷率	2023: 4.5x-11.9x 2022: 3.8x-8.5x 二零二三年: 4.5x-11.9x 二零二二年: 3.8x-8.5x	5% (2022: 5%) increase/decrease would result in increase/decrease in fair value by 5% (2022: 5%) 5% (二零二二年: 5%) 的增加/減少將導致公平值增加/減少5% (二零二二年: 5%)
			Discount for illiquidity 缺乏流通性的折讓價	2023: 20%-30% 2022: 20%-30% 二零二三年: 20%-30% 二零二二年: 20%-30%	5% (2022: 5%) increase/decrease would result in decrease/increase in fair value by 5% (2022: 5%) 5% (二零二二年: 5%) 的增加/減少將導致公平值減少/增加5% (二零二二年: 5%)

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日

37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (continued)

Fair value hierarchy (continued)

The movements in financial assets categorised into Level 3 during the year are as follows:

37. 金融工具的公平值及公平值層級(續)

公平值層級(續)

年內分類為第3級的金融資產變動如下:

		Equity investments designated at fair value through other comprehensive income 指定為按公平值計入 其他全面收益的 股權投資 US\$'000 千美元
At 1 January 2022	於二零二二年一月一日	241,242
Transfer from level 2	自第2級轉入	2,236
Total losses recognised in other comprehensive income	於其他全面收益確認的虧損總額	(48,629)
Exchange realignment	匯兌調整	(18,659)
At 31 December 2022 and 1 January 2023	於二零二二年十二月三十一日及 二零二三年一月一日	176,190
Transfer to level 2	自第2級轉入	(174,170)
Total losses recognised in other comprehensive income	於其他全面收益確認的虧損總額	968
Exchange realignment	匯兌調整	(39)
As at 31 December 2023	於二零二三年十二月三十一日	2,949

NOTES TO FINANCIAL STATEMENTS

31 December 2023
二零二三年十二月三十一日 財務報表附註**38. FINANCIAL RISK MANAGEMENT
OBJECTIVES AND POLICIES**

The Group's principal financial instruments comprise bank loans, cash and short-term deposits. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities, such as trade and other receivables and trade and other payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk, credit risk and liquidity risk. The board of directors reviews and agrees policies for managing each of these risks and they are recognised below.

Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's interest-bearing bank borrowings with a floating interest rate. The Group's policy is to manage its interest cost using a mix of fixed and variable rate debts.

As at 31 December 2023, if the interest rates had been 100 basis points higher/lower with all other variables held constant, profit before tax for the year would have been US\$17,524,463 lower/higher (31 December 2022: US\$14,546,223), mainly as a result of higher/lower interest expense on floating rate bank borrowings.

38. 財務風險管理目標及政策

本集團的主要金融工具包括銀行貸款、現金及短期存款。該等金融工具的主要用途乃為本集團的營運籌措資金。本集團有多種直接自其營運產生的其他金融資產及負債，如貿易及其他應收款項以及貿易及其他應付款項。

本集團金融工具所產生的主要風險為利率風險、外幣風險、信貸風險及流動資金風險。董事會檢討及協定管理各類該等風險的政策，有關政策概述於下文。

利率風險

本集團面臨市場利率變動的風險，主要與本集團浮動利率計息銀行借款有關。本集團的政策為運用固定及浮動利率債務組合管理利息成本。

於二零二三年十二月三十一日，倘利率增加或減少100基點，而所有其他變量維持不變，年內稅前溢利將減少或增加17,524,463美元(二零二二年十二月三十一日：14,546,223美元)，乃主要由於浮動利率銀行借款的利息開支增加或減少。

NOTES TO FINANCIAL STATEMENTS

財務報表附註 31 December 2023
二零二三年十二月三十一日38. FINANCIAL RISK MANAGEMENT
OBJECTIVES AND POLICIES (continued)**Foreign currency risk**

The Group has transactional currency exposures. These exposures arise from sales or purchases by its significant subsidiary operating in Chinese Mainland in US\$ other than the subsidiary's functional currency, which is RMB. During the year, approximately 22% (2022: 27%) of the Group's sales were denominated in currencies other than the functional currency of the subsidiary making the sale, whilst 53% (2022: 71%) of costs of sales were denominated in the subsidiary's functional currency.

In addition, the Group has currency exposures from interest-bearing bank borrowings, held by its subsidiary operating in Chinese Mainland. As at 31 December 2023, interest-bearing bank borrowings with a carrying amount of US\$1,653,010,000 (31 December 2022: US\$1,775,774,000) are dominated in United States dollars, other than the subsidiary's functional currency, which is RMB.

The following table demonstrates the sensitivity at the end of the reporting period to a reasonably possible change in the RMB exchange rates, with all other variables held constant, of the Group's profit before tax (arising from USD and RMB denominated financial instruments):

		Increase/ (decrease) in US\$ rate 美元匯率增加/ (減少)	Increase/ (decrease) in profit before tax 稅前溢利增加/ (減少)
Year ended 31 December 2023	截至二零二三年十二月三十一日止年度		
If US\$ weakens against RMB	倘美元兌人民幣貶值	5%	47,599
If US\$ strengthens against RMB	倘美元兌人民幣升值	(5%)	(47,599)
Year ended 31 December 2022	截至二零二二年十二月三十一日止年度		
If US\$ weakens against RMB	倘美元兌人民幣貶值	5%	60,535
If US\$ strengthens against RMB	倘美元兌人民幣升值	(5%)	(60,535)

38. 財務風險管理目標及政策(續)

外幣風險

本集團面臨交易外匯風險。該等風險產生自其在中國內地經營的重要子公司以美元進行的買賣，而並非以其功能貨幣人民幣進行。於年內，本集團的銷售額中約22%(二零二二年：27%)乃以進行銷售的子公司的功能貨幣以外的貨幣計值，與此同時，銷售成本中53%(二零二二年：71%)乃以子公司的功能貨幣計值。

此外，本集團面臨來自計息銀行借款的外幣風險，該借款由其在中國內地經營的子公司持有。於二零二三年十二月三十一日，賬面值為1,653,010,000美元(二零二二年十二月三十一日：1,775,774,000美元)的計息銀行借款以美元計值，而非以該子公司的功能貨幣人民幣計值。

下表顯示在所有其他變量維持不變的情況下，於報告期末本集團稅前溢利(由美元及人民幣計值的金融工具產生)對人民幣匯率的合理可能變動的敏感度：

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二零二三年十二月三十一日 財務報表附註**38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)****Credit risk**

Credit risk is the risk that a counterparty cannot meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily trade receivables).

The Group trades only with recognised and creditworthy third parties and related parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis and the Group's exposure to bad debts is not significant.

The carrying amounts of cash and cash equivalents, trade and notes receivables, financial assets included in prepayments, other receivables and other assets, amounts due from related parties and restricted and time deposits included in the consolidated statement of financial position represent the Group's maximum exposure to credit risk in relation to its financial assets. The Group has no other financial assets which carry significant exposure to credit risk.

Further qualitative and quantitative information regarding trade receivables, for which the Group applies the simplified approach in calculating ECLs under HKFRS 9, is disclosed in note 21 to the financial statements.

Apart from trade and notes receivables, all the carrying amounts of financial assets at amortised cost, applying the general approach under HKFRS 9, are classified as Stage 1 in terms of ECLs as at 31 December 2023 in addition to the fully impaired other receivables classified as Stage 3, as stated in note 22 to the financial statements.

Liquidity risk

The Group's policy is to monitor regularly the current and expected liquidity requirements to ensure that it maintains sufficient reserves of cash and adequate committed lines of funding from major financial institutions to meet its liquidity requirements in the short and long term.

38. 財務風險管理目標及政策(續)**信貸風險**

信貸風險指對手方無法履行金融工具或客戶合約項下責任而引致金融損失之風險。本集團面臨來自其經營活動(主要為貿易應收款項)的信貸風險。

本集團僅與獲認可及信譽良好的第三方及關聯方交易。本集團的政策規定,所有擬按信用方式交易的客戶均須通過信用核實程序。此外,由於持續對應收款項結餘進行監控,故本集團的壞賬風險並不重大。

綜合財務狀況表內現金及現金等價物、貿易應收款項及應收票據及計入預付款項、其他應收款項及其他資產的金融資產、應收關聯方款項以及已凍結及定期存款的賬面值為本集團就其金融資產所面臨的最大信貸風險。本集團並無其他存在重大信貸風險的金融資產。

有關貿易應收款項的進一步定性及定量資料(本集團根據香港財務報告準則第9號對其採用簡化方法計算預期信貸虧損)於財務報表附註21內披露。

除財務報表附註22內所載分類為第三階段的全數已減值的其他應收款項(除貿易應收款項及應收票據外),所有按攤銷成本計量的金融資產的賬面值(根據香港財務報告準則第9號採用一般方法)就二零二三年十二月三十一日的預期信貸虧損分類為第一階段。

流動資金風險

本集團的政策為定期監控現時及預期流動資金需要,以確保維持充裕的現金儲備及從主要金融機構獲得足夠的融資承擔額度,以應對其短期及長期流動資金需要。

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財務報表附註 31 December 2023
二零二三年十二月三十一日38. FINANCIAL RISK MANAGEMENT
OBJECTIVES AND POLICIES (continued)

Liquidity risk (Continued)

The maturity profile of the Group's financial liabilities as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

31 December 2023

	On demand 按要求 US\$'000 千美元	Less than 3 months 少於三個月 US\$'000 千美元	3 to 12 months 三至十二個月 US\$'000 千美元	1 to 5 years 一至五年 US\$'000 千美元	Over 5 years 五年以上 US\$'000 千美元	Total 總計 US\$'000 千美元	
Interest-bearing bank borrowings	計息銀行借款	–	1,676	283,006	1,578,487	703,782	2,566,951
Lease liabilities	租賃負債	–	3,468	513	10,217	12,771	26,969
Trade payables	貿易應付款項	43,715	191,695	–	–	–	235,410
Financial liabilities included in other payables and accruals	計入其他應付款項及暫估費用的金融負債	175,893	75,382	–	–	–	251,275
Amounts due to related parties	應付關聯方款項	13,876	–	–	–	–	13,876
Total	總計	233,484	272,221	283,519	1,588,704	716,553	3,094,481

31 December 2022

二零二二年十二月三十一日

	On demand 按要求 US\$'000 千美元	Less than 3 months 少於三個月 US\$'000 千美元	3 to 12 months 三至十二個月 US\$'000 千美元	1 to 5 years 一至五年 US\$'000 千美元	Over 5 years 五年以上 US\$'000 千美元	Total 總計 US\$'000 千美元	
Interest-bearing bank borrowings	計息銀行借款	–	43,521	486,724	1,290,956	521,043	2,342,244
Lease liabilities	租賃負債	–	1,626	3,832	7,674	10,119	23,251
Trade payables	貿易應付款項	34,889	202,110	–	–	–	236,999
Financial liabilities included in other payables and accruals	計入其他應付款項及暫估費用的金融負債	223,271	95,673	–	–	–	318,944
Amounts due to related parties	應付關聯方款項	6,096	–	–	–	–	6,096
Total	總計	264,256	342,930	490,556	1,298,630	531,162	2,927,534

38. 財務風險管理目標及政策(續)

流動資金風險(續)

於報告期末，本集團金融負債根據合約未貼現付款的到期情況如下：

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38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (continued)

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratios to support its business and maximise shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. The Group is not subject to any externally imposed capital requirements. No changes were made in the objectives, policies or processes for managing capital during the year.

The Group monitors capital using a gearing ratio, which is net debt divided by total equity plus net debt. The Group includes, within net debt, trade payables, other payables and accruals, interest-bearing bank borrowings, lease liabilities and amounts due to related parties, less cash and cash equivalents. The gearing ratios as at the end of each of the reporting periods were as follows:

38. 財務風險管理目標及政策(續)

資本管理

本集團資本管理的首要目標為，維護本集團的持續經營能力及維持良好的資本比率，以支持其業務及實現股東價值最大化。

本集團根據經濟狀況的變動管理及調整其資本架構。為維持或調整資本架構，本集團或會調整派付予股東的股息、向股東返還資本或發行新股。本集團不受任何外部施加的資本要求規限。於年內，本集團管理資本的目標、政策或程序概無任何變動。

本集團以資產負債比率監控資本，資產負債比率按淨負債除以權益總額加淨負債計算。本集團將貿易應付款項、其他應付款項及暫估費用、計息銀行借款、租賃負債以及應付關聯方款項扣除現金及現金等價物計入淨負債。於各報告期末的資產負債比率如下：

		31 December 2023 二零二三年 十二月三十一日 US\$'000 千美元	31 December 2022 二零二二年 十二月三十一日 US\$'000 千美元
Trade payables	貿易應付款項	235,410	236,999
Other payables and accruals (note 25)	其他應付款項及暫估費用 (附註25)	343,933	401,383
Interest-bearing bank borrowings	計息銀行借款	2,099,561	1,908,336
Lease liabilities	租賃負債	22,205	19,348
Amounts due to related parties	應付關聯方款項	13,876	6,096
Less: Cash and cash equivalents	減：現金及現金等價物	(5,585,181)	(2,008,765)
Net debt	淨負債	(2,870,196)	563,397
Total equity	權益總額	8,014,544	4,135,468
Total equity and net debt	權益總額及淨負債	5,144,348	4,698,865
Gearing ratio	資產負債比率	-55.79%	11.99%

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39. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

(a) Major non-cash transactions

During the year, the Group had non-cash additions to right-of-use assets or lease liabilities of US\$7,862,000 (2022: US\$6,394,000) in respect of lease arrangements for buildings.

(b) Changes in liabilities arising from financing activities are as follows:

		Interest-bearing bank borrowings 計息銀行借款 US\$' 000 千美元	Lease liabilities 租賃負債 US\$' 000 千美元
As at 1 January 2022	於二零二二年一月一日	1,590,303	17,813
Changes from financing cash flows	融資現金流量變動	268,564	(4,144)
Interest expense	利息開支	39,451	880
New leases	新租賃	-	6,394
Foreign exchange movements	外匯變動	10,018	(1,595)
As at 31 December 2022 and 1 January 2023	於二零二二年十二月三十一日及二零二三年一月一日	1,908,336	19,348
Changes from financing cash flows	融資現金流量變動	85,657	(5,674)
Interest expense	利息開支	99,429	1,068
New leases	新租賃	-	7,862
Foreign exchange movements	外匯變動	6,139	(399)
As at 31 December 2023	於二零二三年十二月三十一日	2,099,561	22,205

(c) Total cash outflow for leases

The total cash outflow for leases included in the statement of cash flows is as follows:

		2023 二零二三年 US\$' 000 千美元	2022 二零二二年 US\$' 000 千美元
Within operating activities	經營活動內	2,383	2,625
Within financing activities	融資活動內	5,674	4,144
Total	總計	8,057	6,769

39. 綜合現金流量表附註

(a) 主要非現金交易

於年內，本集團與建築物租賃安排有關的使用權資產或租賃負債的非現金添置為7,862,000美元(二零二二年：6,394,000美元)。

(b) 融資活動所產生的負債變動如下：

(c) 租賃現金流出總額

計入現金流量表的租賃現金流出總額如下：

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40. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS

Details of the Group's subsidiaries that have material non-controlling interests are set out below:

		2023 二零二三年	2022 二零二二年
Percentage of interest held by non-controlling interests:	非控股權益持有權益比率：		
Hua Hong Manufacturing	華虹製造	49%	49%
Hua Hong Wuxi	華虹無錫	49%	49%

The board of directors is the supreme governing body for Hua Hong Wuxi, in which non-controlling shareholders hold three seats out of seven. Therefore, the proportion of voting rights is different from that of the ownership interest above.

40. 有重大非控股權益之非全資子公司

本集團具有重大非控股權益之子公司之詳情如下：

董事會為華虹無錫的最高管理機構，由七名董事組成，其中三名董事為非控股股東。因此，投票權比例不同於上述所有權權益比例。

		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元
Loss for the year allocated to non-controlling interests:	分配至非控股權益之年內虧損：		
Hua Hong Wuxi	華虹無錫	(150,000)	(43,341)
Hua Hong Manufacturing	華虹製造	(3,609)	-
		(153,609)	(43,341)
Accumulated balances of non-controlling interests at the reporting date:	於報告日期非控股權益累計結餘：		
Hua Hong Wuxi	華虹無錫	936,596	1,104,998
Hua Hong Manufacturing	華虹製造	776,953	-
Total	總計	1,713,549	1,104,998

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40. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS (continued)

The following tables illustrate the summarised financial information of the above subsidiary. The amounts disclosed are before any inter-company eliminations:

40. 有重大非控股權益之非全資子公司(續)

下表概述上述子公司的財務資料，所披露之金額為任何公司間抵銷前之金額：

		Hua Hong Wuxi 華虹無錫	
		2023 二零二三年	2022 二零二二年
		US\$'000 千美元	US\$'000 千美元
Revenue	銷售收入	995,981	1,007,153
Other income	其他收入	61,382	30,296
Total expenses	開支總額	(1,357,791)	(1,125,901)
Loss and total comprehensive loss for the year	年內虧損及全面虧損總額	(300,428)	(88,452)
Current assets	流動資產	1,248,003	1,648,490
Non-current assets	非流動資產	2,846,165	2,862,686
Current liabilities	流動負債	475,938	(877,123)
Non-current liabilities	非流動負債	1,701,179	(1,378,965)
Net cash flows generated from operating activities	經營活動所得現金流量淨額	219,745	240,417
Net cash flows used in investing activities	投資活動所用現金流量淨額	(533,561)	(866,530)
Net cash flows (used in)/generated from financing activities	融資活動(所用)/所得現金流量淨額	(50,119)	1,085,213
Effect of foreign exchange rate changes, net	外匯匯率變動影響，淨額	(13,819)	(20,577)
Net (decrease)/increase in cash and cash equivalents	現金及現金等價物(減少)/增加淨額	(377,754)	438,523

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40. PARTLY-OWNED SUBSIDIARIES WITH MATERIAL NON-CONTROLLING INTERESTS (continued)

The following tables illustrate the summarised financial information of the above subsidiaries. The amounts disclosed are before any inter-company eliminations: (continued)

40. 有重大非控股權益之非全資子公司(續)

下表概述上述子公司的財務資料，所披露之金額為任何公司間抵銷前之金額：(續)

		Hua Hong Manufacturing 華虹製造 2023 二零二三年 US\$'000 千美元
Revenue	銷售收入	-
Other income	其他收入	9,002
Total expenses	開支總額	(16,450)
Loss and total comprehensive loss for the year	年內虧損及全面虧損總額	(7,448)
Current assets	流動資產	1,444,804
Non-current assets	非流動資產	357,112
Current liabilities	流動負債	103,430
Non-current liabilities	非流動負債	112,951
Net cash flows generated used in operating activities	經營活動所用現金流量淨額	(8,487)
Net cash flows used in investing activities	投資活動所用現金流量淨額	(260,150)
Net cash flows generated from financing activities	融資活動所得現金流量淨額	1,722,576
Effect of foreign exchange rate changes, net	外匯匯率變動影響，淨額	(18,123)
Net increase in cash and cash equivalents	現金及現金等價物增加淨額	1,435,816

41. EVENT AFTER THE REPORTING PERIOD

On 28 March 2024, the Company proposed a final dividend of HK\$0.165 per ordinary share totaling approximately US\$36,234,000 for the year ended 31 December 2023. The proposed final dividend for the year is subject to the approval of the Company's shareholders at the forthcoming annual general meeting.

41. 報告期後事項

於二零二四年三月二十八日，本公司建議派發截至二零二三年十二月三十一日止年度的末期股息每股普通股16.5港仙，合共約36,234,000美元。本年度建議末期股息須待本公司股東於應屆股東週年大會上批准後，方可作實。

NOTES TO FINANCIAL STATEMENTS

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42. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

42. 本公司的財務狀況表

有關本公司於報告期末的財務狀況表資料載列如下：

		31 December 2023 二零二三年 十二月三十一日 US\$'000 千美元	31 December 2022 二零二二年 十二月三十一日 US\$'000 千美元
NON-CURRENT ASSETS	非流動資產		
Investments in subsidiaries	投資於子公司	4,267,223	2,155,052
Total non-current assets	非流動資產總額	4,267,223	2,155,052
CURRENT ASSETS	流動資產		
Trade and notes receivables	貿易應收款項及應收票據	2,680	5,785
Prepayments, other receivables and other assets	預付款項、其他應收款項及其他資產	360	1,649
Due from a subsidiary	應收子公司款項	1,001	998
Restricted and time deposits	已凍結及定期存款	27	27
Cash and cash equivalents	現金及現金等價物	1,021,676	56,171
Total current assets	流動資產總額	1,025,744	64,630
CURRENT LIABILITIES	流動負債		
Other payables and accruals	其他應付款項及暫估費用	801	689
Due to subsidiaries	應付子公司款項	98,701	98,309
Total current liabilities	流動負債總額	99,502	98,998
NET CURRENT ASSETS/(LIABILITIES)	流動資產/(負債)淨額	926,242	(34,368)
TOTAL ASSETS LESS CURRENT LIABILITIES	資產總值減流動負債	5,193,465	2,120,684
Net assets	淨資產	5,193,465	2,120,684
EQUITY	權益		
Share capital	股本	4,933,559	1,994,462
Reserves (note)	儲備(附註)	259,906	126,222
Total equity	權益總額	5,193,465	2,120,684

Suxin Zhang
張素心
Director
董事

Jun Ye
葉峻
Director
董事

NOTES TO FINANCIAL STATEMENTS

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42. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (continued)

Note:

A summary of the Company's reserves is as follows:

42. 本公司的財務狀況表(續)

附註:

本公司的儲備概述如下:

		Other reserve	Share option reserve	(Accumulated losses)/ retained profits (累計虧損)/留存溢利	Total
		其他儲備 US\$' 000 千美元	購股權儲備 US\$' 000 千美元	US\$' 000 千美元	總計 US\$' 000 千美元
As at 1 January 2022	於二零二二年一月一日	(68,260)	15,577	(19,001)	(71,684)
Profit for the year	年內溢利	-	-	199,049	199,049
Equity-settled share option arrangements	以權益結算的購股權安排	-	1,226	-	1,226
Issue of shares	發行股份	-	(2,369)	-	(2,369)
At 31 December 2022 and 1 January 2023	於二零二二年十二月三十一日及二零二三年一月一日	(68,260)	14,434	180,048	126,222
Profit for the year	年內溢利	-	-	134,079	134,079
Equity-settled share option arrangements	以權益結算的購股權安排	-	853	-	853
Issue of shares	發行股份	-	(1,248)	-	(1,248)
As at 31 December 2023	於二零二三年十二月三十一日	(68,260)	14,039	314,127	259,906

43. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 28 March 2024.

43. 財務報表的批准

財務報表已於二零二四年三月二十八日獲董事會批准及授權刊發。

FIVE YEAR FINANCIAL SUMMARY

五年財務概覽

A summary of the results and of the assets, liabilities and non-controlling interests of the Group for the last five financial years, as extracted from the published audited financial statements, is set out below.

下文載列本集團於最近五個財政年度的業績以及資產、負債及非控股權益的概要，有關資料乃摘錄自己刊發經審核財務報表。

		Year ended 31 December 截至十二月三十一日止年度				
		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2020 二零二零年 US\$'000 千美元	2019 二零一九年 US\$'000 千美元
RESULTS	業績					
REVENUE	銷售收入	2,286,113	2,475,488	1,630,754	961,279	932,567
Cost of sales	銷售成本	(1,799,017)	(1,631,832)	(1,179,156)	(726,486)	(650,107)
Gross profit	毛利	487,096	843,656	451,598	234,793	282,460
Other income and gains	其他收入及收益	144,370	70,986	60,758	57,313	69,091
Fair value gain on an investment property	投資物業的公平值收益	103	78	183	198	163
Selling and distribution expenses	銷售及分銷費用	(10,189)	(12,464)	(10,673)	(8,169)	(8,828)
Administrative expenses	管理費用	(322,868)	(266,666)	(198,920)	(261,139)	(169,796)
Other expenses	其他費用	(33,666)	(111,360)	(165)	(10)	(406)
Finance costs	財務費用	(100,497)	(40,331)	(13,226)	(2,968)	(1,242)
Share of profits of associates	分佔聯營公司溢利	9,230	12,171	6,765	26,059	10,131
PROFIT BEFORE TAX	稅前溢利	173,579	496,070	296,320	46,077	181,573
Income tax expense	所得稅開支	(47,154)	(89,499)	(65,349)	(12,762)	(26,588)
PROFIT FOR THE YEAR	年內溢利	126,425	406,571	230,971	33,315	154,985
Attributable to:	以下各項應佔:					
Owners of the parent	母公司擁有人	280,034	449,912	261,476	99,443	162,237
Non-controlling interests	非控股權益	(153,609)	(43,341)	(30,505)	(66,128)	(7,252)
		126,425	406,571	230,971	33,315	154,985
		As at 31 December 於十二月三十一日				
		2023 二零二三年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2020 二零二零年 US\$'000 千美元	2019 二零一九年 US\$'000 千美元
Total assets	資產總值	10,943,420	7,055,376	6,202,099	4,568,586	3,613,303
Total liabilities	負債總額	(2,928,876)	(2,919,908)	(2,517,552)	(1,214,465)	(530,711)
Non-controlling interests	非控股權益	(1,713,549)	(1,104,998)	(814,188)	(825,679)	(837,351)
		6,300,995	3,030,470	2,870,359	2,528,442	2,245,241



华虹宏力
— HHGRACE —

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