

# 2018 企業社會責任報告

CORPORATE SOCIAL RESPONSIBILITY REPORT



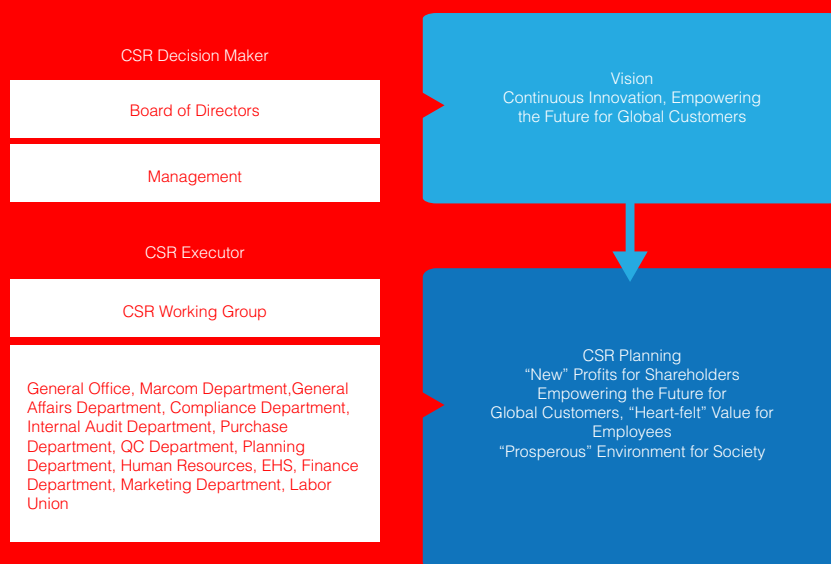
Our concept of sustainable development and the pursuit of long-term performance is to achieve these under consideration of economic, environmental and social aspects, as these aspects interact with and support each other, enabling long-term, sustainable performance. We strictly comply with all local applicable laws and meet social expectations in our operations, and we align our standards for environmental protection to those of the leaders in international industry. We devote ourselves to sustainable cities and communities. In following our corporate vision of *Continuous Innovation and Empowering the Future for Global Customers*, we promptly respond to Stakeholders, including customers, employees, investors, communities and countries where we operate, toward the goal of the sustainable development of enterprises and society.

### 1.1 Social Responsibility Policy

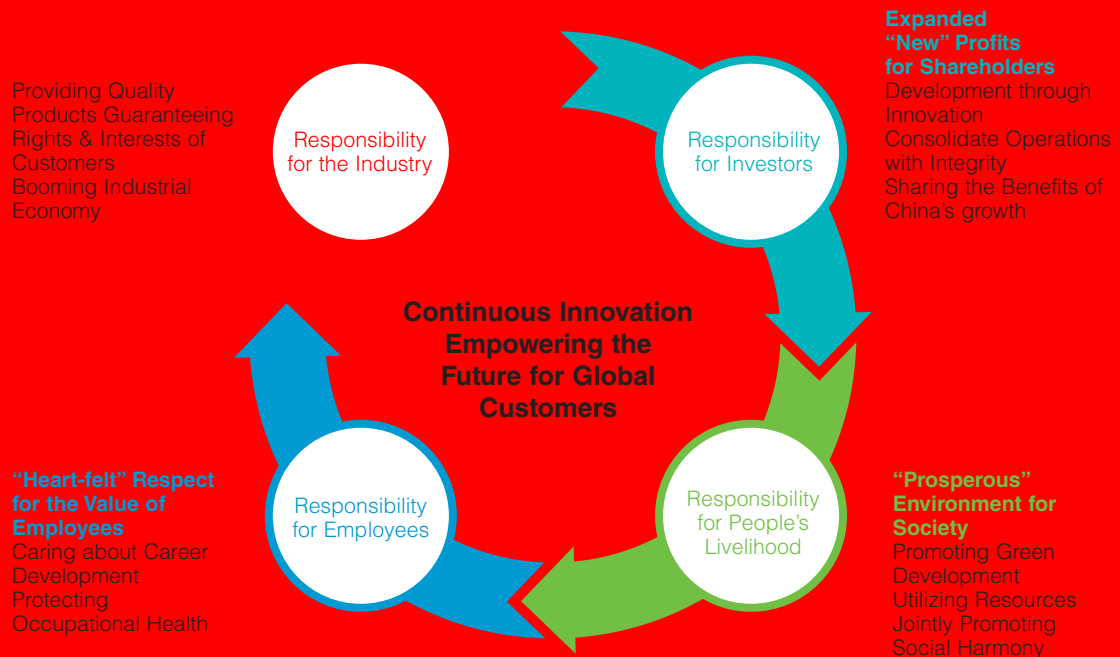
We believe the fulfillment of corporate social responsibility first requires pro-active adherence to and implementation of the highest international standards of business and social ethics while creating value for and sharing value with all Stakeholders. To this end, in addition to compliance with all laws, regulations and rules of the state in terms of operation, we also incorporate environmental and social responsibilities directly into our business strategies and operations. We take a prudent approach to manage our environmental and social risks by perfecting our management system, improving supply chain performance and reducing resource consumption and environmental emissions. We encourage innovation-driven development and foster innovative talents, thereby promoting social harmony.

### 1.2 Social Responsibility Management Mechanism

Effective social responsibility management also requires the ongoing attention of senior management and the involvement of all employees. We established a Corporate Social Responsibility ("CSR") working group to set up a CSR organization system that enables management to participate in and coordinate with the functional departments horizontally and member companies vertically. The working group comprises responsible officers from diverse functional departments.



Provided by the Board of Directors as the CSR Decision Maker, the following four aspects summarize the social responsibility of the corporate vision *Continuous Innovation and Empowering the Future for Global Customers*.



## 1.2 Involvement of Stakeholders

Based on the business and operational characteristics of our Company and leveraging the experience and practices in the industry at home and abroad, we have determined the following to be our Stakeholders: our shareholders, customers, employees; government agencies and regulators; partners, communities and the public. Our Company actively communicates with all of these Stakeholders via various channels and methods, including websites, media, meetings, reports and other business and social activities.

### Expectations and Responses of Stakeholders

|                                    |  |   |   |
|------------------------------------|--|---|---|
| Shareholders and senior management | Domestic and foreign investors holding equity and debt investments in our Company, and senior management members of the Company                  | Risk management, economic performance, industrial development, customer communication and satisfaction              | Shareholders' meetings, financial reports, performance reports, results road shows, etc.  |
| Customers                          | IDMs, systems and fabless semiconductor companies  | Protection of customer rights and information, product and service quality, customer communication and satisfaction | Product exhibitions, customer research, technical seminars, B2B (such as E-tapeout systems, WIP report and WAT report, etc.), customer service hotlines and complaints, customer satisfaction surveys, etc. |
| Employees                          | Our employees and contract personnel who serve our Company on a continuous basis   | Employee interests and welfares, employee health and safety, employee development and training                      | Employee activities, Employee Representatives Congress, Intranet, trainings, self-service systems and employee manuals, internal publications, etc.   |
| Government and regulators          | Industry, tax, environmental protection, security and other departments, local governments, SFC and other governmental or regulatory authorities | Compliant operation, green products, emissions management and energy utilization                                    | On-site visit, official correspondences, policy enforcement, information disclosure, etc.   |
| Partners                           | Suppliers, research institutions, industry associations, etc.  | Industrial development, compliant operation, product and service quality, customer satisfaction and communication   | Public tender conferences, strategic cooperation negotiations, exchanges and visits, etc.   |
| Communities and the public         | Communities in which we operate, the public and media, etc.  | Green products, emissions management, community and public benefit  | Community activities, employee volunteer activities, public welfare activities, social cause campaigns, etc.  |

### **1.3 Risk Management and Identification and Analysis of Substantive Issues**

#### *Risk Management*

We continuously improve our risk management system by upgrading relevant processes and policies, thereby effectively enhancing our risk management abilities. Since 2016, the Company has established procedures for risk management through Internal Audit department, which issued the guideline "Rules about Comprehensive Control of Risks" and launched related projects. In 2018, based on the three lines of defense for risk management and in consideration of both inclusiveness and importance, the Company continuously optimized the risk map, identifying a total of 86 main risk factors, and systematically prevented or supervised internal and external risks to the Company.

The Company developed a risk management platform, which fully realizes informatization of processes from uploading risk map amendments, collecting risk information and sending down risk questionnaires to forming a risk evaluation report, thus improving the digitization level and the management efficiency of risk information. We also conducted the annual comprehensive risk evaluation, designed a questionnaire about risks, carried out interviews with management, identified key areas of risk, and formed an annual risk management report. We adopted a quarterly risk communication and reporting mechanism under which each business department collects and reports risk events in the department, quarterly or from time to time. We held risk department management meetings from time to time and carried out two risk trainings in 2018, in which a total of 22 managers at all levels in the Company communicated risk problems in all business lines.

## Key Operational Risks and Countermeasures

|                        |                                   |  |
|------------------------|-----------------------------------|--|
| Strategy               | Strategic planning                | The Company formulated strategic objectives from top to bottom, appropriately deconstructed and implemented such objectives in specific business models of corporate operation, to ensure the accomplishment of strategic objectives   |
|                        | Investment Decision               | We conduct prudent pre-investment analysis, continuous process supervision, and effective post-investment evaluation to control the investment risk to an acceptable range in a multi-pronged manner   |
|                        | Supervising and management system | Our well-organized systems and processes, taken together with the Company's risk management system with its three lines of defense, can efficiently assure accomplishment of strategic objectives  |
| Operation              | Reserve of Talents                | We set up the talent resume database, carried out the talent inventory, continuously explored the recruitment channels, optimized the salary structure, and comprehensively enhanced the company's attraction and employee satisfaction by combining the synergies of brand building and cultural promotion. |
|                        | Information security              | Based on our <i>Management Rules about Information Security</i> , the Company established its information security framework and management policy. We implement the risk evaluation procedure for information security every year to maintain the optimal interests of all Stakeholders                     |
|                        | Research and development          | The structured R&D closed-loop mechanism conducts comprehensive monitoring on R&D initiation, implementation and post-evaluation, and helps develop new products with commercial value continuously and in a timely fashion  |
|                        | Intellectual property             | The comprehensive intellectual property protection awareness and management procedures protect the intellectual property rights of the Company and customers   |
| Finance                | Cash flow                         | Monthly cash flow statements record cash flows and dispatch the same to relevant departments for follow-up actions   |
|                        | Exchange fluctuations             | Transactions denominated in foreign currencies are settled in the same foreign currency whenever possible to reduce the need for foreign currency exchange, thus reducing risks arising from exchange rate fluctuations  |
| 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   |
|                        | Occupational health               | We have developed the goals, indicators and program management forms of 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")                            |

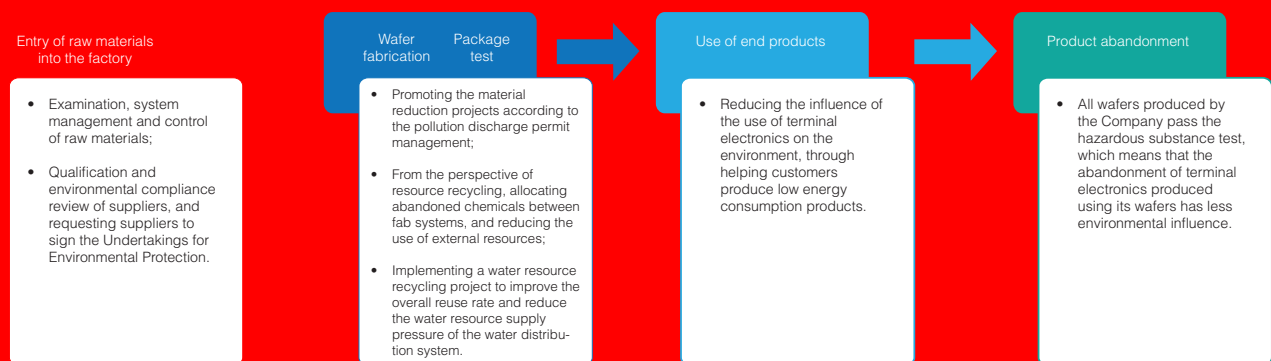


We take “Zero Accidents” and sustainable operation as our goal, and devote ourselves to clean production and continuous improvement. In 2018, we continued to carry out the projects related to environmental protection and technological upgrading, in an effort to pursue better performance in energy conservation and emission reduction, waste management, etc. As of the end of 2018, the Company was not subject to any environmental complaints or punishments or involved in any environmental pollution events.

## 2.1 Environmental Management System

The Company gradually shifted its focus from production management to control of product life cycles and risks, and was committed to improving environmental performance at every step of the process, including procurement of raw materials, production and waste management; and passed the new ISO 14001:2015 environmental management system certification in 2018. In terms of supervision and management, we added a review and follow-up system to the security management system in the Company's intranet, so as to collect and list matters violating environmental protection regulations which are identified in daily management, and follow up and record subsequent collections, through regular system reminders.

In 2018, the Company signed the “*Responsibility Statement of Enterprises in Key Industries in Pudong New Area for Soil Pollution Prevention*”. Throughout the year, it completed 26 energy saving and emission reduction projects with an electricity saving of 9,907 MWh, water saving of 4.279 million m<sup>3</sup>, a CO<sub>2</sub> reduction of 2,835.9 tons and the generation of economic benefit of RMB17.459 million in total.

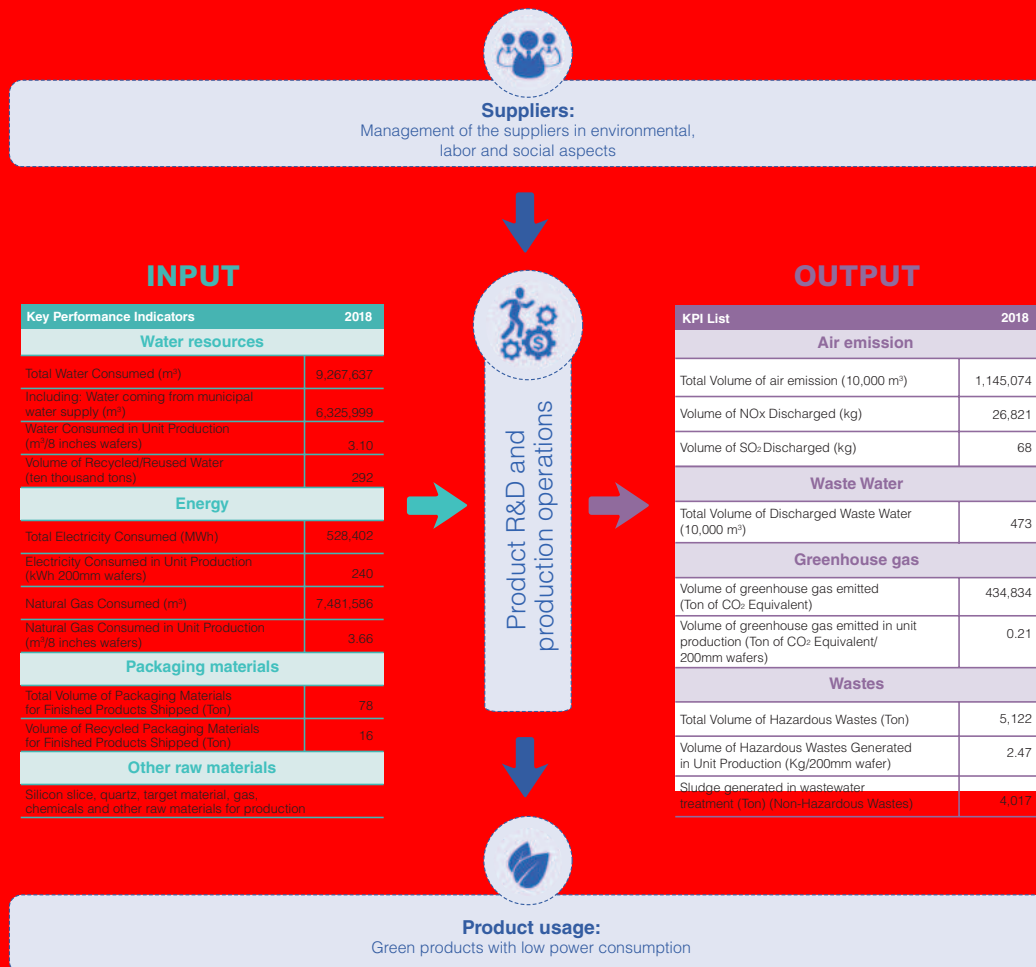


**Environmental Management Throughout Product Life Cycle**



## Overview on Environmental Management Performance

The Company took full consideration of the environmental impacts arising from our own business operations: As the "inputs", the Company's production and operation requires the use of such resources as energy, water and other raw materials; as the "outputs", emissions such as air emission, water and solids are generated. In addition, we have been considering promoting supplier environmental management and providing low-power green products in an effort to achieve better environmental management performance throughout the value chain.



## 2.2 Action and Achievements in Environmental Management

### Energy Management

The Company's energy consumption mainly includes electricity, heat and natural gas (and a small amount of gasoline and diesel). The "Procedure of Resource and Energy Management" document specifies applicable principles of resource and energy management. This enables source-control continuous improvement while satisfying and enhancing production efficiency based on the principle of saving energy, reducing consumption and wastes. It reduces environmental impact while lowering production cost so as to achieve sustainable and environmentally harmonious development. Additionally, the Company established energy saving goals during the "13th Five-Year Plan" period by referring to the control objectives for the total amount of energy and the energy utilization efficiency improvement objectives of the Shanghai government in 2020: As of 2020, the Company's comprehensive energy consumption of RMB10,000 output value will decrease by 12% as compared to that in 2015, and the unit production consumption of 200mm IC wafers will decrease by 13% as compared to that in 2015; and the Company will entrust a third-party agency to conduct energy auditing and propose technological upgrading solutions for energy savings.

### Energy Saving Work and Achievements in 2018

|   |  |
|---|--|
| Change of BDWGOJ01/BDWGOS03 drain method  | Monthly electricity saving of approximately 1,000 kWh and monthly water saving of approximately 24 tons        |
| Installation of DAS scrubber backup system  | Average electricity saving by the equipment more than 20%  |
| Installation of a power-saving valve at the exhaust end of a dry pump (new in 2017)   | Average electricity saving by the equipment more than 20%  |
| FAB1A OAC dew-point temperature adjustment  | Annual electricity saving of 5.921 million kWh and annual reduction of 1,204 tons of standard coal consumption |
| Energy-saving transformation of air conditioning equipment at the second floor  | Annual electricity saving of 0.835 million kWh and annual reduction of 415 tons of standard coal consumption   |
| Reduction in the thickness of polycrystalline silicon to reduce energy consumption, consumption and emission of relevant chemical gas | Annual electricity saving of 0.635 million kWh and annual reduction of 286.3 tons of standard coal consumption |
| Simplification and combination of 0.18CE inter-metal deposition steps   | Annual electricity saving of 0.339 million kWh and annual reduction of 136.8 tons of standard coal consumption |
| Reduction in the test time of Cypress S8 WAT  | Annual electricity saving of 0.308 million kWh and annual reduction of 124.4 tons of standard coal consumption |
| Transformation of 10kV power transformation and distribution system at the north area of Fab 3  | Annual electricity saving of 0.268 million kWh and annual reduction of 106.2 tons of standard coal consumption |

### *Water Resource Management*

The Company mainly uses water supplied by Shanghai Municipal Administration. In addition, some of our water comes from recycled water from our production facilities and condensate water from air-conditioning. Through technological reform and recycling, we actively seek ways of improving efficiency in saving water and utilizing water resources. The Company carried out water recycling and recycled pure water for process manufacturing purposes and used other water (air-conditioning condensate water) to replenish water for the cooling tower. The Company totally recycled 2,920,000 cubic meters of water a year, accounting for 32%<sup>1</sup> of the total water consumed.

### **Water Resource Saving Work and Achievements in 2018**

|   |   |
|---|---|
| Water saving work   |   |
| FAB1A OAC dew-point temperature adjustment  | Annual water saving of 4.245 million m <sup>3</sup> |
| Reduction in the thickness of polycrystalline silicon to reduce energy consumption, consumption and emission of relevant chemical gas | Annual water saving of 23.1 thousand m <sup>3</sup> |
| Reduction in the process time of BEWAAD02 OF  | Annual water saving of 4.7 thousand m <sup>3</sup>  |

### *Prevention and Control of Pollutants*

In prevention and control of pollutants, we follow the rules and regulations related to environmental protection and relevant matters. The waste discharged during production includes sulfuric acid mist, hydrogen chloride, nitric oxide, ammonia and volatile organic compounds. We established a system for processing air emission that meets new requirements for controlling emissions. This system can eliminate over 90% of the VOCs generated. In terms of waste water discharge, the Company began adoption of the Grade B Standard of the GBT 31962-2015 (Waste Water Quality Standards for Discharge to Municipal Sewers) in 2017, and reduced the discharge through recycling washing water used for production and manufacturing in the factory.

In terms of pollution discharge and information disclosure, the Company carried out online monitoring of waste water, with relevant data disclosed on the Environmental Information Disclosure Platform for Shanghai Enterprises and Public Institutions, thus improving the transparency of the environmental information of the Company.

### **Pollutant Discharge Management**

|  |   |   |
|--|---|---|
| Air emission   |   | Up-to-standard discharge after removing most of the components through a washing tower<br>Purification through a washing tower<br>Purification through activated carbon adsorption, or combustion after concentration<br>Removal through a dust-extraction unit |
| Acid air emission  |   |   |
| Alkaline air emission (mainly ammonia gas)                               |   |   |
| Organic air emission   |   |   |
| Dusty air emission (mainly small particulate matters of silicon dioxide) |   |   |
| Waste water  | pH, COD, ammonia nitrogen, fluorine, etc. | After treatment, up-to-standard discharge through a pipeline into a designated urban sewage pipe network  |

<sup>1</sup> The calculation method is as follows: the total annual water recycled/(water consumption from municipal water supply + wastewater reuse) \* 100%.

### Discharge Reduction Work and Achievements in 2018

|  |   |
|--|---|
| Replacement of valves of the catch-basin of Fab 1          | Ensuring the compliance of discharge management                                   |
| Optimization of the drainage system around Fab 1           | Additionally, providing hardware support for management of emergent discharge     |
| 0.18um Product DSTI CMP optimized                          | Expected monthly reduction of 700 litres of grinding fluid consumption            |
| Transformation of RO and No.2 UV zones for noise reduction | Reduction in the risk of emission of factory boundary noise                       |
| Sewage collection transformation of garbage chambers       | Avoiding the possible risk of discharging the combination of rain and contaminate |
| Transformation of the No.2 acid exhaust washing tower      | Improving the ability to manage and control up-to-standard discharge              |
| Installation of a digital flow meter on the scrubber       | Improving the ability to manage and control up-to-standard discharge              |

#### *Wastes Management*

Wafer production generates hazardous wastes, such as waste acid and isopropanol. We authorized a qualified third-party company for treatment of these wastes, mainly by means of incineration, physical-chemical treatment and recycling. The Company has formulated a Waste Management Procedure, standardized waste management operations, recorded and managed waste treatment through the unified environmental protection management system of the government to ensure that all transportation records are traceable and controllable. The non-hazardous wastes such as sludge generated in wastewater treatment were treated by the wastes disposal agency by landfill.

Moreover, the Company entrusted the Wastes Management Center of Shanghai Pudong New Area to uniformly clear and transport the domestic wastes and kitchen garbage on a regular basis.

### Treatment Methods for Hazardous Wastes

|                             |   |
|-----------------------------|---|
| Recycling                   | Such as waste acid, waste isopropanol and waste phosphoric acid   |
| Physical-chemical treatment | Such as waste glass bottle, 200L chemical barrels, and waste liquid from laboratory   |
| Incineration                | Such as cleaning cloth, plastic bottles, organic waste liquid, waste activated carbon, waste resin, and arsenic-containing wastes |

#### *Greenhouse Gas Management*

The emission of large amounts of greenhouse gases such as CO<sub>2</sub> is the main contributor to global warming. We realize that climate change mitigation is of great importance to enterprises and the globe. We actively took part in relevant work of carbon emission trading by Shanghai Municipal Development and Reform Commission to cut greenhouse gas emission and slow down climate change. In 2018, the Company completed settlement of carbon credits of approximately 434,834 tons.

The Company also set an emission target according to the carbon trading management measure of Shanghai Municipal Development & Reform Commission and reduced the greenhouse gas emission through energy saving and emission reduction projects; in 2018, it invested a total of approximately RMB2.36 million in the transformation of energy saving and emission reduction technologies.



The Company always strives to provide our employees with an environment that is equal, healthy, safe and comfortable. We endeavor to protect all legitimate rights and interests of employees in accordance with related laws and regulations. We established a safe working environment and organized regular trainings and emergency drills for employees. We created a comfortable working and living atmosphere, and improved employee satisfaction. As of the end of 2018, no infringement of the rights and interests of employees occurred, and we were not subject to any employee-related complaints or penalties by the regulatory authority.

### 3.1 Rights and Benefits

#### *Overview of Employee Rights and Benefits*

We insist on fair, equal and open recruitment and employment, and are committed to providing equal opportunity in all our human resources activities such as employee selection, recruitment, promotion, transfer, and remuneration. We do not implement or engage in discriminatory policies or injurious actions for any reason, in particular nationality, region, color of skin, ethnicity, religion, age, family conditions or other factors. We have formulated and follow the guidelines described in "Employment Procedures and the Management Procedures for Trainees". We strictly check the identity information of our employees, and do not employ children or adolescents under the age of 16 years. We strictly followed related laws and regulations such as the Labor Law of the People's Republic of China and the Special Rules on Labor Protection of Female Employees, and resolutely prevented all compulsory labor practices.



### *Harmonious Relation*

An unblocked communication channel and sincere care are vital for the establishment of a harmonious labor relation. The Company has formulated the *Employee Communication Rule* and encouraged the fair, straight-out and multi-way communication between the Company and employees, between officers and subordinate officers, and among employees through the creation of multiple communication channels.

In addition, we established the *Employee Assistance Mechanism*, under which we provide assistance for needy employees at special festivals such as Spring Festival, May 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. We care for the demand and development of female employees, annually organizing a special physical examination, continuously improving human-based management of lactating employees, and providing relevant service facilities to ensure convenience for pregnant employees and lactating employees at work.

## **3.2 Health and Safety**

### *Occupational Health and Safety Management*

To guarantee the health and safety of our employees, we established mechanisms for occupational health and safety in compliance with requirements of OHSAS 18001. We clearly stipulate the guidelines about professional health and safety, and strictly follow laws and regulations on safety, health and environmental protection, advocating clean production and continuous improvement. We create a safe, healthy and comfortable working environment, strenuously pursuing the highest goal of "zero accidents" and sustainable operation, and work hard to become a model of corporate citizenship.

The Company mainly eliminated or controlled safety risks in production activities of employee from four major aspects, namely fire-fighting equipment, alarm monitoring system, personal protection and emergency measure. The Company annually engaged external institutions to test the production environment, and analyzed and corrected items below standard, so as to ensure that the production environment met the occupational exposure limits for hazardous agents in the workplace, and notified the test results to all employees.



Establishing a perfect a fire-fighting system and an automatic alarm system.

There are toxic, harmful and inflammable gas warning systems, liquid leakage detectors and ultra-high-sensitivity smoke detectors in the clean workshop.



Providing necessary personal protective equipment and emergency protective equipment;

Regularly checking whether there is a complete set of equipment and whether the equipment is effective.

Establishing an emergency rescue team and formulating emergency plans for different disasters;

Annually organizing special disaster prevention drills, and in a timely manner, correcting problems identified in the drill.

## Progress in Protecting Health and Safety of Employees in 2018

|   |   |
|---|---|
| Improving Safety and Responsibility System                              | <ul style="list-style-type: none"> <li>Internally, the <i>Safety Responsibility Statement</i> for the President, Executive Vice President, Vice President, Factory Director (Director), Department Chief and Section Chief and the <i>Commitment Statement of Guaranteeing Safety</i> shall be signed level by level, thus improving and perfecting the safety responsibility system that covers all departments and employees;</li> <li>Externally, we signed <i>Safety Management Agreement</i> and <i>Commitment Statement for Contractors on Safety Education</i> with all units and contractors that handle field operation which provide on-site service in the Company;</li> <li>The Company advanced the safety management information construction, promoted the warehousing in and out registration of chemicals, management of chemical substances, thermal imaging detection &amp; management of special equipment personnel, as well as integrated and information-based management of employee training materials and job position-related test library systems.</li> </ul> |
| Upgrading System for Identification of Hidden Risks                     | <ul style="list-style-type: none"> <li>Dangers and Emergency Plan 119 projects for safety reform and investment of RMB29,510,000;</li> <li>Establish the Company's safety contingency plan system of "1+12+1702" (namely, 1 comprehensive plan + 12 special plans + 1702 on-site treatment plans);</li> <li>Establish the response disposal mechanism to cope with the extreme weather, strengthen safety inspection, implement emergency plan drilling, pay attention to warning information, intensify emergency on-duty shift, and respond to actions timely;</li> <li>Establish mini fire stations in the three fabs, equipped with the firefighting equipment and materials, and give special fireman qualification trainings to ERC part-time personnel of the fabs;</li> <li>More than 4,300 employees were organized to receive fire- fighting trainings in 2018.</li> </ul>  |
| Safety training is standardized and examination for performance is done | <ul style="list-style-type: none"> <li>Carry out propaganda and training about "three knows and three cans" fire control principle, prepare the examination database, and organize online computer examination, and promote the standardization of safety training from the perspective of systems and mechanisms;</li> <li>In 2018, we organized 144 safety trainings, with 13,496 attendances;</li> <li>In 2018, we organized safety education for 7,215 contractor workers.</li> </ul>   |
| We organize competitions to activate awareness of safe production       | <ul style="list-style-type: none"> <li>We activated awareness of safe production and capability of safety and protection of employees by awarding them "ANKANG" labor competitions and special contribution awards.</li> </ul>  |



*"Diet, Accommodation, Travel and Medical Treatment", Comprehensive Assurance*

The Company is committed to the creation of a better life and service facilities for employees and the improvement in their life quality from four aspects of employees' lives, namely "diet, accommodation, travel and medical treatment".

|   |   |   |   |
|---|---|---|---|
| There are staff canteens and coffee shops in factory zones; Establishing a food safety supervision team and the mode of centralized purchasing of food materials and qualified supply chain management, and inviting employees and department representatives to carry out supervision; | Constructing a 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. | 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 such services at weekends. | Provide all employees with annual physical examination, including multiple cancer screening; Providing employees holding special positions with pre-job, on-the-job and off-the-job occupational health examination; Establishing an employee health archive for systematically tracking the change in the physical condition of employees. |
|---|---|---|---|

### 3.3 Training and Career Development

The Company has impeccable training facilities (special training rooms and equipment) and learning and sharing platforms (including online training registration management platform, training material and position-specific question bank), and where necessary, uses external resources for ensuring their learning and development.

In addition, the Company has established a complete 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, and continuously enhanced the training effect according to the training cycle, and continuously carried out improvement according to strategic development and employees' needs.

#### Employee training programs

|                                    |   |
|------------------------------------|---|
| Medium and senior level managers   | Create excellent leadership, and enhance management capability of medium and senior level managers  |
| Grass-roots managers               | Role recognition, self-management, management of others, and working management   |
| Tier-one managers                  | Develop management skills of tier one shift and team leaders, cultivate a tier-one 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   |
| Tier-one employees                 | Courses about theory and practical training of the semiconductor manufacturing module   |

The Company keeps track of international treaties, local and foreign laws and regulations that are relevant to our products and customers in places where our business operates, regularly updates our management policies governing products and services in terms of health, safety, labels, privacy, and other areas, and establishes quality assurance systems and customer service systems. As of the end of 2018, the Company had not been involved in any litigation regarding infringement of the interests of customers, nor did the Company receive any litigation from customers regarding product quality.

#### **4.1 Product Liability**

##### *Quality Control*

According to the philosophy of “the quality is vital for the existence of an enterprise”, the Company has formulated the Quality Management Policy, and successively passed the ISO 9001 quality management system and IECQ QC 080000 hazardous substance process management system certification, and successfully completed the upgrade from ISO/TS 16949 automotive quality management system certification to IATF 16949 in 2018. The new 16949 system focuses more on the risk management concept, while various risk control audit, management and review conducted by the Company since 2016 meet such requirement.

The Company implemented an inclusive quality management model in accordance with the Quality Management Policy covering the five far-reaching departments and sections of: quality system and customer satisfaction; supplier management and raw materials analysis; quality engineering; reliability assurance and failure analysis. To reduce human error, we established multiple management systems such as personnel management, equipment management, supply chain management, environment management, systems management, process management and customer quality control. With these reliable management systems, we are able to achieve real-time monitoring and testing over our entire product cycles from product R&D to production and after-sales feedback, carry out failure analysis on anomalies that may arise during the production and application processes, dig out the nature of problems, and work out corresponding corrective and preventive measures. The Company has established an optimal product recall system, and for the products whose functions or hazardous substances fail to reach the standard, our customers may return such non-conforming products to us within the warranty period. As of 2018, failure rate of the Company's products on the end-user side was lower than one in a billion.

#### **Product Quality Management System Certification**

ISO 9001 Quality Management System

November 6, 2001

IATF 16949 Quality Management Systems for Automotive Industry

August 2, 2005

IECQ QC 080000 Hazardous Substance Process Management System

November 18, 2009



## 4.2 Customer Service and Protection of Customers' Interests

### *Customer Service System*

According to the philosophy of "providing customers with more convenient and safer services", the Company has established an impeccable customer service system, including three main aspects, namely customer communication and feedback, customer complaint treatment and customer satisfaction.

In 2018, the Company integrated and optimized customer service management of all factory zones, enhanced the response to product technology demands of customers, reduced the error probability and improved the technical support service to customers.

### **Customer Communication and Feedback**

Making efforts to improve the customer service level, through multiple communication methods, including a customer service hotline, customer survey, regular quarterly/semi-annual business reviews with major customers, technical seminar and trainings.

The Customer Satisfaction Measurement Procedures require us to carry out a customer satisfaction survey once every six months and to develop an improvement scheme based on the scores given and any dissatisfaction expressed by customers.



### **Customer Complaint Treatment**

The Customer Complaints Handling Procedures sets out the processes for handling customer complaints, the responsible department(s) and key points for handling, and specifies that preliminary survey results and responses should be given within 48 hours upon receipt of a general customer complaint, and a final report should be complete and a reply shall be made within fourteen calendar days;

Through periodic collation and analysis of relevant information provided as to customer complaints, relevant departments are required to formulate an improvement plan, and the improvement effect is supervised and evaluated.

### *Protection of Customer Information*

The company attaches great importance to maintaining customer information security. We have established an ISMS information security management system, 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. An Information Security Committee was established within the Company to clarify the responsibility of information security.

Meanwhile, we audited our photomask partners to ensure the security of their data management and storage. As for waste masks generated during the production process, we return them to customers or destroy them, thus preventing to the utmost the disclosure of customer information on such waste masks. No incidents of infringement against laws or regulations concerning customer privacy occurred within the Company during the year.

The Company keeps track of international treaties, laws and regulations relevant to compliance in places where our businesses operate, and regularly updates management policies governing supply chain management, risk control, corruption and bribery prevention, business fraud, and other aspects. In addition, the Company is in strict compliance with such laws and regulations with respect to compliance in business operation as the *Criminal Law of the People's Republic of China*, the *Contract Law of the People's Republic of China*, and the *Anti Unfair Competition Law of the People's Republic of China*, thereby deepening the implementation of supplier review work and proactively engaging in the promotion of clean and honest industrial practices and anti-corruption governance. As of the end of 2018, the Company had not been involved in any litigation with respect to any commercial bribery or corruption.

### 5.1 Responsible Value Chain

Creating the CSR value chain is an important strategy of long-term development of the Company. It has established a perfect value chain management system, conducted comprehensive assessment, management and control of the environment and social risks of suppliers. It is committed to supporting the growth of suppliers to promote the development of the chip industry in China.



The Company established a *CSC Procurement Review Committee* and implemented an open bidding process as our main procurement approach to guarantee an equitable, open and fair procurement process. As a member of ECOVadis in France, we monitored the environmental and social risks of suppliers. By entering into the *Undertakings Against Commercial Bribery* with suppliers, we move to eradicate all unfair competition activities. In terms management of conflict minerals, the Company undertakes to refuse the purchase of conflict minerals, while proactively eliminating the metals derived from the supply chain that uses illegal mining areas, conflict minerals, or poor mining environment. We continuously update our investigation report about the production of conflicted mines.

The Company continued raising requirements on our suppliers with respect to labor, health and safety, environment, ethics and management system in accordance with the *Code of Conduct of the Responsible Business Alliance* (formerly known as EICC) and offering relevant trainings. Through the annual supplier assessment system, the Company requires those unqualified suppliers to make rectifications, thereby further promoting the development of our green supply chain.

We proactively support the growth and development of our suppliers in China, and constantly assist suppliers in improving their management capacities and production levels. In addition, we proactively encourage small and medium-sized enterprises to participate in the localization of key raw materials, including gases, chemicals and silicon wafers. Therefore, we've cultivated a growing batch of local raw materials and equipment suppliers, thereby powerfully promoting the development of chip design industry in China.













## Product Liability

| Product Liability  |      | 2019 | 2018 | 2017  |
|--|------|------|------|-------|
| Product return rate  | %    | <0.1 | 0.3  | 0.104 |
| Percentage of sold products recalled due to safety and health issues | %    | 0    | 0    | 0     |
| Customer complaint cases   | Case | 11   | 10   | 8     |
| Percentage of customer complaints addressed                          | %    | 100  | 100  | 100   |

## Supply Chain Management

| Supply Chain Management  |          | 2019 | 2018 | 2017 |
|--|----------|------|------|------|
| Total number of suppliers  | Supplier | 495  | 508  | 520  |
| Number of local suppliers  | Supplier | 375  | 385  | 393  |
| Number of overseas suppliers   | Supplier | 120  | 123  | 127  |
| Number of suppliers receiving evaluation <sup>1</sup>  | Supplier | 31   | 115  | 112  |
| Number of suppliers requiring rectification  | Supplier | 0    | 0    | 0    |
| The Percentage of suppliers of raw and auxiliary materials signing the Undertakings for Environmental Protection | %        | 100  | 100  | 100  |
| Proportion of raw materials spending on local suppliers <sup>2</sup>   | %        | 22   | 23   | 26   |

Notes:

<sup>1</sup> It means the number of suppliers on which the Company conducts evaluation with respect to labor, health and safety, environment and ethics.

<sup>2</sup> Raw materials purchased include: silicon slice, quartz, target material, gas, chemicals and other raw materials for production.



