

Introduction

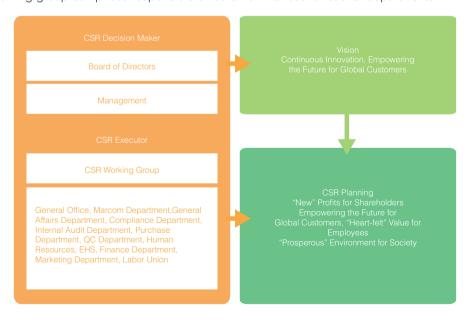
Our concept of sustainable development and the pursuit of long-term performance is to achieve these under consideration of economic, environmental and social aspects, as these aspects interact with and support each other, enabling long-term, sustainable performance. As a listed company operating internationally, 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 Social Responsibility Management System

1.1 Concept and Management

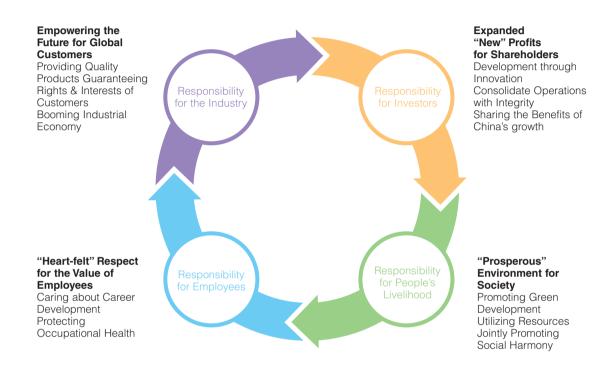
We believe the fulfillment of corporate social responsibility first and foremost requires pro-active adherence to and implementation of the highest international standards of business and social ethics while creating value for and sharing value with all stakeholders. To this end, our Company incorporates 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 recruit and foster diverse talents, thereby promoting social harmony.

Effective social responsibility management also requires the ongoing attention of senior management and the involvement of all employees. We established a 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 various functional departments.



Structure for CSR Management

The following four aspects summarize the social responsibility of the corporate vision Continuous Innovation and Empowering the Future for Global Customers as provided by the Board of Directors as CSR Decision Maker:



Implementation Focuses of CSR Planning of Hua Hong Semiconductor Limited

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. In 2017, the Company carried out a questionnaire survey of 22 external stakeholders, and identified substantive issues of concern by the stakeholders combined with expert opinions.

Expectations and Responses 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	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

We continuously improve our risk management system by upgrading relevant processes and policies, thereby effectively enhancing our capabilities in comprehensive risk management. Since 2016, the Company has established procedures for risk management through an internal audit department. It issued the guideline "Rules about Comprehensive Control of Risks" and launched related projects. In 2017, based on the three lines of defense for risk management, the Company refined and practiced the process, considering both comprehensiveness and importance, built up risk-oriented internal monitoring and an evaluation system, identified 366 last-level risks in 16 business processes, and continued rolling supervision of the Company's business process risks.

The Company conducted the annual comprehensive risk evaluation, designed a questionnaire about risks, carried out interviews with management, recognized key areas of risk, and prepared the annual risk management report. We adopted a quarterly risk communication and reporting mechanism to collect and report risk events within each business line every quarter. We carried out specific risk management trainings themed with "basic knowledge and practice about risk management and internal monitoring" and "specific training about risk management", to enhance risk management consciousness of management and business personnel.

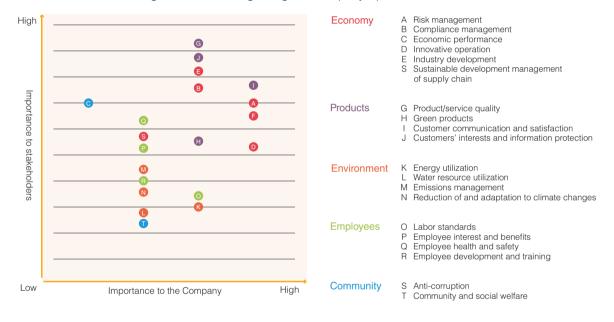
Key ESG Risks and Countermeasures

Risk Category	Content	Countermeasures
Strategy	Strategic planning	The Company formulated strategic objectives from top to bottom, appropriately decomposed and implemented such objectives in specific business models of corporate operation, to ensure the accomplishment of strategic objectives
	Supervising and management system	The well-organized systems and processes together with our risk management system with its three lines of defense can effectively guarantee the accomplishment of strategic objectives
Operation	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.
	Product mix	The Company's product mix is analyzed regularly and adjusted duly according to consumer demands, thus ensuring the product mix complies with market demands
	Information security	Based on our Management Rules about Information Security, the Company established the information security framework and management policy. We carry out the risk evaluation procedure for information security every year to maintain the optimal interests of the Company, shareholders, customers, suppliers and employees
	Intellectual property	The intellectual property protection awareness and management procedure protects the intellectual property rights of the Company and its customers
Finance	Cash flow	Prepare cash flow statements on a monthly basis to record cash flows and dispatch the same to relevant departments for follow-up actions
	Exchange fluctuations	Transactions denominated in foreign currencies are settled in 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 on a continuous and regular basis
	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")

Identification and Analysis of Substantive Issues

We check social responsibility issues on a regular basis, and identify the more substantive ones on which to focus our operations, reporting and disclosures through periodic identification, evaluation and screening. We consider both internal and external factors such as our strategic and operational direction, stakeholders' concerns and expectations, as well as national and international standards and policies.

In 2017, we continued referring to "Sustainability Reporting Guidelines (G4)" of the Global Reporting Initiative (GRI) and conducted a questionnaire concerning substantive issues with both internal and external stakeholders. Customer communication and satisfaction was most important to the internal stakeholders, reflecting the Company's emphasis on customers; product/service quality and customers' interests and information protection were most important to the external stakeholders, reflecting their concern regarding the Company's products and services.

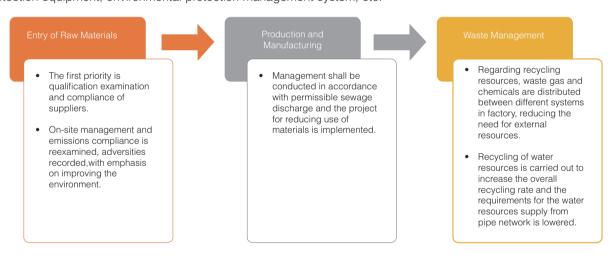


2 Environmental Responsibilities

We take "Zero Accidents" and sustainable operation as our goal, and devote ourselves to clean production and continuous improvement. In 2017, we continued to carry out the projects related to environmental protection and technological upgrading, and participated in carbon emissions trading management of Shanghai Municipal Development & Reform Commission, in an effort to pursue better performance in energy conservation and emission reduction, waste management, etc.

2.1 Environmental Management System

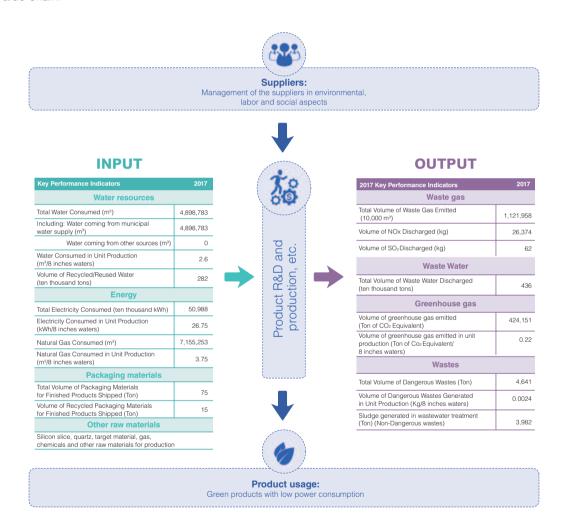
In 2017, the Company continued to advance and implement the upgraded ISO14001:2015 Environmental Management System, gradually shifted from a model advocating production and management to a mechanism focusing on control of product life cycles and risks, and devoted to improving environmental performance every step of the process, including procurement of raw materials, production and waste management. We formulated the "Pollution Risk Control Outline during Production Process" and established the Contamination Control Board (CCB) to be responsible for evaluating and managing pollution risks with respect to new materials and new equipment, new process development, process modification and changes in equipment and process control modes, thus ensuring product quality in production lines. In terms of supervision and management, we increased the verification tracking system as a part of the security management system of our intranet, which sorted out and listed the events that failed to meet environmental protection regulations discovered in routine management, and kept tracking records of subsequent improvements by means of regular system reminders. The Company also carried out eleven environmental protection trainings for new employees in 2017, the contents of which included the Company's environmental protection concept, environmental protection equipment, environmental protection management system, etc.



Environmental Management System Diagram

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 waste gas, water and solids will be generated. Moreover, we also considered promoting environmental management of the suppliers, and provided green products with low power consumption, in an effort to achieve better environmental management performance in both upstream and downstream of the value chain.



2.2 Action and Achievements in Environmental Management

Energy Management

In 2017, Shanghai Municipal Government issued the "13th Five-Year Plan" of Shanghai for Energy Conservation and Response to Climate Changes, and put forward the objectives for total energy control and energy utilization efficiency improvement of Shanghai in 2020. We always regard clean production, energy conservation and emission reduction as an important annual task of the Company.

The Company's energy consumption mainly includes electricity, heat and natural gas (and a small amount of gasoline and diesel). We worked out the "Procedure of Resource and Energy Management", specifying the principles of resource and energy management so as to achieve sustainable and environmentally harmonious development. This enables source control and continuous improvement while satisfying and enhancing production efficiency based on the principle of saving energy, reducing consumption and wastes and reduces the impact on environment while lowering production cost. In 2017, the Company revised its "Procedure of Resource and Energy Management", and further specified details about work contents and duties of the Finance Department, General Affairs Department and Security Department. Apart from this, the Company established the energy saving goals during the "13th Five-Year Plan" period by referring to the energy utilization objectives of Shanghai 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 8-inch 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 saving. The Company implemented over ten engineering downsizing projects, and totally reduced the fabrication of more than 880,000 wafers, which saved the electricity of over 603,600kWh, and also saved many other kinds of resources such as chemicals, water and gas, generating economic benefits of more than RMB2.14 million.

Major Energy-Saving Projects and Measures in 2017	Achievements
Reducing SCR operating step for each silicon wafer on 0.18umCE platform	368.6kWh of electricity saved every year, reducing energy consumption equal to 148.9 tons of standard coal.
Reducing photo mask for Flash product	310kWh of electricity saved every year, reducing energy consumption equal to 125.24 tons of standard coal.
Upgrading and transformation of MAU-31 air-conditioner in the chemicals warehouse of Fab 3	265kWh of electricity saved every year, reducing energy consumption equal to 107.06 tons of standard coal.
Fresh-air humidity control setting and adjustment of the peripheral air-conditioners in Fab 2	222.3kWh of electricity saved every year, reducing energy consumption equal to 89.81 tons of standard coal.
Using new energy-saving chiller on the super-e platform	70,080kWh of electricity saved every year
VOC-002 control and air valve regulating improvement of Fab 3	69,000m³ natural gas saved every year, reducing energy consumption equal to 81.21 tons of standard coal.
Energy-saving project of down-regulating the pure water and raw water preheat set value	46,000m³ natural gas saved every year, reducing energy consumption equal to 55.57 tons of standard coal.
Replacing warm pure water with cold pure water of FAB2	60,000m³ natural gas saved every year

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 purpose and used other water (air-conditioning condensate water) to replenish water for the cooling tower. The Company totally recycled 2,820,000 tons of water a year, accounting for 57.6% of the total water consumed.

Measures for Improving Water Utilization Efficiency in 2017	Achievements
Concentrated water recycling of pure water UF in Fab 2	58,300m³ water saved every year
Water-saving transformation project of Local Scrubber in Fab 2	12,100 m³ water saved every year
WPA QDR circulating flow to reduce and save use of pure water	9,500 m³ water saved every year
Increasing new RO water recycling device in Fab 1	>300,000 m³ water recycled every year
Increasing new OAC condensate water recycling device in Fab 1	49,000 m³ water recycled every year

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 waste gas that meets new requirements for controlling emissions. This system can eliminate over 90% of the VOCs generated. In terms of waster water discharge, the Company started to implement Level B standard of GBT 31962-2015 (Water Quality Standard for Wastewater Discharged to Municipal Sewers) since 2017.

In terms of sewage discharge monitoring and information announcement, the Company implemented online wastewater monitoring, continued improving the online monitoring system in 2017, and announced relevant data on Environmental Information Announcement Platform of Enterprises and Public Institutions in Shanghai, to enhance the transparence of the Company's environmental information.

Greenhouse Gas Management

The emission of large amounts of greenhouse gases such as CO₂ is the main contributor to global warming, therefore it is of great importance to us to reduce emission of such gases, as slowing down global warming is advantageous to the whole world. We actively took part in relevant work of carbon emission trading by Shanghai Municipal Development & Reform Commission to cut greenhouse gas emission and slow down climate change.

In 2017, the Company has completed settlement of carbon credits of 2016, and purchased 2,500 tons of carbon credits via the Trading Platform of Shanghai Carbon Exchange in May, for reserve purpose.

Wastes Management

Wafer production generates dangerous 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. At the same time, we strive to cut the volume of wastes and worked out annual plans for eliminating dangerous wastes. In 2017, we cut 55.9 tons of waste photoresist, waste stripping liquid, waste sulfuric acid, waste isopropanol and waste phosphoric acid. The non-hazardous wastes such as sludge generated in wastewater treatment were treated by the wastes disposal agency by landfill. 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

Treatment Method	Type of 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

2.3 Green Products

Control of Hazardous Substances

In accordance with the regulation Restriction of Hazardous Substances (RoHS) concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) as formulated by the EU, as well as customer requirements, we worked out standards for control of hazardous substances, established a system to do so and carried out risk evaluation for raw materials in production, thus guaranteeing that products are in compliance with requirements of customers regarding control of hazardous substances. The Company entrusted Societe Generale de Surveillance S.A. (SGS) to conduct tests for hazardous substances, and realized 100% compliance in investigation of hazardous substances in 2017. All manufacturing devices of the Company are verified to comply with the standards and requirements of QC 080000 reduction of reducing hazardous substances in electronic elements and apparatus and products.

Energy Saving of Electronic Products

Along with the continual development of green energy, Industry 4.0 and new energy automobiles, the need to save energy and reduce emission becomes increasingly urgent. Reducing the high energy consumption of electronic and electrical products is one of the hot topics of the industry today. Power semiconductor devices are playing a more and more important role such fields as mobile communication, consumer electronics, switching power supply, motor drives, LED drives, new energy automobiles and intelligent grids, and become the core elements to reduce power consumption and enhance efficiency. By virtue of our independently developed competitive Deep Trench Super Junction (DT-SJ) and Field Stop IGBT (FS IGBT) processes, we provide customers with product solutions featuring lower on-resistance, smaller chip area, faster switching speed and lower switch consumption. In the future, the Company will continue researching and developing power technology, provide manufacturing platforms for green chips with lower consumption, higher efficiency and smaller size, and create the future of green chips.

2.4 Green Culture

We persist in promoting environmentally friendly business concepts and undertake external and internal environmental protection measures. In terms of routine operation and administration, the Company implements a sustainable development concept using science and technology and by adopting good practices. For example, we adopt webconnected printing and use office automation equipment intensively to control paper consumption, and we also encourage the use of recycled paper to support recycling. The Office Application System for General Affairs and Food Management System was developed for online use which makes it convenient to handle relevant work, improves work efficiency and saves consumption of paper. At the same time, the Company strongly supports the use of electric vehicles, and uses new energy vehicles in its own vehicle fleet. The Company took part in electronic wastes recycling activities organized by alahb.com to prevent secondary contamination of the environment while recycling wastes. The Company classified domestic garbage in factory zones by four categories of dry, wet, recyclable and hazardous garbage according to the requirements of the Environmental Protection, City Appearance and Health Administration of Pudong New Area for obligatory classification of domestic garbage generated by enterprises and public institutions, and we also advocated garbage classification among employees and cleaning personnel.

3 Employee-Related Responsibilities

We always strive to provide our employees with an environment that is equal, healthy, safe and comfortable. We endeavored 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 carried out colorful employee caring activities. As of the end of 2017, 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

Employment

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; we adopted and signed the Collective Contract and Special Collective Contract for Female Employees in December 2017.

Remuneration and Benefits

To attract and retain talent, we provide our employees with competitive remuneration and comprehensive benefit plans; we also pay full statutory social insurance, purchase commercial supplemental coverage for our employees, including accident insurance and major-illness medical insurance, and provide free supplemental medical insurance to children and spouses of those employees in financial distress. We guarantee the rights of our employees to rest and off-duty days in compliance with national statutory requirements, and also allow supplemental annual paid leave. For the Mid-Autumn Festival and New Year's Day, the Labor Union arranges to send gifts to the employees. In addition, in order to help those employees from remote areas to be recorded in their local census register, the Company has formulated "Measures for Employees from Other Provinces or Cities on Application for Registration in the Census Register of Shanghai" to help solve related worries of employees. In 2017, the Company introduced a total of 35 professionals.

Mechanism of Democratic Communication

A smooth communication channel and sincere concern are important to establishing harmonious labor-capital relationship. The Company convened regular seminars of employee representatives to coordinate with employee complaint issues, know about employee appeals, and invite employees into the daily management of the Company and establishment of systems. Meanwhile, we listened to employees through various means, including round-table luncheons and reasonable suggestions, so as to ensure the smoothness of communication channel.

The Company formally established the platform for gathering reasonable suggestions on 1 August 2016, encouraging employees to offer suggestions positively. As of the end of 2017, a total of 282 reasonable suggestions had been submitted via the platform, of which 194 suggestions were accepted by corresponding departments, with the contents thereof covering the departments of general affairs, personnel, safety, trade union and IT. We implemented such suggestions and finished improving 123 of them. The platform has become a rapid and effective channel for communication with and suggestions from employees.

Care and Support for Employees

We have established a supporting mechanism and a "home" for employees to provide long-term assistance to employees with difficulties. For the retired employees, the Company's Trade Union organize condolence activities during the Spring Festival and the Double Ninth Festival every year, and cover all of our retired employees in Shanghai with the mutual-support supplemental medical insurance for hospitalization, and renew the insurance every year to safeguard retired life of these employees. For female employees, we established "Mom with Love" in all factories and equipped all nursing rooms with refrigerators, workbenches, electric power and deck chairs, with an aim to provide a private, clean, comfortable and safe space for the female employees during their pregnancy and suckling period. Moreover, the Company has started decorating the "Mom with Love" nursing rooms since November 2017, designed and planned according to the establishment standards stipulated by Shanghai Federation of Trade Union, and strived to be recognized as a municipal-level five-star standard unit in 2018.

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 OHSAS18001. 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 citizen of the world.

In 2017, we strengthened study of the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, reevaluated and adapted the Company's job positions with occupational hazards and the occupational hazard factors; we formulated a series of management strategies for chemicals in accordance with Shanghai Regulation on Safety Management of Hazardous Chemicals, including qualification inspection of chemical suppliers/forwarding agents, scientific planning for chemical supply/collection protection, etc., and gave priority to promoting information management regarding entry and exit of dangerous chemicals.

Measures for Protecting Health and Safety of Employees in 2017

Measures for Protecting Health and Safety of Employees	Main Content
Improving Safety and Responsibility System	 Internally, the Safety Responsibility Statement for the President, Executive Vice President, Vice President, Factory Director (Director), Department Chief and Section Chief and the Commitment Statement of Guaranteeing Safety shall be signed level by level, thus improving and perfecting the safety responsibility system that covers all departments and employees
	 Externally, we signed Safety Management Agreement and Commitment Statement for Contractors on Safety Education with all units and contractors that handle field operation which provide on-site service in the Company
	 The Company advanced the safety management information construction, promoted the warehousing in and out registration of chemicals, management of chemical substances, thermal imaging detection & management of special equipment personnel, as well as integrated and information-based management of employee training materials and job position-related test library systems.
Upgrading System for Identification of Hidden Risks	 Dangers and Emergency Plan 114 projects for safety reform and investment of RMB20,000,000
	 Establish the Company's safety contingency plan system of "1+4+1782" (i.e., 1 comprehensive plan + 4 special plans 4 + 1782 on-site treatment plans);
	 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;
	 Establish mini fire stations in the three fabs, equipped with the firefighting equipments and materials, and give special fireman qualification trainings to ERC part-time personnel of the fabs;
	 More than 4,000 employees were organized to receive fire fighting trainings in 2017.
Safety training is standardized and examination for performance is done	 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;
	• In 2017, we organized 60 safety trainings, with 5,258 attendances
We organize competitions to activate awareness of safe production	 We activated awareness of safe production and capability of safety and protection of employees by awarding them "ANKANG" labor competitions and special contribution awards

Full Coverage for Health, Food, Lodging, Transportation

In terms of medical treatment, we provide annual physical examinations for all employees. Additionally, we offer the employees engaged in special positions with occupational disease checkups before they start in said positions, during performance of their duties in that position, and after leaving such positions. In 2017, we increased the thyroid examination program for all employees, and increased the TCT examination program for female employees above 40 years old. In terms of health management of employees, we tracked up the change of employee health status via the employee health profile system, and improved the corresponding management capabilities.

In terms of food, the Company operates its own cafeterias and cafes in factory zones, ensuring a safe, nutritious, and healthy diet for all employees. We established a management model of centralized food procurement and qualified supply chains, providing an assured and reliable system for safe sources of food. Employees and departmental representatives were invited to provide supervision. In 2017, we presented the operating guidebook for the dining halls and kitchens, carried out diet nutrition balancing and oil & salt control management on dining halls of the three fabs, and actively positively instructed the employees to build up the awareness of healthy diet.

In terms of lodging, the Company continued improving lodging construction and services for the employees. In 2017, the Company opened a new employee dormitory and increased 364 beds. Each room has its private bathroom, 24-hour water heating and WIFI services. Within the lodging area, we also provide libraries, computer rooms, pool tables, laundry rooms, TV rooms, HIVE boxes and other supporting facilities, to satisfy the requirements of our employees in their daily life.

In terms of transportation, we provide a travel allowance for employees to facilitate their commuting, and provide free shuttle buses between the industrial park, subway station and employee dorm. The Company also provides commuting buses for the employees living in areas where transportation is inconvenient, and arranges extra shuttle buses for those working overtime on weekends.

3.3 Training and Career Development

Employee development is the source of energy of an enterprise. Therefore, we care about employee career development and help our employees work out their career plan by designing their individual career development roadmap within the three categories of management, technology and functional positions. We provide training for employees based on our published Courses of Training, and offer training schemes specifically targeted to medium and senior level managers, grass-roots managers, tier-one managers, newly-employed university students and tier-one employees. In 2017, percentage of the employees receiving regular performance and career development assessment reached 100%. At the same time, we support continuing education of our employees and provide education allowances. In 2017, 4 of our employees received allowances for masters and doctoral degrees in engineering.

Employee training programs

Trainees	Training Contents
Medium and senior level managers	Create excellent leadership, and enhance management capability of medium and senior level managers
Grass-roots managers (including directors, chefs and other 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

4 Products and Customers

We keep 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 update our management policies governing products and services in terms of health, safety, labels, privacy, and other areas, and establish quality assurance systems and customer service systems. As of the end of 2017, 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

Based on the philosophy of "Quality Is a Lifeline of an Enterprise", the Company devoted itself to implementing a comprehensive quality management model covering the five comprehensive departments and sections of quality system and customer satisfaction, supplier management and raw materials analysis, quality engineering department, reliability assurance department, and failure analysis department in accordance with the Quality Management Policy. 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 entire 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 and we shall repair or replace such products free of charge. Our sound system-based management provides further assurance that products manufactured by us are in conformity with the customer requirements and are free from defects in material and workmanship. As of 2017, failure rate of the Company's products in the end user side was lower than one in a billion, and no product was recalled.

Product Quality Management System Certification

Certification	Date of passing the certification
ISO 9001 Quality Management System	November 6, 2000
ISO/TS 16949 Quality Management Systems for Automotive Industry	August 2, 2005
IECQ QC 080000 Hazardous Substance Process Management System	November 18, 2009

Technological Innovation

"Innovation is the core, the source of energy and the only way towards development." The Company continuously achieved outstanding technological innovation and continues to strengthen R&D in multiple fields such as eNVM, power discrete, radio frequency, analog and mixed signal, and power management ICs, we made efforts to construct the industry-university-research "three-in-one" technological innovation system by combining the Science and Technology Association and Expert Workstation, thus harvesting multiple results in both technological innovation and patent generation and licensing.

Since its establishment, the Science and Technology Association of the Company has organized nine call activities for various papers, including call for papers related to CSTIC, PCIM and power discrete, as well as appraisal and selection of scientific and technical papers among the Group; the Company achieved good results in various appraisal and selection activities, including the first, second and third prize of 2016 Technology Conference of the Group, the third prize of the Ninth Scientific and Technical Papers Award of Pudong New Area, etc. For the recent three years, the Expert Workstation has applied for 347 invention patents in total for cooperation projects, while the jointly trained PhD candidates have published 14 papers in total in core journals by SCI and El. By the end of 2017, we had acquired 2,987 issued patents, including 122 issued US patents.

Intellectual Property Protection

As a science-oriented enterprise, we advocate independent innovation and respect intellectual property rights in our research and development of application-specific integrated circuits, including intelligent chips and information security chips. We continuously implemented the System for the Management of Intellectual Property, actively filed applications for patents and investigated responsibility of any potential breaches of intellectual property rights. At the same time, we promise that we will never infringe upon the intellectual property rights of any enterprise or individuals, and will keep confidential all technological information regarding products of upstream and downstream partners.

To reduce the risk of claims of infringement of third-party intellectual property rights against our manufacturing of semiconductor devices or end products, we only accept orders from reputable customers with no known potential risk of infringement. We have entered into several technology licensing agreements with major technology companies.

4.2 Customer Service and Protection of Customers' Interests

Customer Service System

Adhering to the idea of "providing customers with more convenient and safer services", the Company has established a sound customer service system and provide services through customer service hotlines, customer survey, regular quarterly/semi-annual business reviews with major customers, technical seminars, trainings and other means, so as to enhance our customer service level. Our procedures and standards for contacting customers set out the basic requirements of our customers in respect of inquiries, transactions and complaints. The Customer Complaints Handling Procedures set out the processes for handling customer complaints, the responsible office and key techniques. They require that preliminary survey results and responses should be given within 48 hours upon receipt of a general customer complaint. Furthermore, we sort out and analyze the information reflected in customer complaints on a regular basis, and require relevant departments to develop improvement plans based on the results and oversee and assess the effects of relevant rectifications. Our 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. In 2017, the Company continued improving the E-tapeout customer service system, Engineering Notice and customer product demand delivery management system, which greatly streamlined our business flow, reduced artificial links, lowered probability of error, improved work efficiency and cut short business cycle. As of the end of 2017, the complaint rate per 1,000 wafers shipped was lowered to 0.0054 (complaint/1,000 wafers).

Protection of Customer Information

The Company pays great attention to maintaining the security of customer information. We've established the ISMS information security management system, which controls information security risks and guarantees information security from such areas as information asset management, personnel security, physical access management, logic access control, etc., and has passed the certification of ISO27000. The 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 photomasks generated during the wafer production process, we treated them by returning them to customers or destroying them, thus preventing to the utmost the disclosure of customer information within such waste photomasks. The Company started binding customer IP in 2016, so as to prevent any unauthorized IP address from logging onto our server. No incidents of infringement against laws or regulations concerning customer privacy occurred within the Company in 2017.

5 Compliance in Business Operation

We keep track of international treaties and laws and regulations relevant to compliance in places where our businesses operate, and regularly update management policies governing supply chain management, risk control, corruption and bribery prevention, business fraud, and other aspects. In addition, we are 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 2017, the Company had not been involved in any litigation with respect to any commercial bribery or corruption.⁽¹⁾

5.1 CSR Value Chain

It is a long-term development strategy for the Company to progress forward together with enterprises in the entire supply chain with our CSR value chain. To this end, we 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 eradicate all unfair competition activities. Meanwhile, we undertake 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 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 domestic suppliers, and constantly assist suppliers in improving their management capacities and production levels. In addition, we also 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 great batch of local raw materials suppliers and equipment suppliers, thereby powerfully promoting the development domestic chip design industry.

Notes:

(1) For subsidiary details, please refer to the "CSR Report" independently issued by Shanghai Huahong Grace Semiconductor Manufacturing Corporation in 2017.

5.2 Anti-corruption

The Company established the compliance department to supervise overall compliance management. Meanwhile, all major departments have compliance officers to establish the sound compliance management systems in strict accordance with the capital market requirements. Corresponding measures were made in the aspects of contract review, laws and regulations analysis, patent review and application, business negotiation, etc. to prevent compliance risks. Due to the strict compliance management system, the Company had no breach of any laws or regulations in 2017.

The Company has long-term commitments to provide training and education on clean and honest practices for customers and manufacturers, management cadres, and employees in major positions. The Company constantly promoted the execution of the Undertakings against Commercial Bribery and the Undertakings to Refuse Commercial Bribery, and carried out regular visits and random checks. As of the end of 2017, the Company successfully signed the Undertakings against Commercial Bribery with 204 manufacturers and the Undertakings to Refuse Commercial Bribery with 55 management employees and employees in major positions, with the signing rate of 100%.

The Company constantly promoted clean and honest practices and organized training programs with respect to anti-corruption and clean and honest initiatives. In 2017, we staged three "clean and honest initiative" seminars for the management personnel, in which 423 management personnel of the director level and above participated and watched the "Sharp Sword of Inspection" Episode IV – "Full Coverage of Inspection", with the participation rate up to 100%. The Company organized the paintings and calligraphy works show themed as "anti-corruption and clean and honest initiatives" and totally collected 30 pieces of paintings and calligraphy works. The Company's "Measures about Complaints and Reports Management by Employees" provided the channels of reporting through emails, telephones and mailbox, to encourage employees to report any suspicious breach of regulations with the Company. There were no breaches of law and regulations or reporting by employees.

6 Social Welfare Causes and Public Communities

We insist on continual concern about and deep integration with the community. We focus on the needs of the community and regard mutual development with the community as an important part of our social responsibility, and feed back to the society in collaboration with all walks of life. With regard to community investment, we focus on targeted poverty alleviation, joint construction of the community and volunteer services.

Targeted Poverty Alleviation

Since 2016, we signed the pairing and supporting agreement with Youqiao Village of Chongming County, and provide allowances with consolation money to those families having difficulties in hospitalization and meeting the requirements for serious illness within the Village. In 2017, after knowing the difficulty of Youqiao Village in selling rice, the Company bought 21 tons of rice and distributed them to our employees as gifts for the New Year, thereby reinforcing targeted poverty alleviation by expanding our supporting range with physical actions.

Jointly Building of Community and Providing Volunteer Service

In 2017, we continued to advocate joint efforts between government agencies and local populations to promote community well-being, and we provided neighborhood firefighters with beverages, towels, items for showering and other articles for daily use, to express our solicitude towards all first-line firefighters.

Regarding volunteer service in community, we encourage our employees to serve the local community and express their solicitude. To this end, we established a Volunteer Association consisting of 78 volunteers who have provided volunteer services for 156 hours. Our voluntary activities in Meixin Nursing Home have lasted for 12 years. Apart form this, the Company also organized the condolence activities in Pujiang Wenhui School in 2017, where we built up a beautiful child-friendly environment for the children of the school, decorated by hand paintings on the wall, and motivated all the Party members to donate books to establish a Book Corner for Wenhui Elementary School. As for the disorderly parking problems of shared bicycles, our employees sorted out disorderly parked bicycles on surrounding roads of the Company, thus advocating and publicizing orderly parking of bicycles with practical actions. In order to intensify safety awareness of community residents, the Company cooperated with Shanghai Sinoaid Health Promotion Center to carry out First Aid Course for Children's Accidents in the community where our business is operated, including first aid common sense for children and cardiopulmonary resuscitation for children, which was proactively adopted and praised by the community residents.

7 2017 Social Recognitions

No.	Awards
1	Awards of State and Industry Level
2	Five-star Enterprise of the Third Star Awards for Chinese Industrial Enterprises' Fulfillment of Duty in 2016
3	Most Recognized Wafer Foundry of Greater China IC Design Achievements Award in 2016
4	"2016 China Top Ten Semiconductor Manufacturers"
5	"2016-2017 Annual Successful Enterprise of Power Discrete Market in China"
6	Top Ten Performers of Economic Yield in the IC Industry
7	Our "600V-1200V Field Stop IGBT Chip Manufacturing Process Technology" was honored the "2017 CITE Innovative Products and Application Award" and "the 11th (2016) China Semiconductor Innovative Products and Technology Award"
8	Our "90 Nano Low-Consumption Embedded Flash Process" Project was honored the
	"2017 Annual Golden Ant Award of National Golden Card Project – Best Product Matching Prize"
9	"2017 Excellent MCU Manufacturing Process Platform"
10	Most Influential Enterprise in Chinese Electronics Information Industry
11	2017 Excellent MCU Manufacturing Process Platform (0.11µ Ultra-Low-Consumption Dual-Gate Embedded Flash Technology Platform)
12	"Annual Award of the Semiconductor" of the Editors' Choice Award by China Electronics News in 2017
13	Provincial Awards
14	2015~2016 Annual Civilized Enterprise of Shanghai
15	Shanghai Five-star Enterprise with Integrity
16	Shanghai Model Workers' Home
17	2016 "Top Five Enterprises with Best Sales Results" and "Top Ten Performers of Economic Yield" in the IC Industry of Shanghai
18	Technological Innovation Award for Outstanding Contributions in Pudong New Area
19	2016 "Top 100 Foreign-Invested Enterprises for Import & Export Volumes" and "Top 100 Foreign-Invested Enterprises for the Number of Employees"
20	Our Super Junction Project was given the First Prize of Scientific and Technological Progress Award in Pudong New Area in 2016
21	2016 Innovation Award for Reasonable Suggestion Project by Employees in Shanghai
22	Bronze Prize of the Qualification Trials of Excellent Inventions in Shanghai

8 Data Report

Environment

Performance Indicators	Unit	2015	2016	2017
Emissions				
Total Volume of Waste Gas Emitted	10,000 m ³	1,210,151	1,060,281	1,121,958
Volume of NOx Discharged	Kg	20,364	26,260	26,374
Volume of SO₂ Discharged	Kg	55	50	62
Total Volume of Waste Water Discharged	10,000m ³	415.2	454	436
Volume of greenhouse gas emitted	Ton of SO ₂ equivalent	/	/	424,151
Volume of greenhouse gas emitted in unit production	Ton of SO ₂ equivalent/LO	/	0.20	0.22
Total Volume of Dangerous Wastes	Ton	4,073.40	4,323.70	4,641.40
Volume of Dangerous Wastes Generated in Unit Production	Kg/LO	0.0027	0.0024	0.0024
Volume of Innocuous Wastes ¹	Ton	2,786	2,746	3,982
Resource Unitization				
Total Electricity Consumed	Ten thousand kWh	44,063	48,183	50,988
Electricity Consumed in Unit Production	kWh/LO	297	271	26.75
Natural Gas Consumed	m^3	6,043,800	6,580,000	7,155,253
Natural Gas Consumed in Unit Production	m³/LO	4.07	3.70	3.75
Total Water Consumed	m^3	4,722,000	5,045,000	4,898,783
Water Consumed in Unit Production	m³/LO	3.2	2.8	2.6
Volume of Recycled/Reused Water	10,000 Ton	235.53	258.00	282.00
Total Volume of Packaging Materials for Finished Products Shipped	Ton	51.18	71.33	75.02
Volume of Recycled Packaging Materials for Finished Products Shipped	Ton	9.78	12.91	15.63

Employment and Labour Practice

Performance Indicators	Unit	2015	2016	2017
Employment				
Total number of employees	Individual	3,787	3,938	4,138
Number of male employees	Individual	2,647	2,772	2,914
Number of female employees	Individual	1,140	1,166	1,224
Number of employees subject to labor contract system	Individual	3,787	3,938	4,138
Number of employees subject to labor dispatching system ¹	Individual	160	225	215
Number of employees aged < 30	Individual	1,878	1,922	2,001
Number of employees aged 30-50	Individual	1,827	1,936	2,054
Number of employees aged > 50	Individual	82	80	83
Number of Mainland China employees	Individual	3,777	3,928	4,128
Number of overseas employees	Individual	10	10	10
Number of newly-recruited employees	Individual	606	885	890
Employee turnover	Individual	509	681	704
Turnover of Mainland China/overseas employees	Individual	507/2	681/0	704/0
Percentage of male employee turnover to total employee turnover	%	/	/	69
Percentage of female employee turnover to total employee turnover	%	/	/	31
Health and Safety				
Occupational disease occurrence rate of employees	%	0	0	0
Occupational mortality	Individual	0	0	0
Number of days absent from work due to injury	Day	149.5	201.0	193.0
Development and Training				
Per-capita Time Length of Training Attendance of Employees ²	Hour	78.5	101.8	72.3
Including: Per-capita Time Length of Training Attendance of Junior Employees	Hour	65.8	103.7	72.6
Per-capita Time Length of Training Attendance of Managers	Hour	3.6	9.3	11.6
Per-capita Time Length of Training of Attendance of Female Employees	Hour	77.6	126.2	69.9
Per-capita Time Length of Training of Attendance of Male Employees	Hour	79.2	91.4	74.3
Rate of Employees Receiving Training	%	100	100	100
Including: Rate of Junior Employees Receiving Training	%	100	100	100
Rate of Managers Receiving Training	%	100	100	100
Rate of Female Employees Receiving Training	%	100	100	100
Rate of Male Employees Receiving Training	%	100	100	100

¹ It includes security personnel, dining hall personnel, etc.

² Apart from junior employees and managers, the number of employees also includes the interns and employees dispatched

Product Liability

Performance Indicators	Unit	2015	2016	2017
Product Liability				
Product return rate ¹	%	< 0.1	< 0.1	0.3
Percentage of sold products recalled due to safety and health issues	%	0	0	0
Customer satisfaction score	Point (Full mark of 10 points)	8.49	8.38	8.60
Customer complaint cases	Case	11	11	10
Percentage of customer complaints addressed	%	100	100	100

Supply Chain Management

Performance Indicators	Unit	2015	2016	2017
Supply Chain Management				
Total number of suppliers	Supplier	384	495	508
Number of local suppliers	Supplier	298	375	385
Number of overseas suppliers	Supplier	86	120	123
Number of suppliers receiving evaluation ¹	Supplier	23	31	115
Number of suppliers requiring rectification	Supplier	0	0	0
Qualification rate of suppliers	%	100	100	100
Number of suppliers signing the Undertakings for Environmental Protection	Supplier	/	/	104
Localization rate of raw materials purchased ²	%	20	22	23

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

Anti-corruption

Performance Indicators	Unit	2015	2016	2017
Anti-corruption				
Number of trainings organized about anti-corruption and clean and honest initiative	Training s	5	12	5
Number of participants in trainings about anti-corruption and clean and honest initiative	Individual s	2,150	2,982	2,530
Number of corruption cases involving the Company and employees	Case	0	0	0

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

Community Investment

Performance Indicators	Unit	2015	2016	2017
Community investment				
Number of employees participating in volunteer services	Individual	250	310	178
Accumulated time length of volunteer activities	Hour	480	560	356
Charitable donation amount ¹	1,000 Yuan	0	8.0	4.1

Data of 2016 and 2017 come from the amount (financial records) donated to Shanghai Volunteer Services Foundation.

Compliance

Fields	Name of Major Laws and Regulations	Compliance Status
EHS	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, Production Safety Law of the People's Republic of China, Law of the People's Republic of China on Prevention and Control of Occupational Diseases, 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, etc.	No identified breach of laws and regulations or appeal occurred to the Company in 2017
Information security	Law of the People's Republic of China on Product Quality, 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, Cybersecurity Law of the People's Republic of China, etc.	
EICC	Anti Unfair Competition Law of the People's Republic of China, Employment Promotion Law of the People's Republic of China, Social Insurance Law of the People's Republic of China, Contract Law 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, etc.	

9 Preparation

Report Overview

This 2017 CSR Report of Hua Hong Semiconductor Limited (hereinafter referred to as "this Report") explains its principles in fulfilling CSR and the work carried out in 2017. It mainly addresses our stakeholders about the sustainable development regarding the relevant economic, environmental, and social issues.

Reference Basis

This Report adopts the Environmental, Social and Governance Reporting Guide" issued by the Stock Exchange of Hong Kong Limited and the "Sustainability Reporting Guidelines (G4)" of the Global Reporting Initiative ("GRI") as its reference basis.

Scope of Report

Organizational scope: This Report by Hua Hong Semiconductor Limited, includes all members of the Group.

Reporting period: From 1 January 2017 to 31 December 2017.

Release cycle: This is an annual report.

Data Descriptions

Data and cases in this Report originate from the Group's original records in day-to-day operation or financial reports.