

HUA HONG SEMICONDUCTOR LIMITED

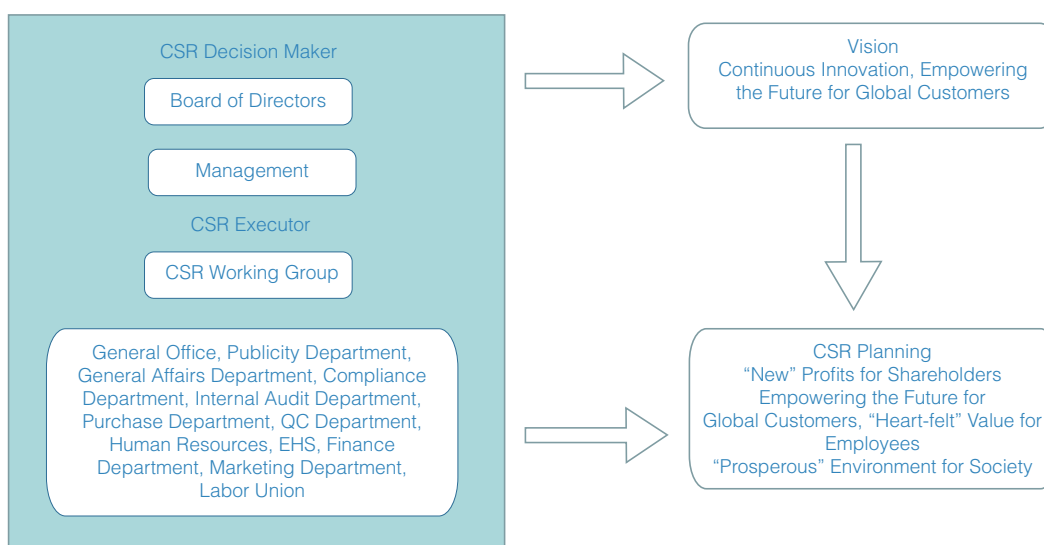


Our concept of sustainable development and the pursuit of long-term performance is to achieve these under consideration of economic, environmental and social aspects, as these aspects interact with and support each other, enabling long-term, sustainable performance. As a listed company operating internationally, we strictly comply with 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. We have complied with the “comply or explain” provisions set out in the Environmental, Social and Governance Reporting Guide in Appendix 27 of the Listing Rules. 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 Concept and Management

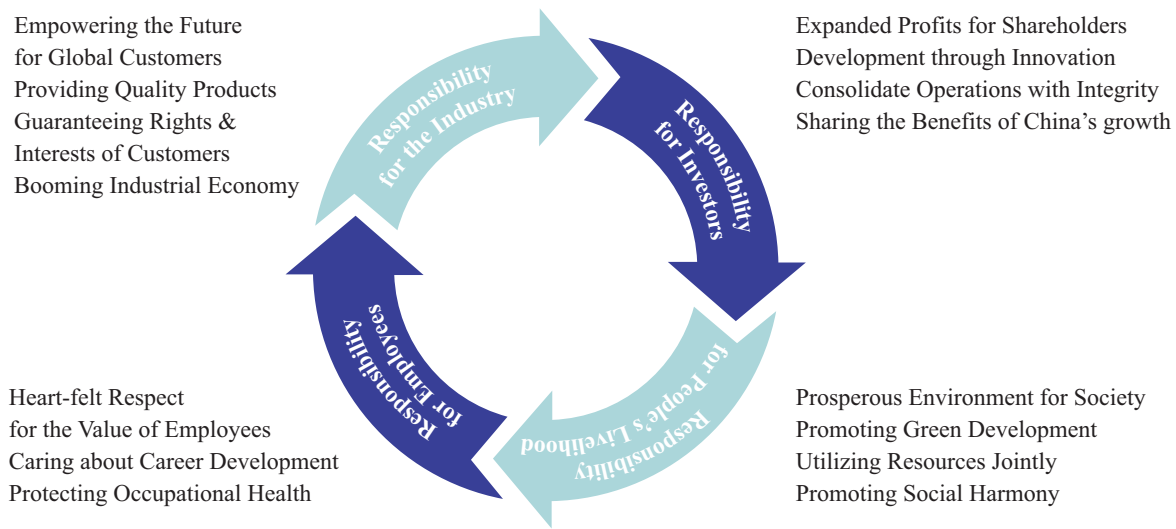
We believe the fulfillment of corporate social responsibility first and foremost requires pro-active adherence to and implementation of the highest international standards of business and social ethics while creating value for and sharing value with all stakeholders. To this end, our Company incorporates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

Expectations and Responses of Stakeholders

Shareholders	Domestic and foreign investors holding equity and debt investments in our Company	Corporate governance system, business strategy and performance, stable profitability and return on investment	Shareholders' meetings, financial reports, performance reports, results road shows, etc.
Customers	IDMs, systems and fabless semiconductor companies	Product quality, service value, and protection of customer information	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 benefits, compensation systems, training and development, working conditions, health and family care	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, regulatory transparency, full tax payment, carbon emission reduction, resource conservation	On-site visit, official correspondences, policy enforcement, information disclosure, etc.
Partners	Suppliers, research institutions, industry associations, etc.	Business ethics and creditworthiness, fair competition, compliant operation, strategic alliances with mutual benefits	Public tender conferences, strategic cooperation negotiations, exchanges and visits, etc.
Communities and the public	Communities in which we operate, the public, media and non-profit organizations	Community development, social welfare, environmental protection, business ethics	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 system of risk management by upgrading relevant processes and policies, thereby effectively enhancing our capabilities in comprehensive risk management. In 2016, the Company established procedures for risk management through an internal audit department. It issued the guideline “Rules about Comprehensive Control of Risks” and launched related projects. The department compiled an index of risk information, designed a questionnaire about risks and carried out related interviews, recognizing and evaluating key areas of risk. As a result, the 2016 Risk Control Report was published and special risk control trainings were carried out to enhance awareness of risks and how to control them.

Key ESG Risks and Countermeasures

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
	Project evaluation	Prior to the commencement of each project, we perform a comprehensive assessment of the possible impact the project may pose to the environment and occupational health and safety
	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”)
	Post-evaluation of projects	Post-evaluation and analysis of projects (their purpose, the process, benefits, roles and influence regarding risks) are conducted in a comprehensive manner to provide scientific data for improving the benefits of investments

Production	Structure of customers	Strategy about optimizing structure of customers is provided by the Marketing Department and Sales Department, thus facilitating regular evaluation of customer structure and promoting smooth operations
Products	Information security	Based on our Management Rules about Information Security, the Company established a framework for information security, and management carries out an evaluation of information security every year to maintain the optimal interests of the Company, shareholders, customers, suppliers and employees
	Cash flow	Prepare cash flow statements monthly to record cash flows, and dispatch the same to relevant departments for follow-up actions

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 2016, we continued the Sustainable Development Report Guidelines GRI4 and updated the questionnaire concerning substantial topics with both internal and external stakeholders. Compared with the questionnaire last year, the stakeholders within the Company are more aware of product/service safety, communication with customers and satisfaction of customers, showing a tendency of giving more emphasis to products and customers. Regarding the stakeholders outside the Company, issues related to compliance with rules and integrity in operation are now being emphasized, representing social awareness and focus on integrity of enterprise.



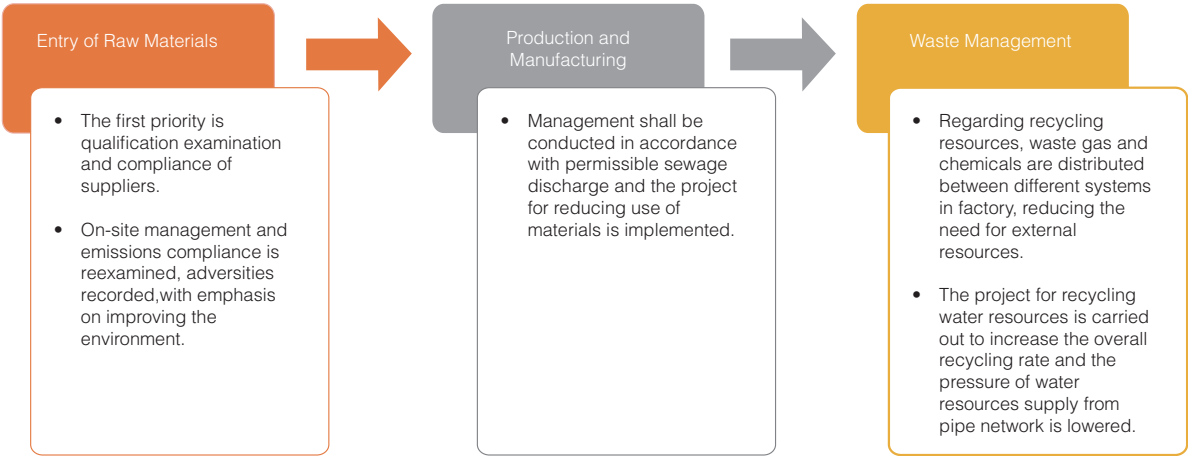
We take “Zero Accidents” and sustainable operation as our goal, and devote ourselves to clean production and continuous improvement. In 2016, we undertook seven projects related to environmental protection and technological reform, investing more than RMB2 million into these projects, and participated in work with respect to the “Carbon Emission Trading of Shanghai Environment and Energy Exchange”. We prioritize improving energy savings, reducing emissions and controlling waste. At the same time, we continue to focus on laws and regulations related to environmental protection. By the end of 2016, the Company had received no complaints or fines due to environment issues, and no environmental contamination had occurred.

Review of environmental responsibilities-related laws and regulations

Environmental protection	Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution, Law of the People's Republic of China on Prevention and Control of Air Pollution Environmental Pollution by Solid Wastes, Law of the People's Republic of China on Evaluation of Environmental Effects, Regulations of Shanghai Municipality of Environmental Protection, etc.	109 laws and regulations
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2.1 Environmental Management System

With the upgraded ISO14001 Management System, our environmental management concept gradually shifted from a model advocating production and management to a mechanism focusing on control of product life cycles and risk control. Our Company is devoted to improving environmental performance every step of the process, including the entry of raw materials, production and waste management.



2.2 Action and Achievements in Environmental Management

Energy Management

We always regard clean production, energy savings and emission reduction as important annual tasks. We worked out the “Procedure of Resource and Energy Management”, specifying the principles of resource and energy management to enable continuous improvement. We increase production rates based on the principle of saving energy, reducing consumption and wastes. When lowering production costs, we avoid affecting the environment as much as possible by implementing sustainable and environmentally harmonious development.

In January 2016, we were awarded “Excellent Enterprise” of the Energy Saving and Emission Reduction Activity Team in Shanghai 2014-2015, jointly issued by the Instruction Committee of Energy Saving and Emission Reduction Activity Team in Shanghai, the Shanghai Federation of Industrial Economics, and the Shanghai Federation of Economic Organization. One hundred of our employees participated in and passed the training and tests held by the Energy Saving and Emission Reduction Activity Team. With the help of the Project of Environmental Protection, Energy Saving and Technology Reform in 2016, more than 10,000 tons of water were saved annually and electricity and gas with a value equaling to 1,200 tons of standard coal was saved every year.

Cold pure water system based on water pump control and the reform of variable frequency operation	140kWh of electricity is saved every hour, and total energy saved is equal to 495.5 tons of standard coal		
New-type drying machine is adopted on CDA system to reduce operation cost	697,000kWh of electricity is saved each year, equaling to 281.6 tons of standard coal		
Reform of BTSPTA08 Pump by eliminating Roots Pump	8,000kWh of electricity is saved each year, equaling to 2.4 tons of standard coal		
Chiller is eliminated from BIILMA03, the water cooling is reformed	About RMB400,000 of gas is saved, equaling to 111,000 square meters of gas or 147.6 tons of standard coal		
Warm pure water of WPA/WSA rinse tank is reformed into cold pure water	222,000 square meters of cooling water was saved, equaling 295 tons of standard coal		
Humidifier is reformed	RMB32,750 is saved each year, equaling to 65 tons of standard coal		
Total Energy Consumption (tons of standard coal)	65,253	67,746	73,771
Total Electricity Consumed (ten thousand kWh)	41,274	44,063	48,183
Electricity Consumed in Unit Production (kWh/8 inches wafer)	291	297	271
Volume of Gas Consumed (ten thousand m ³)	707.65	604.38	658.00
Gas Consumed in Unit Production (m ³ /8 inches wafer)	5.00	4.07	3.70

Water Resource Management

The Company mainly uses tap 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. We also promote saving water in our industry. We sponsored the “Seminar about Technological Reform for Saving Water by Large Industrial Enterprises” held by the Shanghai Water Supplies Bureau in 2016. During the seminar, municipal leaders and approximately 40 representatives from key water users in Shanghai discussed strategies and measures for saving water.

RO Water Recycling Project	430,000m ³ of water saved/year
Saving Water by Local Scrubber	21,000m ³ of water saved/year
Project for Expanding High-power MOS Integrated Circuit Production Line	Increase of municipal water quota by 940,000 tons

Total Water Consumed (ten thousand tons)	454.5	472.2	504.5
Water Consumed in Unit Production (ton/8 inches wafer)	3.2	3.2	2.8
Volume of Recycled water (ten thousand tons)	251.4	235.5	258.0
Total Volume of Waste Water Discharged (ten thousand tons)	409.1	415.2	454.0

Prevention and Control of Pollutants

In prevention and control of pollutants, we follow the rules and regulations related to environmental protection and relevant matters, meeting all emission requirements. We organized workshops analyzing the newly revised Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution in order to carry out emissions control according to the new regulations. 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.

Total Volume of Waste Gas Emitted (ten thousand m ³)	1,200,000	1,210,151	1,060,281
Volume of NO _x Discharged (ton)	15.169	20.364	26.260
Volume of SO _x Discharged (ton)	0.066	0.055	0.050

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. In 2016, with the start of the control over carbon emission by Shanghai Municipal Development & Reform Commission, we actively took part in relevant work to cut greenhouse gas emission to reduce the pace of global warming. At present, we have established Procedures for the Control Carbon Emission Credit Trading and completed work related to opening accounts for enterprises to safeguard and facilitate smooth trading of carbon credits in 2017.

Statistics related to emissions will be reported in “Examination Report of Annual Emission and Inspection Report” in accordance with requirements of Shanghai Municipal Development & Reform Commission. It is expected that the first inspection shall be carried out in the first half of 2017.

Waste Management

Wafer production generates dangerous wastes, including acid, isopropanol and others. We authorized a qualified company for treatment of these wastes. At the same time, we strive to cut the volume of waste and worked out annual plans for eliminating dangerous wastes. In 2016, we planned to cut 84.10 tons of waste photoresist, waste stripping liquid, waste sulfuric acid, waste isopropanol and waste phosphoric acid. We exceeded our plan, and the actual amount of wastes cut was 85.02 tons.

Volume of Dangerous Wastes Discharged (ton)	3,597.00	4,073.40	4,323.70
Volume of Dangerous Wastes in Unit Production (ton/8 inches wafer)	0.0025	0.0027	0.0024
Total Volume of General Wastes (ton)			
Note: General wastes are usually calcium fluoride	2,455.80	2,786.00	2,108.00
Volume of General Wastes in Unit Production (ton/8 inches wafer)	0.0017	0.0019	0.0012
Total Volume of Packaging Materials for Finished Products (ton)	48.92	51.18	71.33
Volume of Recycled Packaging Materials for Finished Products (ton)	8.01	9.78	12.91

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 2015 and 2016. 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

There is an increased awareness of the need for environmental protection, and the need to save energy and reduce emission becomes increasingly urgent. Reducing the high energy consumption of electronic products is one of the hot topics of today. The emerging markets and products under this spotlight, e.g. new energy automobiles, intelligent grids and LED drives, have all been focusing on manufacturing platforms for green chips with lower consumption, higher efficiency and smaller size. In response to the supply-side reform of China advocating products with higher quality, we implemented related craft solutions to provide mobile devices with longer stand-by times, faster battery charging and lower energy consumption. We also provide stable and diverse drive circuits for LED lighting, supply battery charging devices and adapters for next generation mobile devices with higher efficiency and smaller size, and supply motor-driven modules for new energy automobiles with higher intelligence, higher efficiency and stability.

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 web-connected 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 them in its own vehicle fleet. In 2016, the Company was awarded the “Five-star of Sustainable Development in Jinqiao Industrial Park of Pudong New Area” and donated all the bonus to the Shanghai Non-profit Foundation for Environmental Protection.

- We took part in recycling wastes activities organized by alahb.com to prevent second contamination of environment while recycling wastes
- 2016 Five-star of Sustainable Development in Jinqiao Industrial Park of Pudong New Area

We always strive to provide our employees with an environment that is equal, healthy, safe and comfortable. We strictly follow related laws and regulations and have established human resource systems to protect all legitimate rights and interests of employees. We established a safe working environment and stipulated a detailed index for safety inspections to facilitate our regular training and emergency exercises for employees. No infringement of the rights and interests of employees occurred in 2016, and we were not subject to any employee-related complaints or penalties.

Sorting of employee-related responsibilities-related laws and regulations

Employee interests and benefits	Labor Law of the People's Republic of China, Law of the People's Republic of China on Employment Contracts, Employment Promotion Law of the People's Republic of China, Special Rules on the Labor Protection of Female Employees, Regulations of Shanghai Municipality on the Trade Union, etc.	168 laws and regulations
Employee Health and Safety	Law of the People's Republic of China on Prevention and Control of Occupational Diseases, Production Safety Law of the People's Republic of China, Shanghai Regulation on the Safety Management of Hazardous Chemicals, etc.	

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. Meanwhile, we resolutely prevent all compulsory labor practices.

Sex	Male	2,548	2,647	2,772
	Female	1,130	1,140	1,166
Type of employment	Labor contract employees	3,678	3,787	3,938
	Contract outsourcing employees ¹	167	160	225
Age	< 30 years	1,919	1,878	1,922
	30-50 years	1,686	1,827	1,936
	> 50 years	73	82	80
Region	Mainland China	3,669	3,777	3,928
	Overseas	9	10	10
Management	Female	9	9	11
	Male	66	63	61
Employee turnover	New recruits	815	606	885
	Turnover	508	509	681
	Mainland China/overseas employee turnover	507/1	507/2	681/0
	Turnover of employees under 30 years/30-50 years/over 50 years	380/128/0	385/110/14	518/148/15
Rate of Signing of Labor Contract (%)		100	100	100
Rate of Insurance Coverage of Employees (%)		100	100	100
Proportion of Employees Covered by Agreement of Collective Negotiation (%)		100	100	100
Number of Cases of Employees Complaints (case)		0	0	0
Number of Cases of Discrimination against Employees (case)		0	0	0

¹ Includes security personnel and logistical personnel

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 2016, the Company introduced a total of 62 professionals.

Mechanism of Democratic Communication

A smooth communication channel and sincere concern are important to establishing harmonious labor-capital relationship. We worked out Rules on Management of Reasonable Suggestions of Employees, we established a trade union and convened regular seminars of employee representatives to invite employees into the daily management of the company and establishment of systems. At the same time, we listen to employees through various means, including round-table luncheons, and attend promptly to reasonable suggestions.

In August 2016, a platform for gathering suggestions was formally established. As of the end of 2016, altogether 169 reasonable suggestions had been submitted, covering areas such as administration, personnel, safety, trade union and IT. We implemented sixty 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 example, we organize activities for the retired during Spring Festival and Double Ninth Festival, and we cover all our retired employees of the Shanghai municipality with a mutual-support supplemental medical insurance, and renew their insurance every year. For female employees, we assisted the Trade Union of Shanghai Municipality in organizing activities "Mom with Love" and equipped all nursing rooms of various factories with refrigerators, workbenches, electric power and deck chairs. The activity aims to provide space and lactation service for the female employees during their suckling period. The space is private, clean, comfortable and safe, thus settling any potential worries.

Fund supporting impoverished and needy employees

(in ten thousand yuan)	20	26	30.70
Number of benefited employees with difficulties	80	81	228
Wedding congratulation and funeral consolation (in ten thousand yuan)	12.10	13.30	19.11
Condolences for employees (in ten thousand yuan)	110	270	348.87
Amount donated by employees (in ten thousand yuan)	5.10	15.00	5.21

3.2 Health and Safety

Occupational Health and Safety Management

To guarantee 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 2016, two major laws were amended: The Law of the People’s Republic of China on Prevention and Control of Occupational Diseases and the Shanghai Regulation on the Safety Management of Hazardous Chemicals. Thereafter, we conducted a thorough study of these amended laws and regulations and reevaluated and adapted positions with potential occupational harm, and promoted information management regarding entry and exit of dangerous chemicals.

Measures for Protecting Health and Safety of Employees in 2016

Improving Safety and Responsibility System	<ul style="list-style-type: none">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 employeesExternally, 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
Upgrading System for Identification of Hidden Dangers and Emergency Plan	<ul style="list-style-type: none">Identifying hidden dangers and 12,306 omissions of 5S132 projects for safety reform and investment of RMB24,667,000Contingency plan is improved based on the system “1+12+1782” (i.e. 1 comprehensive plan, 12 special plans and on-site treatment plans), and nearly 100 contingency treatment cards for equipment was addedThe CPR + AED (cardio-pulmonary resuscitation + automatic external defibrillation) team was expanded, and 172 employees participated the rescue team, and trainings of 2,176 person-time was organized. The golden 4-minute rescue standards and 3-minute rescue standards for initial disaster were realized within the factory171 activities for contingency were conducted

Safety training is standardized and examination for performance is done	<ul style="list-style-type: none"> Considering that the site is highly risky, the Department of Safety Control worked out a question database about engineering safety education in order to promote standardization of safety training and enhance training results. In 2016, we organized 55 safety trainings, with 4,770 attendances
Safety Examination for Outsource Service Provider	<ul style="list-style-type: none"> We conducted collective examination for TGCM and bulk gas suppliers for 5 companies and identified 24 items to be modified in order to promote their amending plans and reforming
We organize competitions to activate awareness of safe production	<ul style="list-style-type: none"> We activated awareness of safe production and capability of safety and protection of employees by awarding them “ANKANG” labor competitions and special contribution awards

Occupational Checkups for employees designated for special positions/completion rate (%)	100	99 ²	99 ³
Occupational disease occurrence rate (%)	0	0	0
Occupational Mortality	0	0	0
Number of days absent from work due to injury (days)	83.0	149.5	201.0

² person was subject to pre-employment restrictions, and 1 person was subject to employment restrictions, both of which were re-designated.

³ people were subject to employment restrictions, who were re-designated.

Full Coverage for Health, Food, Lodging, Transportation

The Company pays ongoing attention to the health of its employees. In terms of medical treatment, we provide annual physical examinations for all employees. Additionally, we offer employees designated for special positions that may have occupational hazards, occupational disease checkups before they start in said position, during performance of their duties in that position, and after leaving such positions. We arrange more specialized physical examinations for female and veteran employees. In 2016, we fully completed the development of standard healthcare service centers and health management systems, created employee health status profiles, and constantly 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 model for management of centralized food procurement and qualified supply chains, providing an assured and reliable system for safe sources of food. Employees and departmental representatives are invited to provide supervision. In addition, we strengthened the promotion of a “healthy diet” concept to help employees develop a proper diet and we began implementing the mindset of “green restaurant,” advocating food security, low carbon, environment protection and integrity.

Regarding lodging, the Company provides its employees with excellent lodging conditions, adding 105 beds in 2016. Our accommodation capacity fully satisfies current lodging requirements, and each room has its own bathroom facility. Within the lodging area, we also provide libraries, computer rooms, pool tables, laundry rooms, TV rooms, direct drinking water dispensers, and other supporting facilities with 24-hour water heating and WiFi services, ensuring that our employees feel comfortable and “at home”.

Regarding transportation, we provide a travel allowance for employees as part of their benefits. We also provide shuttle buses between Jinqiao or the factory and the subway, as well as regular buses between dorms, and shuttle buses for those living in areas where transportation is inconvenient. Also, we provide 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 2016, the training attendance was 87,706, with an investment of RMB1,294,000. At the same time, we support continuing education of our employees and provide education allowances. In 2016, four of our employees received allowances for masters and doctoral degrees in engineering.

Per-capita Time Length of Training Attendance of Employees (h)	64.7	78.5	101.8
Including: Per-capita Time Length of Training Attendance of Junior Employees (h)	65.0	65.8	103.7
Per-capital Time Length of Training Attendance of Managers (h)	8.0	3.6	9.3
Per-capital Time Length of Training of Attendance of Female Employees (h)	65.1	77.6	126.2
Per-capital Time Length of Training of Attendance of Male Employees (h)	65.0	79.2	91.4
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

⁴ Average number of employees, apart from junior employees and managers, includes the number of interns and employees dispatched.

We keep track of international treaties, local and foreign laws and regulations relevant to our products and customers in places where our business operates, strictly comply with laws and regulations related to our products and intellectual property, 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 2016, 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.

Review of laws and regulations related to products and customer responsibility

Product Quality	Law of the People's Republic of China on Product Quality		
Information Security	Respect the property rights	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	74 laws and regulations
	Security management	Archives Laws of the People's Republic of China, Cybersecurity Law of the People's Republic of China	

4.1 Product Liability

Quality Control

Based on the philosophy of “Quality is a Lifeline of an Enterprise”, we formulated and implemented our Quality Management Policy. We promote a comprehensive quality management model, and we endeavor to guarantee product quality and reliability by means of quality assurance, failure analysis, reliability assurance, customer quality engineering and quality system, supplier management and raw materials analysis. To reduce human error, we established multiple management systems such as personnel management, equipment 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 production processes, forecast anomalies that may arise during production through failure analysis, and make corresponding adjustments on a timely basis. Pursuant to the recall system of the Company, if our products fail to meet the applicable warranties due to reasons attributable to us, 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 free from defects in material and workmanship and in conformity with the customer specifications.

Product Quality Management System Certification

ISO 9001 Quality Management System	June 5, 2014
ISO/TS 16949 Quality Management Systems for Automotive Industry	June 5, 2014
IECQ QC 080000 Hazardous Substance Process Management System	December 12, 2014

Product return rate (%)	<0.1	<0.1	<0.1
Percentage of products recalled due to safety and health issues (%)	0	0	0

Technological Innovation

"Innovation is the core, the source of energy and the only way towards development." We advocate scientific innovation and continued research, and apply intensive efforts in R&D of eNVM, power discrete, radio frequency, simulation and mixed signal, and power management, thus achieving fruitful results both in scientific areas and patent fields. By the end of 2016, we have acquired 2,451 issued patents, including 103 issued US patents.

During the "2016 Summit Conference on China Information Technology Industry Development" jointly held in Beijing by the China Information Technology Industry Federation, the China Electronics Chamber of Commerce and the China Software Industry Association, we were named as one of the "Top 50 Innovative Enterprises of 2016 China Information Technology Industry". In 2016 our workstation of academician experts received the "2016 Model Workstation of Academician Experts in China" award and was named one of the "Top 30 Excellent Workstation of Academician Experts in Shanghai". In the past two years, three projects of our workstation produced hard benefits worth over RMB50 million. The Huahong Grace Enterprise Association for Science and Technology and the website for the Association and Training for Professionals promote our development as an innovation-driven enterprise, as well as the communication and exchange of scientific information and services to scientists. In addition, we applied the project "Key Technology and Application of Power High Voltage MOS Device" together with University of Electronic Science and Technology of China, and as a result were awarded the "First Prize of Scientific Progress of Sichuan Province 2016".

R&D investment (in US\$ million)	36.5	51.0	47.6
R&D investment as a percentage of revenue from principal operations (%)	5.5	7.8	6.6

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 stipulated a 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 promised that we will never infringe upon intellectual property rights of any enterprise or individuals, and will keep confidential all technological information of 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", we established a sound customer service system and provide services to our customers through customer service hotlines, website systems, regular and ad-hoc conferences, technical seminars, trainings and other means. We established procedures and standards for contacting customers, setting out the basic requirements of our customers in respect of inquiries, transactions and complaints. We established the Customer Complaints Handling Procedures, which 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 2016, we transformed E-tapeout customer service system. Engineering Notice and customer product demand delivery management system. In the same year, we also streamlined business flow, reduced probability of error, improved work efficiency and cut short business cycle.

Customer satisfaction score	8.39	8.49	8.38
Complaint cases (case)	16	11	11
Percentage of customer complaints addressed (%)	100	100	100

Protection of Customer Information

We always pay great attention to maintaining the security of customer information. We established an information security control system, which is ISO27000 certified. The Information Security Committee within the Company clarified the responsibility of information security to control information security risks and guarantee information security from such areas as information asset management, human resources security, physical access management and logic access management. At the same time, we audited our photomask partners, ensuring the security of their data management and storage. In 2016, all our employees completed training and tests regarding online information security. In 2016, no incidents of infringement of laws or regulations concerning customers' privacy occurred.

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 2016, the Company had not been involved in any litigation with respect to any commercial bribery or corruption.

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. At the same time, we worked out rules about supply chains management including comprehensive evaluation of environment, security and health of suppliers while requiring that products from suppliers must satisfy the laws and regulations regarding Hazardous Substance Free (HSF) in order to guarantee all products supplied to customers meet requirements about hazardous substances in related international and domestic laws and regulations. Our Company always encourages our suppliers to become members of the Electronic Industry Citizenship Coalition (EICC) and follow the EICC Code of Conduct and obtain ISO14001 certifications, thereby further promoting our green value chain. 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.

With the expansion of our production capacity, the Company has increased its purchases of raw materials, equipment, and utilities. Currently, we have more than 1,000 domestic and overseas suppliers. In addition to ensuring continued quality amid lower costs, we proactively support the growth and development of our domestic suppliers, and constantly assist suppliers in improving their management capacities. In addition, we also proactively encourage small- and medium-sized enterprises to participate in the localization of key raw materials, including gas, chemicals and silicon wafers.

Localization of raw materials procurement ⁵ (%)	19.6%	20.0%	22.0%
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⁵ Raw materials purchased include: silicon slice, quartz, target material, gas, chemicals and other raw materials for production.

5.2 Anti-corruption

The Company established a compliance department to supervise the overall compliance management. All major departments have compliance officers to implement internal control management systems, policies, and measures. We improve our compliance management systems based on the capital market requirements each year, including reviews over compliance management. In 2016, we modified and launched the Rules about Management of Commercial Bribery (3rd Version).

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. By constantly promoting the execution of the Undertakings against Commercial Bribery and the Undertakings to Refuse Commercial Bribery, as of the end of 2016, the Company entered into Undertakings against Commercial Bribery agreements with 126 manufacturers and Undertakings to Refuse Commercial Bribery with 61 management employees and employees in major positions.

The Company constantly promotes clean and honest practices and organized training programs with respect to anti-corruption and clean and honest initiatives. We staged twelve “clean and honest initiative” seminars with members of management with a total of 2,982 participants. The participation rate was 100%. Altogether, 428 section managers and above watched the TV Play “Always on Road” (literally translated name). We organized activities of Chinese calligraphy show themed as “Fight against Corruption and Display Chinese Calligraphy” and collected 32 pieces of art. The “Measures about Complaints and Management by Employees” was worked out, stipulating channels of reporting through emails, telephones and mailbox, to encourage employees to report suspicious breaches of law with our Company. In 2016, to the best knowledge of the Company, no breaches of law and regulations and no reporting took place.

We focus on the needs of the community and regard mutual development with the community as an important part of our social responsibility. With regard to investment in the community, we focus on jointly building of the sense of community and providing volunteer service.

We continually advocate joint efforts between government agencies and local populations to promote community well-being, and we provide neighborhood firefighters with beverages, towels, items for showering and other articles for daily use, to express our solicitude towards all first-line firefighters. We conducted pairing and supporting activities with Youqiao village of Chongming County to expand and enhance our service to more people with difficulties in Youqiao village. In 2016, all those living in poverty that met the requirements of serious illness medical insurance received allowances. In addition, we actively took part in the Employees Library project organized by Trade Union of Zhangjiang Park in 2016, and donated more than 170 books to the Library, supporting the goal of sharing and recycling books.

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 260 volunteers. Our voluntary activities in Meixin Nursing Home have lasted for 11 years.

Accumulated Time Length of Volunteer Activities (h)	240	480	560
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Awards of State and Industry Level

- 1 2016 Golden Ant Award of National Golden Card Project
- 2 Five-star Site by National Evaluation for Site Management
- 3 National Model Academician Expert Workstation
- 4 Top 50 Innovative Enterprises in Chinese Electronics Information Industry
- 5 Five-star Enterprise of the Third Star Awards for Chinese Industrial Enterprises' Fulfillment of Duty in 2016
- 6 Most Recognized Foundry of Greater China IC Design Achievements in 2016
- 7 2016 China Top Ten Semiconductor Manufacturers
- 8 The 10th China Semiconductor Innovative Products and Technology Award
- 9 2016 CITE Innovative Products and Application Award
- 10 TOP 10 Domestic Enterprises with Most Patents in 2016
- 11 One of Ten New Cases of Internet Plus in Industrial Application Field in 2016

Provincial Awards

- 12 Shanghai Top 100 Industrial Taxpayers
- 13 Award of Shanghai "Quality Standard"
- 14 Shanghai Outstanding Intellectual Property Rights Holders
- 15 Shanghai Top Ten Performers of Economic Yield in the IC Industry
- 16 Top Five Enterprises with Best Sales Results in Integrated Circuit Industry in Shanghai
- 17 Shanghai Excellent Academician Expert Workstation
- 18 Shanghai "Five-star Enterprise with Integrity"
- 19 Excellent Team in National "ANKANG" Award Competition (Shanghai zone)
- 20 Technological Innovation Award for Outstanding Contribution
- 21 First Class Award for Scientific Technology in Sichuan Province
(Joint Application of "Key Technology and Application of Power High Voltage MOS Device" with University of Electronic Science and Technology of China)

Report Overview

This 2016 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 2016. It mainly addresses to our stakeholders the sustainable development regarding economic, environmental, and social issues concerned

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 covers Hua Hong Semiconductor Limited, including all subsidiaries of the Group.

Reporting period: From 1 January 2016 to 31 December 2016.

Release cycle: This is an annual report.

Data Descriptions

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