



2023 Annual Corporate Social Responsibility Report

Enabling tomorrow's technology
to improve life quality

● Report Time

This report presents the company's performance and activities during the period of January 1, 2023 to December 31, 2023, with some content extending beyond this scope due to the continuity of projects.

● Report Scope

The report covers the entire corporate (including divisions and wholly-owned subsidiaries), with some content involving holding subsidiaries.

● Reporting Standards

This report is written in accordance with the Guidelines for China Corporate Social Responsibility Reporting (CASS-CSR4.0) of China Academy of Social Sciences and the Sustainability Reporting Guidelines (G3) of Global Reporting Initiative (GRI).

● Report Overview

Since 2017, PNC Technology has been releasing annual corporate social responsibility reports, disclosing the company's social responsibility insights and practices. It aims to enhance a thorough understanding, comprehensive communication, and positive interaction between the company and stakeholders, deepening trust and cooperation based on shared values, and jointly promoting the sustainable development of the company and society. This report is the 7th Corporate Social Responsibility Report released by PNC Process Systems Co.,Ltd.



“Value creation; Sustainable development; Long-termism”

PNC Technology was founded with a naïve impulsion in 2000; survived a big challenge in 2005; and started growing rapidly after we established the strategy “lab2fab” in 2005. The same year, we redefined PNC Technology as a practitioner of three faiths: value creation, sustainable development, and long-termism.

From then on, every decision PNC Technology made was based on this strategy. We are guided by a clear path that goes from technology to products--“lab-pilot-scale manufacturing”, and developed a series of process equipment and process systems. Every time at a crossroad, we think beyond business.

I believe that every person or organization is shaped by one after another decision in his or its lifetime. It wasn't easy for us to stick on the strategy for every decision we made but turns out it was indeed what led us here. We always look at long-termism, think about sustainable development, and work to create values. To be more specific, we care about sustainable development in the nature, in economy, in the society and in technology. As a Professional, we develop Networks to care.

● Governance

In PNC Technology, we focus on corporate governance structure, prudent accounting policies, executive compensation system, information disclosure obligations, risk management, and business code of conduct. We care about and take action to practice sustainable development.

● Society

In PNC Technology, we emphasize staff training and development; we care about employees' rights and health; we pay attention to privacy data protection; we prioritize trustworthiness of our products and services; we value social equality; we highlight education; we care about vulnerable groups; we respect the heroes who protect our society; and we take on social responsibilities. We care about and take action to make the society sustainable.

● Environment

In PNC Technology, we design and manufacture equipment that ends up in the production lines of pioneer new energy and energy-saving products such as solar cells, LED epitaxial wafers and chips, OLED screens, IGBT products, etc. We contribute to numerous energy-saving and environmentally friendly products. Our equipment reduces chemical usage by 80% in the user's processes to reduce emissions. We continue to invest in building infrastructure at our bases and apply solar energy, new energy, and energy-saving products. We encourage our employees to participate in the circular economy. We care about and practice environmental sustainability.

● Corporate introduction

As a leading process equipment and materials supplier, PNC Technology Group provides integrated circuits, biotech, and new energy industries with highly specialized core process solutions. Its electrical engineering subsidiaries provides integrated circuits and pan-semiconductor industry clients with process equipment, high purity processing systems, affiliated electronic materials, and professional services. Its biotech subsidiaries provide bio-pharmaceutical and synthetic biology clients with bioreactors, fermentation systems and liquid distribution systems.

With the business strategy of “focusing on the core process, whilst serving the key process” , PNC Technology competes globally as a China-originated brand. We always seek for “Pure and Clean” , creating values for clients and sustainable development.

PNC Technology takes on social responsibilities. We provide users with highly specialized products and services. We pursue innovation, aiming to become a paragon of professionalism, integrity, and excellence.



● Global Footprint

We established bases in Shanghai, Jiangsu Qidong, Hefei Anhui, Zhejiang Pinghu and Taiwan. We have subsidiaries in Japan, Germany, Singapore, Canada, the UK, and more areas. Our staff and users are all over the world.

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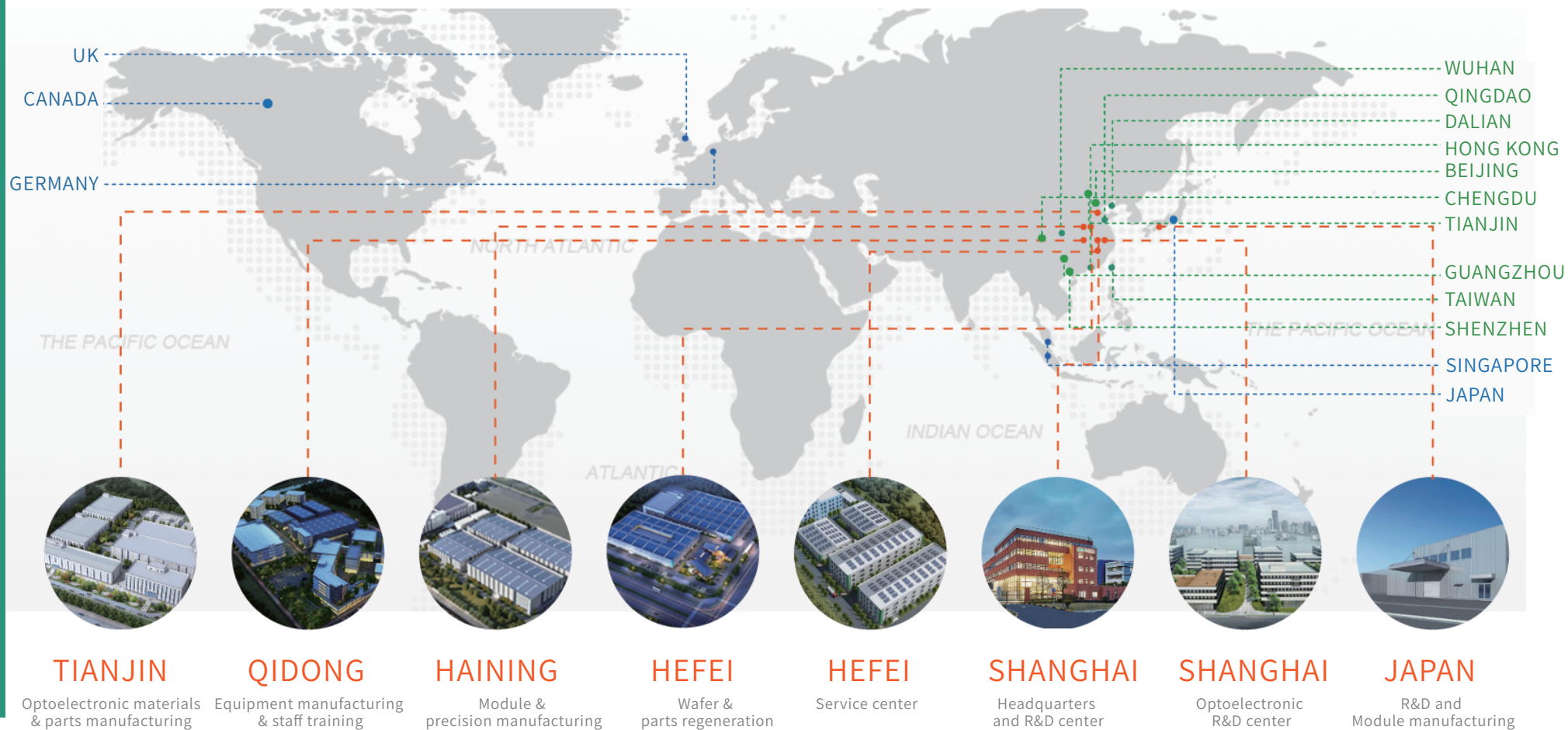
Bases

10

Branch offices

5

Overseas liaisons



Honors

● Honors

In 2023, PNC Technology and its members won 11 organization honors of municipal-level or above, and 3 individual honors of municipal-level or above. Currently, PNC Technology holds qualification honors including 9 recognized High-Tech Enterprises, 7 province-recognized Innovative Specialized Enterprises, and 1 state-recognized Innovative Specialized "Little Giant Enterprise".



11 organization honors



3 individual honors

Entity	Honor	Level	Issue time
PNC Process Systems	National Intellectual Property Advantage Enterprise	State	Nov. 2023
Bandweaver	National Intellectual Property Advantage Enterprise	State	Nov. 2023
PNC Process Systems	Shanghai Model Unit for Patent Work in Enterprises and Institutions	Province	Sept. 2023
PNC Process Systems	Top 50 Typical Cases of Chief Quality Officer Innovation Work	Province	Sept. 2023
PNC Process Systems	Third Prize of Shanghai Science and Technology Progress Award in 2022	Province	April 2023
PNC Process Systems	Shanghai Innovation Product Recommendation Catalog	Province	April 2023
Shanghai Ultron	Shanghai Innovative Specialized Enterprise (First-time Recognition)	Province	March 2023
PNC Integration	Shanghai Innovative Specialized Enterprise (First-time Recognition)	Province	March 2023
PNC Process Systems	2023 Shanghai Hardcore Technology Enterprises TOP100 List	Province	March 2023
PNC Process Systems	Shanghai Innovative Specialized Enterprise (Passed Again)	Province	March 2023
Jiangsu Qiwei	Gazelle Enterprise	City	Feb. 2023

Individual	Honor	Level	Issue time
PNC member	2023 Shanghai Oriental Elites Project	City	Dec. 2023
PNC member	Outstanding Society Contributors in Shanghai	City	May 2023
PNC member	May 1 st Labor Day Medal	City	April 2023

Our Sustainability Strategy and Pillars

In 2023, we updated our sustainability strategy and pillars, aligning with our common goals, core values, and the key United Nations Sustainable Development Goals (UN SDGs) under the 2030 Agenda for Sustainable Development.



Sustainability means we always think about long-term interests of the five key stakeholders (employees, customers, shareholders, suppliers, and the community) and the earth.

Our Goals

Business

•Supporting the industry

- We focus on sustainable agricultural development, developing and manufacturing equipment and systems that serve synthetic biology industry;
- Our products - high-end process equipment- is used for manufacturing chips, sensors, optical fibers, screens, and other products which are applied in medical field protecting people's health;
- We provide precision monitoring equipment and systems for power cables, petroleum perimeters and long-distance pipelines, and natural gas facilities, protecting lives and property in cities and towns; our equipment serves optical fiber producing, which is the foundation of modern information systems.;

•Enabling clients

- Since 2001, we have provided essential process equipment and systems for over 60% of solar cell production lines in China. We have contributed to continuous cost reducing of solar energy, helping to promote clean energy;
- Our products help users reduce emissions by minimizing the use of process media. Our factories invest in applying new energy products or energy-saving products; our progress on wafer regeneration services lets users reuse silicon wafers, reducing costs and saving energy. Our equipment serves synthetic biology that replace plastics and fossil raw materials with biotech materials;
- Our product Plasma spraying equipment reduces material waste by over 30%, lowers operating costs, increases transmission efficiency, and reduces environmental pollution.

Society









•Vulnerable groups

- PNC took part in "Heart Baby" program, donating to liver transplants for children with biliary atresia;
- For 23 years, PNC Technology has been providing book subsidies for all employees' children on every Children's Day;
- We offered training opportunities and a certain number of internship positions for college students, and also provided career guidance for college students;
- PNC Technology collaborated with Zizhu Park in Shanghai to support female students. PNC executives paired with female students from Shanghai Jiao Tong University as mentors, guiding them in their career paths;
- In Aug. 2023, PNC Technology collaborated with Zizhu Park in Shanghai and launched the "Far Plan • Help Her Grow" summer camp. The camp inspired 27 female high school students from Minhang High School in Shanghai and deepened their understanding of technology innovation.

2023 Progress

UN SDGs



	Our Goals	2023 Progress	UN SDGs
Society	• Best team	<ul style="list-style-type: none"> • Within the company, PNC Technology continues to increase the proportion of women in its senior management team. For female employees, PNC provides counseling and personal improvement activities. Externally, the company organizes and participates in events connecting women entrepreneurs or social organizations; • With R&D and sales offices in multiple countries, PNC Technology recruits and develops all around the world. 	 
Environment	• Saving energy	<ul style="list-style-type: none"> • We invest in building water treatment systems, sponge city facilities, and rainwater collection facilities; • We have been using LED products for all lighting in our group's office buildings since 2000, saving electricity; • Instead of traditional chillers, PNC applies heat recovery systems and saves an equivalent of ¥260,000 in gas usage annually; • Instead of atmospheric pressure boilers, PNC applies vacuum boilers which saves 128,900m³ gas usage annually, equivalent to ¥ 537,000. • The air compressor heating project makes full use of waste heat, saving energy equivalent to ¥200,000 annually; • Natural gas saving project improves the efficiency of heat recovery units, reduces natural gas consumption, and saves an equivalent of ¥300,000 annually; • The energy-saving and water-saving system saves about 47,000 tons of tap water annually, equivalent to ¥160,000; it also saved about ¥830,000 in wastewater treatment costs; • The RO concentrated water reuse renovation project increases water production rate, reduces concentrated water, and saved ¥350,000 treatment costs; 	  
	• Reducing emissions	<ul style="list-style-type: none"> • We have invested over ¥7,8000,000 to build distributed photovoltaic power projects with a total capacity of 8,6000,000 kilowatts. So far, it has reduced carbon dioxide emissions by 6,352 tons, sulfur dioxide emissions by 181.8 tons. In 2023, it reduced carbon dioxide emissions by 2,601 tons. The greenhouse gas emission reduction is equivalent to planting over 80,000 trees; • The heat recovery system has reduced carbon dioxide emissions by 129.7 tons, equivalent to planting 2,600 trees; • Environmentally friendly "waste free" construction sites monitor and manage temperature, humidity and dust; <p>PNC improved the management of pre-treatment facilities for fluorinated wastewater and saves hazardous waste disposal costs by ¥ 2,717,000 annually;</p> <ul style="list-style-type: none"> • Deodorization renovation in the wastewater treatment station reduces air pollution and ensures that the concentration of ammonia emission is lower than 0.01mg/m³; 	  

● Protecting first responders

Jan., 2023—Ye Ying, Vice General Manager of PNC Technology, and Song Yingying, Chairman of the labor union, sent donations and skincare products to medical workers in Shanghai Minhang District. We will continue to send skincare products to first responders such as soldiers, medical staff, police, and municipal workers, protecting them from skin problems.

● Far Plan • Help Her Grow

Aug., 2023—PNC Technology worked with the Women's Federation of Zizhu Park in Shanghai and held a summer camp for female high school students. 27 girls from Minhang High School got to talk with women executives, learn about chip and semiconductor industries, and deepen understanding about technology innovation.

● PNC Listed as Shanghai Top 100 Hardcore Technology Companies

March, 2023—PNC was listed as one of the Shanghai Top 100 Hardcore Technology Companies on the Shanghai Industrial Technology Innovation Conference.

● 7 PNC Subsidiaries Awarded as “Specialized & Innovation Enterprises”

7 PNC subsidiaries are “Specialized & Innovation Enterprises”; 5 of them are also “High-tech Enterprises”.

● PNC Ranked Top Five Sales of IC Supply Industry (Domestic) in Shanghai

May, 2023—PNC was announced to rank top five sales of IC supply industry (domestic) in Shanghai on IIC Shanghai 2023.

● 9 PNC Subsidiaries Awarded as “High-tech Enterprises”

9 PNC subsidiaries have been awarded as “High-tech Enterprises” so far: PNC Technology Group, PNC Integration, Ultron, Jiangsu Qiwei, Bandweaver Technologies, Bandweaver Software, Pinghu Bandweaver, Guangzhou Haoxin.

● Sharing the Perspective of Technology Company on Talents

Dec., 2023—The CHO of PNC Technology shared some thoughts on talents system in tech companies. PNC technology relies on innovative talents to develop. PNC technology established a culture and created an environment for talents development, which has been recognized by the market.

● Sharing the Perspective of Technology Company on Talents

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● PNC Technology Selected as a Typical Case of Quality Change and Innovation

PNC Technology took part in 2023 Shanghai City Award of Quality Selection. With its “4 mosts & 8 capability” innovative quality management model, PNC Technology was listed as a Typical Case of Quality Change and Innovation among Shanghai enterprises.

● PNC Technology Headquarters & Innovation Center lays the foundation

The prospective headquarters and Innovation Center of PNC Technology is located in the Zizhu Park in Shanghai, from Zhongyueying Road in the east to Ziri Road in the west; from Jinhaitang Road in the south to Lanxianghu South Road in the north. Total investment: ¥672.64 million. Total construction area: 48700.65 square meters.

● PNC Ranks 9th Tax Payer in Zizhu Park in 2023

On the annual meeting of Zizhu National High-Tech Industrial Development Park, PNC ranked ninth on the tax ranking among the 7,043 companies in Zizhu Park in 2023. The company also won the Special Contribution Award for the second consecutive years.

● Innovation Development Strategy - GPI is Our Enterprise Wisdom



● Intellectual Property

The company simply keeps innovating—by itself, by cooperation, or by learning and re-inventing. Meanwhile, it continuously enhances creating intellectual property.

Firstly, with its research capabilities, PNC develops proprietary products with competitive advantages which include reducing cost, increasing efficiency, and improving output quality. PNC makes sure that innovation runs through all aspects of its business operation, which has led to a series of technology innovations.

Secondly, aware of the top competitors, PNC studies their experience and advantages, deepens its understandings, and re-creates on the basis of successful precedents. It can speed up technology innovation and avoid unpredictable trial deviations or risks.

Thirdly, PNC strengthens independent innovation ability by cooperating with colleges or other organizations. Resource sharing and complementary advantages enhance technology innovation.

PNC technology has participated in three national innovation centers: Changjiang Advanced Storage Industry Innovation Center, Xinlian Rongchuang Integrated Circuit Industry Innovation Center, Shanghai Integrated Circuit Equipment and Materials Industry Innovation Center.

The company collaborated with East China University of Science and Technology and established a joint technology research and development center; it collaborated with Fudan University on "Research on Supercritical Cleaning Wet Process Technology"; it collaborated with Shanghai Jiao Tong University to implement quantitative analysis of gas equipment for the production process of photovoltaic cells, aiming to optimize process; and it also established research laboratories in collaboration with Shanghai University of Science and Technology. In addition, the company has a city-level industry technology center, a city-level technology innovation center and an academician expert workstation.

● Critical achievements

As of December 31, 2023, the group has applied for a total of 733 patents (including: 337 invention patents), 487 authorized patents (including 154 invention patents), and 170 software copyrights, 136 registered trademarks. Note: All patent applications do not include expired patents.

● Business Highlights

-Wet process equipment

- Complete the 28nm WET process development;
- As of the report released date, the cumulative production of S300-SPM single equipment on user production lines has exceeded 500,000 pieces. Currently PNC is the only domestic manufacturer of single sulfuric acid equipment that achieves the above standard.



-High purity process system equipment

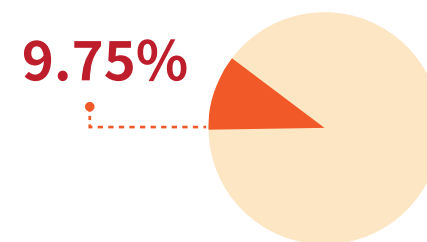
- The largest domestic supplier of high-purity process system equipment;
- Ancillary equipment business made up 40% of the total system integration business; 10,000m² of cleanrooms for manufacturing high-purity special gas and chemical transmission equipment;
- Equipment annual output over 12, 000 packs; Leading sales of special gas and chemical transmission equipment in China.

● Investment on research and development

Operating revenue (RMB): 3.151 billion+

R&D cost(RMB): 307 million+

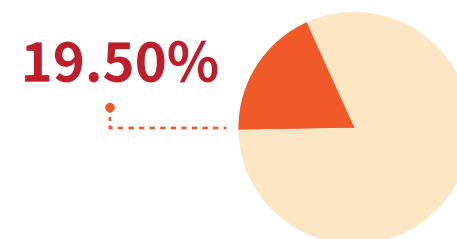
R&D cost ratio:



Employees: 1,811

R&D members: 354

R&D team ratio:



Work with governments and local communities

● Legal obligations

Led and supervised by the board, the company assesses compliance risks on a regular basis, prevents and investigates violations through effective measures. Meanwhile, the company continues to strengthen its compliance management. PNC's legal department plays the role of compliance management and supervision. PNC also continuously strengthens the legal and compliance awareness of employees through training, communication, and evaluation.

The company adheres to the highest standards of integrity in all business contacts, adopts a zero-tolerance policy, and prohibits any kinds of bribery or corruption. If any of the above circumstances is found, the company will immediately terminate the service and take legal action. PNC aims to promote a culture of integrity and compliance.

As a listed company with a sense of responsibility and mission, PNC Technology, on the one hand, creates jobs and economic revenue through business development for local community; on the other hand, fulfills its social responsibility by paying taxes.

In 2013, the company and its subsidiaries paid a total of ¥242 million in taxes. PNC ranked ninth on the tax ranking among the 7,043 companies in Zizhu Park in 2023. The company also won the Special Contribution Award for the second consecutive years.

● Safety

Creating a safe and secure working environment for employees is one of PNC's priorities. Guided by relevant laws and regulations, the company formulated policies and systems, and made labor safety as part of labor contracts. It defines responsibilities of both parties through formal agreements and promotes a positive culture. Through on-the-job training and internal communication, regular safety training, "safe operation month" activities, emergency drills and more practice, the company enhances the awareness and ability of employees to protect themselves, and strives to achieve the goal of zero fire, zero injury and zero accident.

The company is committed to improving employees' awareness and ability of self-protection. With regular safety education, every employee can always remember the importance of safety, so they are able to provide high-quality services to customers with a professional attitude.

● Community

PNC technology takes social responsibilities and gives back to the society. The company cares about the local communities where it operates and supports the public good. Over the years, the company makes great efforts to education, cultural activities, environmental protection and charity in local communities. In 2023, the company continued to fulfill social responsibility, and made it integrated with daily business operation.

● Optimizing systems and standardizing operation

In accordance with the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and other relevant laws and regulations, the company has established a corporate governance structure composed of the shareholders general meetings, the board of directors, the board of supervisors and the management with clear rights and responsibilities. The board of directors has established a strategy committee, an audit committee, a nomination committee and a remuneration and assessment committee. The directors, supervisors and independent directors of the company work diligently and dutifully, and senior managers of the company faithfully perform their duties in strict accordance with authorization of the board of directors, which better safeguards the interests of the company and effectively ensures the standardized operation of corporate governance.

At present, the board of directors has 5 members, including 1 female director and 2 independent directors. In 2023, the company held 16 board meetings which reviewed 78 reports or proposals. The board of supervisors has 3 members, including 2 female supervisors and 1 employee representative supervisor. In 2023, the company held 12 meetings of the board of supervisors to 40 reports and proposals were reviewed.

During the reporting period, under the requirements of laws and regulations, the company revised the articles of association, the bylaw of independent directors, the guidelines for the audit committee of the board of directors, the guidelines for the nomination committee of the board of directors and the guidelines for the remuneration and assessment committee of the board of directors, so as to continuously improve the corporate governance.

● Enhancing investor relations and information disclosure

For transparency, the company held a presentation of 2022 earning briefing, and also participated in a collective reception day of listed companies in Shanghai for presenting the interim report. The company held a presentation of 2023 Q3 earning briefing. The company has set a hotline and an email to interact with investors. On the SSE e-interactive platform, the company responded to 152 questions from investors.

During the reporting period, the company held 1 annual shareholders' meeting and 3 provisional shareholders' meetings. During the shareholders' meeting, the company counted votes separately regarding matters affecting the interests of retail investors. The company also added online voting to ensure that retail investors could vote remotely. With optimizing the voting mechanism and the multi-channels communication platform, the company is committed to guaranteeing retail investors' rights.

In 2023, the company fulfilled its obligation of information disclosure in strict accordance with the relevant requirements of laws and regulations. All matters were disclosed within 2 trading days. During the reporting period, the company disclosed 221 announcement documents, totaling about 3.0195 million Chinese characters.

● Share repurchase and cash dividends

During the reporting period, the company distributed a cash dividend of ¥1.3216 per 10 shares and 2 bonus shares per 10 shares, with an actual cash distribution of ¥42.3578 million; The company repurchased 1.44632 million shares by centralized bidding, and paid a total amount of ¥38.9985 million.

By the end of the reporting period, the company had accumulated a total dividend of ¥126.3555 million, repurchased 2.6992 million shares and paid a total amount of ¥83.9928 million.

● Focusing on the Core Process, whilst Serving the Key Process

With business strategies of "focusing on the core process, whilst serving the key process" and "determined to become a leading provider of process equipment and materials in China", the company competes with world famous brands as a player from China.

The company's strategies are always formulated according to the developing needs of downstream industries. As for short term strategy, the company always looks at opportunities of developing advanced processes in the integrated circuit industry, with a business focus on the product lines related to capital expenditure, especially in the field of semiconductor equipment. In terms of long-term strategy, the company has always focused on business opportunities of major downstream companies in stable operation stage, eyes on business sectors such as consumables and proprietary services with higher viscosity and longer cycle.

Specifically, the company makes its strategies by three guidelines: Industry cooperation, import substitution and innovation driven.

● Industry Cooperation

Focused on the core process, in terms of technology, the company strives to cover a wider range of processes, and build itself into a professional supplier of semiconductor wet process equipment; in terms of the market, the company strives to cover a wider customer base and provide more comprehensive and cost-effective products; in terms of production, the company strives to enhance better industrial chain cooperation, works with upstream and downstream companies in diverse forms, and strengthens its importance in the industry.

● Import Substitution

Due to international restrictions, semiconductor & integrated circuit process equipment manufacturers in China are now at a gold window period. The company seized the opportunity and made import substitution as its prioritized considerations in strategic planning. Therefore, the company brought in industrial investors and worked with downstream companies to support local suppliers, aiming to break the monopoly.

● Innovation Driven

The company has implemented the LAB2FAB® strategy since 2005, with investments catering to all kinds of novel needs generated in clients' development. The company's R&D and innovation closely follow customer needs, with a focus on attracting international senior R&D talents, which has been proved effective in long time practice.