



# 2017 | SMIC

CORPORATE SOCIAL RESPONSIBILITY REPORT



## About This Report

### • Introduction

This is Semiconductor Manufacturing International Corporation (SMIC)'s 9<sup>th</sup> Corporate Social Responsibility (CSR) Report released to the public, elaborating the principles to which SMIC had been holding fast to in its performance of CSR in 2017. This report mainly covers SMIC's important stakeholders' concerned topics relating to economy, environment and social sustainable development.

### • Reference Standards

This report is prepared in accordance with Environmental, Social and Governance Reporting Guide contained in Appendix 27 of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (SEHK) and in reference with the major principles in Global Reporting Initiative(GRI)'s Sustainability Reporting Standards (GRI Standards), Economics Division, Chinese Academy of Social Sciences' Chinese CSR Reporting Guide (CASS-CS4.0), China Federation of Industrial Economics(CFIE)'s Guidance on Social Responsibilities of Industries(CSRI-China), Chinese Electronics Standardization Association (CESA) SJ/T 16000-2016 Guidance on Social Responsibility of Information and Communication Technology Industry, and ISO 26000:2010 Guidance on Social Responsibility.

### • Organization Scope of the Report

The organization scope of this report covers SMIC and its subsidiaries and major shareholding companies and is consistent with the organization scope of SMIC's Annual Report. For the convenience of expression, Semiconductor Manufacturing International Corporation may be expressed as SMIC, "we" or "the Company". In addition, the "state" and "government" without full name in the report refers to People's Republic of China and its administrative organs.

### • Time Scope of the Report

The time scope of this report is from January 1<sup>st</sup>, 2017 to December 31<sup>st</sup>, 2017. Some content or data may be traced back to previous years.

### • Report Release Cycle

SMIC's CSR Report is an annual report, which is usually released in the second quarter of the following year.

### • Information on Report Editing and Data Sources

The members of SMIC's CSR Committee who serve as editorial members provide information and data of CSR affairs from various functional departments. SMIC's Public Affairs Center/CSR Department organizes, edits and revise the data, and applies for a report rating. The report is reviewed and confirmed by members of the CSR Committee.

### • Publication Forms of the Report

This report is published in both Chinese and English languages and released in hard copies or electronic copies. Electronic copies of the report are available at SMIC's official website: <http://www.smics.com>.

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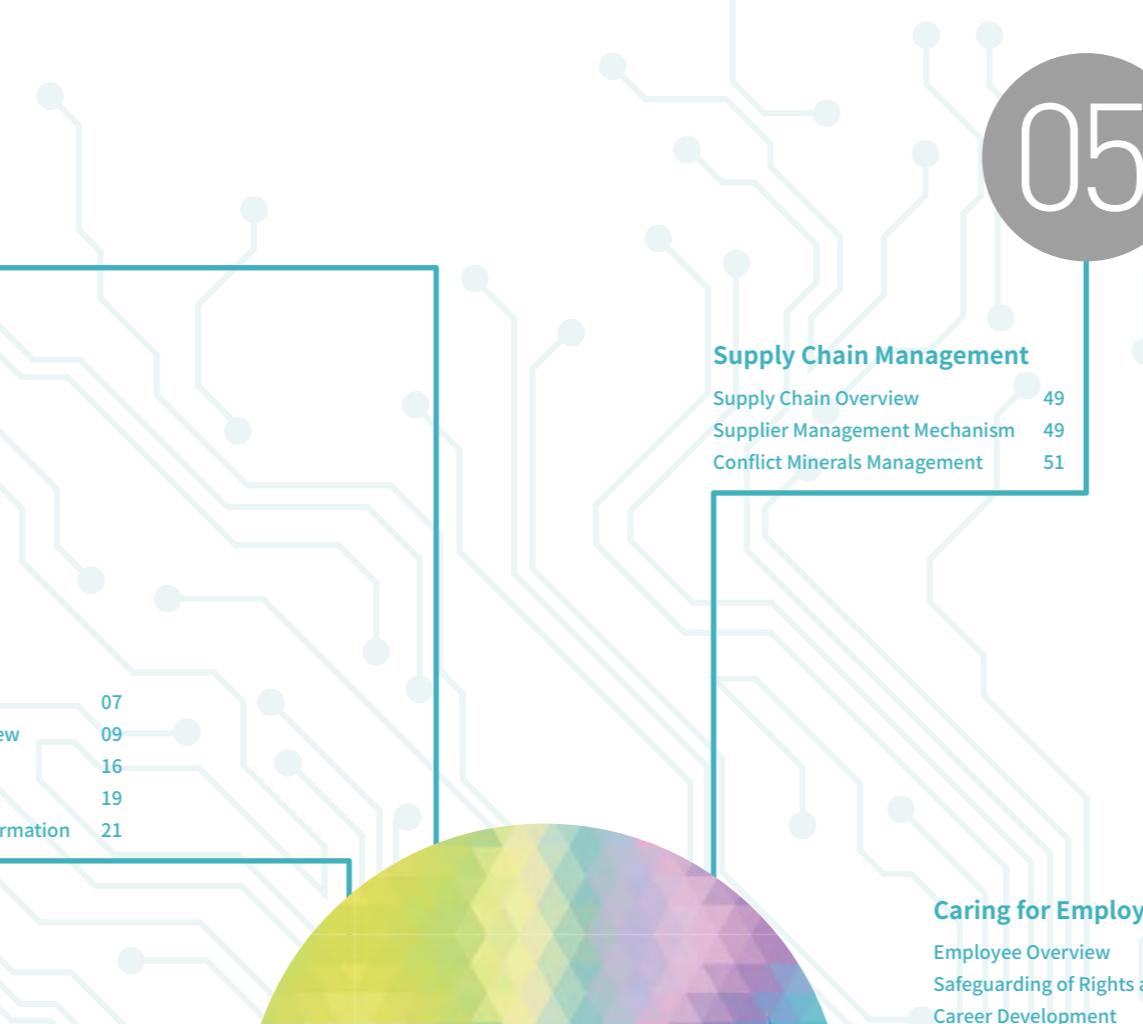
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**About SMIC**

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## Chairman Message

Dear readers:

Thank you for your continued concern and support to Semiconductor Manufacturing International Corporation!

In 2017, Semiconductor Manufacturing International Corporation (SMIC) continued to work closely with stakeholders based on the corporate social responsibility (CSR) strategy of "Care for people, the environment, and society", integrating employees' human rights maintenance, consumer care, environmental protection and social responsibility into the core strategy of the company's business operations, and continuing to fulfill social responsibility.

In the past year, we had put our development and reforms side by side in corporate management and governance. In 2017, SMIC hit a new high in sales revenue, up to 3.1 billion US dollars, an increase of 6.4%. 14 nanometer research and development was advanced as planned in order and 28 nanotechnology product portfolios were successfully put in mass production. Besides, great efforts were made to expand the IoT and other technical platforms to help domestic customers meet the demand for native manufacturing and further promote improvement and development of the industrial ecological chain. 2017 was the beginning of the company's reforms. In this year, the company implemented the double CEO system for the first time and inside company, made general reforms, adjusted the structure, optimized the system and improved institutions; externally, the company took initiative to lay out the mainstream advanced technology according to the market and customer needs, laying an excellent foundation for quickly fitting technology transfer of customers.

In employees care, SMIC continued to create more convenient and comfortable living environment for employees, so that they could live and work in contentment based on the orientation of "building homes while maintaining the factory". In April 2017, Shanghai Tangzhen LQ Phase I was completed, providing quality residential conditions for nearly 4,000 employees and their families. In October, Shanghai Tangzhen LQ Phase II project was launched with a total investment of 710 million RMB, which is expected to provide a dwelling place for 4,000 employees and their family members after completion. In addition, the company continued to optimize the dining environment and shuttle bus lines, organize various recreational and sports activities, and strengthen communications to enhance the work and life satisfaction of employees.

In energy conservation and environmental protection, the company further increased investment and all divisions continued to actively practice. In 2017, SMIC invested more than RMB 33 million to continuously encourage green production and strongly promote energy-saving, power-saving and water-saving projects. A total of 12 energy-saving projects and 4 water-saving projects were completed, saving energy of about 4.22 million kWh and water of about 500,000 tons each year. Semiconductor Manufacturing North China (Beijing) Corporation was rated as a "Green Factory" by the Ministry of Industry and Information Technology (MIIT). The company also held environmental protection publicity and public welfare activities, advocating low-carbon lifestyle, which received positive response from many employees.

In the social welfare and service, we achieved a new milestone. In 2017, the fifth year of implementation of "SMIC Liver Transplant Program for Children", SMIC continuously worked together with its partners in the semiconductor industry and donated RMB 4.77 million to the program. By the end of 2017, the program was contributed totally amounting to RMB 16.75 million, helping a total of 324 poor children with liver disease to get a new life. The company organized employees to participate actively in social commonweal and community service activities, including volunteer blood donation, Zhangjiang Charity Fun Run, Dushan Defense, nursing home and orphanage visits, Giving Tree, Million Trees Planting Program and other events. The volunteer service time for the whole year was over 20,000 hours.

Based on our performance of the CSR in all aspects, SMIC was listed on the "Hang Seng Corporate Sustainability Benchmark Index" for the seventh year in a row (2011-2017) and received "Outstanding CSR Award" from Mirror Post Hong Kong for the fourth year in a row (2014-2017) in 2017.

"Success comes after experience of hardship." At present, SMIC is in the transition period. With the deepening of reform and entrepreneurship, we are confident that SMIC's development will be on a new peak. We will continue to uphold the CSR strategy of "Care for people, the environment, and society" and adhere to the sustainable development mode for green production to implement the UN sustainable development goals. We will continue to persevere in hard work, forge ahead, and never forget the original intention to fulfill the CSR, and untiringly struggle for a common brilliant life of all interested parties!

Dr. Zhou Zixue, Chairman  
June 2018

## **Vision Statement**

To be recognized by global customers and stakeholders as a high quality, innovative and trusted foundry.

## **Core Values**

### **Integrity**

We will be honest, defend important principles, commit to our words, and be responsible towards how our behavior influences the company and society.

### **Customer Service**

We will take the initiative to understand and fulfill the customer's needs with the premise of following the company's information security policies and set up a long term win-win partnership with them.

### **Quality**

We will conform to quality standards and carry out each task with a mindset on total employee participation, putting quality first and continual improvements.

### **Execution**

We standardize processes and follow strict disciplines. We will meet our goals through rigorous planning, efficient execution, detailed following up and timely problem resolution.

### **Innovation**

We will foster innovation continuously and actively carry out product technology R&D, increasing productivity and optimizing work procedures.

### **Team**

We are all members of one SMIC team. Company goals will be achieved by cooperation between disciplines, all taking the proper ownership and accountability while understanding each other's role and challenges for success.





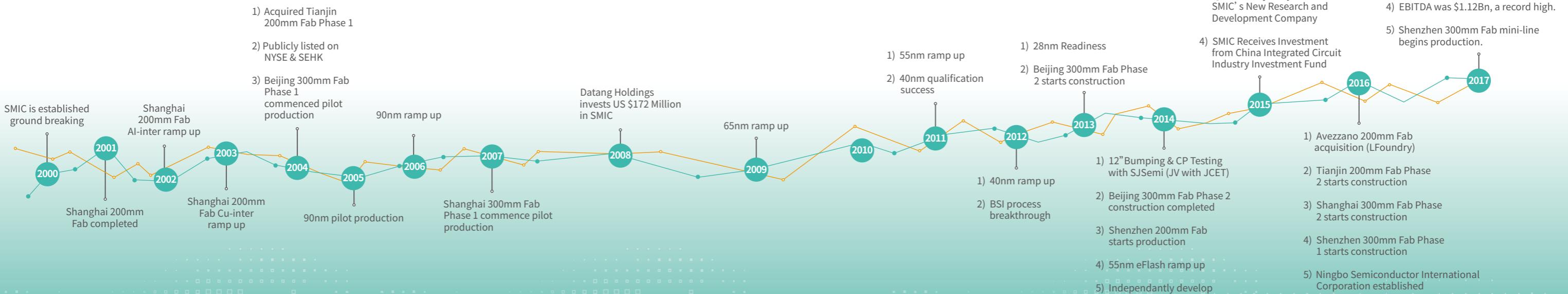
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# SMIC MILESTONES



## 1.1 Overview

Semiconductor Manufacturing International Corporation ("SMIC"; NYSE: SMI; SEHK: 981) was established in mainland China in 2000. As of 2017, SMIC, one of the leading foundries in the world, is the largest in scale with broadest in technology coverage and has the most comprehensive semiconductor manufacturing service platforms for business globally in mainland China. SMIC provides wafer foundry and technology services from 0.35-micron ( $\mu$ m) to 28-nanometer (nm) to customers worldwide. SMIC offers one-stop solutions ranging from IC design enablement and IP development services, mask making to wafer manufacturing, wafer sorting, wafer probing, wafer bumping, turnkey services, and assembly and final testing through a strong network of established partners. With complete foundry solutions, SMIC is committed to help customers to shorten time-to-market in the most cost effective way.

Headquartered in Shanghai, China, SMIC has established manufacturing and service bases worldwide. SMIC has a 300mm (12") wafer fabrication facility (fab) and a 200mm (8") mega-fab in Shanghai; a 300mm mega-fab and a joint venture 300mm (12") fab for advance nodes in Beijing; a 200mm (8") fab in Tianjin; another 200mm (8") fab in Shenzhen; and a joint venture 300mm (12") wafer bumping joint venture in Jiangyin, China. In 2016, SMIC acquired the majority of shares of LFoundry, a 200mm fab located in Avezzano, Italy. In 2017, SMIC had a total of 229kWPM (thousands Wafers Per Month) 200mm (8") installed capacities and 95kWPM 300mm (12") installed capacities.

SMIC has sales and customer service offices in China, the U.S., Europe, Japan, Taiwan, and a representative office in Hong Kong. Throughout SMIC's global locations, SMIC offers seamless services and support to its customers worldwide. With a commitment to excellence, SMIC has been consistently delivering quality products and services to world class Integrated Device Manufacturers (IDMs) and Fabless IC design companies, and system companies. IC products that SMIC manufactured for customers are widely used in communication, computing, consumer, automobile, industrial and related applications.

In 2017, SMIC once again achieved excellent operational results. Business performance in the year was so far the most impressive since its foundation. SMIC's performance hit record highs in terms of almost all key indexes, such as business revenue, gross margin, business profit, net profit, and rate of return on net assets. The company's total revenue in 2017 reached \$3.1 billion, up 6.4% on a year-on-year basis, which is in line with the average growth rate of the pure-play fab industry. With a gross margin of \$ 740 million, the company achieved a net profit rate of 5.8% and a profit of \$ 180 million.

For more financial information, refer to SMIC's annual report, available at: [http://www.smics.com/attachment/2018042717470100033127430\\_en.pdf](http://www.smics.com/attachment/2018042717470100033127430_en.pdf).

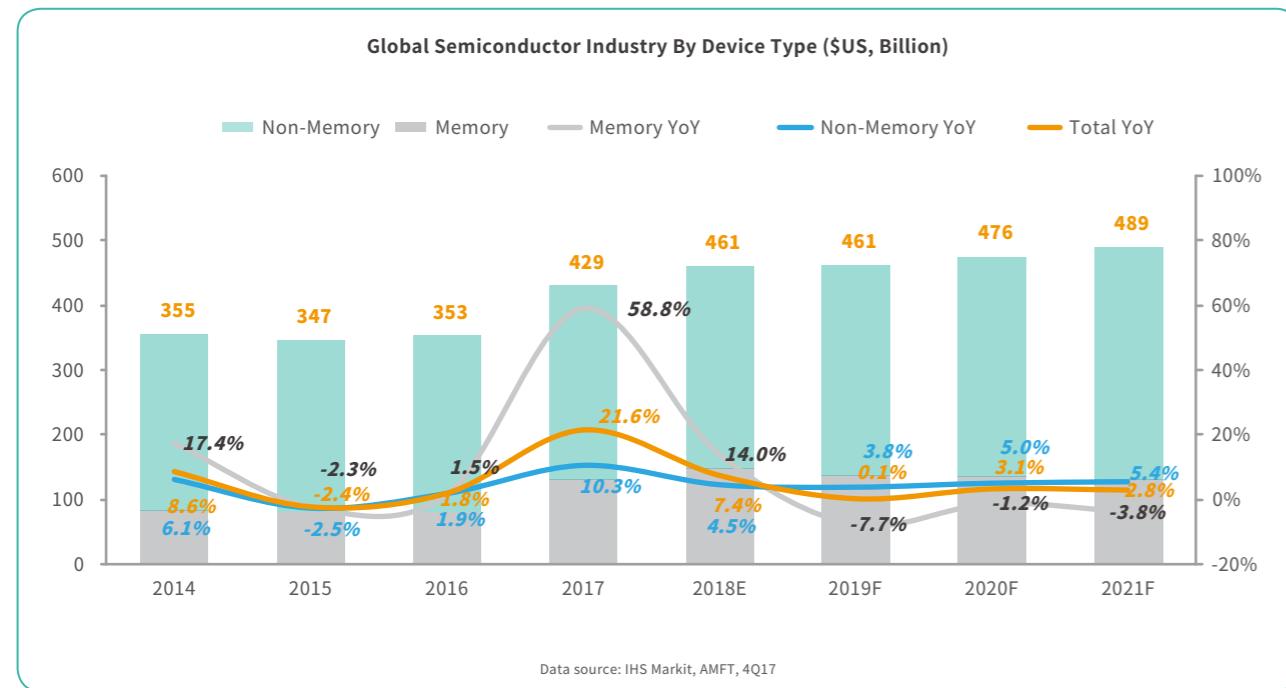
Financial Index	2015	2016	2017
Revenue (million USD)	2236.4	2914.2	3101.2
Growth Rate (%)	13.5%	30.3%	6.4%
Net Profit Growth Rate (%)	65.7%	48.6%	-52.3%
Return on Equity (%)	6.8%	9.6%	3.8%
Assets Liabilities Ratio (%)	41.8%	44.3%	43.6%
Total Tax (million USD)	56	38	31*
R&D Input (million USD)	237.1	318.2	427.1
Ratio of R&D Input to Revenue (%)	10.6%	10.9%	13.8%

\* Taxes and fees decreased in 2017 compared to 2016, mainly due to the impact of the drop in VAT.

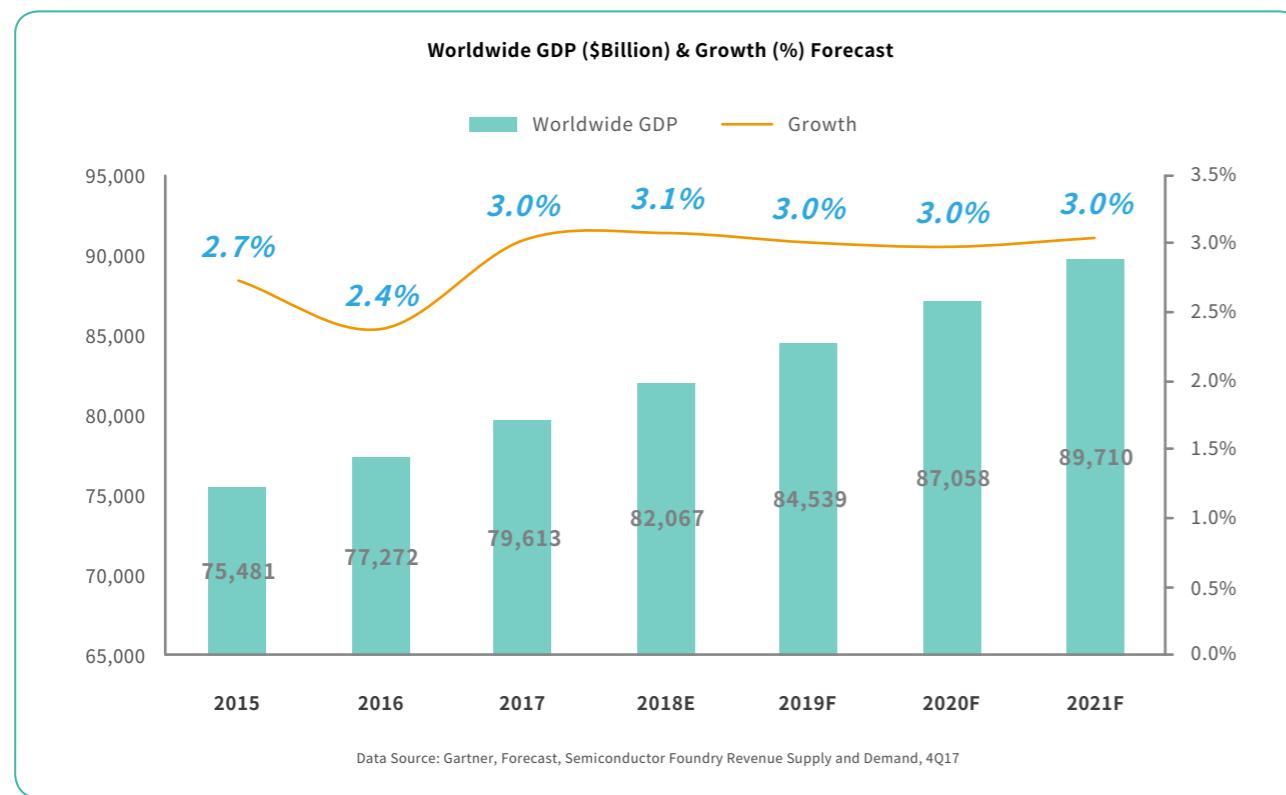
## 1.2 Semiconductor Market Overview

### 1.2.1 Global Market

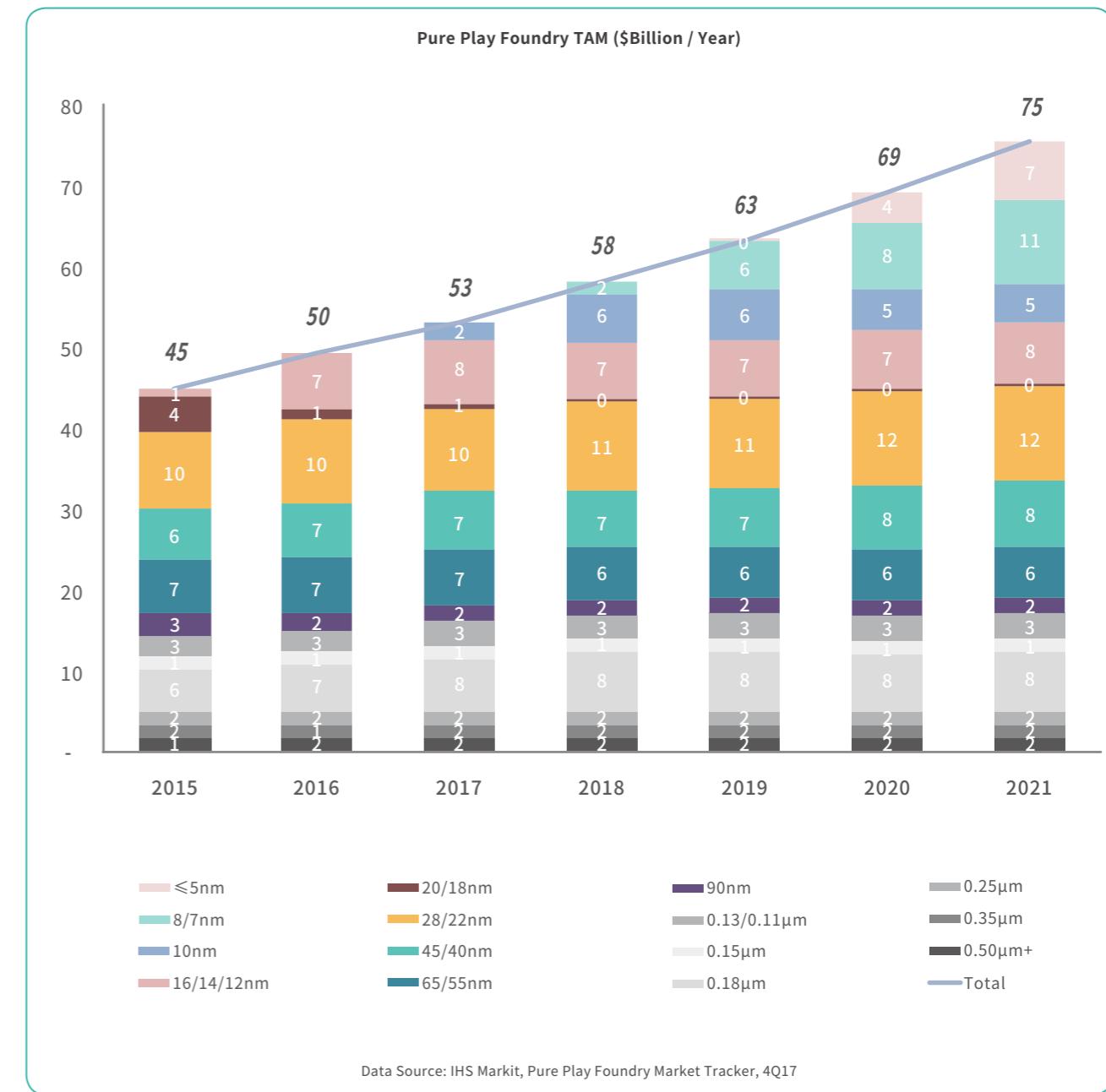
According to IHS Markit, the worldwide semiconductor revenue in 2017 was estimated to be \$429B, with a significant annual growth rate of 21.6%. While the strong revenue growth is mainly driven by memory products (YoY it was 58.8%) whose price rose heavily because of undersupply conditions. Non-memory semiconductor products were estimated to grow by 10.3%.



Looking forward, the global economy will keep positive growth, with a GDP annual growth rate of around 3%. As before, the overall performance of the semiconductor industry will be closely tied to the global economy.

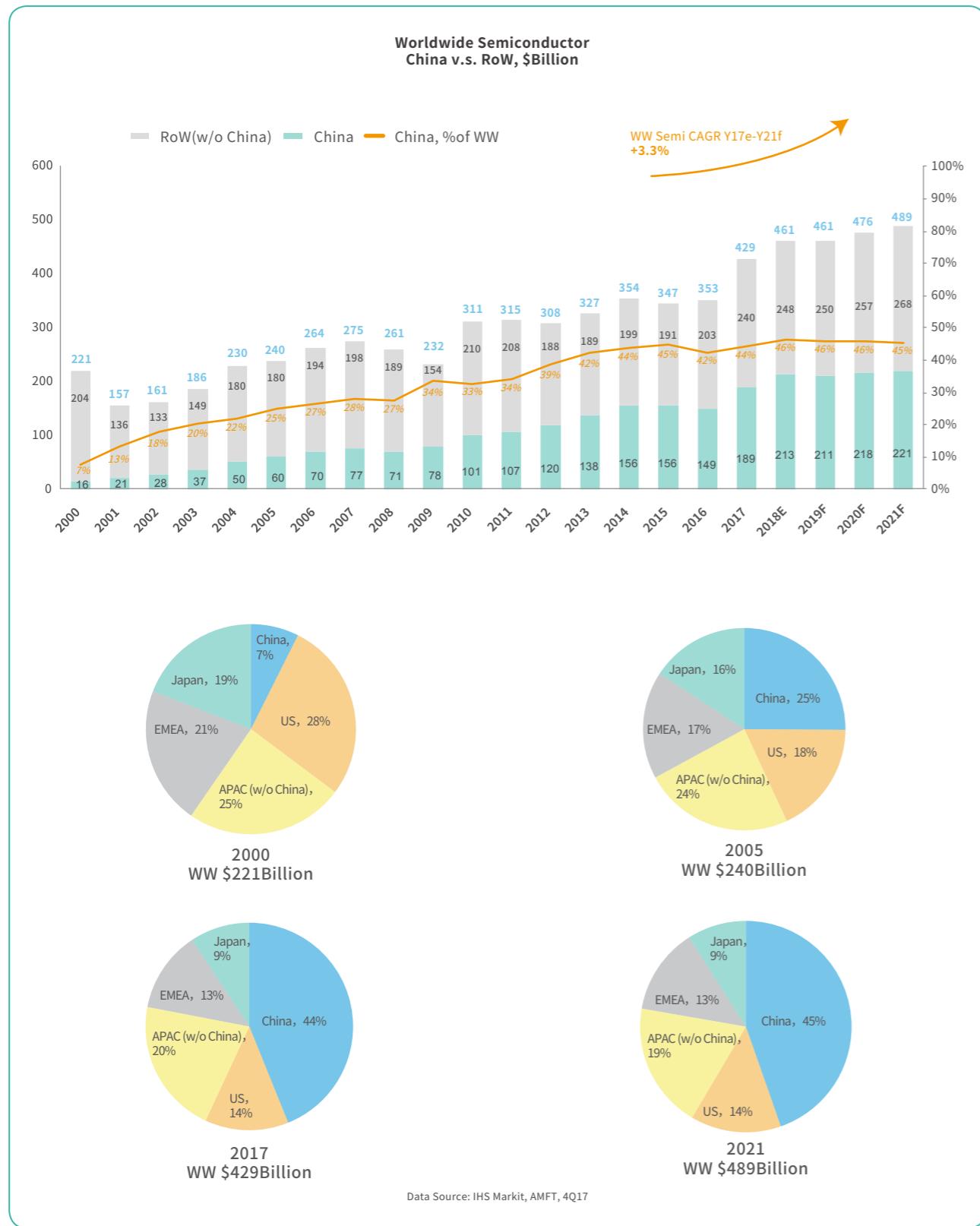


For the foundry industry, IHS Markit estimated the revenue of the foundry market was \$53.0B in Y17, with an annual growth of 7.1%. The huge amount of capital spending required for high volume wafer fab facilities at advanced nodes makes the vertical IC design and manufacturing model and IDM companies' adoption of an outsourcing strategy to be more certain, along with the ongoing growth of the semiconductor market, and will contribute to the long-term growth of the foundry market. It's expected that the pure-play foundry market will reach \$75.4B in 2021, with a 2016-2021 Compound Annual Growth Rate (CAGR) of 9.1%, outperforming the semiconductor market's 2.8% CAGR for the same period.



## 1.2.2 The China Market

With the high concentration of electronics production related industries, China continues to have the number one semiconductor demand in the world (roughly \$189.2B in 2017), which represents approximately 44.1% of worldwide semiconductor revenue. The Chinese IC market has been growing rapidly in recent years. In 2017, the Chinese IC design market reached \$21.1B, with a 20.1% year-to-year growth from 2016. By 2021, the potential domestic IC design revenue is expected to grow to \$45.2B, with 20.9% CAGR from 2017 to 2021.



The traditional electronics market includes Automotive, Computer, Communication, Consumer, and Industrial. Most of these end products now incorporate the concepts of Internet of Things (IoT), Artificial Intelligence (AI), Deep Learning (DL), Machine Learning (ML), etc., which are expected to bring in new opportunities for the semiconductor industry with various requirements for ICs, such as high density, low power consumption, and high-speed related features.

The Chinese government is positively supporting development in these new areas, such as Internet of Things, Smart Manufacturing, and Artificial Intelligence. In 2015, the Chinese government declared the "Made in China 2025 (MIC-2025)" program, which is the Chinese version of Industry 4.0. In MIC-2025, China aims to integrate and strengthen its information technology and industrialization through the implementation of smart, intelligent, and green manufacturing. The MIC-2025 has ten focus areas, including Information Technology, Digital Machine & Robotics, Aerospace & Aviation, Green & New Energy Cars, Advanced Railroads, Oceanic Engineering, Power Equipment, Biomedical & E-Medicine, Agricultural Equipment, and New Materials.

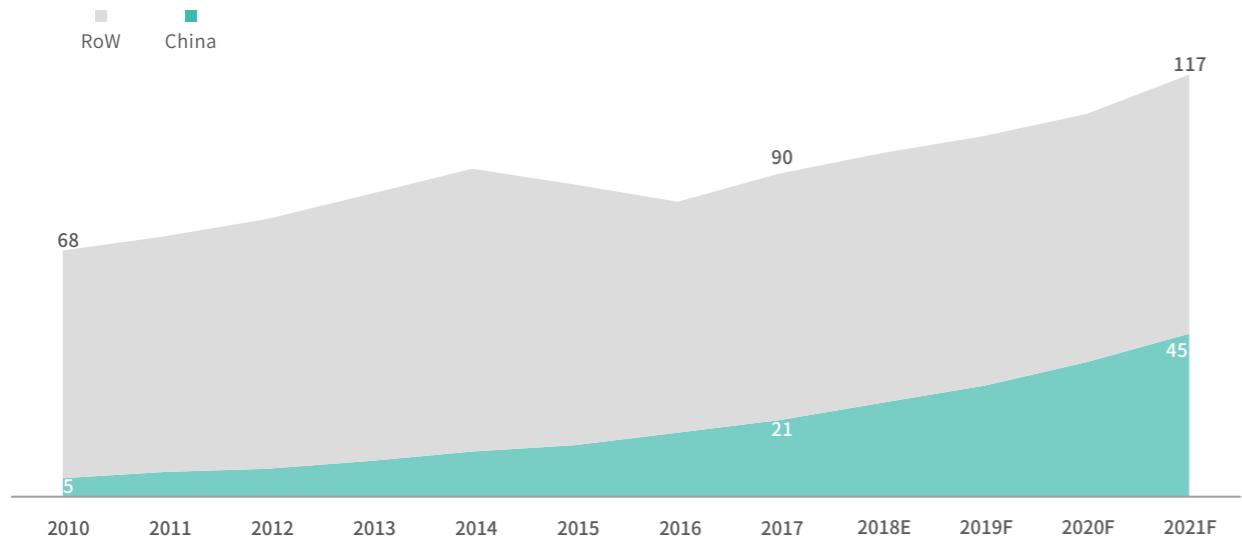


In 2017, the Chinese government launched its "Development Plan for the New Generation of Artificial Intelligence" and "3-Years Action Plan to Accelerate the New Generation of Artificial Intelligence Industry (2018-2020)". Four key missions include:

- (1) Develop smart products, such as Connected Vehicles, Smart Robotics, Drones, Medical Imaging Diagnostics, Video/Imaging Identification, Voice Interaction, Smart Translation System, Smart Home, etc,
- (2) Prioritize the development of Smart Sensors, Neural Network Chips, Open-source Platforms, etc. to lay a solid foundation for the software and hardware needed by the AI industry,
- (3) Deepen developments on Smart Manufacturing, encourage the application of AI technology in industry,
- (4) Build up Resource Libraries, Standards, IP Service Platforms, Smart Internet Infrastructure, and other public supporting systems, to perfect and develop the implementation of AI.



SMIC, as the leading pure-play semiconductor foundry in China, has a dominating advantage to service both domestic Chinese Fabless and overseas IDMs and Fabless companies.



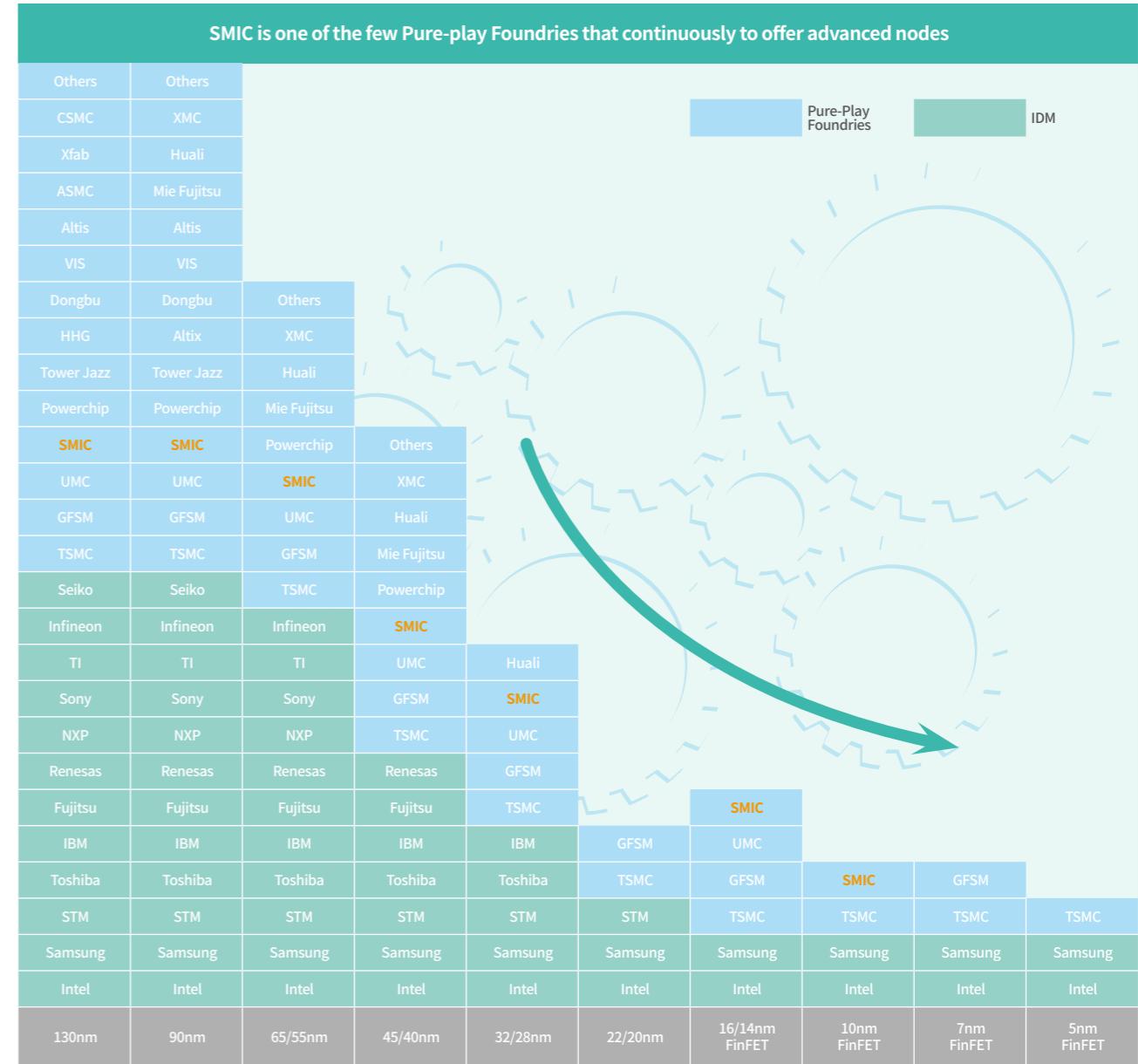
Data source: IHS Markit, Pure Play Foundry Market Tracker, 4Q17; ICwise, 2017

### 1.2.3 SMIC's Competitive Advantages

SMIC is one of the few pure-play foundries in the world capable of offering a complete portfolio on both mature and advanced wafer manufacturing process technologies. SMIC has process technologies, ranging from 0.35-micron ( $\mu\text{m}$ ) to 28-nanometer (nm) in mass production, and 14nm FinFET technology under development.

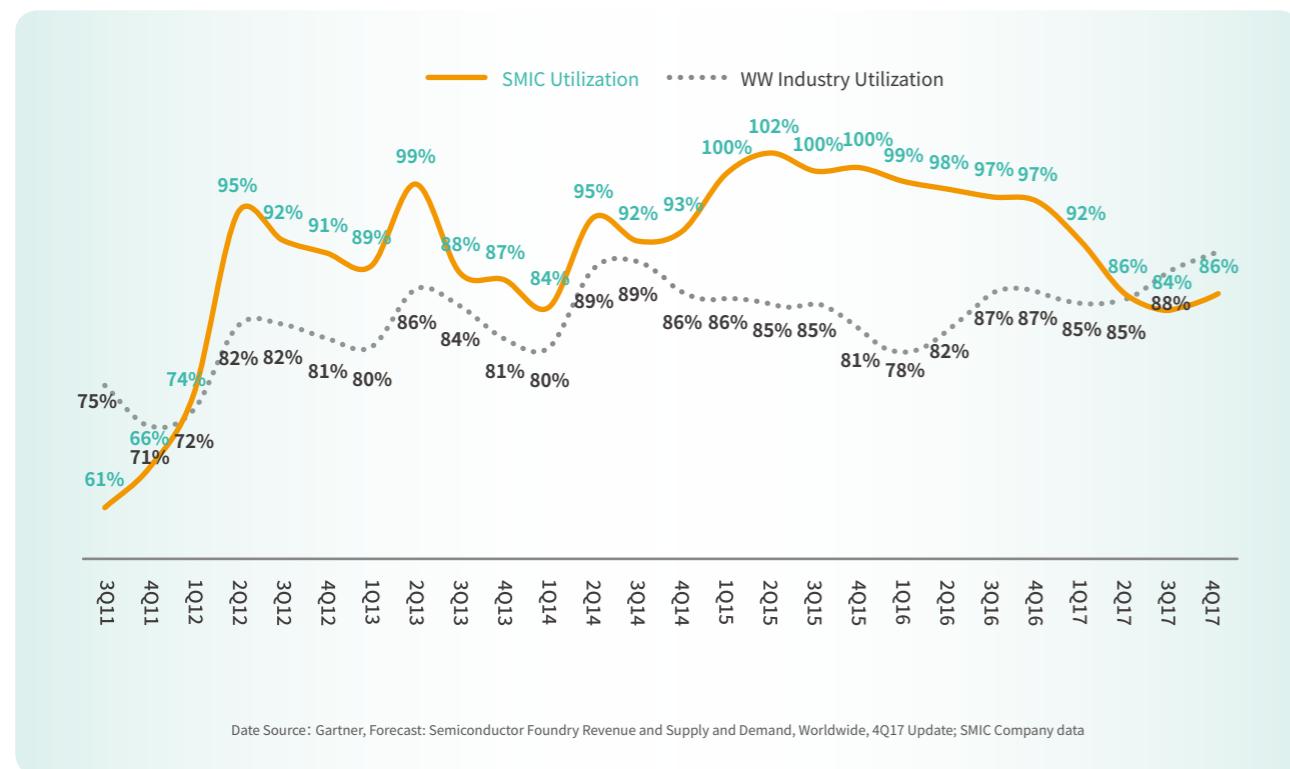
In 2017, SMIC was ranked as the 4<sup>th</sup> largest pure-play foundry in the world and had approximately 6% of market share according to IHS' analysis. SMIC has several competitive advantages which are listed in, but not limited to, the below points:

- We offer one-stop service on both advanced technologies and specialty technologies.
- We continuously invest in R&D, IP development, and ecosystem building.
- We maintain a high utilization rate compared to the industry's global utilization rate.
- We are the largest pure-play foundry in China with a complete product portfolio.
- We are the most preferred foundry by Chinese IC Designers.
- Our proximity to the China market, the largest and fastest growing region of electronic manufacturing and consumption.

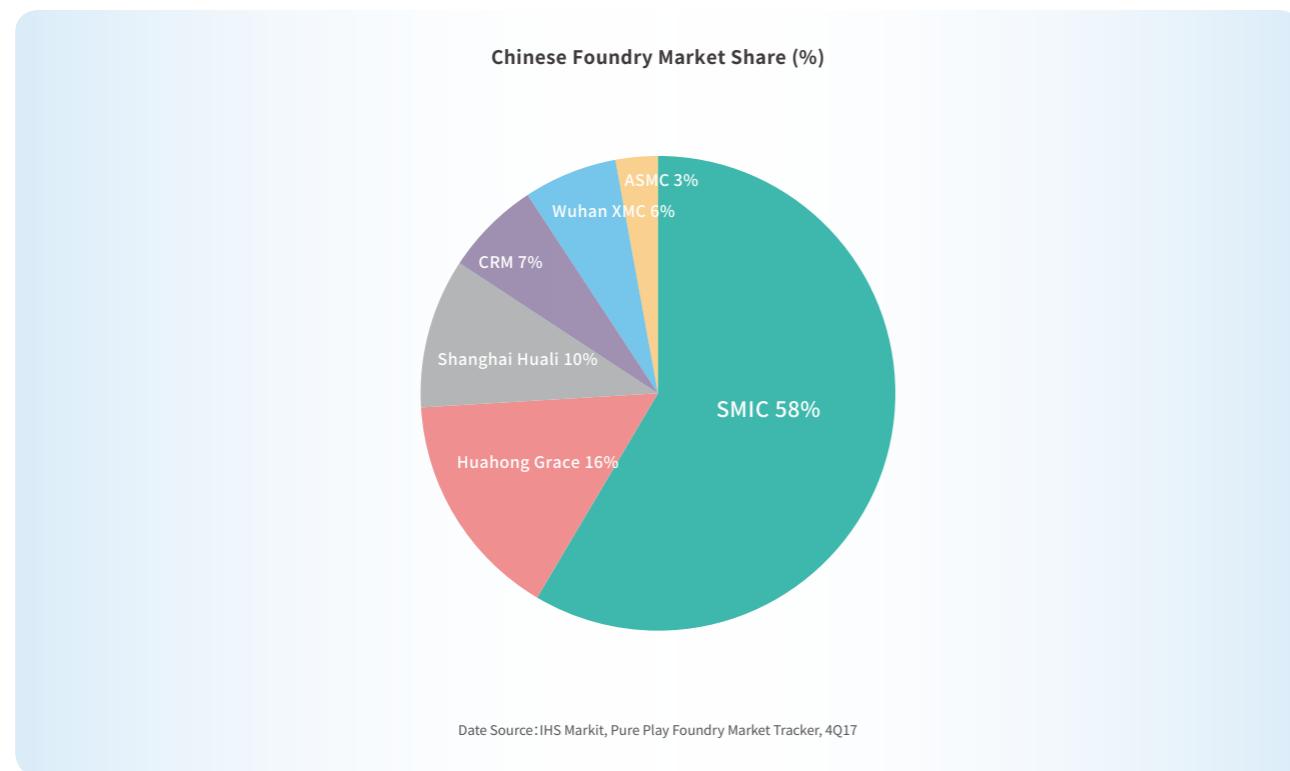


Date Source: ARM, SMIC internal studies, 2017

SMIC has improved its overall business operations through increasing its fabs' utilization rates and outperforming the industry on utilization rate.

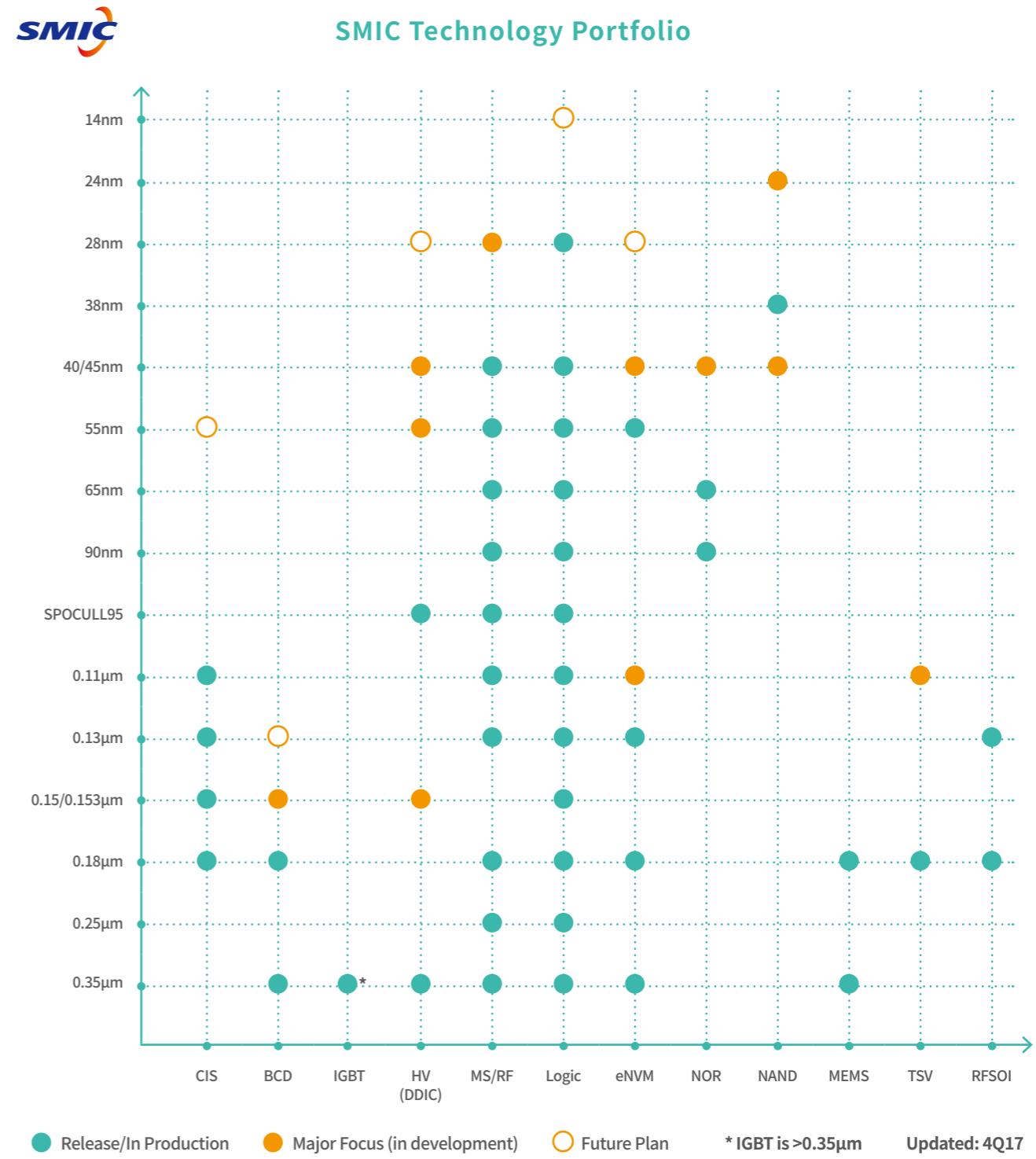


Over the past decade, SMIC has been the number one pure-play foundry in China. In Y17, SMIC's estimated market share in the Chinese foundry market was about 58%, well ahead of other competitors. With its strong market position and proximity to China, numerous world class IC design companies have selected SMIC as their ideal foundry partner in China. SMIC has been selected by local Chinese IC design companies as their most preferred pure-play foundry in China in the past consecutive years. SMIC continues to win customers' trust and partnerships through providing quality products and service to help customers to shorten time-to-market, offering value-added innovations on differentiated mature and advanced technologies, and building strategic partnership with customers for the China and worldwide markets.



## 1.3 Products and Services

SMIC is focused on balancing the developments of mature and advantaged technologies. Currently, SMIC offers a comprehensive product and technology portfolio.



SMIC offers a comprehensive technology portfolio comprising Logic, Mixed Signal/RF, ULP(Ultra Low Power) devices, high-voltage/BCD, IGBT, non-volatile memory (NVM, such as NOR Flash, NAND Flash, and emerging memories), embedded NVM (eNVM such as eFlash, eEE-PROM, OTPROM), Display Driver IC (DDIC), Touch Control IC (TCIC), CMOS Image Sensors (CIS), Fingerprint Sensors, MEMS, TSV/3DIC, WLCSP, and related foundry solutions at various technology nodes.

## 1.3.1 Advanced Technologies

### 1.3.1.1 28nm Technologies

SMIC's 28nm technology is a mainstream industry technology and consists of both conventional PolySiON (PS) and gate-last high-k dielectrics metal gate (HKMG) processes. SMIC's 28nm technology was process frozen in 4Q13 and has successfully entered Multi Project Wafer (MPW) stage to support customers' prototyping requirements on both 28nm PolySiON and 28nm HKMG processes. In 2015, SMIC achieved successful yield improvement using our 28nm process technology for low-power and high performance mobile processors. In 4Q15, SMIC's 28nm technology entered the mass production stage and started to contribute revenue to the company. In 2016, SMIC 28nm technologies continued to yield a stable supply for key pioneer customers as well as develop new business. As of today, over 150 IPs from multiple third party IP partners as well as SMIC's internal IP team are prepared to serve various projects from worldwide design houses that have been engaging with SMIC's 28nm process. Going forward, SMIC's 28nm process technologies will continue to target mobile computing and consumer electronic related applications, such as smartphone, tablets, wireless connectivity, DTVs, set-top boxes, networking, etc.

### 1.3.1.2 45/40nm Technologies

SMIC is the first foundry in mainland China to offer 40nm technology. SMIC offers its 40nm Low Leakage (LL) process with 1.1V core devices of three threshold voltage levels as well as 1.8V, 2.5V and 3.3V I/O options to meet various design application requirements. The 40nm logic process combines the most advanced immersion lithography, strain engineering technique, ultra-shallow junction and low-k inter-metal dielectric for power and performance optimization. The 40nm process technology enables high performance and low power consumption for applications such as baseband processors, application processors, high definition video processors, wireless connectivity, and other consumer and communication equipment.

### 1.3.1.3 65/55nm Technologies

SMIC's 65nm/55nm process technology platform supports a wide range of IC products, including Logic, Mixed Signal, RF, BCD, NOR Flash, eFlash and CIS. With years of experience on 65/55nm mass production, SMIC has been successfully supporting customers to manufacture various IC products on 65/55nm for applications such as mobile computing, digital home, and mobile storage. SMIC's 65/55nm solutions provide customers with high and stable yields on proven IP platforms. SMIC's 65nm/55nm logic technology combines improved performance and reduces power consumption and increases design possibilities and cost efficiency. The logic process standard offerings for the Low Leakage (LL) platform has three threshold voltage core device options and 1.8V, 2.5V, 3.3V I/O options to provide a flexible design platform. In 2014, SMIC was the first pure-play foundry in the world to offer a 55eFlash (embedded Flash) solution for Smartcard and SIM Card applications. SMIC's 55eFlash was a breakthrough and has been in mass production since 4Q14.

In addition, in 2015, SMIC also introduced 55nm ULP (Ultra-Low-Power) platform which offers lower operating voltage, lower leakage current, and lower power consumption. Comparing to 55nm LL solutions at 1.2V

operating voltage, SMIC's 55nm ULP at 0.9V operating voltage offers up to 90% reductions in leakage current. SMIC's ULP also support eFlash and RF processes, which makes it an ideal platform for low-power, low-data rate and connected applications, such as for wearable, smart home, smart lighting, smart appliances, smart city, industrial, and various applications in the IoT market segment.

## 1.3.2 Mature Technologies

### 1.3.2.1 90nm Technologies

SMIC has multiple 90nm products in mass production at our 300mm facilities. With in-depth experience in process development, SMIC has made 90nm a vital technology node available to our customers worldwide. SMIC's 90nm process technology uses copper interconnect, low-k material to produce high-performance devices. SMIC's 90nm production at its state of the art 300mm facilities ensures cost optimization, providing customers with additional resources for further technology enhancements. This 90nm technology fulfills the ever-stringent requirements of power, performance, and integration for various applications. Furthermore, this technology can be customized to accommodate various design requirements including high speed, low power, mixed signal, RF, as well as provide embedded solutions.

### 1.3.2.2 0.13μm/0.11μm Technologies

Compared to the same device on SMIC's 0.15μm technology, SMIC's 0.13μm technology enables a substantial die size reduction of more than 25% and performance enhancement by as much as 30%. The die size can be reduced by more than 50% and chip performance increased by more than 50% when compared to 0.18μm technology. SMIC's 0.13μm process technology uses an all-copper interconnect approach to drive high-performance devices while enabling cost optimization. Using eight metal layers with a poly gate length of down to 0.08μm, our 0.13μm technology offers generic devices with a core voltage of 1.2V and I/Os with supply voltage of 2.5V or 3.3V options. Low-voltage and low-leakage options are in mass production. 0.13μm libraries, memory compilers, I/O and simulated IPs from our partners are available.

### 1.3.2.3 0.18μm Technologies

SMIC's 0.18μm process technology family includes logic, Mixed Signal/RF, high-voltage, EEPROM and OTP technologies, all of which are supported by an extensive range of libraries and IP. The technologies are based on a single poly six metal layer process featured by a high gate density of over 100,000 gates per mm<sup>2</sup> and are available in multiple voltages of 1.8V, 3.3V and 5V to customers. With these technologies, SMIC provides cost-effective and proven solutions at the 0.18μm node for smart cards, consumer electronics and various other applications. SMIC also offers customers flexible solutions with modules for embedded memory, Mixed Signal/RF CMOS.

### 1.3.2.4 0.35μm/0.25μm Technologies

SMIC's 0.25μm Logic as well as Mixed Signal/RF CMOS (for 3.3V and 5V applications) are available. SMIC provides cost-effective and proven solutions at the 0.35μm node for various consumer electronics and other applications. SMIC's 0.35μm process technology family includes logic, Mixed Signal/RF, high-voltage, EEPROM, and OTP technologies. These are supported by an extensive range of libraries and IP.

## 1.3.3 IC and Application Scopes

In general, SMIC's foundry solutions are not limited to these corresponding applications. More than 80% of SMIC's revenue comes from communication and consumer sectors with driving applications such as smartphone/feature phones, tablets, DTV, STB, smartcards, DSC/DV, home appliances, memory storage, consumer electronics and etc. SMIC acquired a majority of LFoundry's shares in 2016 so as to join the global automotive electronics market and achieve greater revenue growth by the addition of automotive and industrial applications.

IC and Application Scopes		
	Power Management	• PMIC, PMU, Discrete Power
	Wire-line Communication	• Flash Controller, USB, Bridge IC, TCON, Audio, Video
	Image & Display	• Mobile Phone CIS, DSC/DV/DPF, NB/PCCAM
	MCU	• Touchpad controller, MCU
	Smart Card	• Financial Card, Bank Card, ID Card, Transportation Card, ePassprot, etc.
	Wireless Connectivity	• Wi-Fi, Bluetooth, GPS, AM/FM, NFC, etc.
	Mobile Computing	• Mobile Phone, Tablets, Application Processors, Baseband, SoC
	Memory	• NOR Flash, NAND Flash, eNVM
	Digital Home	• TV, Set-Top Box, Game Consoles, Projector
	Smart Everything	• IoT, Wearable, Smart Home, and etc.

## 1.3.4 IC Services

### 1.3.4.1 IP Development Service & Design Service

SMIC offers a vast and diverse portfolio of semiconductor intellectual property (IP) blocks from 0.35μm to 28nm to support the design needs of customers. SMIC's design services support customers' designs for production, using proven technologies to allow improvements in chip complexity, performance and functionality, while reducing power consumption and optimizing die size. SMIC's services minimize chip design risk and shorten products' time-to-market.

### 1.3.4.2 Mask Making Service

SMIC's mask shop provides mask manufacturing service for SMIC's foundry customers and other fabs and institutions. Currently, SMIC has China's largest and most advanced mask making facility with 0.50μm to 28nm in production and also with 20nm and 14nm capabilities. Equipped with state-of-the-art

equipment and tools, the facility offers binary masks and phase shift masks complete with optical proximity correction (OPC). Both 5"×5" and 6"×6" reticles are available for G-line, I-line, DUV and ArF steppers and scanners.

#### 1.3.4.3 Multi Project Wafer (MPW) Service

SMIC's Multi-Project Wafer (MPW) program provides customers a cost-effective prototyping service by enabling multiple customers and projects to share common mask and engineering wafers. Currently, SMIC provides shuttle service for processes from 0.18μm to 28nm on a regular basis.

#### 1.3.4.4 Wafer Probing and Testing Services

SMIC's test facility provides customers with quick turnaround and strict quality control for wafer-level testing. Equipped with advanced testing and laser repair machines, SMIC's test facility offers customers comprehensive testing services in 200mm and 300mm wafer sizes. Services offered include wafer probing, epoxy probe card building and repair as well as testing for contact and contactless IC card types. SMIC's wafer probing service includes test program development as well as failure analysis and reliability testing. SMIC can build repair and maintain epoxy probe cards up to 16 DUTs as well as low-leakage probe cards.

#### 1.3.4.5 Bumping Service

Bumping is a necessity for wafer yield testing of advanced front-end IC manufacturing technologies and is the basis of the 3D wafer level packaging technology development. SMIC can offer 8" bumping service in-house and also founded a joint venture with JCET for 12" bumping and related testing service.

SMIC's bumping line is capable of lead-free solder bump processing, redistribution layer (RDL), Wafer Level Chip Scale Packaging (WLCSP) processing, and Die Processing Services (DPS). The solder bumping processes are compatible with both Al and Cu pads. This service can be used on products such as SoC, RF devices, and high performance ICs that require flip chip or wafer-level chip scale packaging. DPS, which takes either bumped or WLCSP products from wafer form into die form (including processes such as testing, die saw and tape & reel), is also offered for customers who require backend services.

## 1.4 Innovation Management

SMIC attaches much importance to innovation management and incorporates innovation as an important component of its corporate culture. We have established a management system ideally suited to innovation and continue to actively cooperate with many institutions outside the company.

### 1.4.1 Innovation Mechanism

Focusing on in-house development, SMIC has established an independent R&D department and has been continuously investing in technology innovation and intellectual property. SMIC, employing more than 1,000 R&D workers, spent \$427.1 million for research and development in 2017, which accounted for 13.8% of the total sales.

In addition to in-house development, SMIC also pays much attention to the cooperation with universities/colleges, research institutions and customers in R&D.

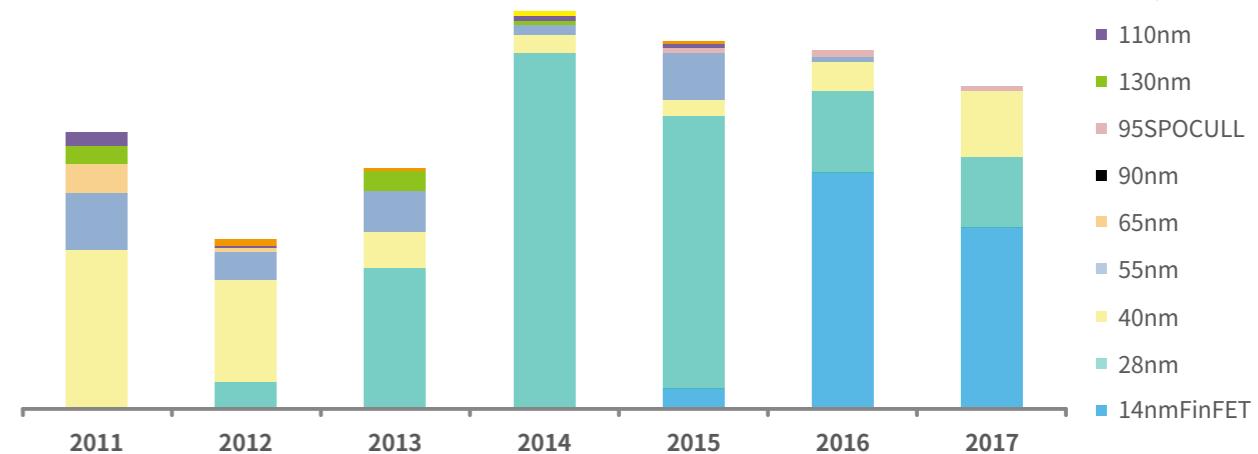
SMIC's R&D Center actively develops technical cooperation and technical services with domestic companies. Based on our advanced process production lines, we cooperated closely with domestic equipment and material companies to verify IC equipment or materials on SMIC's large-scale production line. The verification provided technical support and platform guarantees for R&D verification of whole equipment and key materials, and led to the localization of equipment and materials industry technology.

SMIC also cooperates with a number of leading universities and research institutes in China to carry out Industry-University-Research Collaboration at the 14nm technology node. The cooperation units include Institute of Microelectronics of Chinese Academy of Sciences, Institute of Microsystem of Chinese Academy of Sciences, Peking University, Tsinghua University, Fudan University, Zhejiang University, and Shanghai IC RD center, etc.

In order to cultivate more outstanding talents for IC industry, SMIC launched the School-Enterprise Cooperative Education Platform Plan, which includes a master's degree program jointly established with the University of Chinese Academy of Sciences for the purpose of cultivating IC engineers, and training and practice in SMIC for graduate students and undergraduate students from Shanghai Jiao Tong University, Fudan University, Zhejiang University, Xidian University, Tianjin University, Shanghai University and Datang University, etc.

SMIC's Q&R Center actively cooperates with Chinese universities and colleges. On the one hand, it cultivates more quality and reliability talents for IC industry. On the other hand, it integrates various resources to study and solve problems in the process of technological development.

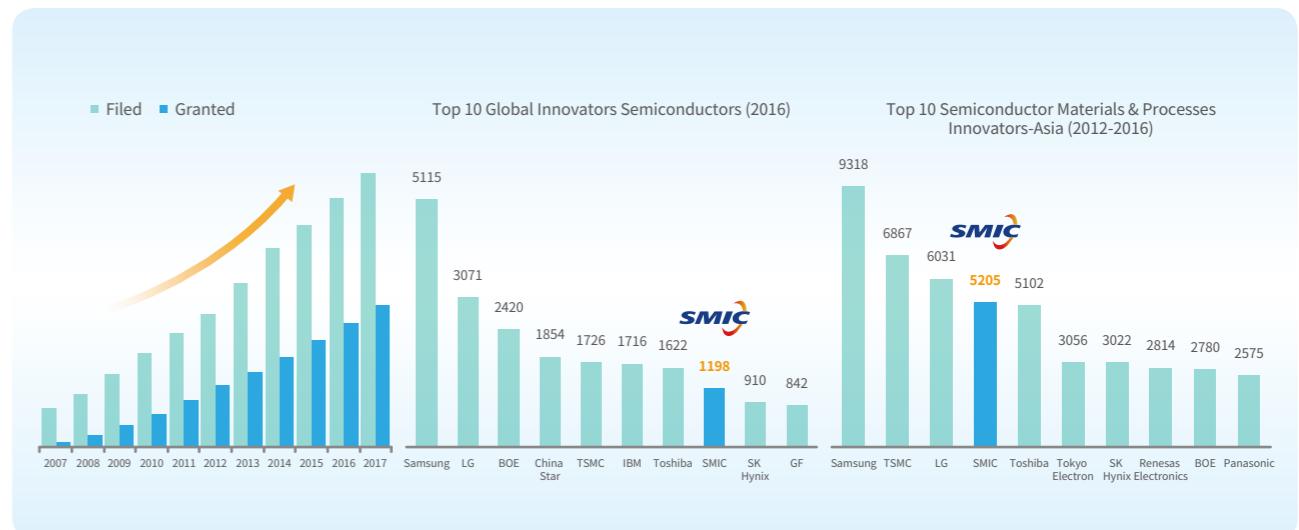
SMIC keeps third party IP investment at advanced tech. nodes



### 1.4.2 Innovation Achievements

#### 1.4.2.1 Patent Achievements

By the end of 2017, SMIC had a cumulative 14,689 patents filed and 7,585 patents granted. As a result, SMIC is amongst the top-5 companies in China for patents granted. In the 2016 State of Innovation Report issued by Thomson Reuter, SMIC is ranked in 8<sup>th</sup> place in the TOP-10 Global Innovators—Semiconductors according to the data from Derwent World Patent Index. Moreover, SMIC is ranked in 4<sup>th</sup> place in Asian Semiconductor Material and Technology Innovators (2012-2016).



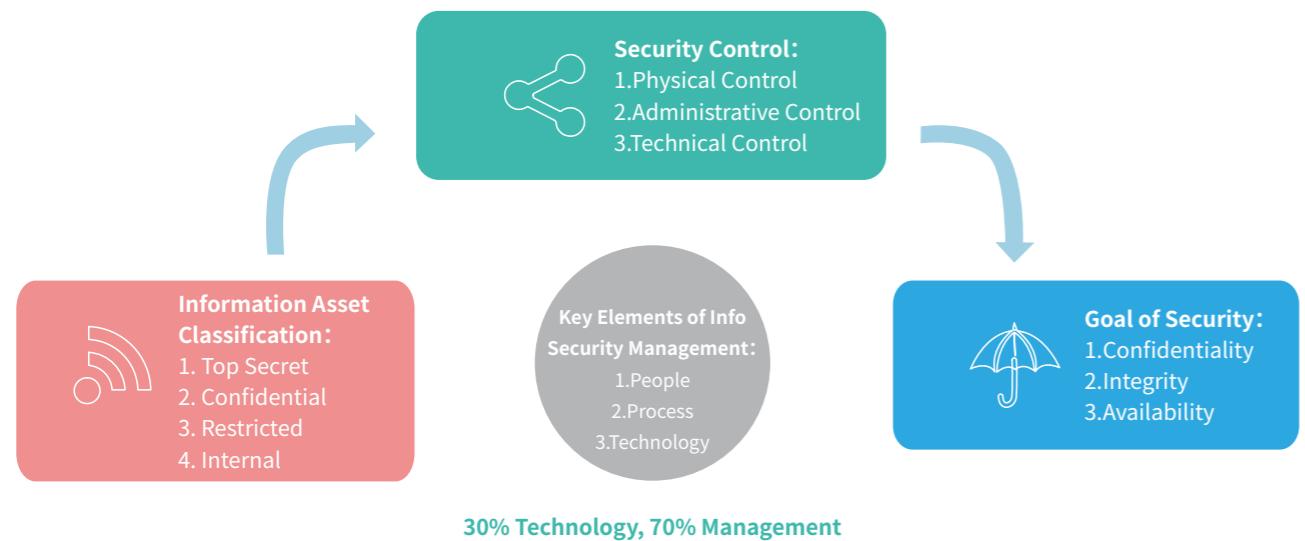
#### 1.4.2.2 Technology Achievements

In 2017, SMIC achieved good technology achievements. In the development of 14nm technology, SMIC established a CMOS process flow with all expected technological characteristics. Devices manufactured with this process flow implemented a multiple-critical-voltage scheme and demonstrated SRAM unit functions with performance and reliability close to design targets.

SMIC continued to invest in ULP special process technologies for use in Internet of Things (IoT), Cloud Computing, Smart Devices, and in other future technologies such as PMIC, RF/Wireless technologies, RFSOI, CMOS imaging sensor(CIS), MEMS/sensor, and embedded memories. Currently, SMIC has taken the lead in China in many technologies, including 55nm eFlash for bank card chips, 38nm NAND flash(for OEM of products for domestic customers), BSI CMOS imaging sensors(8-megapixel), 95nm SPOCULL (SMIC-Poly- Contact- Low Leakage) technology, and TSV-based CSP technology that has 10 times lower leakage current and 2 times higher chip integration scale. SMIC and Sanechips (ZTE Microelectronics) Announce the First Commercial NB-IoT Chip Designed and Manufactured in Mainland China.

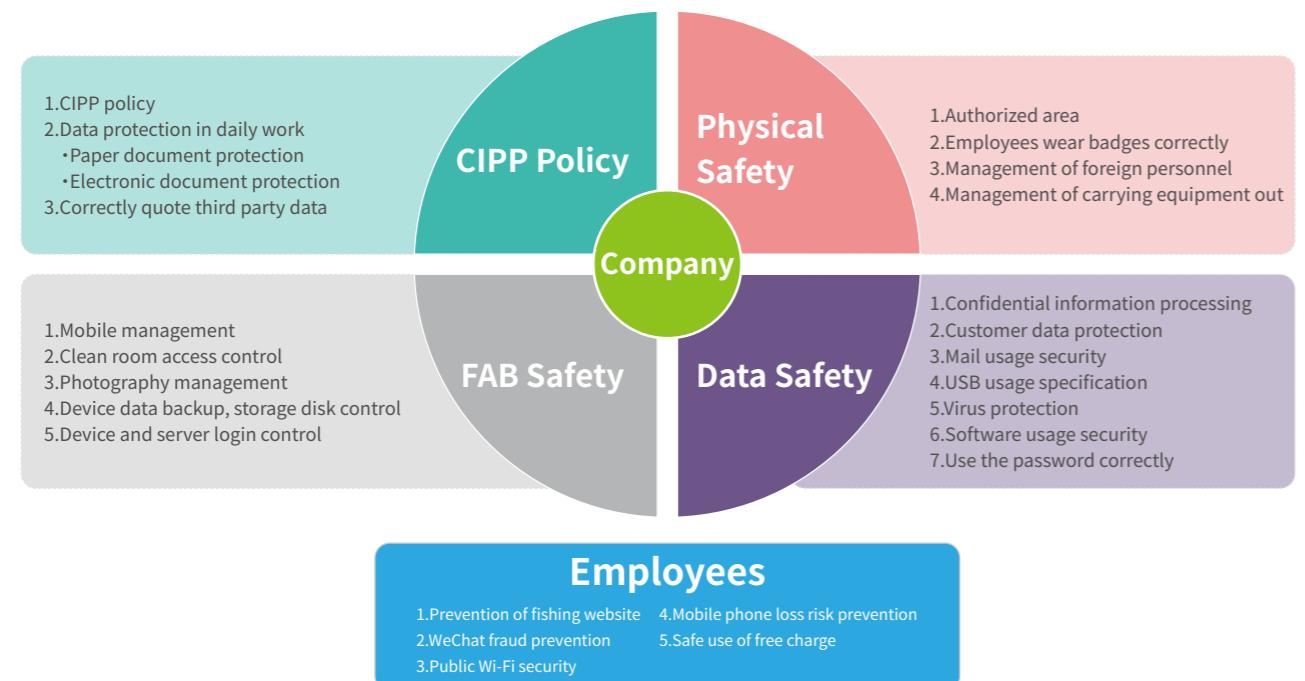
## 1.5 Protection of Confidential Information

SMIC adheres to the idea of ensuring the best interests of the company, its shareholders, customers, suppliers and employees, and attaches great importance to the protection of its own research and development intellectual property and customers' confidential information. We have established a comprehensive protection system and mechanism for information security, including management system optimization, technology prevention and control, and security awareness promotion, which has passed ISO 27001:2013 information security management system certification.



### 1.5.1 Information Management Mechanism

The company has set up the Information Security Steering Committee and the Coordinating Committee to effectively formulate, integrate, strengthen and implement the company's confidential information protection policy (CIPP), physical security, data security and FAB security, as well as personal information security prevention policy.



### 1.5.2 Comprehensive Technical Control and Monitoring System

By continuously strengthening security team, continuously optimizing physical environment control, network access control, identity authentication strengthening, data communications confidentiality, data storage confidentiality, data use controllability and other information security technologies, the company has developed a confidential information technology control and monitoring system.

- Establish an effective visitor registration, access control and monitoring system to standardize the safe access of visitors.
- Divide the physical area into different levels according to the degree of business confidentiality and develop a multi-level protection scheme.
- Establish an effective company and customer confidential information access control mechanism to comply with authorized access and on-demand access for unified management.
- Conduct regular audits of specific confidential data access, transmission and storage activities to ensure continuous and effective control.
- Establish information security incident monitoring, reporting, processing and improvement process to effectively reduce the risk of confidential information leakage and improve the effectiveness of prevention and control.
- Strengthen confidential level classification and marking of information assets, implement classified management and protect confidential information of SMIC intellectual property.

### 1.5.3 Security Awareness Education and Promotion

In 2017, the company intensifies information security promotion for its employees. In the form, in addition to the regular annual information security week activities, the company spread the information security policy to the employees on an irregular basis in mail, information security communication and other forms. And the company established information security homepage to publish information security related work, providing a centralized display platform to help employees get the whole picture of company's information security policy.

In order to ensure the effectiveness of the publicity, the company also set up a hierarchical publicity system: all divisions selected backbones as seeded players for information security, the seed players are trained first in the form of concentrated face-to-face instruction, and then they carry out propaganda work in their own divisions.



A large, semi-transparent circular graphic overlays the background. Inside this circle, several hands of different skin tones are shown holding a white printed circuit board (PCB). The PCB has a grid of white pads and some surface-mount components. The background of the slide is a light blue gradient.

# 02

## CSR Management

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## 2.1 CSR Policy

As an international company listed on the Stock Exchanges of New York and Hong Kong since 2004 (<http://www.smics.com/eng/investors/ir.php>), SMIC complies with strict legal requirements for corporate governance, financial accounting, and transparent reporting. Our business practices also are ethical, safe, environmentally sound, and fair to our employees, in accordance with all the laws, rules, and regulations of the countries where we operate.

In addition to obeying the letter and mandates of such laws, we seek to promote their spirits. Through our CSR Program ([www.smics.com/eng/about/csr.php](http://www.smics.com/eng/about/csr.php)), we hope to advance social, environmental, and ethical responsibility according to internationally recognized standards. In short, we intend to remain worthy of our inclusion in the Hang Seng Corporate Sustainability Index Series as a company that has "attained a high standard of performance in the environmental, social and corporate governance areas" (<http://www.hsi.com.hk>).

To achieve these goals:

1. We declare our support for Responsible Business Alliance (formerly the Electronic Industry Citizenship Coalition®) Code of Conduct ([http://eicc.info/eicc\\_code.shtml](http://eicc.info/eicc_code.shtml)) and will actively pursue conformance to the Code and participation by our suppliers.
2. We uphold the human rights of our employees and the highest standards of business integrity, as required by the RBA Code, the SMIC Code of Business Conduct & Ethics ([www.smics.com/eng/investors/ir\\_ethics.php](http://www.smics.com/eng/investors/ir_ethics.php)), SMIC Human Resources policies, and all other SMIC policies.
3. We strive to maintain a safe workplace for our employees and a healthy environment for the public while minimizing adverse effects on the community, environment, and natural resources, consistent with our Environmental Protection, Safety, & Health Policy and our related ISO and other international certifications ([www.smics.com/eng/about/esh.php](http://www.smics.com/eng/about/esh.php)).
4. We develop and maintain management systems to implement this CSR Policy with continual improvement as part of a holistic CSR Program.

In 2017, SMIC integrated the requirements of the "United Nations Sustainable Development Goals" and "China's National Plan on Implementation of the 2030 Agenda for Sustainable Development" into CSR management work, and developed nine control objectives in "good health and well-being", "quality education", "clean water and sanitation", "affordable and clean energy", etc.

## SUSTAINABLE DEVELOPMENT GOALS



LABOR	HEALTH and SAFETY	ENVIRONMENTAL	ETHICS	MANAGEMENT SYSTEMS
Freely Chosen Employment	Occupational Safety	Environmental Permits and Reporting	Business Integrity	Company Commitment
Young Workers	Emergency Preparedness	Pollution Prevention and Resource Reduction	No Improper Advantage	Management Accountability and Responsibility
Working Hours	Occupational Injury and Illness	Hazardous Substances	Disclosure of Information	Legal and Customer Requirements
Wages and Benefits	Industrial Hygiene	Solid Waste	Intellectual Property	Risk Assessment and Risk Management
Humane Treatment	Physically Demanding Work	Air Emissions	Fair Business, Advertising and Competition	Improvement Objectives
Non-Discrimination	Machine Safeguarding	Materials Restrictions	Protection of Identity and Non-Retaliation	Training
Freedom of Association	Sanitation, Food, and Housing	Water Management	Responsible Sourcing of Minerals	Communication
	Health and Safety Communication	Energy Consumption and Greenhouse Gas Emissions	Privacy	Worker Feedback, Participation and Grievance
				Audits and Assessments
				Corrective Action Process
				Documentation and Records
				Supplier Responsibility

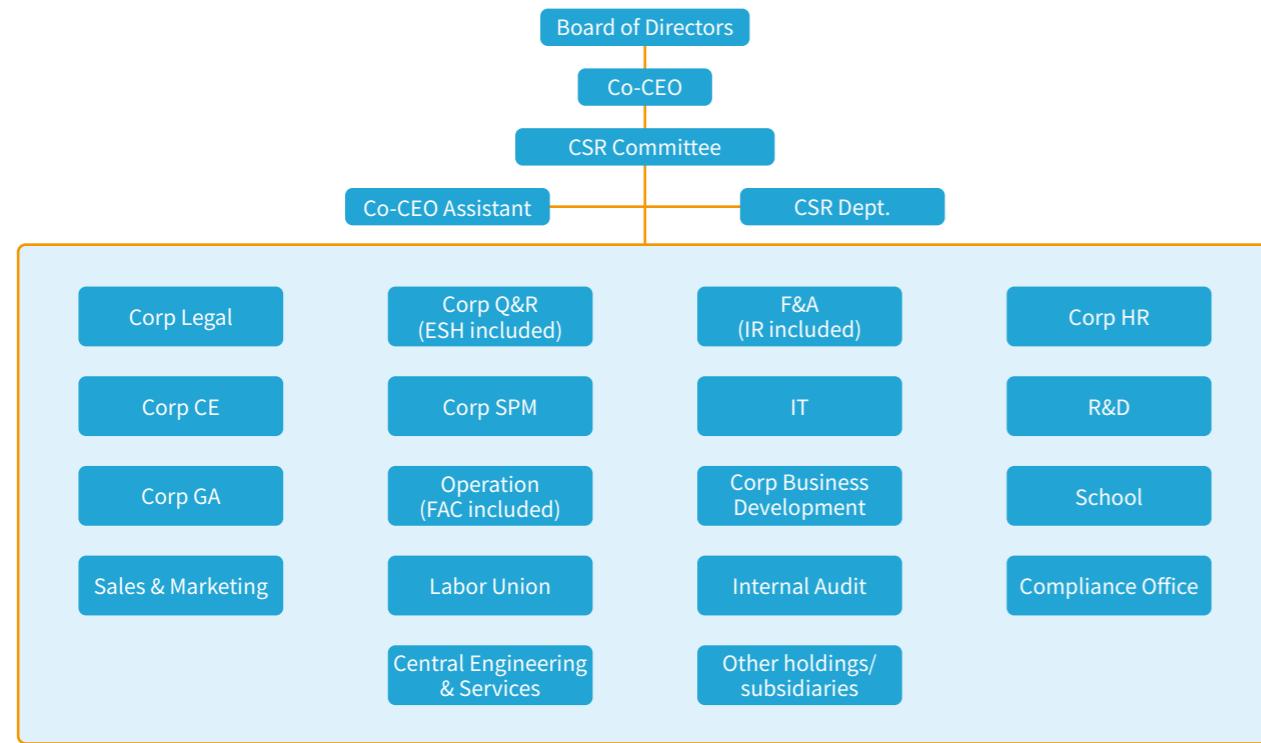
In 2013, SMIC started to assess the environmental, safety, labor and ethical management of the company and its factories by relying on the responsible business alliance online risk assessment (RBA-ON, formerly EICC-ON) system, and develop the continuous improvement plan for the existing risks. In 2017, the assessment results of the company and its factories showed they were at a low risk. Besides, they passed on-site examination of key customers.

Besides adhering to the RBA Code itself, SMIC also required suppliers to comply with the Code and fulfill the social responsibility, with an undertaking signed with key suppliers.

## 2.2 CSR Management Mechanism

In 2015, SMIC set up CSR Committee to promote CSR management projects and achieve the objectives in the CSR policy. The Committee is under the leadership of the Board, where the Co-CEO acts as Chairman, Executive Vice President of Legal/Public Affairs/General Affairs serves as Vice Chairman, and representatives elected by functional departments hold the position of members of the Committee. Its constituent departments includes Supply and Purchasing Management, Information Technology, Customer Engineering, Human Resource, Legal, Public Affairs, General Affairs, Labor Union, Technology Research and Development, Design Service, Operation, Facility and other functional departments, which jointly promote CSR work. The Committee holds job meetings regularly on a monthly basis and periodically reports the progress of CSR work to the company management.

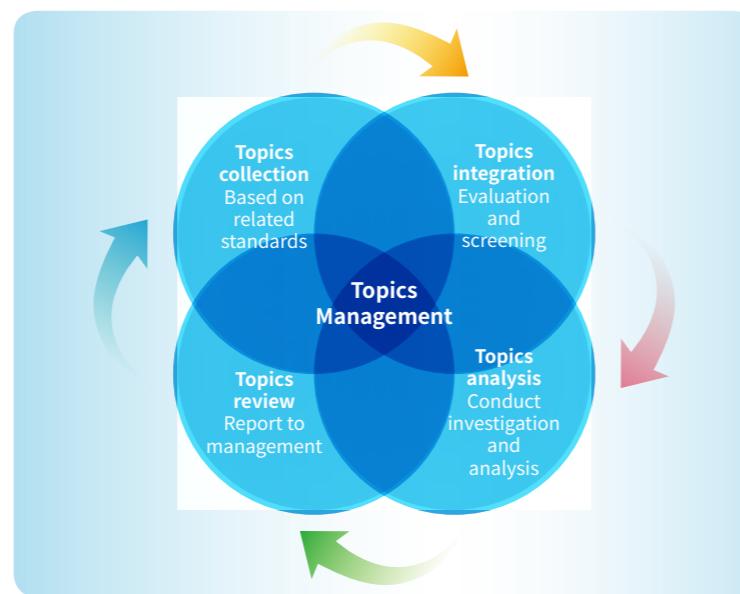
Main responsibilities of CSR Committee: develop the CSR development outline, set and promote to achieve the company's CSR objectives, supervise implementation of the CSR in various functional departments, study, discuss, plan and promote to address CSR related issues, so that the work complies with the law, to realize the sustainable development of the company and embody the care for people, environment and society.



## 2.3 Topic Management

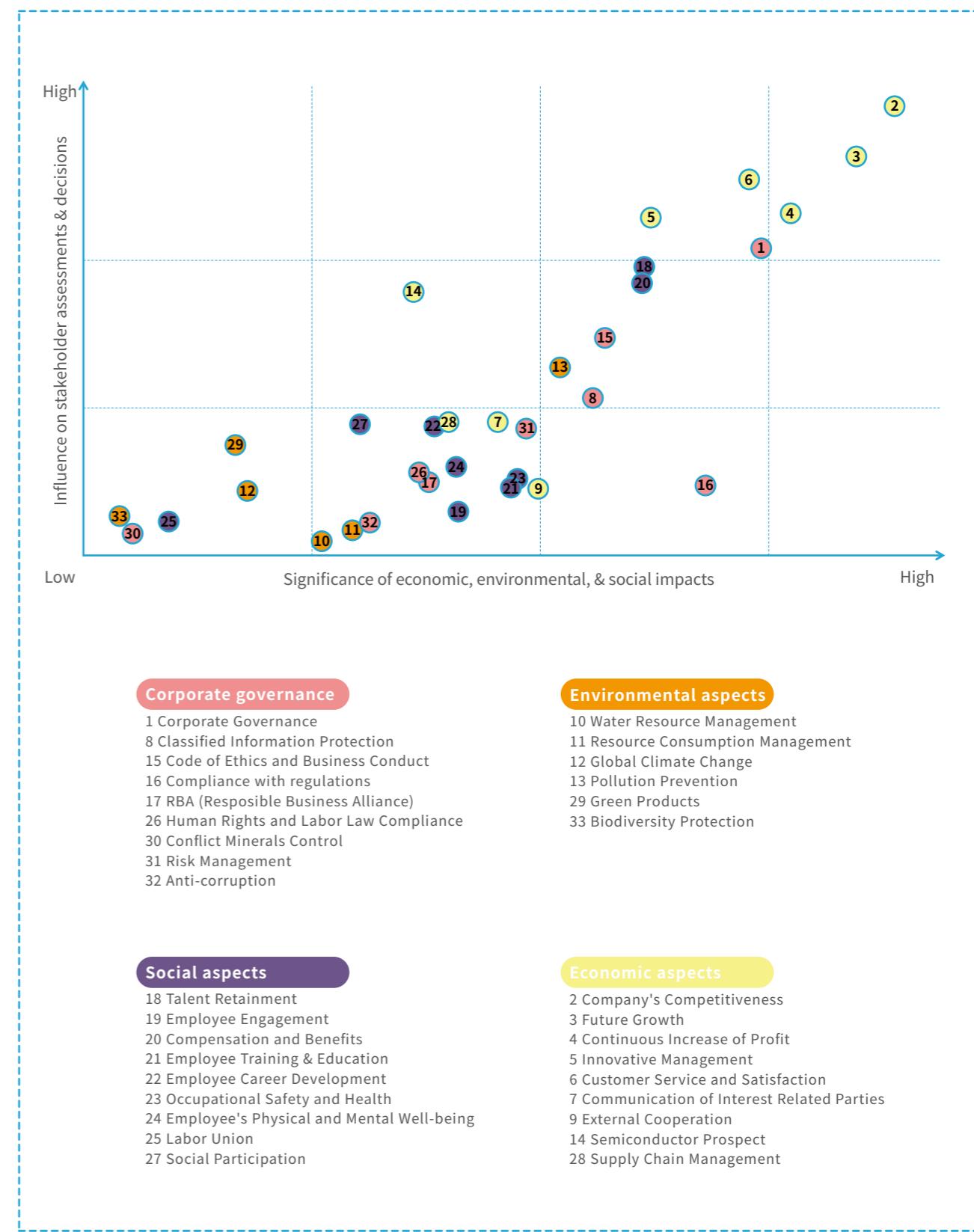
### 2.3.1 Management Mechanism

- Collect: take Environmental, Social and Governance (ESG) Reporting Guidelines, Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0), Guidance on Social Responsibility of Information and Communication Technology Industry, GRI Sustainable Development Report Standard (GRI Standard), ISO 26000:2010 Guidance on Social Responsibility and other standards as reference to pick out concerns of interested parties and give feedback with the interested parties.
- Integrate: evaluate, select and organize appropriate survey concerns of interested parties.
- Analyze: survey the concerns of interested parties, evaluate and analyze the survey results, and prioritize the concerns.
- Review: report the survey results to the CSR Committee for Review and report to the company management.



### 2.3.2 Analysis of Concerns

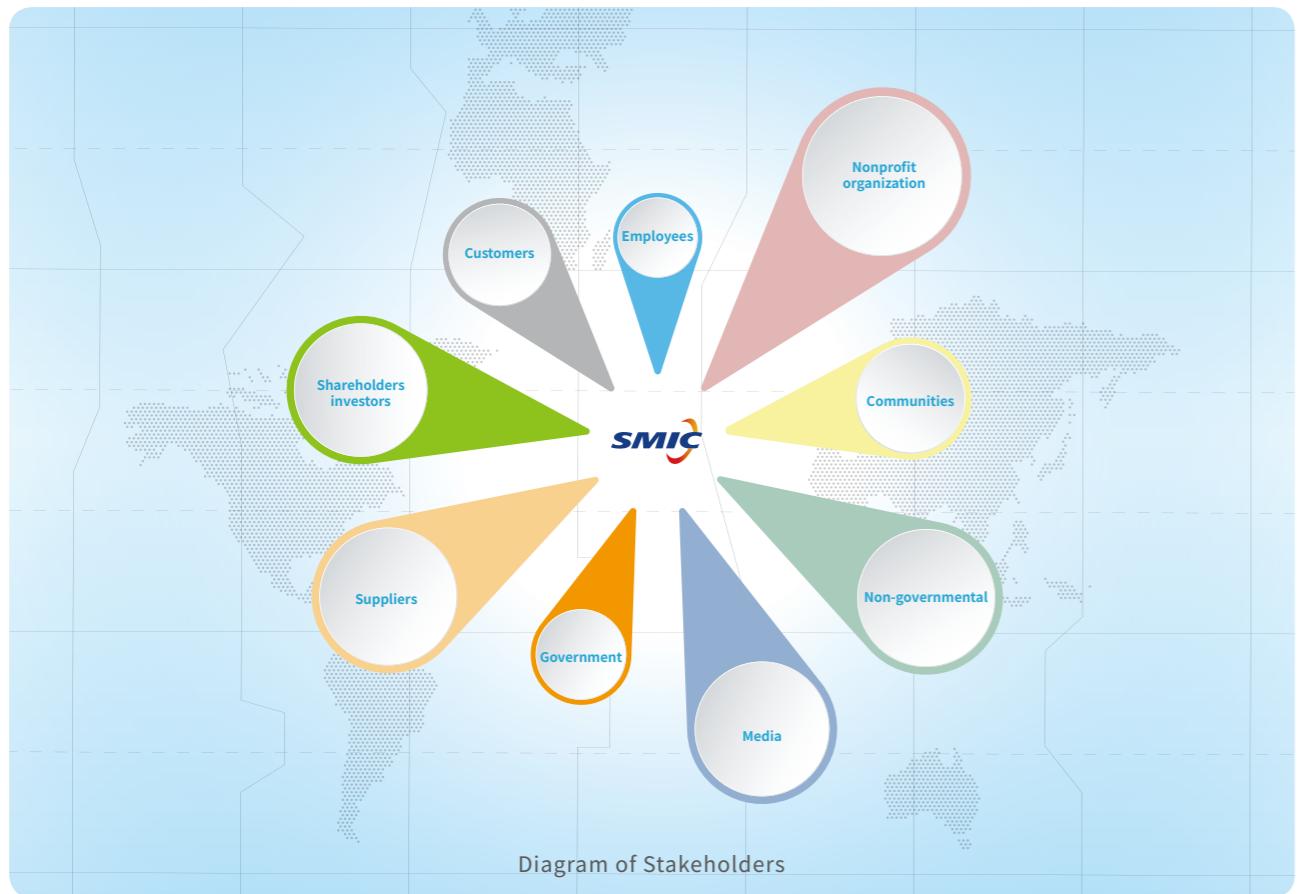
Concerns of stakeholders were evaluated in 2017 with questionnaires. The respondents included employees, suppliers, customers, government, media, non-profit organizations, communities and other interested parties at all levels. Through analysis and evaluation, the following results were obtained:



## 2.4 Communication with Stakeholders

### 2.4.1 Communication Management

SMIC identifies nine types of major stakeholders based on the principles of dependence, responsibility, impact, multiple viewpoints, and tension.



SMIC attaches importance to safeguarding the interests of stakeholders by maintaining good communication between CSR Committee members and the stakeholders, to convey international and social trends as well as company status and respond to the needs of the stakeholders.

Project	Description	Frequency
Identification of major stakeholders and concerned topics	CSR Committee responsible for coordination	per annum
Stakeholder communication planning and execution	CSR Committee and relevant departments to establish the communication channel with stakeholders	per plan
Stakeholder communication results verification	Stakeholder communication results verification	per annum
Disclosure	CSR Report	per annum

SMIC has established transparent and effective channels of communication with all stakeholders to understand their needs and expectations of the company as an important reference for the formulation of CSR policies and plans.

Stakeholder	Interactive Object	Channel/Form of Communication	Topics of Concern	Actions in 2017
Employees	Whole staff	<ul style="list-style-type: none"> <li>Staff Communication Meeting</li> <li>All User e-Mail</li> <li>Intranet</li> <li>Ethics hotline</li> <li>SMIC magazine</li> </ul>	<ul style="list-style-type: none"> <li>Employee benefits</li> <li>Future growth potential</li> <li>SMIC competitive strengths in industry</li> <li>Talents retention</li> <li>Staff training and education</li> <li>Physical and mental health of employees</li> <li>Personal career development of employees</li> <li>Labor union</li> <li>Corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>4 quarterly staff meetings</li> <li>Annual corporate games</li> <li>Establishment of Tang Town SMIC Living Quarter</li> <li>Talent contest</li> <li>Photography contest</li> <li>All club events and sports competitions</li> <li>Culture promotion activities</li> <li>Volunteer public welfare activities</li> </ul>
Shareholder/Investor		<ul style="list-style-type: none"> <li>Shareholder</li> <li>Investor</li> <li>Analyst</li> <li>Financial &amp; economic media</li> <li>Hong Kong Stock Exchange</li> <li>New York Stock Exchange</li> </ul>	<ul style="list-style-type: none"> <li>Annual general meeting (AGM)</li> <li>Extraordinary general meeting (EGM)</li> <li>Quarterly Earnings Release and Webcast</li> <li>Global investment institutions conferences</li> <li>Non-deal roadshow</li> <li>Communication via face-to-face meetings, telephone and E-mail, regular feedback collection</li> <li>Meeting and communicating with financial media regularly</li> <li>Release of annual and semiannual reports, disclosure of information requested by U.S. Securities &amp; Exchange Commission (SEC), corporate social responsibility report, aperiodic news published on company website</li> </ul>	<ul style="list-style-type: none"> <li>Semiconductor outlook</li> <li>SMIC competitive strengths in industry</li> <li>Future growth potential</li> <li>Continued improvement in profitability</li> <li>Corporate strategy</li> <li>Chinese government's support for industry and company</li> <li>Chinese market outlook</li> <li>Changes with top executives</li> <li>R &amp; D goals and progress</li> </ul>
Customers	<ul style="list-style-type: none"> <li>Sales/technical support team</li> <li>Quality control department</li> </ul>	<ul style="list-style-type: none"> <li>Semi-annual customer satisfaction survey</li> <li>Quarterly customer business / quality / technical review meetings</li> </ul>	<ul style="list-style-type: none"> <li>Customer service and satisfaction</li> <li>Innovation management</li> <li>SMIC competitive strengths in industry</li> <li>Green products</li> <li>Confidential information protection</li> <li>Conflict minerals management</li> <li>Responsible Business Alliance (RBA)</li> </ul>	<ul style="list-style-type: none"> <li>Completed 2 semi-annual customer satisfaction surveys and related action plans</li> <li>Convened 4 quarterly business review meetings</li> <li>Held 4 quarterly quality review meetings</li> <li>Held 4 quarterly technical assessment meetings</li> <li>Convened 4 technical seminars</li> <li>Answered 101 customer questions on conflict minerals management</li> <li>Responded for 41 times to EICC related customer investigations, and received 2 customer on-site audits</li> </ul>
Suppliers	Raw material suppliers	Rating, on-site audits, supplier surveys	<ul style="list-style-type: none"> <li>Quality, price, delivery and service</li> <li>Corporate governance</li> <li>Supply chain management</li> <li>Pollution prevention</li> <li>Conflict minerals management</li> <li>Regulatory compliance</li> </ul>	<ul style="list-style-type: none"> <li>Semi-annual rating: concerning quality, price, delivery, service, pollution prevention, etc.;</li> <li>On-site supplier audit: concerning corporate governance, supply chain management, regulatory compliance, etc.;</li> <li>Questionnaire survey for suppliers: concerning conflict minerals management, corporate governance, regulatory compliance, etc.</li> </ul>
Government	<ul style="list-style-type: none"> <li>National and local governments</li> <li>National and local industry associations</li> </ul>	<ul style="list-style-type: none"> <li>Documents, meetings (orientation meetings, lectures), interviews</li> <li>SMIC briefing</li> </ul>	<ul style="list-style-type: none"> <li>Future growth potential</li> <li>Semiconductor outlook</li> <li>SMIC competitive strengths in industry</li> <li>Pollution prevention</li> <li>Continued improvement in profitability</li> <li>Innovation management</li> </ul>	<ul style="list-style-type: none"> <li>Regularly published SMIC briefings to all levels of government departments</li> <li>Received visits and inspections by all levels of government, reporting status of the company</li> <li>Disclosed pollutant emission data on the company's website</li> <li>Participated in policy propaganda meetings, symposiums, situation forecast meetings, market promotion meetings and so on</li> </ul>
Media	<ul style="list-style-type: none"> <li>Print media: newspapers and magazines</li> <li>Electronic media: Network, WeChat, TV, radio</li> </ul>	<ul style="list-style-type: none"> <li>Press release</li> <li>Interviews and special reports</li> <li>Press conference</li> <li>Social media release</li> </ul>	<ul style="list-style-type: none"> <li>SMIC competitive strengths in industry</li> <li>Future growth potential</li> <li>Continued improvement in profitability</li> <li>Innovation management</li> <li>Social participation</li> <li>Employee benefits</li> </ul>	<ul style="list-style-type: none"> <li>Establish a spokesperson system and media interview process, and formulate media attention Q&amp;A, a unified, clear media delivery company philosophy and message</li> </ul>
Community/Nonprofit Organizations	<ul style="list-style-type: none"> <li>Nursing home</li> <li>Orphanage</li> <li>Public welfare organization</li> <li>Living quarter</li> </ul>	<ul style="list-style-type: none"> <li>Regular visits</li> <li>Participation in public welfare activities</li> <li>Environmental protection campaigns</li> </ul>	<ul style="list-style-type: none"> <li>Social participation</li> <li>Pollution prevention</li> <li>Employee participation</li> <li>External cooperation</li> <li>Regulatory compliance</li> <li>Biodiversity Protection</li> </ul>	<ul style="list-style-type: none"> <li>The staff visited nursing home for 6 times and orphanage for 2 times: chatting and accompany, performances, health check, etc</li> <li>Organized jointly with Urban Wilderness a public welfare activity of protecting biodiversity of local species</li> <li>Held 4 second-hand goods recycling activities in the living quarter</li> </ul>

## 2.4.2 External Cooperation and Position

- Director Unit of China Semiconductor Industry Association
- Vice President Unit of China Information Technology Industry Federation
- Member Unit of Association for Health Promotion and Education in China
- Member Unit of High End Chip Alliance
- Member Unit of National Fire Protection Association
- Member Unit of China Quality Management Association for Electronics Industry
- Member Unit of China Occupational Safety and Health Association
- Member Unit of Association for Health Promotion and Education in China
- Member Unit of Green Factory Promotion Alliance of China
- Member Unit of Beijing Association of Environmental Protection

### Industry

- Member Unit of Beijing Fire Protection Association
- Member Unit of Beijing Association of Safe Production
- Member Unit of Beijing Association of Green Manufacturing Industry Alliance
- Member Unit of Beijing Association of Safe Production
- Vice President Unit of Shanghai Integrated Circuit Industry Association
- Member Unit of Shanghai Association of Enterprises with Foreign Investment
- Member Unit of Shanghai Pudong Association of Enterprises with Foreign Investment
- Vice President Unit of Environmental Protection Association of Shanghai Pudong New Area
- Member Unit of Shanghai Fire Protection Association
- Member Unit of Tianjin Safe Production Management Association
- Member Unit of Wuxi Precursor Chemical Industry Association

## 2.5 CSR Awards

### 2.5.1 Hang Seng Corporate Sustainability Index Series

In 2017, SMIC was selected as a constituent of the Hang Seng Corporate Sustainability Index Series for the seventh consecutive years, which is made up of constituent stocks with sustainable development as its core investment. The elected listed company must be a high achiever in all aspects of environmental, social and corporate governance. See [www.hsi.com.hk/HSI-Net](http://www.hsi.com.hk/HSI-Net) for details.



### 2.5.2 "Outstanding CSR Award" From Mirror Post Hong Kong

In 2017, SMIC attended the "Sixth Outstanding CSR Award for Regions Across the Straits" sponsored by Mirror Post Hong Kong and again received the "Outstanding CSR Award", which was the fourth consecutive year for SMIC to receive this award.



Vice President of Public Affairs Center Yu Bo (middle) received "Outstanding CSR Award" from Mirror Post Hong Kong on behalf of SMIC

### 2.5.3 Electronic Information Industry Outstanding Demonstration Enterprise

In 2017, SMIC won the honor of an outstanding demonstration enterprise at the 5<sup>th</sup> Annual Conference on China's Electronic Information Industry Social Responsibility in recognition of our exemplary implementation of the "SJ/T 16000-2016 Guidance on Social Responsibility of Information and Communication Technology Industry".



# 03

## Corporate Governance

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In order to win the trust of investors, SMIC continues to maintain an exemplary image of corporate citizenship through excellent corporate governance and transparent company management. In view of SMIC's good records, the company was listed on Hang Seng Mainland 100 Index. Visit [http://www.smics.com/download/Corporate\\_Governance\\_Policy\\_tc.pdf](http://www.smics.com/download/Corporate_Governance_Policy_tc.pdf) for more information.

## 3.1 Governance Mechanism

SMIC has always adhered to the principle of transparent operation with focus on shareholder equity, and taken a sound, effective board as the basis of corporate governance. Under this principle, the Board of Directors of the company authorizes the committees established under it to assist the Board in performing its supervisory responsibilities. The organizational bylaws of the committees are subject to approval by the Board and the Chairmen of the committees regularly report their activities and resolutions to the Board.

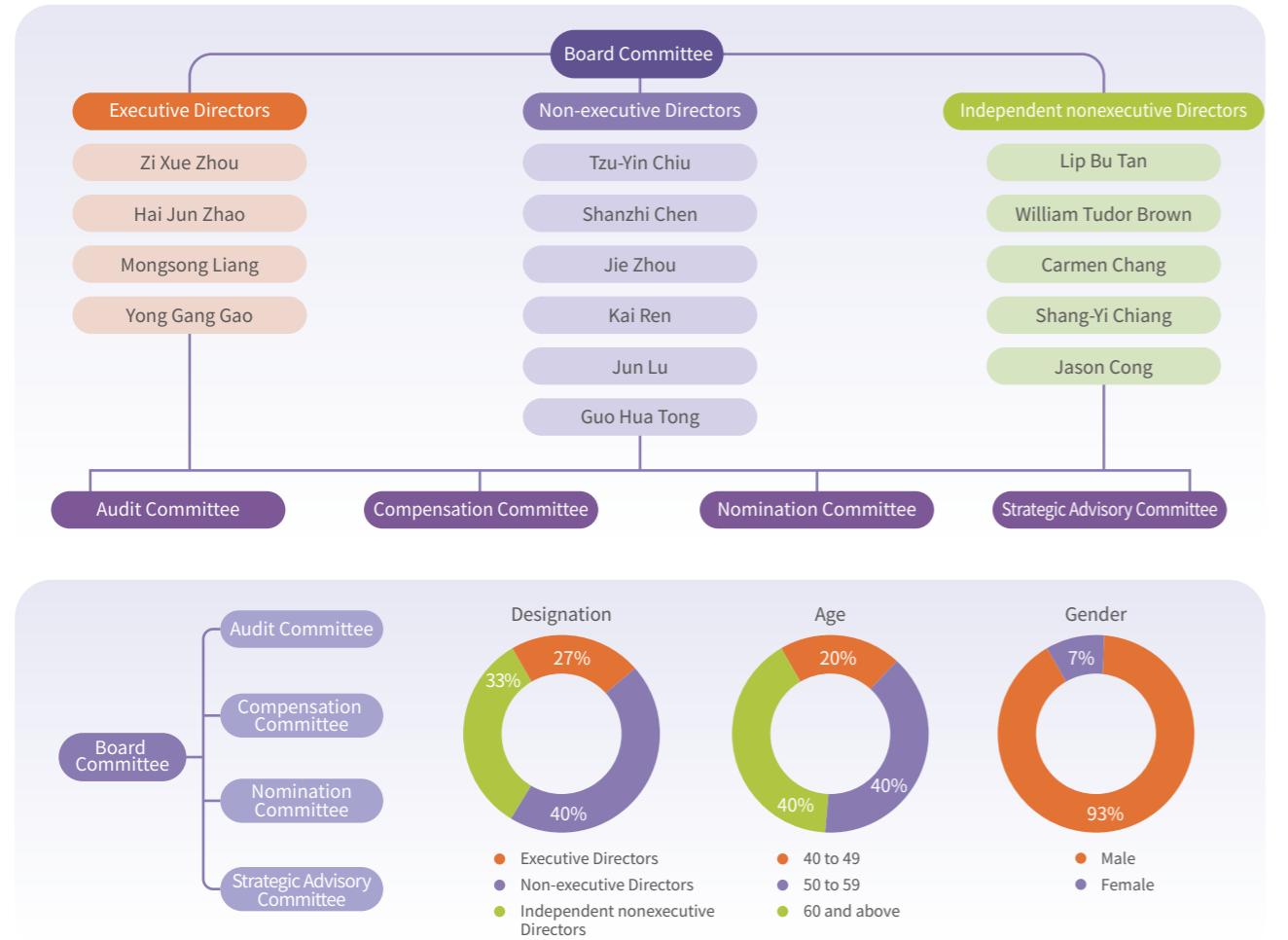
### 3.1.1 Board of Directors

The Board of Directors is accountable to the shareholders of the company and directs and oversees the company's affairs in order to enhance shareholder value. The Board actively participates in and is responsible for determining the company's overall strategy, setting corporate purposes and objectives, monitoring the achievement of the relevant purposes and objectives, monitoring the company's financial performance and accounting establishment, formulating corporate governance practices and policies, and reviewing the company's internal control and risk management system on its own or through various board committees. The management of the company is responsible for the implementation of the company's overall strategy and day-to-day operation and management. The Board may contact the senior management of the company to discuss inquiry of the management information.

The management responsibilities of the Board include:

- (1) Develop and review SMIC's policy and implementation of corporate governance;
- (2) Review and supervise the training and continuing professional development of directors and senior managers;
- (3) Review and supervise the company's policies and implementation to comply with legal and regulatory requirements;
- (4) Develop, review and monitor the company's conduct code as well as other policies and procedures to make it applicable to employees and directors.

Composition of the Board as of December 31, 2017



#### 3.1.1.1 Board committees

Compensation Committee, Nominating Committee, Audit Committee and Strategic Advisory Committee are under the Board, and they shall act within their own area of responsibility. The following table provides the positions held by members of the Board in these committees as of December 31, 2017:

Board Member	Position			
	Audit Committee	Compensation Committee	Nomination Committee	Strategic Advisory Committee
Zi Xue Zhou	-	-	Chairman	-
Hai Jun Zhao	-	-	-	-
Mongsong Liang	-	-	-	-
Tzu-Yin Chiu	-	-	-	Member
Yong Gang Gao	-	-	-	-
Shanzhi Chen	-	-	-	Chairman
Jie Zhou	Member	Member	-	-
Kai Ren	-	-	-	Member
Jun Lu	-	-	Member	-
Guo Hua Tong	-	Member	-	-
William Tudor Brown	Member	Chairman	Member	Member
Li Bu Tan	Chairman	Member	Member	Member
Carmen Chang	-	-	Member	-
Shang-Yi Chiang	-	Member	-	-
Jason Cong	-	-	-	-

- Compensation Committee

Responsibilities of Compensation Committee include: (1) approve and supervise the implementation of the company's total compensation plan for the management team, evaluate the performance of the company's Chief Executive Officer, determine and approve its remuneration, and review the results of the Chief Executive Officers evaluation of the performance of the company's other executive officers, (2) determine the remuneration packages of executive Directors and make recommendations to the board on the remuneration of non-executive Directors, (3) administer and periodically review and make relevant recommendations to the Board regarding the long-term incentive compensation or equity plan made available to the directors, employees and consultants, (4)review the compensation philosophy, strategy and principle of the executive officers, (5) review, approve and monitor new and existing employment, consultancy, retirement and severance agreements for directors, executive officers and other officers of the company, (6) ensure proper supervision of the company's human resources policy, and (7) review established policies to fulfill the responsibilities of the company in ethical, legal and human resources. The Compensation Committee reports to the Board at its quarterly meeting. See [www.smics.com/attachment/20130430003.pdf](http://www.smics.com/attachment/20130430003.pdf) for more information.

- Nominating Committee

Nominating Committee ensures that the Board has an effective size, structure and composition to meet the company's strategy and shareholders' benefit. The responsibilities of the Nominating Committee include: (1) reviewing the structure, number and composition of the board of directors at least annually, (2) monitoring the implementation of the board diversity policy, (3) identifying qualified individuals who can serve as directors and selecting nominations as a director to advise the board of directors, (4) assessing the independence of Independent Non-executive directors, (5) making recommendations to the board on the

appointment or reappointment of directors and the succession plan for directors. The Committee regularly reports its resolutions and presents its recommendations to the Board. See [www.smics.com/attachment/20130814173201001715491\\_en.pdf](http://www.smics.com/attachment/20130814173201001715491_en.pdf) for more information.

- Audit Committee

Audit Committee audits the company's accounts, financial reporting procedures and financial announcements. Audit responsibilities of the Committee include: (1) quality and completeness of the company's financial announcement, and the related disclosure, (2) compliance of the company with the laws and regulations, (3) qualification, independence, salary and employment period of the independent auditor, and (4) effectiveness of the internal audit and risk control of the company. The committee regularly reports to the Board and meets with SMIC's external auditors at least four times a year.

- Strategic Advisory Committee

Functions, responsibilities and competencies of Strategic Advisory Committee include: (1) evaluate and consider strategy options, (2) help and participate in discussions with potential strategic partners on any strategic options, and (3) present recommendations to the Board and the company regarding any strategy option.

## 3.1.2 Other Governance Departments

### 3.1.2.1 Risk Management Committee

According to the enterprise risk management – comprehensive framework of the Committee of Sponsoring Organization (COSO) under the Treadway Committee, SMIC has established a corresponding enterprise risk management system, to assess the likelihood of their occurrence and impact of the identified risks on the whole company and determine the different risk levels, priorities and corresponding measures, to ensure that the relevant risks are monitored.

The Risk Management Committee, composed of the top managers of all functional divisions, is primarily responsible for formulating the corporate-level risk policies and supervising the effectiveness of risk management. The Risk Management Communication Committee, which is comprised of representatives designated by each center, is responsible for the implementation of the risk assessment plan and follow-up tracking. When necessary, a special task team will be set up to carry out risk activities on the basis of actual needs. It assists the Board in identifying, analyzing and assessing the overall corporate risks and monitoring the risk management system to ensure the effectiveness of the risk management projects. According to the corporate governance code, the management confirms the effectiveness of the system with the Audit Committee under the Board on an annual basis and the Chairman of the Audit Committee reports the results at the meeting of directors. The Board is ultimately responsible for ensuring that the Company maintains a robust and effective risk management and internal monitoring system, and supervises the continuous monitoring of these systems by the management.

Risk management measures taken by SMIC are as follows:

- Identify risks, such as macro/external risks, operational risks, strategic risks, market risks, legal risks and financial risks, etc.;
- Analyze and assess risk levels, with focus on their impacts (including impacts on finance, goodwill, business continuity planning and operation) and likelihoods of their occurrence, and prioritize them to

- establish follow-up risk assessment frequencies and response plans;
- Design, operate and monitor internal control systems to reduce and control related risks; and
- Monitor risk early warning indexes and report risk management results for major risks.

### 3.1.2.2 Internal Audit Department

Internal Audit Department works with and supports the SMIC's management team and the Audit Committee to evaluate the effectiveness of and contribute to the improvement of risk management, internal control, and corporate governance systems. On an annual basis, the risk-based audit plan and resources are reviewed and approved by the Audit Committee. In addition to its agreed plan, the Internal Audit Department audits areas of concern identified by senior management or conducts reviews and investigations on an ad hoc basis. Audit results are reported to the Chairman of the Board, the Chief Executive Officer and relevant management of audited departments. A summary of audit reports is quarterly reported to the Audit Committee.

Based on this annual audit plan, the Internal Audit Department audits the practices, procedures, expenditure and internal controls of the various departments in the Company. In conducting these audits, the Internal Audit Department has free and full access to all necessary functions, records, properties and personnel. After completing an audit, the Internal Audit Department furnishes the Company's management team with analysis, appraisals, recommendations, counsel, and information concerning the activities reviewed. Appropriate managers of the Company are notified of any deficiencies cited by the Internal Audit Department, which will follow up with the implementation of audit recommendations. For more information: [www.smics.com/download/internalauditcharter.pdf](http://www.smics.com/download/internalauditcharter.pdf).

### 3.1.2.3 Compliance Office

Compliance Office oversees and executes (1) professional and commercial conducts of the company and its employees in accordance with Business Conducts and Ethics of the company; (2) the company's anti-fraud policy, investigation of any fraud and reporting to the Audit Board; and (3) compliance of insider trading, in accordance with the company's insider trading policy.

## 3.2 Information Disclosure

### 3.2.1 Disclosure Policy

Disclosure Committee of the company develops and implements the company's information disclosure policy and procedure, and reviews the compliance of timely information disclosure of the company. The disclosure policy applies to all employees and consultants, the Board of Directors and the authorized spokespersons of SMIC. The disclosure policy covers all documents and statements disclosed by or on the behalf of SMIC in different forms. This mechanism helps to ensure the accuracy of our reports.

### 3.2.2 Shareholder Communication Policy

SMIC distributed information to shareholders through various

publications and online platforms, including annual general meetings (AGMs), extraordinary general meetings (EGMS), quarterly ER webcast, annual reports and interim reports published in stock exchanges in New York and Hong Kong, and briefings and press releases submitted to the US and Hong Kong stock exchanges. In addition, our Investor Relations has arranged a number of meetings and conference calls with investors, so that they have a better understanding of SMIC's latest developments, development strategies and directions. In 2017, among the semiconductor companies in Asia (except Japan), SMIC was selected as the most honored company by the Institutional Investor magazine, and Investment Relations projects and Investment Relations websites were also selected as one of the best. We are committed to providing timely, accurate and fair information to our stakeholders. We also provide convenient online access for our potential investors and other interested parties. Most of the information above can be accessed from the corporate web site and the SECs website of the stock exchange. See [www.smics.com/attachment/20120326006.pdf](http://www.smics.com/attachment/20120326006.pdf) for more information.

## 3.3 Business Conduct and Ethics

Our Code of Business Conduct and Ethics (Ethics Code) ensure our legal compliance as well as our integrity, professionalism, and accountability. Our Ethics Code is committed to anti-fraud, compliance with public interest, corporate opportunities, protection of intellectual property, transactions in SMIC securities, use of SMIC assets, public disclosure, record keeping, anti-bribery, relationships with customers, vendors, investors and other parties, and much more. For more information, see [www.smics.com/download/ethic\\_codebusiness.pdf](http://www.smics.com/download/ethic_codebusiness.pdf).

Our Ethics Code applies to all employees, directors, contractors, consultants, agents and business partners, and requires them to comply with all company policies and applicable laws, and to report any violations under confidential procedures. It is enforced by our Compliance Office, as supervised by our Joint Compliance Officer and our Board's Audit Committee. Violations, depending on their severity, result in warnings, discipline, termination, or prosecution.

All of our employees observe the Ethics Code and certify that they will comply with its policies and any additional policies or laws specific to their jobs. They also receive regular mandatory training, test on ethics, and relevant information from our Compliance Office, legal department, and outside counsels. Some key areas covered by our Ethics Code are mentioned in the following sections.

### 3.3.1 Insider Trading Policy

In accordance with Hong Kong and U.S. securities law, the insiders of the Company are prohibited from abusing company information for personal gain or from dealing in company stock during blackout periods. Our Ethics Code outlines the key requirements of company policy and securities law, these requirements are enforced by our Compliance Office.

### 3.3.2 Anti-Fraud Policy

Our Ethics Code demands honest business dealings. All our employees are entrusted with trust, expecting the use of customers', third parties', and Company's assets including physical and intellectual properties (IPs) in an ethical manner. The actions of each employee reflect on the company as a whole. Accordingly, fraud by any employee cannot be tolerated. Any employee learning of such activities must report the matter to the Compliance Office or the Audit Committee (if applicable). For more information, see [www.smics.com/download/anti\\_policy.pdf](http://www.smics.com/download/anti_policy.pdf).

### 3.3.3 Anti-Bribery Policy

Regardless of rank or nationality, our employees, agents, contractors and business partners must comply with the U.S. Foreign Corrupt Practices Act (FCPA), the Hong Kong Prevention of Bribery Ordinance, and other applicable anti-bribery laws. Our rules for giving and receiving gifts are detailed in our Ethics Code and the Anti-Corruption Policy.

SMIC opens reporting channels, encourage any employees, investors, contractors, customers, suppliers, business partners or other people through confidential mailbox [Code@smics.com](mailto:Code@smics.com) or hotline +86-21-20812121 to report any suspected violation of law or policy to SMIC's Compliance Office, in order to prevent dangerous or illegal acts on the existence of commercial interests. All information relating to informants will be kept strictly confidential. The informants will not be subjected to any form of retaliation or adverse treatment.

After receiving the report, the Compliance Officer will conduct investigation in accordance with relevant procedures. The Compliance Officer reports any serious breaches of accounting, legal, regulatory or law enforcement requirements to the Audit Committee and the Chairman of the Board, and ensures that the Company has taken appropriate corrective action. Any director, executive and employee who is found to have violated any of the laws, regulations or Company policy will subject to disciplinary actions in accordance with Company policy. The Compliance Officer establishes an ethics log of all reported cases, to record incoming complaints, investigation process and findings of the case. The Company regularly reviews the effectiveness of the reporting process to ensure its effective implementation.

The number of corruption lawsuits filed against SMIC or its employees during the reporting period (2017) is zero.

### 3.3.4 Training and Report

To promote awareness, we have placed our policies on our company intranet, and require all employees to be trained on our core values and compliance policies. Any SMIC employee, investor, contractor, customer, supplier, business partner, or other person may report any suspected violation of law or policy to SMIC. Such reports may be made directly to the Compliance Office via [Code@smics.com](mailto:Code@smics.com). All information concerning the informer is kept in strict confidence.

## 3.4 Export Compliance

SMIC establishes an internal compliance program (ICP) to ensure our compliance with international export control laws and treaties on high-

technology products. The United States and many other countries have joined the international export control system. Suppliers and customers in these countries generally need to obtain export licenses to transport controlled items (such as equipment, parts, materials, software or technology) to China. We, as well as relevant suppliers and customers, strictly abide by the restrictions and regulations of these export licenses.

We incorporate the internal compliance program into the ICP handbook, including policies and procedures to ensure compliance with all legal requirements. Our ICP handbook contains 10 elements:

- (1) Export compliance policy statement,
- (2) Responsible personnel and their duties,
- (3) List of rejected persons,
- (4) Screening process,
- (5) Technology control plan,
- (6) Management of equipment, spare parts and raw materials,
- (7) Audit,
- (8) Employees training plan,
- (9) Custody of documents,
- (10) Non-compliance reporting process.

In order for all employees to fully understand our internal compliance obligations, the CEO issues an export compliance policy statement that must be acknowledged and signed by all employees. Our ICP team conducts regular trainings and maintains the ICP web page on our company intranet. Meanwhile, our ICP compliance is verified in regular audits by vendors and government officials.

## 3.5 Management System

We take the industry standards as the guidance to establish an honest and complete internal management system and meet the customer demands. This process ensures that we do our business in the best way we have and get ready to meet the emerging market needs by relying on a high-tech supply chain.

We have passed audits by a number of internationally recognized organizations, including the British Standards Institute (BSI) and other organizations allied to the International Organization for Standardization (ISO). Main certifications are as follows:

### 3.5.1 ISO 9001 Quality Management System

Since 2002, all of the company's factories have passed the ISO 9001 certification, and developed a quality management system for planning, execution, check and action under the guidance of ISO 9001, to ensure the quality of design, development, production and service. See <http://www.smics.com/img/iso9001.pdf> for details of the certificate.

## 3.5.7 Green Product Management System and QC 080000 Hazardous Substances Management

In April 2006, our factory in Shanghai factory became the first foundry passing SGS certification for Green Product Management System (GPMS) in mainland China. Since December 2006, other plants have passed QC 080000 certification to ensure that we follow the Restriction of Hazardous Substances (RoHS) in electronic and electrical equipment. See <http://www.smics.com/download/QC080000.pdf> for details of the certificate.



## 3.5.2 TL 9000 Supply Chain Directives

Based on ISO 9001 certification, TL 9000 certification focuses on the quality management system for customers in telecommunication industry, and emphasizes the integrity of supply chain directives. Our factories in Shanghai, Beijing, Tianjin and Shenzhen have passed this certification successively since 2005. See <http://www.smics.com/img/tl9000.pdf> for details of the certificate



## 3.5.4 OHSAS 18001 Occupational Safety & Health

SMIC has established a health and safety management system under the guideline of OHSAS 18001 since 2003, to provide employees with a safer and healthier workplace and protect the company's assets. See [http://www.smics.com/download/OHSAS18001\\_1.pdf](http://www.smics.com/download/OHSAS18001_1.pdf) for details of the certificate.



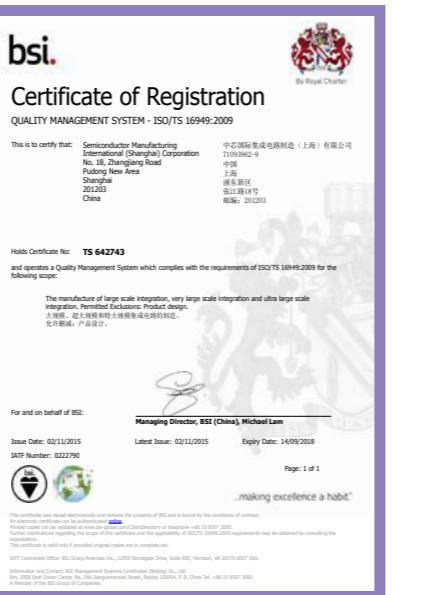
## 3.5.6 ISO 14064 Greenhouse Gases Measurement

The company recognizes the severity of the global climate change problem and takes measures to address it. In June 2010, our factory in Shanghai became the first foundry passing ISO 14064 certification in mainland China and other factories also followed it to establish the management system. We assess greenhouse gas emissions, set annual targets for energy-saving and emission reduction, and take energy-saving measures to reduce greenhouse gas emissions to comply with this standard. See <http://www.smics.com/download/ISO14064.pdf> for details of the certificate.



## 3.5.5 ISO/TS 16949 Defect Prevention

On the basis of ISO 9001 certification, TS 16949 certification focuses on the quality management system for customers in the automotive industry, and aims to eliminate defects existing among automotive supply chains and provides quality assurance for end customers. See <http://www.smics.com/img/ts16949.pdf> for details of the certificate.



## 3.5.8 ISO 27001 Information Security Management System

The company gives priority to the security of customer information and establishes a comprehensive information security management system with the guidance of ISO 27001 information security management system, including three parts, namely, employee management, information technology applications, rules and policies. See <http://www.smics.com/img/iso27001.pdf> for details of the certificate.



## 3.5.3 ISO/TS 16949 Defect Prevention

The company passed ISO 9001 environmental management system certification in 2002. In the light of this international standard, we have established environmental management system to implement measures to reduce pollutant emissions, cut energy and resource consumption. See [http://www.smics.com/download/ISO14001\\_1.pdf](http://www.smics.com/download/ISO14001_1.pdf) for details of the certificate.

## 3.5.1 ISO 14001 Environmental Management System

The company passed ISO 14001 environmental management system certification in 2002. In the light of this international standard, we have established environmental management system to implement measures to reduce pollutant emissions, cut energy and resource consumption. See [http://www.smics.com/download/ISO14001\\_1.pdf](http://www.smics.com/download/ISO14001_1.pdf) for details of the certificate.

# 04

## Customer Service

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Customer service is one of core values of SMIC's corporate culture, and winning customers' trust and long-term cooperation is an important cornerstone for the company to develop. We have been committed to providing excellent service for our customers based on the principle of customer orientation. With long-term unremitting efforts to create value for customers, we have established a good relationship with them and won the trust of lots of customers around the world in the long-term and stable cooperation and development, forming a win-win situation between the company and the customers.

## 4.1 Customer Service Strategy

SMIC is committed to providing customers with superior services and achieving common success through a number of strategies, so as to:

- Help customers shorten the time-to-market by providing quality products and services.
- Continuously invest and provide value-added innovation with differentiated mature and advanced technology.
- Continue to serve as a gateway for customers to succeed in the Chinese market, establish and strengthen strategic partnerships with customers and various players in the semiconductor and electronic ecosystems to gain access to and penetrate the Chinese and global markets.

SMIC has a suitable executive management team that leads the company forward and promises to ensure the trust of customers with extraordinary quality. Relying on excellent manufacturing, technology and service delivery, SMIC has strong confidence in the implementation of the customer service strategy. With excellent quality, SMIC continues to strive for customer success by providing high-quality and competitive services and technologies. SMIC works with customers and partners to create inspiration to achieve future development and innovation.



## 4.2 Customer Service System

Professional sales and customer engineering teams of SMIC in Shanghai, Beijing, Tianjin, Shenzhen, Taiwan, California, Milan, Tokyo and other regions in the world can provide global customer service. These teams collect customer needs and coordinate resources between the internal R & D division and the production services sector to provide efficient one-stop services for customers from design services, photo-mask manufacturing to product production and back-end package test. And SMIC also provides customers with customized product services to help customers improve their market competitiveness, so as to achieve the common development of the company and its customers.



SMIC adheres to the belief of providing the best service for customers, so that they can keep abreast of the latest technology platforms in a timely manner. The company held a series of meetings such as Executive Summits, Advanced Technology Workshops, Technology Symposiums successively in Shanghai, Beijing, Xinzhu, Tokyo and other places in 2017, to demonstrate SMIC's technical advantages, so that customers can have a more in-depth understanding of us.



In addition, SMIC also takes initiative to participate in international and domestic important industry activities. SMIC can be seen in SEMICON, DAC, GSA, ICCAD and IC China as well as other industry exhibitions.



In addition to enhancing customer communication and information sharing, SMIC also provides "SMIC-NOW" online service, so that customers can easily access to the technical platform information files that we provide, design service information, import new product requirements and processes, and tape out new products directly based on this platform. And this system also provides customers with real-time production reports, so that customers can have instant control over the information on their own photomasks and products at each step from order placement to shipment, as well as corresponding product quality reports.

A link to SMIC-NOW-customer online service platform is available on the official website of SMIC.

Hang Seng Corporate Sustainability Index Series Member 2017-2018

SMIC Webcast  
1Q 2018 Earnings Conference Call May 10, 2018 @ 8:30a.m. HKT

About SMIC

Foundry Solutions

Design Service

Investor Relations

Online Services

Customers can login to SMIC-NOW online system on the following interface to query information and introduce new products.

SMIC Now

Please Sign in Here

User ID: \_\_\_\_\_  
Password: \_\_\_\_\_

Sign In

\* Please be informed that your account will be locked for 30 minutes after 3 failed tries.

Forgot Password • Secure Online Access

SMIC Events & Notice

Primary Market: Primary Application, Device Segment and Device has been updated on Feb 10, 2018.

SMIC-NOW self verification code upon each login and upgrade password complexity, effective on Mar 1st 2018, 00:00.

Customer Online Services

To become a SMIC customer, you can:

- Apply Online
- Contact Us
- Call Our Sales Representative

If you have any questions using this system, please contact us at 86-31-3061600 ext11111 or email to SMIC\_Now@smic.com

SMIC-NOW supports IE, Safari, Chrome, and Firefox browsers from 2015/01/01 - IE 9.0+ (User Instructions)

SMIC-NOW online system provides customers with product services, design services, technical platform documents and reports.

SMIC Now

Production Report

Quality & Reliability Report

Logistics Report

Execution Audit

Feedback

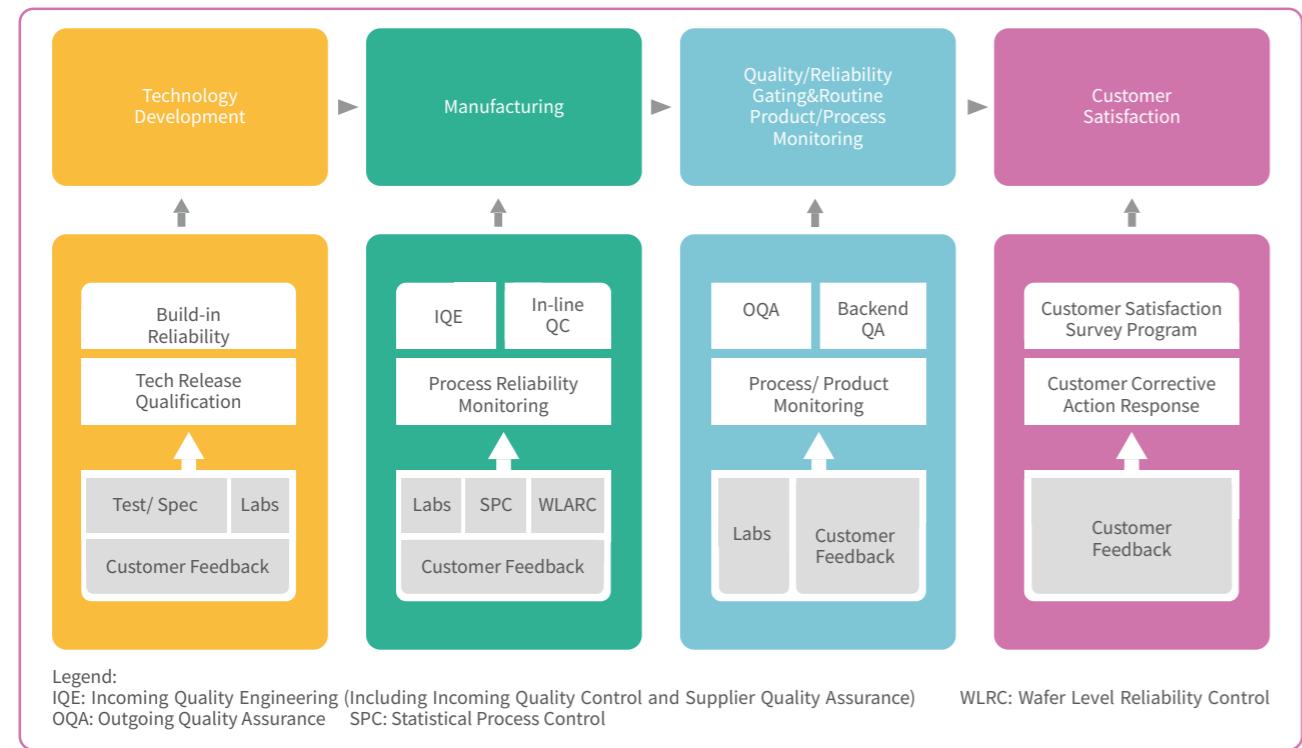
## 4.3 Product Quality and Reliability Control

In the entire product manufacturing and service process from research and development to mass production, SMIC adopts a comprehensive product quality process control system:

- Control the performance in the production process by statistical process control (SPC), establish a strict product performance audit mechanism and a proprietary record management system (RMS) for product production, so that all important parameters are under control

and the quality of the product can be guaranteed well.

- Adopt the concept of "one factory", that is, optimize the equipment and process parameters in each factory in order to achieve the same product quality standards and yield requirements.
- Establish a variety of laboratories and tools for chemical and raw material analysis, product failure analysis, yield improvement, reliability testing and monitoring.



In September 2017, SMIC's factory in Beijing held the first session of Quality Month Event, to carry forward the spirit of craftsmen, continuously promote quality improvement, comprehensively improve product quality, and participate in construction of powerful nation of quality.

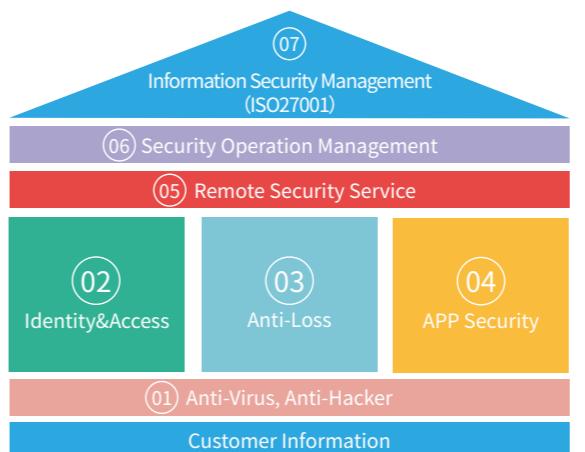
- Promote and publicize the Quality Month Event and quality concept via the company's intranet homepage, WeChat, and television;
- Sponsor Quality Month initiation ceremony and invite quality department leadership and the company management to attend, strengthen the momentum;
- Offer a number of quality courses to popularize quality knowledge for new employees members with working experience of 0.5-2 years, up to 2,000 attendees in total;
- Hold prize-giving quiz activities on quality in the company and set up a test bank composed of more than 1,000 questions;
- Actively participate in "Total Quality Management Knowledge Competition for National Enterprise Employees" organized by the "China Association for Quality".

Quality management result of SMIC's factory in Beijing also received external recognition. Semiconductor Manufacturing International Corporation (Beijing) won the title of "Quality Benchmarking Enterprise" of 2017 "Light of Quality" on December 23, 2017.



## 4.4 Customer Information Protection

SMIC attaches great importance to protection of customer information, privacy and intellectual property. Customer information is at the highest level of information control and shall be put under control in all round in accordance with the requirements of the international information security system ISO 27001, to ensure security of the customer information.



business service quality, complaint handling and so on.



According to customers' feedback, SMIC takes corrective measures in time after comprehensive analysis and evaluation in accordance with the continuous improvement principle of "PDCA", and provides the improvement results for customers' approval so as to improve customer satisfaction.

With unremitting efforts and progress in terms of product quality and reliability, production capacity, service quality, productivity and manufacturing cycle, SMIC won a high level of customer satisfaction in 2017. In the future, we will continue to work hard to further meet the needs of the market and customers.



## 4.5 Customer Evaluations and Complaints Handling

SMIC has established a proprietary system to track and handle customer complaints. All customer complaints are subject to timely investigation by relevant departments, which shall prepare an 8D analysis report within 10 days and take targeted improvement measures according to the root causes found in the report, to prevent the recurrence of similar incidents. In 2017, a total of 20 customer complaints were received, which were handled in a timely manner according to the customer complaint handling process.

SMIC sets up product quality verification and product recall procedures and handle nonconforming products in accordance with the procedure, so as not to have a negative impact on customers.

And we control product safety and health risks based on QC 080000 system, so that products meet the relevant international and domestic regulations and customer requirements. In 2017, no products sold were recalled for safety or health reasons.

## 4.6 Customer Satisfaction

In 2017, SMIC continued to improve customer satisfaction survey mechanism. Every six months, the quality management team conducted customer satisfaction survey. The contents of the survey covered new product development, product quality and reliability, on-time delivery,

# 05

## Supply Chain Management

Supply Chain Overview

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Supplier Management Mechanism

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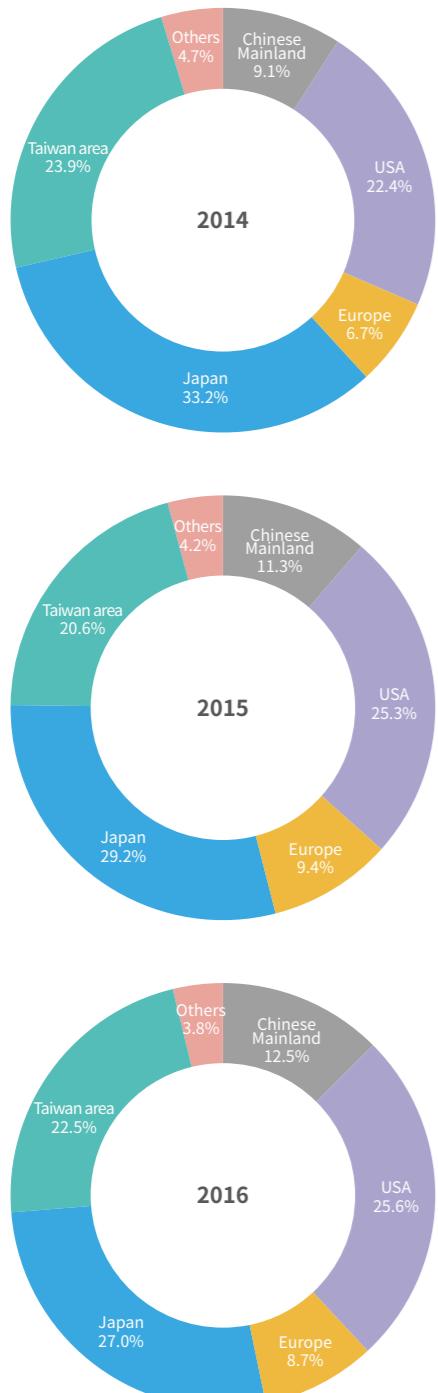
Conflict Minerals Management

51

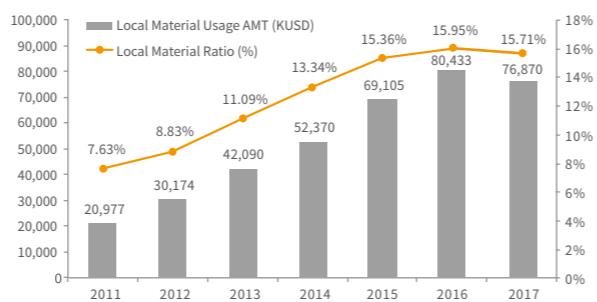


## 5.1 Supply Chain Overview

The procurement scope of SMIC covers production equipment, parts for production equipment maintenance, raw materials for production, plant facilities, fire facilities and engineering, professional services and other categories. Based on the concept of cooperation with suppliers, the company makes great efforts to reduce the risk brought by the supply chain, guarantee stable manufacturing operation and ensure the service quality for our customers. And the company actively participates in special projects of domestic equipment and materials to raise the local procurement ratio of equipment and its raw materials, indirectly creating employment opportunities. The proportion of suppliers in mainland China is increasing year by year, from 9.1% to 12.4%.



In order to support local supply of the raw materials, SMIC keeps on working with local raw material suppliers to continuously strengthen evaluation of local materials and enlarge local purchasing amount and proportion. In 2017, the procurement amount of local raw materials reached 76.87 million US dollars, accounting for up to 15.71% of the total, which promoted construction of the local semiconductor industry chain.



## 5.2 Supplier Management Mechanism

SMIC has set up a set of perfect supplier management system to manage the key links in the supply chain include supplier access procedures, supplier evaluation procedures and supplier promotion procedures, etc.

### 5.2.1 Supplier Admittance

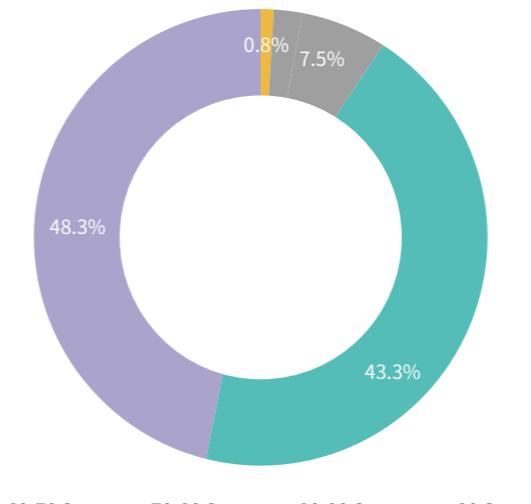
SMIC has developed a comprehensive access assessment mechanism for new/alternative suppliers. The departments involved in the assessment include QC Division, Environmental/Safety/Health Division, CSR Division, Procurement Division, and user organizations, etc., which carry out assessment in areas such as product quality parameters, supplier quality management system, supplier environmental/safety/health management, labor human rights management, business ethics management, supplier warehousing/logistics after-sales service management, production and use of products. Suppliers can be included in the company's list of approved suppliers only after they are evaluated to meet the relevant qualification requirements with a satisfactory score.

All contracted suppliers must be in approved vendor list (AVL).

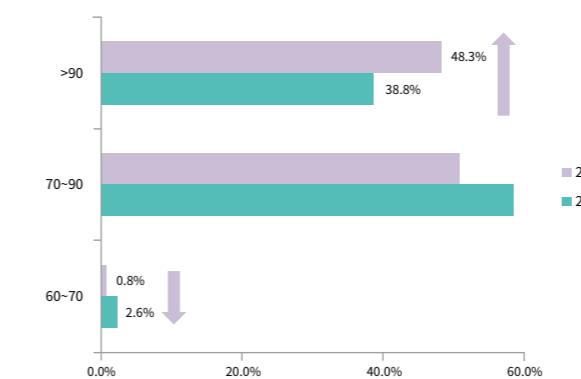
### 5.2.2 Supplier Evaluation

#### 5.2.2.1 Supplier Quality and Business Evaluation

In order to monitor the supply chain risk, SMIC has established a perfect supplier evaluation mechanism. Contracted suppliers are scored every six months based on the scoring indexes including quality indexes, cost indexes, delivery and service indexes, safety and environmental indexes, etc. The suppliers meeting the requirements for improvement according to the evaluation results need to provide plans for improvement.



In 2017, the supplier performance level improved significantly compared to last year. Suppliers with more than 90 scores increased by nearly 10%, and suppliers with 60 - 70 scores decreased from 2.6% to 0.8%.



#### 5.2.2.2 Evaluation of Suppliers' Sustainable Operation

In order to ensure long-term and stable business cooperation with suppliers, SMIC carries out a sustainable operation survey for all suppliers who provide raw materials in the current year and assesses the suppliers' sustainable operation conditions. The survey focuses on:

- Establishment of risk assessments (earthquakes, floods, IT system paralysis, terrorist attacks, etc.) and periodic reassessment of risk, performance of control over the assessed high risk factors;

- Establishment of site recovery, capacity transfer and supply recovery plans with regular drills for disaster response;
- Whether the business continuity plan is prepared and regularly reviewed by senior management representatives;
- Establishment of warning and notification mechanism for supply interruption;
- Consideration of perfection of business continuity management performed by suppliers in procurement;

In 2017, more than 40 major raw material suppliers 100% responded to the survey and reached satisfactory standards.

### 5.2.3 Supplier Capability Improvement

SMIC attaches great importance to grow together with suppliers, especially the factory contractors. In order to improve the contractors' safety construction level, the Environment/Safety/Health Division provides construction safety training for all operators, explaining safety construction knowledge and requirements, SMIC environmental protection/safety/health regulations, security essentials for 8 high-risk operations (including hot works, fall protection, fire system impairment operations, hazardous piping cutting operations, special machinery operations, gas detectors isolation operations, fire detectors isolation operations, confined space operations), construction accident case sharing and so on. The training improves the suppliers' safety level while reducing the company's risks. In 2017, there were no major safety accidents happening to contractors in the factory.

In order to increase the communication and interaction with the contractors, learn from each other and make progress together, SMIC sets up a contractor communication meeting and excellent contractor selection system, calls annual contractor communication meeting and conducts the selection of excellent contractors. Through the meeting, SMIC sums up the contractors' annual safety construction results, shares the contractors' experience in environmental protection, safety and health, summarizes major contractor accident lessons, and gives commendation to outstanding contractors.

In 2017, SMIC selected 12 outstanding contractors from 149 major contractors and spread these outstanding contractors' experience summary in environmental protection, safety and health management to all contractors, to enhance the contractors' safety management level and reduce safety accidents and injuries.



Plant	List of ESH excellent contractors	Plant	List of ESH excellent contractors
Shanghai	Applied Materials (China) Co., Ltd.	Tianjin	Tianjin Guangxuan Technology Co., Ltd.
Shanghai	Edwards Technologies Trading (Shanghai) Co., Ltd.	Tianjin	Tianjin Order Property Services Co., Ltd.
Shanghai	WINMAX Technology (Shanghai) Co., Ltd.	Tianjin	Hexagon Tower (Tianjin) Technology Co., Ltd.
Beijing	KLA-Tencor International Trade (Shanghai) Co., Ltd.	Shenzhen	Tian Huo (Shanghai) Semiconductor Exhaust Industry Co., Ltd.
Beijing	Advanced Micro-Fabrication Equipment (Shanghai) Inc.	Shenzhen	Canon Optical Equipment Services (Shanghai) Co., Ltd.
Beijing	Xie Wei IC Equipment (Shanghai) Co., Ltd.	Shenzhen	Organo Water Treatment Co., Ltd.

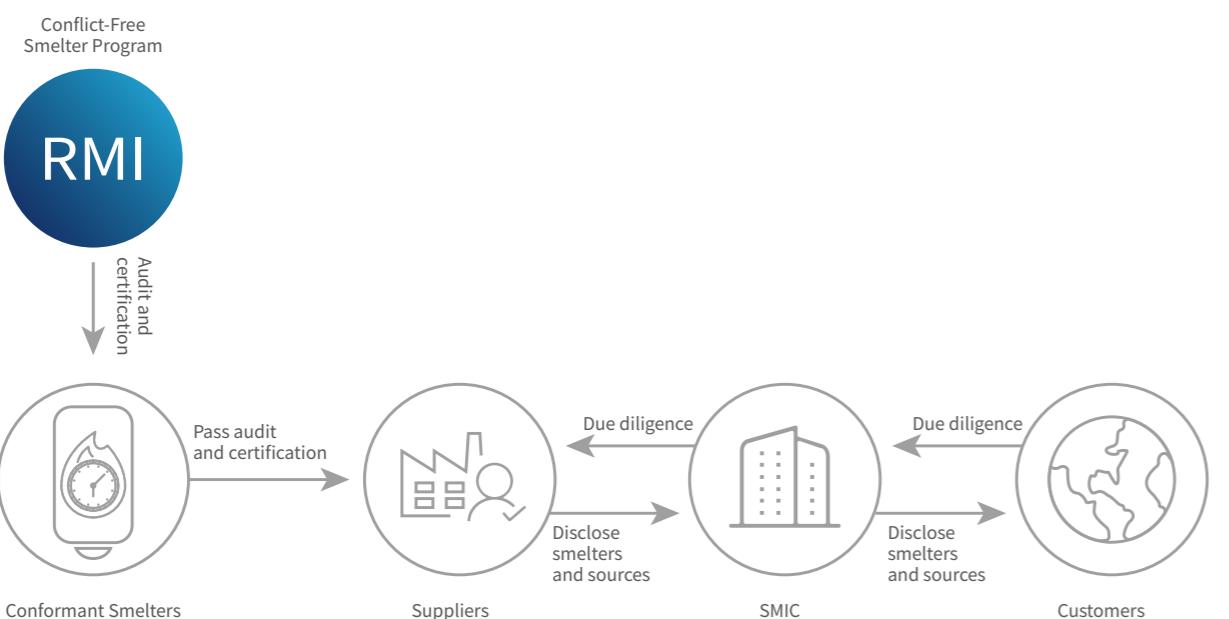
## 5.3 Conflict Mineral Management

There are serious human rights and environmental problems in mining rare metals such as cassiterite, black tungsten, tantalum and gold in Congo and its surrounding countries and regions, and most of the mining activities in these areas are related to the armed groups (financed) in conflict, leading to long-term instability in these areas and the "conflict mineral" got its name from the media. These metals may be widely used in information and communication technology (ICT) products.

SMIC sets up a working group on conflict mineral management and develops strong conflict mineral management policies and procedures to ensure effective management of conflict minerals. The working group on conflict minerals management is composed of Legal, Supply and Purchasing Management, Customer Engineer, Corporate Social Responsibility and other divisions, which jointly develop and promulgate conflict mineral policy, establish a management supervision system, require all relevant suppliers to provide evidence meeting the requirements of conflict mineral management, and achieve regulatory compliance through close communication with suppliers. Based on the US law (Chapter 1502, Dodd-Frank Act) and the rules of SEC—the U.S. on conflict mineral disclosure and guided by the due diligence framework of the organization for economic cooperation and development (OECD), conflict mineral management policies and procedures are taken to conduct due diligence on suppliers to ensure the legitimacy of these metals by using the due diligence tools of the Responsible Mining Initiative (RMI) and the Global e-Sustainability Initiative (GeSI).

The key to conflict mineral management is to effectively manage suppliers and ensure that all links in the supply chain conform to the conflict mineral management requirements. In 2017, SMIC conducted due diligence on all relevant suppliers in strict accordance with the requirements of conflict mineral management. The due diligence was conducted based on the Conflict Minerals Reporting Template (CMRT) created by the Responsible Minerals Initiative and the Global e-Sustainability Initiative. Supplier 100% responded to conflict minerals reports and provided evidence to demonstrate compliance with the conflict minerals management requirements.

And SMIC actively assists customers in the implementation of due diligence for conflict minerals. According to customer's request, we have given more than 100 replies to conflict minerals reports in time, which shows that we manage the conflict minerals effectively and make sure the smelter 100% meets the management requirement.



# 06

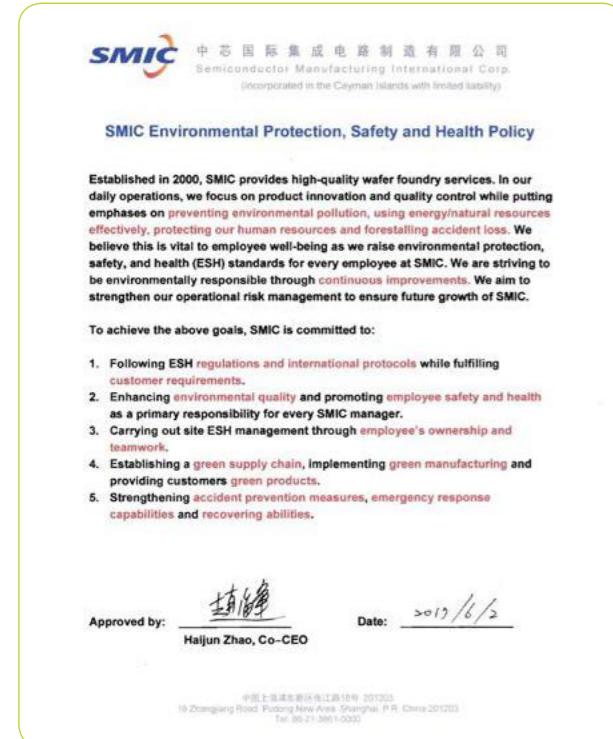
## Environmental Protection

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SMIC lays emphasis on the development of enterprises and the creation of economic value, while highlighting prevention of environmental pollution and utilization of energy resources. We take continuous improvement measures to fulfill environmental responsibility and promote sustainable development.

## 6.1 Environment Protection Policy

In its early days, SMIC established the environmental protection, safety and health policies based on ISO 14001 environmental management system and OHSAS 18001 occupational health and safety management system. Based on the continuously improved concept, by optimizing and revising the policy, SMIC gradually develops the following new management policies:



To achieve environmental protection objectives in the management policy, the company takes the following environmental management measures:

- Plan and take environmental protection measures and promote energy saving and emission reduction projects;
- Classify, collect and recycle wastes;
- Supervise and manage transfer, safety treatment and manufacturer qualification identification of hazardous wastes;
- Control the content of hazardous substances in the product;
- Carry out regular environmental monitoring and carbon emission check and disclose the results.

## 6.2 Environmental Protection Management

Under the guideline of environmental management systems, laws, regulations and standards, SMIC systematically and normatively integrates the environmental management project into the whole process of production and operation in the areas such as organizational structure, document control, operational control, supervision and management, improvement and enhancement, by planning, implementing and operating environmental management projects.

We abide by more than 100 environmental protection laws, regulations and standards including "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 Solid Waste Pollution Prevention and Control" and "Law of the People's Republic of China on Environmental Impact Assessment", etc.

### 6.2.1 Management Team and Capital Investment

SMIC sets up a separate environmental management sector consisting of members with professional environmental management knowledge and skills. The environmental management sector works with other functional divisions to jointly implement environmental management projects with clear responsibilities, to ensure the realization of environmental objectives and make sure that ISO 14001, ISO 14064, QC 080000 and other environmental management systems run effectively. In 2017, the company invested more than RMB 600 million for operation, reconstruction and expansion, monitoring and third-party audit of the environmental protection facilities for waste water, waste gas and waste materials.

### 6.2.2 Green Production

In order to minimize the impact of the expansion of the new plant on the environment, the company requires that the new plant shall be designed and constructed in accordance with the "green building assessment and building sustainability assessment criteria" and certified in accordance with the Leadership in Energy and Environmental Design (LEED) presented by United States Green Building Council. In 2015, 12-inch factory of Semiconductor Manufacturing North China (Beijing) Corporation was awarded the Gold Award of the certification. In 2017, Semiconductor Manufacturing North China (Beijing) Corporation was voted as "Green Factory" by the MMIT and was selected as a "Green Manufacturing Enterprise" on the Internet.



### 6.2.3 Cleaner Production

In order to minimize and even eliminate the impact of the production process on humans and the environment, we implement cleaner production measures. These measures include reduction of pollution sources, increase of resource utilization, reduction and elimination of pollution in the links from production and maintenance to product use.

In accordance with regulatory requirements, SMIC regularly implements cleaner production audits and implements cleaner production improvement plan according to the expert audit suggestions. In 2017, SMIC implemented 52 cleaner production improvement programs with an investment of more than RMB 140 million.

### 6.2.4 Product Hazardous Substances Control

In accordance with QC080000 hazardous substances control system, the company controls hazardous substances risks in the whole production process, so that the products meet the Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products, EU RoHS/REACH, Sony GP standards and other domestic and international hazardous substances control standards, to reach the green product level.

Source control---promote green supplier evaluation mechanism and control hazardous substances from the source, select the suppliers that meet the requirements for green supplier evaluation, conduct regular documentation and site audits of suppliers, request the raw material suppliers to provide a statement of no hazardous substance, and require suppliers to provide periodic test reports of no hazardous substances for high-risk substances.

Process control---strictly implement production process control and put the equipment under isolation management, provide training for operators to prevent the production process from pollution by external hazardous substances.

Product test---monitor the content of hazardous substances in the products, conduct hazardous substances test for the products produced each year to verify the content of hazardous substances contained in the products is under control.

## 6.3 Greenhouse Gas Management

The climate change caused by greenhouse gas emissions has a great impact on the global ecological environment, human life and health and economy, so it is an environment issue receiving great concern from the United Nations, governments, society and business circles.

### 6.3.1 Climate Change Policy

SMIC is actively responsible for mitigating climate change, and it develops climate change policies and implements the measures to reduce greenhouse gas emissions.

**SMIC** 中芯国际集成电路制造有限公司  
Semiconductor Manufacturing International Corp.

#### SMIC Climate Change Policy

SMIC conducts business with the wellbeing of our environment, our community and our next generation in mind. Concerned about global climate change, SMIC remains committed to save resources, reduce disaster losses caused by extreme weather, slow down and reverse the effect of climate change to achieve sustainable development and leave behind a cleaner and more stable environment. To achieve these objectives, SMIC commits to:

1. Decrease Greenhouse Gases emissions;
2. Reduce product energy consumption;
3. Lower product water consumption;
4. Pursue green production and energy saving products; and
5. Enhance the ability to prevent, respond, and recover during adverse weather conditions.

Approved by: Date: 2017/11/1  
HaiJun Zhao, Co-CEO

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18 Zhangjiang Road, Pudong New Area, Shanghai, P.R. China 201203  
Tel: 86-21-3861-0200

### 6.3.2 Verification of Greenhouse Gases

In accordance with international standard ISO14064, SMIC establishes a greenhouse gas verification mechanism. It calculates the greenhouse gas emissions in the operating factory on a regular basis each year, to acquire the company's greenhouse gas emissions and implement emission reduction measures as planned.

The total of greenhouse gas emissions increased by 23.0% in 2017 to 1,662,905 tons because of adding new Fab emissions data. The greenhouse gases emitted by each 8' wafer equivalent photo-mask were increased by 2.0%, that is, the intensity of emissions was increased by 2.0%.

#### 6.3.2.1 Direct Emissions of Greenhouse Gas

Direct greenhouse gas sources: combustion of gasoline, diesel, natural gas and other fossil fuels, perfluorinated compounds gas in the process of chemical vapor deposition and dry etching, organic exhaust combustion, refrigerant fugitive emissions, wastewater treatment system emissions and pure water system fugitive emissions, etc.



## 6.4 Energy Management

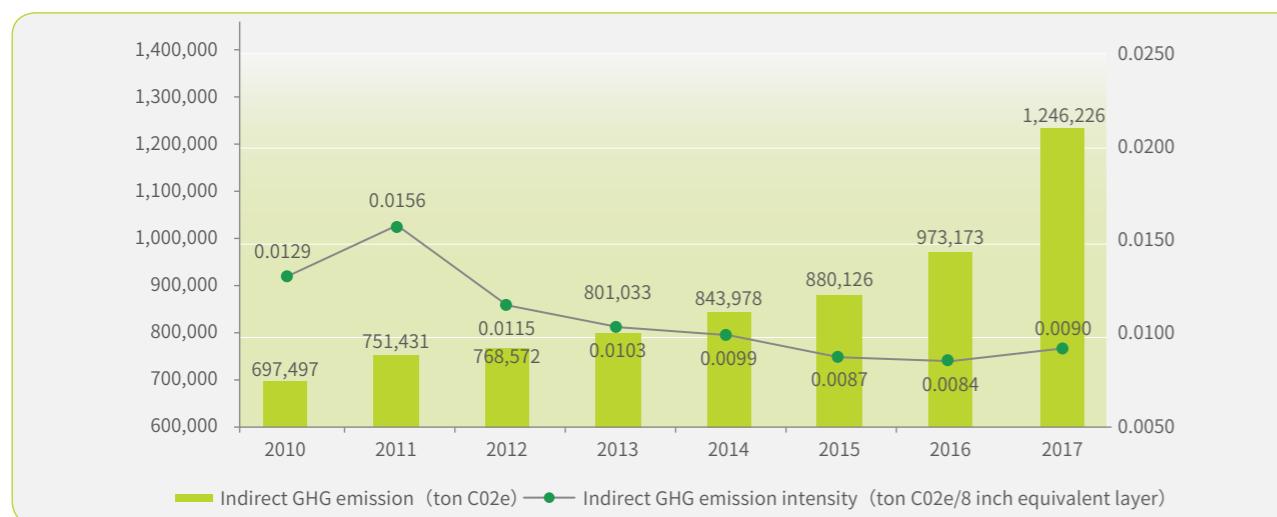
SMIC actively responds to national energy-saving and emission reduction calls, establishes energy management organizations and continues to implement energy-saving and emission reduction projects, achieving a double win for economic and environmental benefits.

### 6.4.1 Energy Management Mechanism

At the beginning of 2014, SMIC set up Energy Conservation Committee to promote power management, where the Co-CEO served as Chairman of the Energy Conservation Committee and took overall charge of energy-saving related work. The members of the Committee include the departments of Facility(FAC), Fabrication(FAB), Operation Enhancement(OE), Environment/Safety/Health(ESH) in each sites. Besides, a sound energy management system was established to implement three-level energy management networks, practice the energy management post responsibility system, establish full-time energy management agencies and full-time managers for energy management, to ensure the implementation of energy management in both system and organizational construction. The factory in Beijing established the energy management system in accordance with the national standard GB/T23331-2012, to further strengthen energy management.

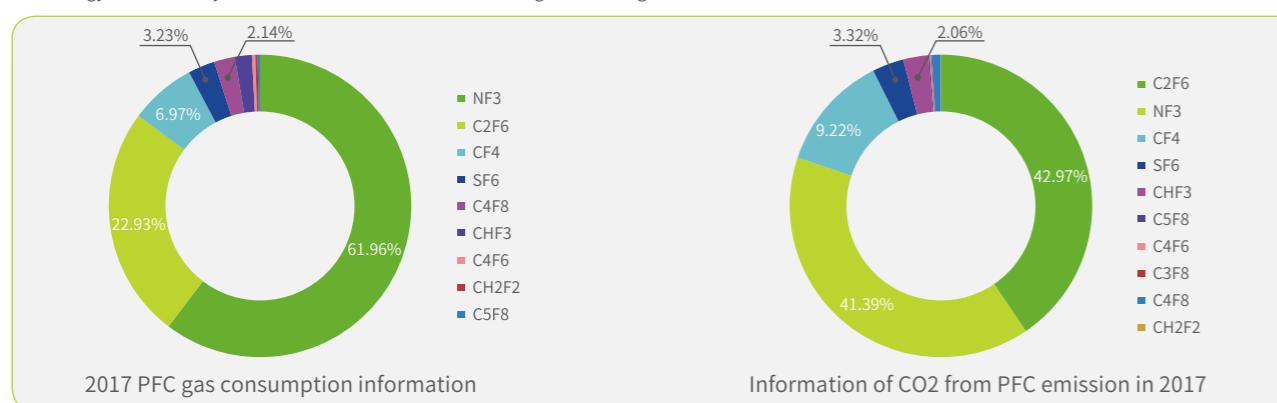
#### 6.3.2.2 Indirect Emissions of Greenhouse Gas

Indirect greenhouse gas sources: greenhouse gas emissions of outsourced power, steam, heat and other energies.



#### 6.3.2.3 Perfluorinated Compounds Greenhouse Gas Emissions

As an important member of China Semiconductor Industry Association, SMIC provides annual perfluorinated compounds greenhouse gas emission information to the Association, which then report it to the World Semiconductor Council (WSC). SMIC is actively implementing the agreement developed by WSC on voluntary greenhouse gas emission reduction of perfluorinated compounds (PFC), trying to implement the best practice emission reduction technology advocated by WSC and reduce the emission of PFC greenhouse gas.



The Energy Conservation Committee holds working meetings on a regular basis each month to discuss energy management related issues, including reviewing the implementation of energy saving plans for the past month, analyzing energy consumption trends or causes of anomalies, demonstrating outstanding energy saving cases and sharing them in all factories, implementing energy contract management, and actively cooperating with suppliers to achieve win-win.

### 6.4.2 Consumption of Energy

Compared with 2016, as the new fab was in the ramp-up phase, some of the total energy consumption has increased significantly in 2017, but the energy consumption per unit of output has remained basically unchanged.



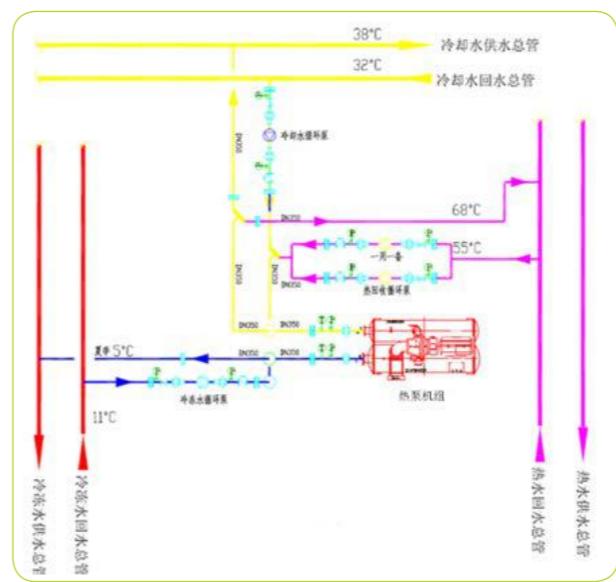


### 6.4.3 Main Energy Saving Projects in 2017

Energy Saving Projects in 2017			
Plant	Project Name	Brief Description of Project	Energy-saving Performance
Shenzhen	Energy-saving Renovation Project of Central Air-conditioning System	By adding VFD (Variable Frequency Drive) to the motors of the 14 central air-conditioning systems, the purpose is to increase motor efficiency and save energy.	Power: 910,000kWh
Shenzhen	Energy Saving Technology Reform Project of New Air System	By changing the outlet of the blower in the fresh air system, wind resistance can be reduced and electric energy can be saved.	Power: 47,320kWh
Shenzhen	Energy-saving Renovation Project of Gas Supply System	Change one gas cooler supplied with one gas cabinet into one gas cooler supplied with two adjacent gas cabinets to save electricity.	Power: 157,248kWh
Shenzhen	Energy-saving Renovation Project of FAB Lighting System	A 36-watt general lighting system was replaced by an 18-watt LED lighting system in the lighting system in the workshop to save electricity.	Power: 189,280kWh
Shenzhen	Energy-saving Renovation Project of Plant Street Lighting System	A 250-watt fluorescent lamp was replaced by a 100-watt LED lamp in the street lamp lighting system in the plant to save electricity.	Power: 438,88kWh
Shenzhen	Boiler Energy-saving Project	By optimizing and reducing the temperature of the boiler outlet water, the temperature of the exhaust gas can be reduced, the heat of exhaust gas emission can be reduced, the boiler efficiency can be improved, and energy can be saved.	Natural gas: 3,250stere
Shanghai	Energy-saving Renovation Project of Hot Pump	Using hot pump unit to heat the backwater of the hot water system saves the use of steam in the hot water system. It can also reduce the temperature of the ice water return water, reduce the operating load of other chillers, and reduce energy consumption.	Steam: 34,367tons
Shanghai	Energy-saving Renovation Project of Ultrapure Water Recycling System	By adding VFD (Variable Frequency Drive) to the pumps of the ultrapure water recovery system, the purpose of improving efficiency, saving energy, and reducing water hammer is achieved.	Power: 87,600kWh
Shanghai	Energy-saving Renovation Project of Plant Street Lighting System	An 80-watt energy-saving lamp was replaced by a 30-watt LED lamp in the street lamp lighting system in the factory to save electricity.	Power: 45,370kWh
Beijing	Power Supply Optimization Project	APM inputs power compensation cabinet to increase system power factor	Power: 1,531,058kWh
Beijing	Energy-saving Renovation Project of Central Air-conditioning System	By adding VFD (Variable Frequency Drive) to the motors of the central air-conditioning system, the purpose is to increase the motor efficiency and save energy.	Power: 1,144,080kWh
Tianjin	Boiler Energy-saving Project	By installing a heat exchanger on the deoxygenated water tank of the boiler, the flash steam discharged from the deoxygenated water tank is used for the heat exchange in the hot water system of the plant, thereby saving steam.	Steam: 2,560tons
Total			Power: 4,111,956kWh Steam: 36,927tons Natural gas: 3,250stere

### Case I: Energy-saving Renovation Project of Hot Pump in Shanghai Plant

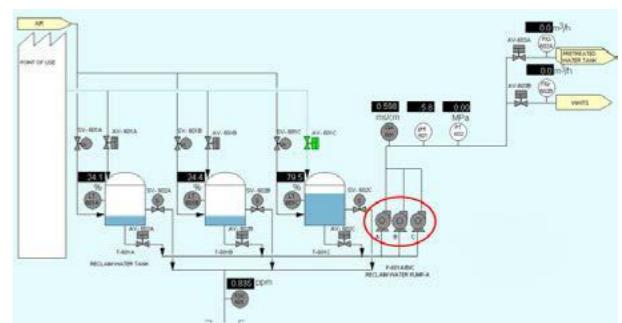
In order to ensure the real-time temperature and humidity control of the clean room, it is necessary to supply 5°C ice water and 80°C hot water all year round. The ice water at 5°C is made by an ice machine. When the ice water at 5°C is produced, a large amount of condensation heat is generated. This part of heat needs to be dissipated through a cooling tower. The city water is heated by city steam to form 80°C hot water. The Shanghai plant installed hot pump units between the two systems. The ice side of the hot pump unit was connected to the ice water system, and the hot side of the hot pump unit was connected to the hot water system. The hot pump unit heats the hot water from 55°C to 68°C, and then uses steam to heat it from 68°C to 80°C, which greatly saves the use of steam. When heating the return water, the ice return water can be cooled from 11 °C to 7 °C, reducing the load of the chiller and reducing energy consumption. In 2017, the project saved about 34,367 tons of steam.



System Diagram of Project

### Case II: Energy-saving Renovation Project of Ultrapure Water Recycling System in Shanghai Plant

The ultrapure water system including the complicated process flow is responsible for providing the ultrapure water to the production end. The ultrapure water is transferred by water pump between each process flow. In the original design, the water pump control is controlled by the MCC control cabinet. With the development of science and technology and the control of energy consumption, the ultra-pure water system uses the VFD control mode to replace the MCC control cabinet. Advantages of VFD: (1) Reduce electric consumption, (2) System supply pressure is more effectively controlled, (3) Water Hammer is eliminated, (4) System stability is greatly improved, and equipment is at optimum efficiency. In 2017, the project saved a total of 87,600 kWh of electricity.



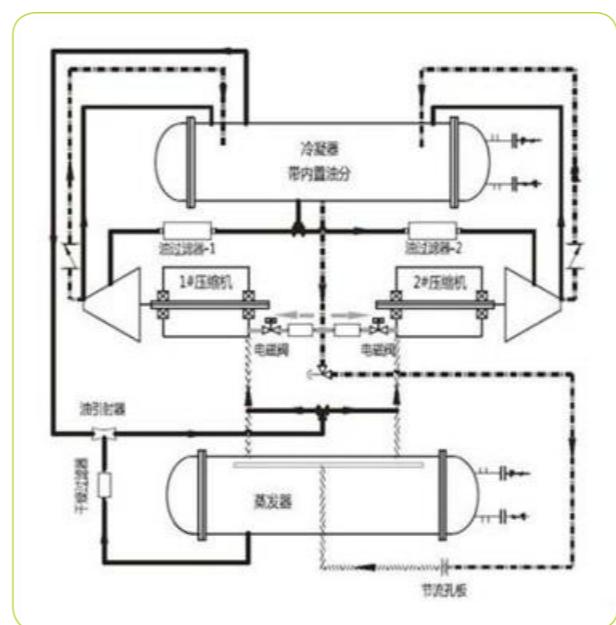
System Diagram of Project

### Case III: Boiler Energy-saving Project in Tianjin Plant

Oxygen scavenging tanks of boiler emit large amounts of flash steam each year, and there is energy waste. The Tianjin plant uses a flash heat exchanger to use the flash steam to raise the temperature of return water of the hot air-conditioning system and reduce the steam consumption in the hot water system to achieve energy-saving purposes. In 2017, about 194,000 cubic meters of natural gas were saved.



Before change



Schematic of Hot Pump Unit



After change

## 6.5 Water Resources Management

SMIC's factories are located in different areas, where there are differences in the conditions of the available water resources. We measure local conditions and implement management measures to conserve water resources.

### 6.5.1 Consumption of Water Resource

SMIC builds water-saving projects and implements water-saving management measures to achieve the goal of reducing running water consumption, improving water resources utilization and reducing wastewater discharge. The company's water resources consumption data of 2017 is as shown in the following table.

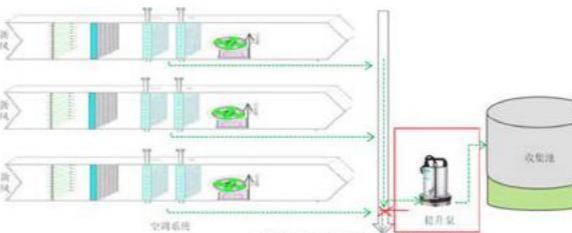


### 6.5.2 Main Water Saving Projects in 2017

Main Water Saving Projects in 2017			
Plant	Project Name	Brief Description of Project	City Water Saved (ton)
Shenzhen	Air Conditioning System Condensate Recycling Project	Collect condensate from air-conditioning system and reuse it in cooling towers to reduce city water consumption	36,545
Shenzhen	Wastewater Recycling Project	The general acid-alkali wastewater, grinding wastewater and ammonia-nitrogen wastewater are treated and recycled to use in ultrapure water systems to reduce city water consumption in ultrapure water systems.	419,684
Beijing	Chemical Mechanical Polishing Cleaning Drainage Recovery Project	The chemical mechanical polishing cleaning drainage is collected, treated and used in local treatment system of exhaust gas to reduce the city water consumption of the local treatment system	30,000
Beijing	Washing FOUP Machine Drainage Recovery Project	Collect the washing FOUP machine drainage and recycle to ultrapure water system	10,950
Total			497,179

### Case I: Air Conditioning System Condensate Recycling Project in Shenzhen Plant

Originally, the condensed water of air-conditioning system is discharged into the rain and sewage pipelines in Shenzhen plant, resulting in the waste of water resources and increasing the amount of sewage treatment. In order to achieve the reuse of water resources, the condensed water can be collected and reused to cooling tower of ice system after analysis and research. It can supplement evaporation and self-damage water. In 2017, the project saved a total of 27,264 tons of city water.

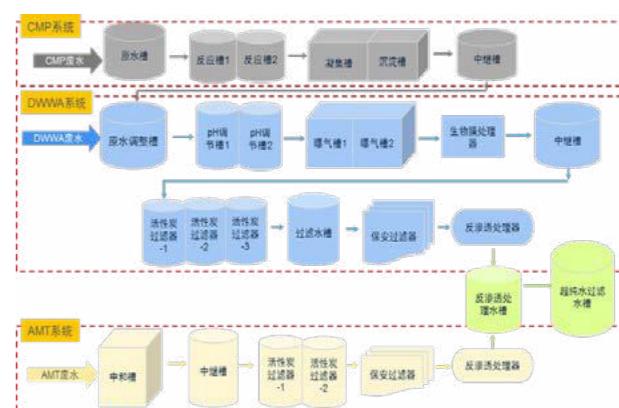


### Case II: Wastewater Recycling Project in Shenzhen Plant

Ammonia nitrogen wastewater is treated by blowing ammonia nitrogen

and entered into the recycling system. After ACF + RO treatment, the RO outlet water is collected in the RO tank and reaches the UPW treatment system filtration tank when reaching the standard.

CMP wastewater is treated with chemical coagulation, mixed with general acid-alkali wastewater, adjusted pH value, and entered aerobic tank aeration treatment, then enters MBR. After ACF+RO treatment, MBR water enters RO water tank, then enters UPW after reaching the standard. Treatment system filter tank. In 2017, the project saved a total of 419,684 tons of city water.



### 6.5.3 Water Pollutant Control

According to the nature of production wastewater, SMIC constructs a number of waste water treatment facilities to treat production wastewater and domestic sewage, so that discharged wastewater meet national or local standards. Besides, we strictly implement wastewater discharge monitoring requirements to conduct real-time or regular monitoring of the concentration of pollutants in wastewater to ensure that all wastewater meets discharge standards. For specific monitoring data, see the information published on: <http://www.smics.com/chn/about/esh.php>.

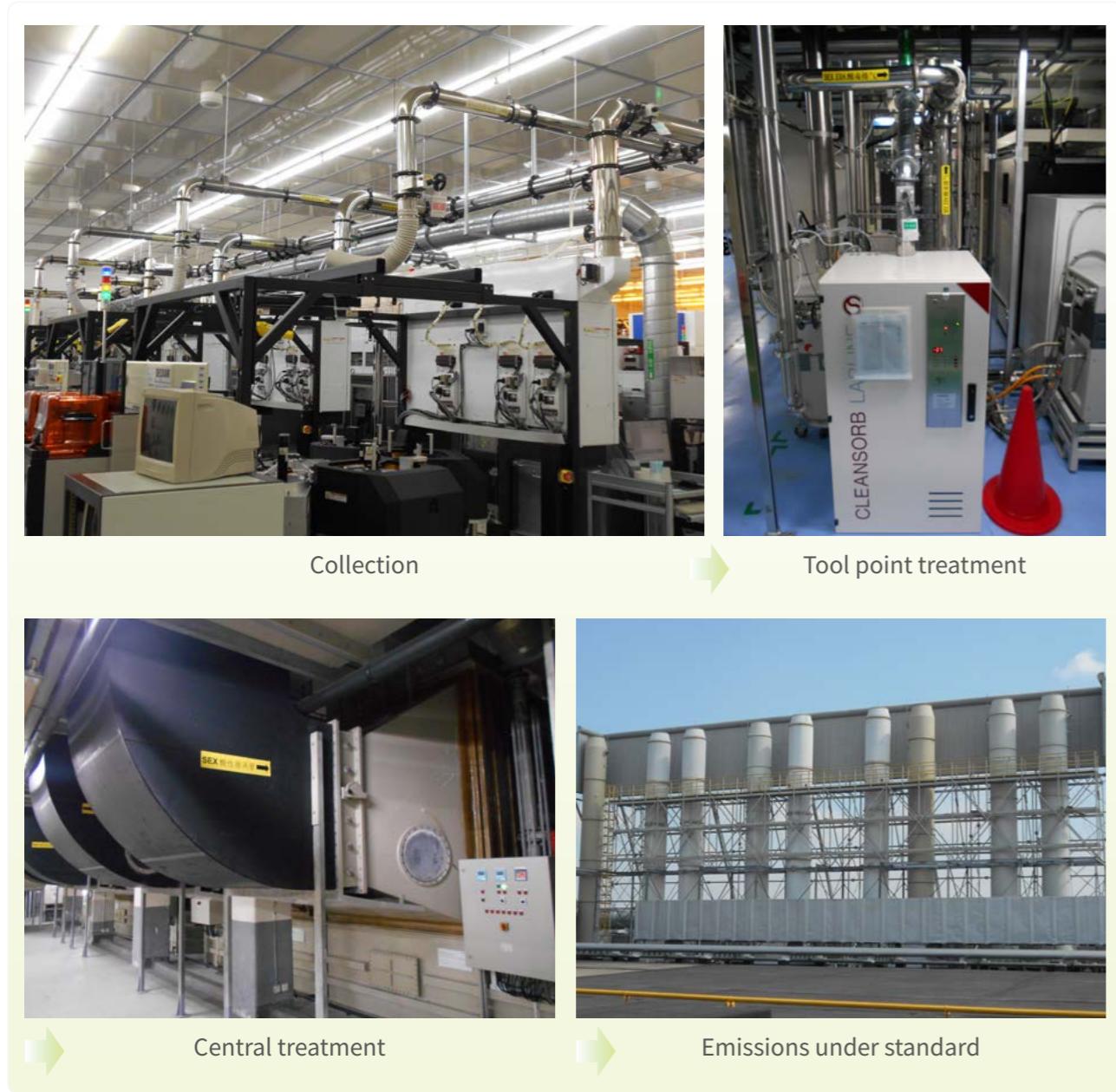


## 6.6 Air Pollution Prevention and Control

SMIC is concerned about the air quality in its business locations and attaches great importance to the treatment of the company's exhaust gas. All emitted gas is treated and meets national or local standards.

Data Name	Total
Total Emission of Exhaust Gas (10,000 cubic meters)	7,810,667
Emissions of Nitrogen Oxides (ton)	281
Emissions of Sulfur Dioxide (ton)	25
Emissions of Volatile Organic Solvents (ton)	1,772

The company employs two-levels waste gas treatment including tool point treatment and central treatment. In the production process, the waste gas emitted from the tool point is first treated by the local waste gas treatment system to meet the stipulated standards and then sorted into the main pipes for exhaust gas collection. The main pipes for exhaust gas collection fall into acidic, alkaline, organic and general types, where acidic and alkaline waste gas respectively enters the acid and alkaline central washing tower via the main pipes, while organic waste gas enters the zeolite runner system for burning. The waste gas processed by the central system is discharged into the atmosphere by the exhaust pipe conforming to the requirements of the State. To verify emission compliance, we regularly entrust third party agencies to monitor emissions and all test results meet national requirements. For specific monitoring data, see the information published on: <http://www.smics.com/chn/about/esh.php>.



## 6.7 Waste Management

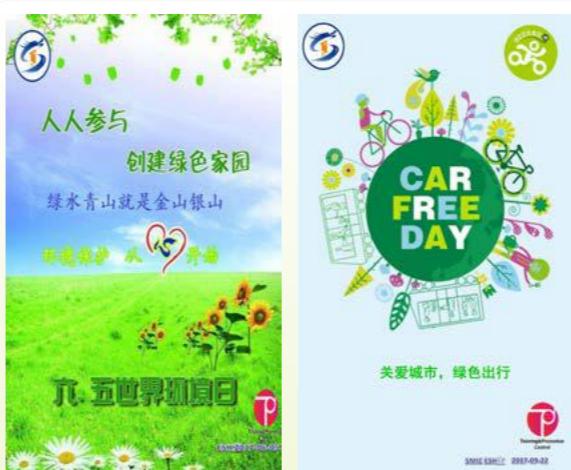
SMIC establishes a sound waste management system and strictly complies with the national regulations in treatment of the produced waste. The waste produced in the workshop is subdivided into acidic, alkaline, toxic, oxidizing, self-ignitability, flammable and general substances, which are distinguished with the recycling buckets in different colors. The classified waste substances are collected on a regular basis and transported to the hazardous waste

warehouse for temporary storage, before being delivered to the vendors with hazardous waste treatment qualification. The waste liquid produced in the workshops is transported to the temporary waste tank by an independent pipeline, and then treated by the vendors with the corresponding qualification. The waste treatment plants must be under strict management and all waste treatment vendors need to have a government-approved qualification and meet our company's waste management evaluation scores to sign the contract. During the cooperation, the Environment, Safety and Health Division will conduct on-site or vehicle-following examination for the waste treatment vendors. For hazardous waste, strict implementation of the waste transferring table system is required. Production of various types of waste in 2017 is as follows:



## 6.8 Promotion of Environmental Protection Awareness

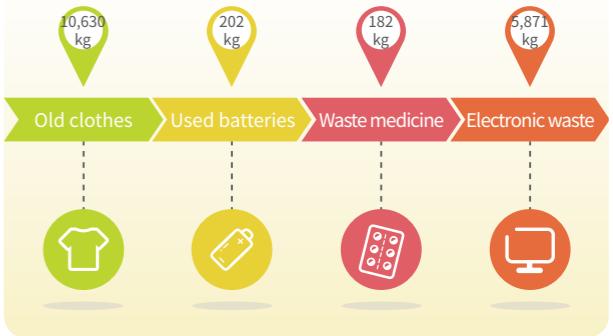
In 2017, the company continued to hold environmental awareness advocacy activities to enhance employees' awareness of environmental protection in the form of posting posters, sending initiative mails to all employees, displaying promotional documents on the company's internal website, organizing special events and so on.

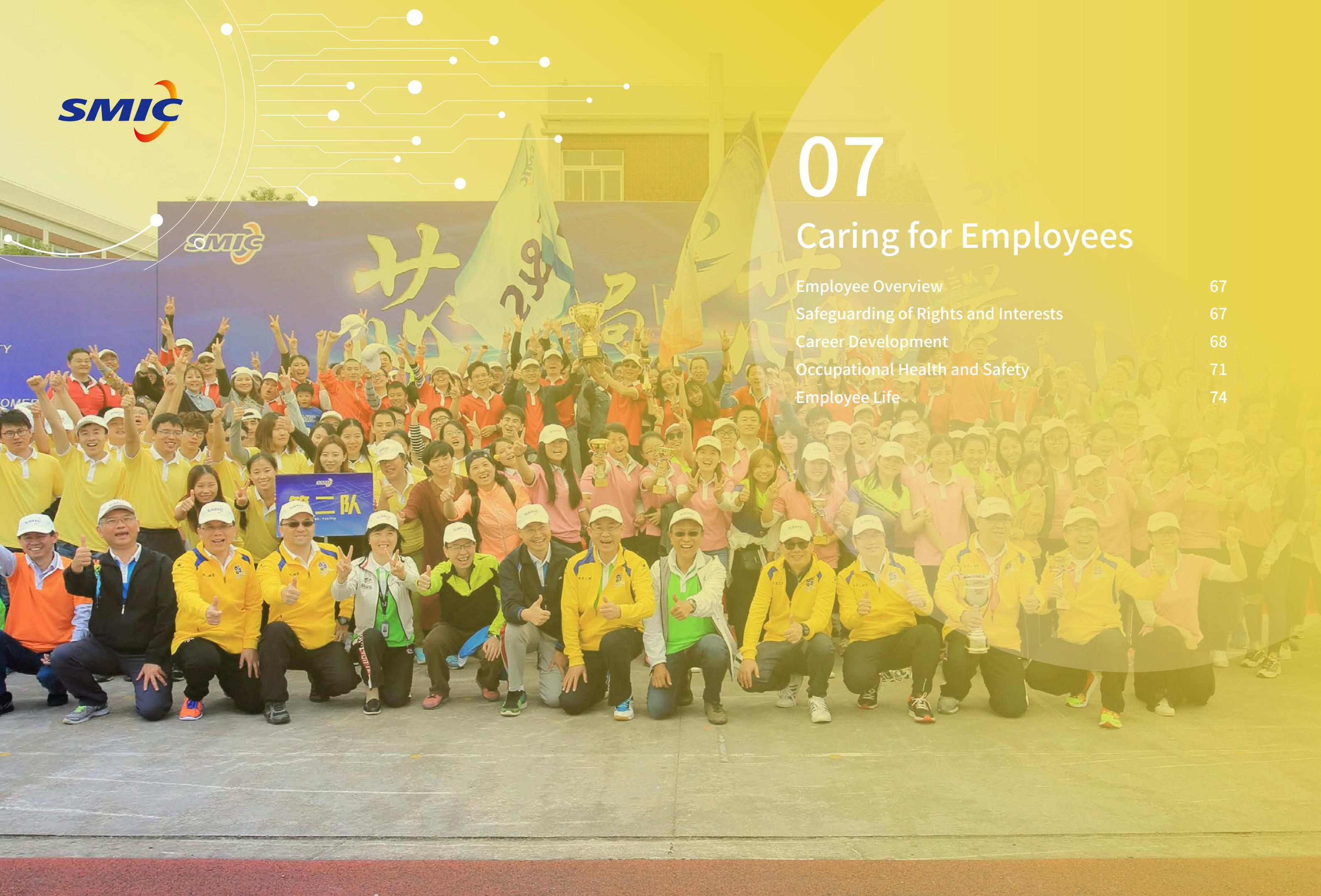


• Publicize "World Environment Day" on June 5, call all employees to participate to create a green home.

• Publicize "Car Free Day" on September 22 to advocate green travel, reduce greenhouse gas and automobile harmful exhaust emissions.

- Hold a series of second-hand market special events in each factory to promote reclamation of used articles.





# 07

## Caring for Employees

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Employee Life

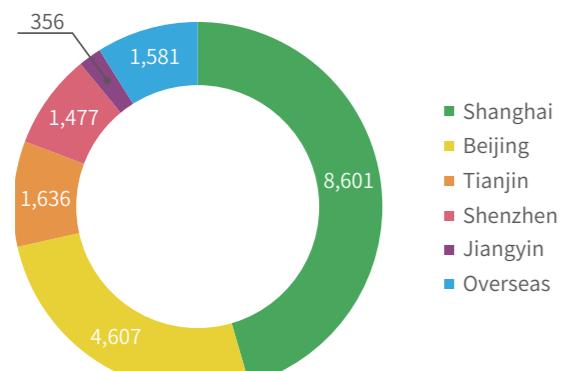
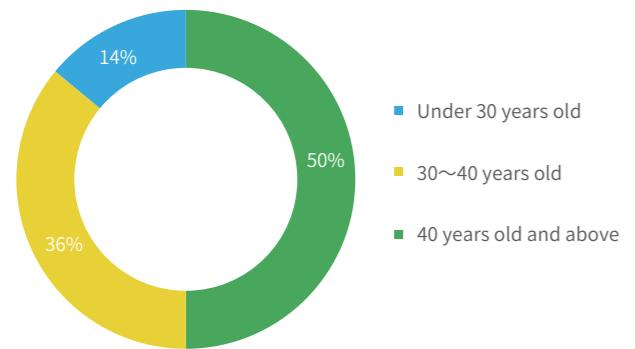
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SMIC has always believed that only when the talents are offered macroscopic visions, broad stages and opportunities to achieve personal dreams and enjoy work and life, can it have a better future. Therefore, the company adheres to the people-oriented principle to ensure that employees enjoy fair treatment, good health and opportunities to improve themselves, so as to promote technological innovation, growth of the company as well as economic and social development.

## 7.1 Employee Overview

Since its inception in 2000, SMIC has attracted a large number of visionary scholars to work together to change the industry and the world. Coming from all over the world, they have contributed excellent skills and advanced technologies, and also brought good values to our industry and community. These different types of employees from different regions have developed a harmonious culture based on mutual understanding and respect in the company, which is helpful to connect and communicate with customers, suppliers and investors around the world.

As of the end of 2017, the total number of employees reached 17,718, including 9,319 males and 8,399 females, where female supervisors accounted for 27% of the management, and including 2,100 foreign employees from 28 countries and regions. In 2017, SMIC recruited 3,098 new employees. In addition, welcome to the disabled is also a consistent policy of SMIC, and we provide them with the necessary assistance as far as possible.



## 7.2 Safeguarding of Rights and Interests

In accordance with international and domestic legal requirements, protection of all employees rights and interests is the minimum standard commitment that SMIC keeps. We give employees more rights and interests according to the company's development strategy, so that employees enjoy common development and benefit with the company.

### 7.2.1 Recruitment Policy

In the recruitment process, SMIC adheres to the principles of openness, fairness, impartiality, merit and anti-discrimination, and complies with relevant laws and regulations on prohibiting the employment of child laborers, human rights protection, remuneration and benefits, working hours and holidays, and in no case SMIC recruits persons under the age of 16. SMIC establishes a labor rights protection system to protect the rights and interests of employees.

SMIC has always adhered to the lawful and compliant consistency principle in employment. The signing rate of the labor contract reaches 100% and the collective labor contract is signed regularly. And we also protect the personal information and privacy of employees, and continuously improve their satisfaction.

### 7.2.2 Remuneration and Benefits System

SMIC provides a comprehensive salary and benefit system that includes short-term incentives such as salaries, bonuses, stock options, as well as long-term incentives, social security, commercial insurance, paid vacations and other welfare and security that facilitate life.

SMIC is concerned about the long-term development of every employee and takes a series of plans to retain and motivate employees for a long time. According to the employee's performance and service time, the company gives the corresponding bonus. In addition, in order to motivate the managers to make contributions to the long-term development of the company, the corresponding stock options are granted to them specially.

The company pays pensions, medical care, unemployment, occupational injury insurance and maternity insurance premiums for eligible employees in accordance with national and local laws and regulations. The coverage of the domestic employees paying social insurance reaches 100%. On the basis of social insurance, the company buys additional group commercial insurance for employees, covering life insurance, accident insurance, health insurance and maternity insurance, and the dependents of eligible employees are also allowed to apply to join in the company's group business insurance. In addition, the company pays housing provident fund for employees according to law. The benefit plans for the employees of the overseas affiliated companies are subject to the company's headquarters rules or additional additions outside the headquarters regulations.

SMIC provides a humane paid vacation system to ensure employees' balance between life and work. SMIC provides paid annual leave superior to that as required by the State and implements a sick leave

system, giving holidays and payroll grants to workers with serious disease. Besides protecting holiday benefits of special populations such as pregnant and maternity women, including prenatal inspection leave, maternity leave, paternity leave, lactation time of 1 hour a day for female workers, SMIC also retains the position of maternity leave employees. 89.6% of employees after maternity or paternity leave are willing to continue to work in the company.

Employees' Maternity Leave and Paternity Leave in 2017			
Items	Total	Male	Female
Total number of employees for maternity and parental leave	1,194	429	765
"Total number of retained employees after maternity and parental leave"	1,070	389	681
Proportion(%)	89.6%	90.7%	89.0%

SMIC also provides other welfare guarantees that facilitate life, including:

- SMIC living quarter (LQ) and fitness leisure facilities;
- Free commuting shuttle and meals;
- Opportunities of employees' children to receive first-class education in SMIC kindergarten and SMIC school, and opportunities to receive child tuition subsidy;
- Various club activities;
- Discounts provided by surrounding businesses, etc.

### 7.2.3 Incentive Awards

SMIC has a variety of awards to motivate groups and individuals, encouraging employees to pursue personal development consistently, thereby enhancing the company's competitiveness. Our awards include:

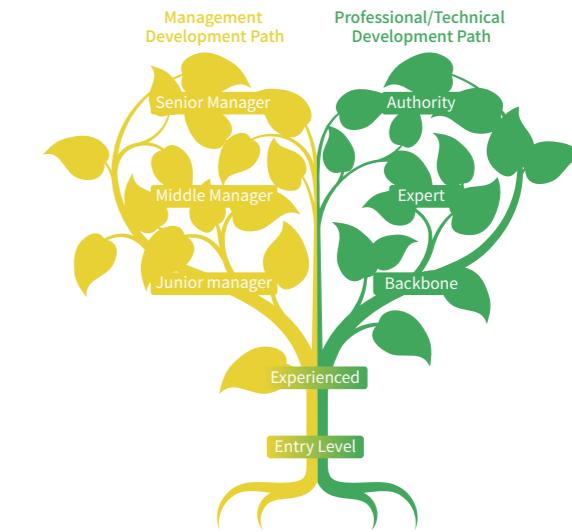
Award Name	Award Purpose
CEO Award	"To motivate teams and individuals to promote revenue growth and cost optimization by adopting innovative concepts"
Long Service Employee Award	To appreciate senior employees' long-term devotion and commitment to the company

## 7.3 Career Development

SMIC is concerned about the career development of its employees, and it has established reasonable paths for development, provided comprehensive support resources and developed a special retention system.

### 7.3.1 Employee Career Development Paths

SMIC has established two-way career development channels for both management and technical talents, and has provided appropriate incentives to meet the common development needs of employees and companies.



#### 7.3.1.1 Vertical Development Channel--Promotion

The company offers promotions to employees with excellent performance and ability, while motivating them with pay, bonuses and development opportunities.

#### 7.3.1.2 Horizontal Development Channel--Job Transfer

The company publishes internal recruitment information on the intranet as required by the business for employees to apply according to their own personal career planning, interests and strong point, thus fully mobilizing their initiative and enthusiasm and optimizing the company's human resources allocation.

#### 7.3.1.3 Rapid Development Channel

In order to build a rapid development channel for technical talents, attract high potential talents to join and cultivate a group of high-level technical experts, the company sets up a rapid growth project. Employees entering the project will be given more attention, training and responsibilities, so that they can quickly grow into the company's technical backbone.

### 7.3.2 Career Development Booster

By means of training, online learning platform, further study program, and other career development boosters, the company provides employees with a full range of resource support, to help employees continue to grow and promote continuous development of the company.

#### 7.3.2.1 Employee Training

The company provides targeted training for different levels of employees, such as induction training for new employees, capacity development projects for middle and middle-senior managers, sets up multi-dimensional training contents, such as corporate culture, professional skills, general skills and management and leadership development, etc., carries out training in diversified forms, such as face-to-face, on-the-job training, job rotation, study group, reading group, knowledge base, etc. In 2017, the company provided 601,165 hours of training, 34.9 hours per capita, covering 179,471 person-times, and a total of 180 person-times received the title of internal outstanding trainer.



### 7.3.2.2 Online Learning Platform

In order to facilitate the employees to learn at any time, the company sets up an online learning platform E-learning, covering 990 courses, including the most advanced semiconductor technology knowledge at home. To adapt to the development of the employees in the new era, the company in 2017 upgraded the training management system to integrate existing resources and provide employees with rich curriculum contents, enhance the system functions in all aspects, improve the learning experience of employees to meet their learning needs and improve the company's learning efficiency.



### 7.3.2.3 Further Education Program

The company supports the continuous education of employees by providing continuing education opportunities and platforms and cooperating with the domestic first-class universities (including Fudan University, Shanghai University, Peking University, Beijing University of Aeronautics and Astronautics, Beijing Institute of Petrochemical Technology, Tianjin University, Shenzhen University, etc.) to set up three types of schooling program at levels of master, bachelor and junior college, to meet the on-job learning needs of employees at different levels, enhance the overall cultural level of the company's employees, and at the same time the company gives a certain tuition subsidy to eligible employees.

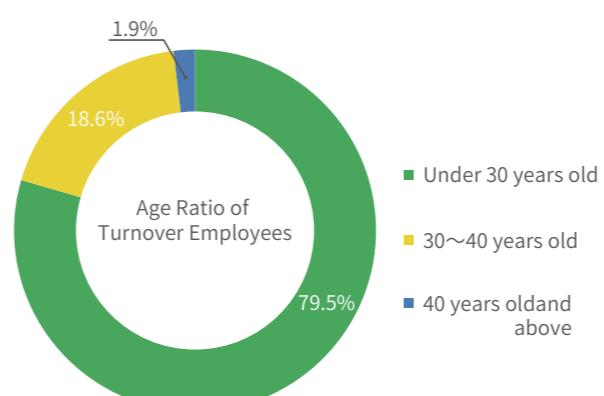
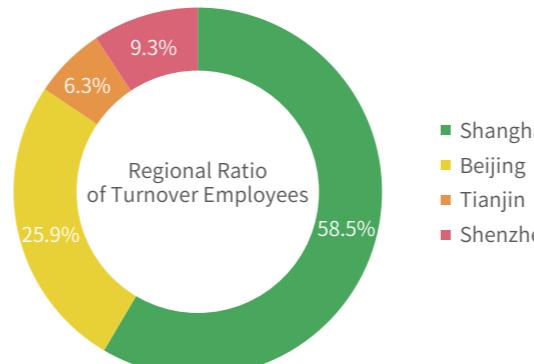
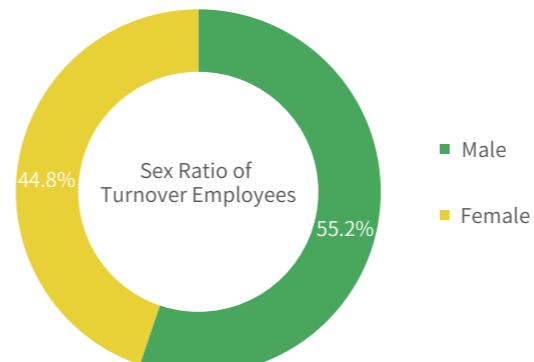


### 7.3.3 Talent Retention

Employees are the most important assets of the company. In addition to providing competitive salaries and benefits as well as a wide range of career development channels, we also seek to retain outstanding employees by building our corporate culture, advocating open communication, caring for physical and mental health and implementing targeted retention plans.

Employee turnover in 2017:

- The turnover rate by gender: female 16.00%, male 14.66%;
- The turnover rate by age: 21.41% for the group aged below 30, 7.77% for the group aged 30-40, 4.19% for the group aged over 40;
- The turnover rate by region: Shanghai 17.48%, Beijing 13.99%, Tianjin 8.80%, Shenzhen 14.25%.
- The employee turnover is as follows:



### 7.3.3.1 Cohesion Enhancement

SMIC continues to carry out a variety of activities to deepen the construction of corporate culture to promote the implementation of corporate culture in the work, such as holding retrospective summing-up meeting on practice of executive values, producing advertising videos for value micro-films, organizing corporate culture photography competition, publishing corporate culture briefings, and incorporates the value behavior performance in the performance evaluation, so as to let employees take the value as a guideline in the work and form a unified value system within the company, which has enhanced the cohesion and competitiveness of the company and created a good corporate image.



### 7.3.3.2 Advocacy of Open Communication

SMIC establishes company quarterly communication conference attended by the Chairman, CEO, managers at all levels and employees representatives, grass-roots employees communication meeting attended by engineers, manufacturing assistant communication meeting attended by front-line production employees, technical trainee communication meeting and other communication meetings covering all levels of employees, and opens an email to ensure smooth communication. In 2017, a total of 36 different types of communication meetings were held.

Communication Type	Frequency
Corporate Communication Conference	Once quarterly
Employee communication meeting	Once bimonthly
Manufacturing assistant communication meeting	Twice monthly
Technical trainee communication meeting	1-2 times every six months
Communication with e-mail/tel.	Realtime



We also communicate with the employees who submit application for resignation and overcome shortcomings in the enterprise policy and management system based on their candid and objective opinions, to promote the benign development of the company. In 2017, we communicated with the departing employees through face-to-face interview or on telephone, and the interview rate reached over 85%.

### 7.3.3.3 Retention of Manufacturing Assistants

Manufacturing assistants (MAs) account for the largest percentage in the company as the most basic employees. In order to improve the organizational identity of this group and reduce their turnover rate, SMIC has been implementing the manufacturing assistant retention plan since 2012. In 2017, in order to reduce the turnover rate of manufacturing assistants, we initiated job evaluation, new environment integration, shaping good character, festival care and other projects.

Retention Program	Description
Job Evaluation	To reduce turnover due to mismatch between personal characteristics and position requirements, and to screen emotional high-risk candidates to reduce accident rates, the MA candidate-position matching measurement project was launched across the board.
New Environment Fit-in	Help newcomers to quickly get familiar with the surrounding environment, understand the psychological process of adapting to a new job, and learn about health knowledge in shift work, and solve their psychological problems as they are being employed, complete their transition to the professional MA role as SMIC requires. Promote newcomers' interpersonal and communication skills, and enhance their stability.
Good Character Shaping	18 themes activities, help newly recruited young employees build good characters, set specific life goals, and establish healthy relations and views on love and marriage. Incubate via public benefit activities the team-work cooperating, thanksgiving and helping characters in employees
Festival Care	The employee care team shall, with presents prepared beforehand, pay visits to 3,837 employees upon every festival like Spring Festival, Dragon Boat Festival and Mid-Autumn Festival, and celebrate the Chinese traditional festivals together with the employees, so that the MAs, despite the distance away from home, will still feel the family care.

## 7.4 Occupational Health and Safety

SMIC has been committed to creating a healthy and safe working environment for employees. When the company was founded, we set up a special management department and established occupational health and safety management procedures in accordance with OHSAS 18001 occupational health and safety management system, to systematically control health and safety risks. And adequate special funds for professional health and safety are granted each year. In 2017, the capital invested was over RMB 200 million.

### 7.4.1 Healthy and Safe Working Environment

#### 7.4.1.1 Risk Identification and Control

In the factory construction phase, the company attaches great importance to the control of the source of safety risks, establishes a risk assessment and evaluation mechanism for the new factory, ensures synchronous construction of fire facilities, safety facilities and emergency response facilities, and ensures establishment of safe plant buildings. In the equipment installation phase, the company strictly implements the dangerous chemicals or facility start control system and the change management system, with focus on checking the equipment safety interlock devices and detection devices to reduce the import of external risks. In the factory operation phase, the company establishes an emergency response organization to carry out regular exercise and regular maintenance of fire facilities, safety devices, detection systems, and regular detection of occupational hazards in the workplace, provides appropriate personal protective equipment for the employees at special posts and eliminates health and safety risks in time.

#### 7.4.1.2 Health and Safety Management

In accordance with the national occupational disease prevention and control law, SMIC organizes occupational health examinations for employees who are exposed to occupational hazards. In 2017, a total of 3,966 employees participated in the occupational health examination, physical examination and the health records covered 100%.

2017, SMIC continued to develop the target of zero major fire accident and ensured achievement of the target by implementing no-notice exercises, large-scale fire outside training, cross-plant risk control conference, fire risk inspection and other projects.

- Summary of health and safety training

Year	ERT Basic Training	ERT Advance Training	New employee ESH training	Contractor ESH training
2015	858	711	3,629	13,190
2016	2,183	1,932	6,445	24,409
2017	2,499	1,937	3,109	19,872

- Summary of drill

Year	Rescue Drill		Evacuation Drill	
	Times	Number of Participants	Times	Number of Participants
2015	146	2,843	46	9,492
2016	281	5,905	72	18,052
2017	241	4,797	66	14,902



A total of 18,454 participants



A total of 16,435 participants of dynamic activities



A total of 2,119 participants of static activities



Opening ceremony



Fire hose training



Emergency equipment training



CPR training

In June 2017, factories of SMIC continued to organize Safety Month activities. The company management attached great importance to and participated in the activities, which enhanced the employees' safety consciousness and simultaneously improved their safety skills. Safety Month activities fall into dynamic and static activities, the former including SCBA training, fire fighting training, fire hose training, CPR training, etc. and the latter including Safety Month posters, safety and environmental protection film screenings, displaying of posters, etc. The factory in Beijing was honored as "Security Month Excellent Organization" and "Safety Month Excellent Team" by Yizhuang Development Zone Safety Bureau.

#### 7.4.1.3 Recordable Injury Rate

SMIC can record injuries in accordance with the OHSAS standard and the recordable work injury rate is at a lower level in the industry. In 2017, with the joint efforts of all divisions, the work injury rate was close to the lowest level in history. No cases of death related to work occurred and the number of working days lost due to work injury was 973. In the future, we will continue to work to reduce the recordable injury rate and pursue 0 injury rate.



- Injury Rate (IR): Number of recordable injuriesx200,000/Total number of work hours, (per 200,00 work hours)

#### 7.4.2 Care for Physical and Mental Health of Employees

##### 7.4.2.1 Health Center

SMIC has a health center in the factory and living quarter (LQ), equipped with experienced medical employees and adequate facilities, to provide free medical care and emergency medical assistance for employees and immediate family members, so that the general disease can be diagnosed within the company. In 2017, the company arranged a number of courses to promote health, to improve the employees awareness of "focusing on health and laying emphasis on prevention".



##### 7.4.2.2 CPR Training

In order to improve the first aid awareness of employees, the company has established cardiopulmonary resuscitation (CPR) as a regular training program and offered the public training course on CPR in the health center. The company arranges a certain percentage of employees (including engineers, operators, secretaries, etc.) to receive CPR training and rehabilitation each year, and carries out CPR competition in the Security Month event. There were 2,843 in total attending CPR training in 2017.

##### 7.4.2.3 Infectious Disease Prevention and Control

Prevention and cure of infectious diseases is the basic factor for constructing a harmonious society, so as a member of society, SMIC actively participates in the prevention and control of infectious diseases, which is the bounden duty to SMIC. The company arranges new employees to be inoculated against infectious diseases each year. In 2017, a total of 618 were vaccinated against measles, 233 were vaccinated against meningitis, and the employees with infectious diseases such as hepatitis and tuberculosis are put under unified management with regular visits.



##### 7.4.2.4 Psychological Crisis Defense

In order to prevent employees from serious psychological problems endangering themselves, the company or the society, SMIC continues to improve its own psychological crisis defense system. In 2017, SMIC continued to improve the three-level defense process and system from "entry psychological screening", "psychological crisis prevention by early finding, early diagnosis and early treatment" to "psychological crisis management".

##### 7.4.2.5 Employee Assistance Program (EAP)

SMIC has a psychological counseling room with a 24-hour psychological assistance hotline to help employees cope with multiple pressures from work, family and individuals. In 2017, individual psychological counseling services were provided for a total of 326 cases of employees and their immediate families, covering all aspects of the EAP services.

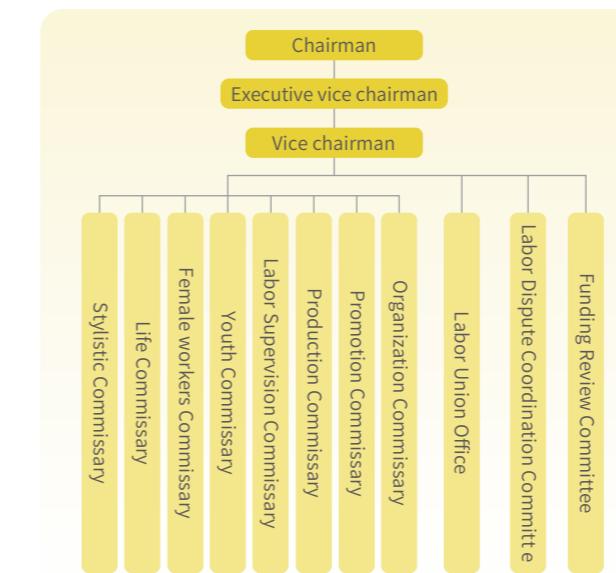


In addition, SMIC also carries out a variety of thematic activities around the psychological problems from work or life, helping employees achieve psychological assistance and promote their mental health and well-being.

## 7.5 Employee Life

##### 7.5.1 Democratic Management

SMIC establishes labor unions, formulates labor union management regulations, implements democratic management and safeguards the legitimate rights and interests of employees in accordance with the national regulations. The labor union is composed of the Chairman, the Vice Executive Chairman, the Vice Chairman, the labor union members and the labor union office commissioners. The Chairman of the labor union is held by the Vice President, while the Vice Executive Chairman, the Vice Chairman, the labor union members are composed of representatives from all divisions, and the employees join the labor union at their will.



In 2017, the labor union promoted employees to participate in the science and technology innovation and labor contests, elected and granted award to advanced collectives and model workers, and carried out other activities related to the company business, besides giving care to the employees' life and harmonizing the labor-capital relationship; it also organized cultural and sports activities and built the talent demonstration platform to enrich the employees' amateur life.

#### 7.5.2 Colorful Activities

SMIC advocates a healthy and colorful employee lifestyle, to show the employees style while enhancing the cohesion of the company.

##### 7.5.2.1 New Year Party

SMIC held New Year concert in Shanghai on January 17, 2017. SMIC customized a New Year concert performed by Shanghai Philharmonic Orchestra and appealing to both refined and popular tastes at the Shanghai Grand Theater to inspire employees morale and give thanks to the employees for their hard work.



##### 7.5.2.2 Sports meeting

On October 14, 2017, SMIC held a sports meeting themed "SMIC pattern and SMIC strength", which inspired employees to show their enthusiasm, showed the style of all divisions, and promoted the company's corporate culture.





### 7.5.2.3 Family Opening Day

On May 6, 2017, Tianjin factory of SMIC held the third "Marching into the 'SMIC' era, Most Memorable Tianjin——2017 SMIC (Tianjin) Family Day" event, presenting wonderful fun games and artistic performances.



### 7.5.2.4 Photography Contest

In March 2017, SMIC launched the first "Beautiful SMIC" themed corporate culture photography contest and the employees actively participated in the activity with excellent works, highlighting the beauty of SMIC, increasing employees' love for the company, and enhancing cohesion among employees.



### 7.5.2.5 Talent Competition

In 2017, SMIC carried out the fourth annual talent competition for production line employees in each factory, to further publicize, practice and implements the innovative spirit in the company's new corporate culture values while providing the production line employees with an opportunity to show their talents. The competition showed off the innovative spirit of the employees, stimulated their enthusiasm for life and work, and received praise from spectators and supervisors.



### 7.5.2.6 Labor Competition and Technological Innovation

In 2017, SMIC organized employees to participate in the labor competition and advanced individual selection organized by the local government on technologies.

Shanghai factory won 6 awards in the labor competition on scientific and technological innovation organized in Zhangjiang High-Tech Park, achieving excellent results in the 5 competitions on scientific and technological innovation achievements, advanced operations, rationalization proposals, scientific and technological innovation elites and worker inventors.



Many employees from Beijing factory won the title of "Loving Employee Representative" and "Post Pacesetter" in the "Labor Day" commendation conference organized by the Beijing Economic and Technological Development Zone Administration.



### 7.5.2.8 Cultural and Sports Association Activities

SMIC has established a number of cultural and sports associations in factories. The labor union jointly organizes various activities with the cultural and sports association. These association activities enrich the amateur cultural life of employees, while greatly mobilizing the enthusiasm of employees, so that employees have higher spirits to serve the company.



Dragon Boat Association tidbits



Billiards Association tidbits



Basketball Association tidbits



Badminton Association tidbits



Swimming Association tidbits



Football Association tidbits



Running Association tidbits



Dormitory renovation tidbits



Dormitory renovation tidbits



Dormitory renovation tidbits



On October 26, 2017, the foundation for Tangzhen LQ Phase II was laid. The total investment of the project is RMB 710 million, covering an area of 71,000 square meters, expected to build more than 1,500 apartments and employees dormitories of 60 and 80 square meters.



Tangzhen LQ - Phase II foundation laying

### Beijing LQ

The LQ in Beijing is 2.6km away from the company with 724 apartments, 371 bachelor apartments and collective dormitories holding 1,760 beds. By the end of 2016, 4,258 people had been accommodated in the park. There are clubs, restaurants and shops and other facilities in the life park and it is suitable for walking or riding a bike from the park to the factory. In 2017, 3 new apartment buildings and supporting facilities were completed, covering a total construction area of 20,000 square meters, providing 135 well-decorated apartments.



LQ in Beijing

## 7.5.3 Considerate and Convenient Life Service Facilities

### 7.5.3.1 SMIC LQ

#### Shanghai LQ

The Zhangjiang LQ in Shanghai covers an area of 276,000 square meters, meeting living requirements of more than 2,500 employees and their family members. With a distance of about 1.4 km from the factory, it is convenient to go to work on foot, by bike or on the free shuttle. In 2017, the company focused on improving the living environment of the first-line employees by upgrading their original dormitory facilities to implement intelligent management.

The Tangzhen LQ in Shanghai is about 7 km away from the company. Tangzhen LQ Phase I covers an area of more than 70,000 square meters, where there are 16 high-rise residential buildings, with a building area of more than 130,000 square meters, including 1,100 apartments and 431 dormitories. Apartments and dormitories are well-decorated and equipped with basic furniture, which can meet the housing requirements of about 4,500 employees and their family members. The life park also has a children's activities center, large underground garages, ground garages, commercial buildings and other service facilities. In the second quarter of 2017, employees and their family members moved in.

## Tianjin LQ

The LQ in Tianjin is about 3km from the company with 3 apartment buildings and 1 dormitory building for manufacturing assistants. The apartment building offers 231 apartments, which can accommodate about 1,277 employees and their family members. The dormitory building can accommodate 560 manufacturing assistants. In 2017, old clothes recycling boxes and charging piles were installed in the life park in Tianjin, which brings convenience to the employees while enhancing their environmental awareness.



The LQ provides a full range of ancillary facilities, such as rooms, fitness center, children's playroom and clinic, and it also introduces catering, coffeehouse, 24-hour convenience supermarket, banking, communications, insurance, mail delivery and a series of other convenient services, so that employees and their families can live and work comfortably.



### 7.5.3.2 Dining Service

In all factories, the company establishes canteens in different sizes according to the number of employees and provides food and beverage subsidies. The canteens are operated by different catering suppliers and offer a variety of food and beverage services such as Chinese food and western food. In 2017, the canteens continued to hold food festivals and culinary competitions to meet the diverse needs of employees.



### 7.5.3.3 Transportation Service

To better serve employees, save energy and reduce carbon emissions, the company offers a free shuttle service between the factory and the life park or the nearby metro station, and the new energy shuttles are used in most cases. In 2017, the total number of person trips by shuttle reached 3.86 million.





# 08

## Community Involvement

SMIC Private Schools

Charity and Public Welfare

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Since its establishment in 2000, SMIC has been actively involved in public welfare activities and community services, and participated in regional environmental protection. Volunteers from different divisions of the company and at different ages are actively involved in volunteer service activities, bringing warmth to thousands of people. In 2017, the number of volunteer services reached 20,528 hours, exceeding the annual target.

## 8.1 SMIC Private Schools

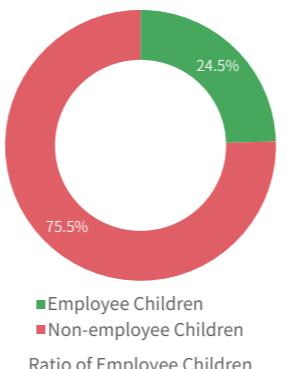
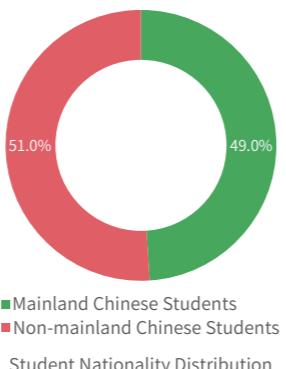
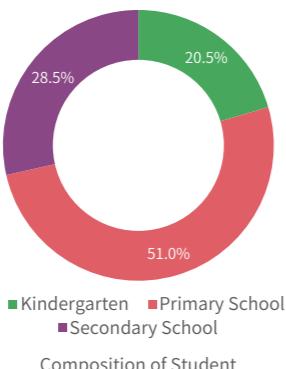
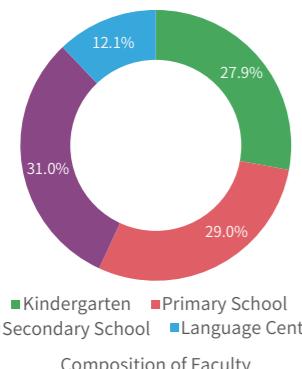
In its early days, SMIC invested in SMIC Private Schools in order to address the employees "family considerations" over their children's education. The schools advocate the concept of "character first, independent study, physical and mental health, and global citizen" based on the advanced education idea. In the early days, the schools mainly served the children of the employees. With the success in education and acceptance by the society, the schools are open to the public to share quality education resources. They are well received and praised by the employees and the local community.

### 8.1.1 SMIC Shanghai Private School

SMIC Shanghai Private School was founded in September 2001, covering an area of 120 mu, including a greening area of nearly 50 mu. It integrates education at different levels from kindergarten, elementary school, junior high school to high school, equipped with a variety of teaching, sports facilities and an astronomical observatory.

As of the end of 2017, the school had nearly 2,800 students and 480 faculty members. The school was awarded the honors of "Excellent Primary and Secondary Schools in China", "School-Running Characteristic Normal School in China", "Advanced School with Characteristics in China", "Featured Project School" and other honorary awards granted by the State and Shanghai education circles, and won a variety of awards in domestic and foreign disciplines, arts, school newspapers, sports and other competitions.

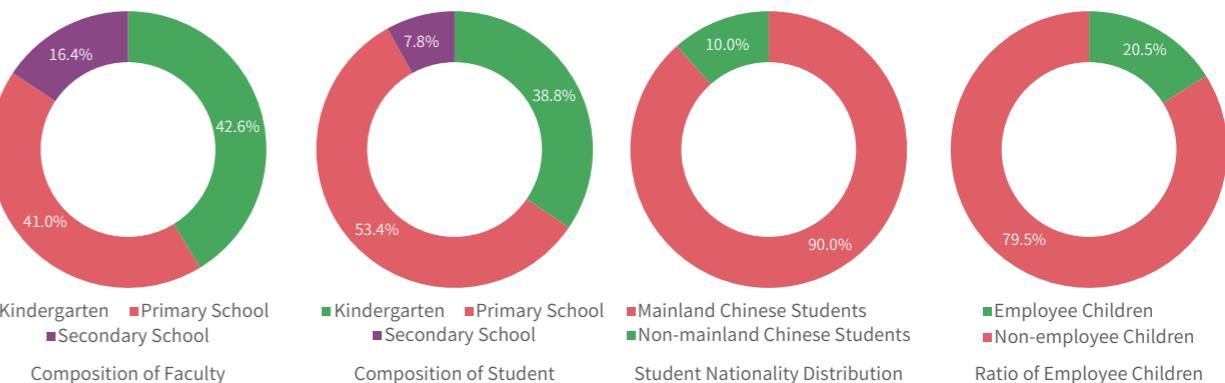
SMIC Shanghai Private School has an English Track, which has received a 6-year full quota certification by Western Association of Schools and Colleges (WASC). The students in the English Track can directly apply for foreign universities, and every year almost all the students are admitted to the first-class universities abroad. Private SMIC School in Shanghai is also the SAT, ACT and AP Testing Center authorized by the American University Committee. For more information, please visit <https://www.smicschool.com/>.



### 8.1.2 SMIC Beijing Private School

SMIC Beijing Private School was founded in the fall of 2005, covering an area of about 30,000 square meters, including school building construction area of nearly 20,000 square meters, with supporting modern teaching, sports facilities and a library occupying 750 square meters. It is a private school with distinctive bilingual characteristics, including kindergarten, primary section and junior high section. As of the end of 2017, the school had more than 300 teachers (including more than 50 foreign teachers) and a total of more than 2,000 students in the English and Chinese Track from kindergarten to Grade 9.

For more than 10 years, the school has provided quality services to students based on the education idea of "character first, striving for excellence, embrace the world, and happy growth". The English Track of the school is a highly academic international division. In this Track, students are from more than 10 countries and regions and the teachers are mainly from the United States, who are full of passion with a wealth of experience in teaching the students with multicultural background, with focus on heuristic and interactive teaching to stimulate students' thirst for knowledge and initiative, encourage students to pursue excellence in their academic and extracurricular activities while maintaining team awareness and happy growth. For more information, please visit <http://www.bjsmicschool.com/>.



### 8.1.3 Variety of Featured School Activities

#### 8.1.3.1 Cultural and Artistic Activities

##### • International Day

On May 20 and May 27, 2017, SMIC Shanghai Private School and SMIC Beijing Private School held the International Day themed activities, respectively. The International Day is a traditional activity of SMIC Private School over the years, which attracts many visitors from outside and the community every year. Children in the activity sing along with and dance to their native traditional music to welcome their parents and other visitors in a cheerful atmosphere. The wonderful performances of the children, the carefully prepared classroom arrangement, the amazing handicrafts and a rich variety of gourmet dishes all leave a deep impression on the visitors.



#### • Classics Reading

On March 30, 2017, the Chinese Track of senior middle section in SMIC Shanghai Private School held the annual school-based curriculum series show of classics reading - readings of classical poetry and beautiful articles. A total of 10 classes attend the activity and the reading contents cover excellent poetry and prose created at all times and in all over the world, as well as the works of their own. The students can perceive classics and accept the influence of culture in reading, to create a good atmosphere of "scholarly campus".



#### • Parade in Vocabulary-costumes

On October 31, 2017, students from the English Track of primary section in SMIC Shanghai Private School participated in a large fantasy-filled parade in vocabulary-costumes. Students used a variety of props and costumes to dress themselves according to a word they choose. The parade in vocabulary-costumes allows the children to experience the joys in learning and inspires their endless creative abilities.



#### • "Singing Tour" in Europe

From February 1 to 10, 2017, the choir from SMIC Beijing Private School

made a "singing tour" to Europe and they sang songs at the "Seventh Art Festival between China and Europe" in the Golden Hall of the Musikverein and "Chinese New Year Concert" in Milse.



#### • Primary and Secondary School Choir Festival Competition

On December 21, 2017, the Choir of SMIC Beijing Private School took part in the 5<sup>th</sup> Primary and Secondary School Choir Festival in Daxing District and won the championship with a score of 95 points.



#### 8.1.3.2 Sports Activities

##### • Sports Meeting

On October 13, 2017, SMIC Shanghai Private School held a sports meeting. The sports meeting shows the youth style of the students, which exercises physical strength, activates life, carries forward personality and harvests joy. By holding a sports meeting, the school further promotes the pursuit of the goal of "physical and mental health".



##### • Swimming Competition

On September 18, 2017, SMIC Shanghai Private School held a swimming competition on campus. Nearly 400 participants from Grade 1-10 were grouped to participate in 25-meter breaststroke, 25-meter freestyle, 50-meter breaststroke, 50-meter freestyle, 50-meter backstroke, 50-meter butterfly stroke, totaling six games. The standard, graceful strokes of the contestants won a marvel from the teachers and parents. After fierce competition, the games finally came to a successful end and the contestants made a proud achievement.





#### • Fun Games

On October 14, 2017, SMIC Beijing Private School held large-scale fun games themed by "Stretching Silk Road, Unlimited Passion". More than 1,300 students and over 200 teaching staff members across the school as well as more than 180 caring parents participated in the games.



#### • Aerobics Championship



#### • Aerobics Championship

On November 26, 2017, the Aerobics Team of SMIC Beijing Private Shool won the second prize of the Primary School Group B in the Beijing Aerobics Championship.



#### • Hockey Games

On December 16, 2017, SMIC "Shark" hockey team composed of 11 members from SMIC Shanghai Private School participated in Shanghai Primary and Middle School Ice Sport Meeting, winning the runner-up in the championship and awarded the honorary title of "Most Valuable Team". In 2017, the united team composed of members from the hockey team of SMIC Beijing Private School and the players in other schools got the champion in Beijing Primary and Secondary School Hockey League.



## 8.2 Charity and Public Welfare

### 8.2.1 SMIC Liver Transplant Program for Children

After SMIC launched the "SMIC Liver Transplant Program for Children" in April 2013, SMIC makes annual donation to China Soong Ching Ling Foundation to finance the poor children receiving liver transplant operation in Renji Hospital affiliated to Shanghai Jiao Tong University School of Medicine. The program aims to help more poor children with liver disease to regain life and lead the society to bring more love to this group of children.

Under the influence of SMIC, "SMIC Liver Transplant Program for Children" has been spread from the semiconductor industry to the whole society and become a common mission and responsibility to promote public welfare and benefit the society. As of the end of 2017, 111 semiconductor companies joined the donation team and the program raised donated funds of nearly RMB 16.75 million, helping 324 poor children from all over the country be rescued and treated, and regain a new life. On June 13, 2017, SMIC donated RMB 2.56 million to the Program through China Soong Ching Ling Foundation for the fifth time, with a cumulative donation of RMB 11.11 million.



### 8.2.2 Zhangjiang Fun Run

On November 3, 2017, more than 100 employees from SMIC factory in Shanghai participated in the 10<sup>th</sup> "Zhangjiang Fun Run" outreach, running for joy and love. In the course of the game, participants encouraged and supported each other to make it to the end, fully embodying the "happiness and mutual assistance" and the "perseverance" spirit, and showing the style of SMIC members. At the activity site, the company donated RMB 10,000 to the charity organization



### 8.2.3 Visits to the Nursing Home

SMIC employees volunteer to help the elderly, pay regular visits to the nursing home, help them do daily nurse and cloth washing, etc., and chat with the elderly, and sometimes present their own self-programmed programs for the elderly in their spare time.





## 8.2.5 Art Charity Exhibition

After 2004, SMIC Shanghai Private School holds "Art Charity Exhibition" each year. As one of the school's love education activities, exhibition and charity sale of students' hand-painted creative art works let students learn to cherish and share happiness while the funds gained can be used to help underprivileged children.

This activity contains three series: "drawing love, riding love and dancing love". "Drawing love"--each student creates a painting to express their care and blessing to the needy children, and such painting shows the students' kaleidoscope-like splendid riotous inner world.



## 8.2.4 Volunteer Blood Donation

SMIC responds to local government's call and actively publicizes and organizes unpaid blood donation activities. On March 6, 2017, 38 employees from 17 divisions of Shenzhen factory made unpaid blood donation of 12,500 ml, which won high affirmation and recognition by the local blood station. On October 25, 2017, 111 employees from Shanghai factory participated in the unpaid blood donation and made a blood donation amounting to 22,600 ml.



"Riding love"-organize the first charity riding activity and spread love in person. Students actively observed the order and participated in organizing and designing posters, so that the activity was held satisfactorily.



On December 2, 2017, the 14<sup>th</sup> "Art Exhibition and Charity Sale of Warm World" charity show was performed in Shanghai Children's Art Theater. The charity show lasted 3 hours, presenting more than 20 different programs. Charity sale was carried out at the site after the show, and finally a total of RMB 512,000 was raised, which hit a new height.



## 8.2.6 The "Love Is Everywhere" Charity Bazaar

On December 16, 2017, SMIC Beijing Private School held a large-scale charity sale themed by "Gratitude Blossoming • Love Spreading". More than 1,300 students and over 200 teaching staff members across the school as well as more than 2,000 caring parents supported the sale at the site. The activity included show performance and charity sale of hand-works. The Chinese and English Track performed a total of more than 100 programs and made more than 3,000 items for charity sale, raising funds up to RMB 230,003, all of which was donated to the "Wonder Love Home" and the Love Blue Sky Rehabilitation Center, to help poor children and orphans suffering from "osteogenesis imperfecta".



## 8.2.7 Giving Tree

SMIC Shanghai Private School has supported the Giving Tree Project for a long time, which began in 2003, mainly engaged in sending love gift bags containing winter clothing, toys and school supplies to school-age children of the migrant workers. In 2017, a total of RMB 187,705 was raised for the purchase of love gift bags. On November 23, 2017, the Giving Tree team of SMIC Shanghai Private School donated 816 love gift bags to the migrant children in Pudong new area Shanghai, and 216 love gift bags to the migrant children's school in Wuxi.





### 8.2.8 30-Hours Famine

The "30-Hours Famine" program began in 1971 and was launched by World Vision in 21 countries worldwide. The money raised by the program will be donated to the children in the poorest parts of the world so that they can feed and clothe themselves. On March 23, 2017, SMIC Shanghai Private School organized "30-Hours Famine" activity for the 10<sup>th</sup> year. Nearly 230 teachers and students experienced the feeling of "hunger", and they got to know the previously neglected famine problem in Africa through games, by watching videos and other ways. Through the activity, a total of about RMB 60,000 was raised.



### 8.2.9 Tree Planting Activity in Inner Mongolia

Tree planting activity in Inner Mongolia began in 2007, which is a joint program launched by "Root and Bud" association and the Environmental Protection Club of SMIC Shanghai Private School, aiming to enhance environmental awareness and show the way to reduce the impact of personal behaviors on the environment. The program gives people the opportunity to grow trees in Inner Mongolia. It was the 11<sup>th</sup> year in 2017 for SMIC Shanghai Private School to participate in the program and the Environmental Protection Club raised money to fund 3,000 trees. Ten students and a teacher went to Inner Mongolia to plant the trees, where students received environmental education in the real environment.



Clothing donation activity in Tianjin factory

### 8.2.10 Protection of Dushan Biodiversity

On June 3, 2017, the company launched the "uniting charity heart and transferring positive energy" themed green environmental protection public welfare activity -- "Dushan Defense" jointly with its business partners. In this activity, efforts were contributed to remove remained bird nets on Dushan Mountain, pickup nonbiodegradable garbage and remove alien invasive plants, in order to protect Dushan biodiversity and protect the green mountains.



### 8.2.11 Department Public Welfare Activities

In 2017, all factories and departments spontaneously organized a series of charitable and environmental protection public activities.



## SMIC Awards in 2017

Winner	Awarding Date	Name of Award	Issuing Authority
Semiconductor Manufacturing International Corporation	2017	2017 Best Supplier	Beken Corporation
	2017	2017 Strategic Supplier	Bright Power Semiconductor
	2017	2017 Supplier Outstanding Award	Giantec Semiconductor Inc
	2017	2017 Strategic Partner	MEMSensing
	2017	2017 Best Partner	AppoTech
	Jan. 2017	Best Supplier	Allwinner Technology
	Jan. 2017	2016 Best Partner	Beken Corporation
	Jan. 2017	2016 Best Supplier	Availink
	Jan. 2017	2016 Supplier Excellence Award	Giantec Semiconductor Inc
	Apr. 2017	Outstanding CSR Award	Mirror Post Hong Kong
	Jul. 2017	2017 China Recruitment and Appointment Value Award - Best New Staff Integration Award	HR Excellence Center (HREC)
	Sep. 2017	Electronic Information Industry Outstanding Demonstration Enterprise	The Committee on Social Responsibility of the Chinese Electronics Standardization Association
	Oct. 2017	National Enterprise Industrial Design Center	Ministry of Industry and Information Technology
	Nov. 2017	2017 Core partner	Huawei
	Dec. 2017	GoldenBee Excellent CSR Report 2017 - Supplier Engagement Disclosure Award	China WTO Tribune
Semiconductor Manufacturing International (Shanghai) Corporation	Sep. 2017	"28-nanometer key process technology R&D and large-scale mass production" won second prize in Pudong New Area Science and Technology Award	Shanghai Pudong New Area People's Government
	Sep. 2017	"Home-made embedded non-volatile memory IP application platform and industrialization" won the third prize of Pudong New Area Science and Technology Award	Shanghai Pudong New Area People's Government
	Sep. 2017	2017 Supplier Sustainability Performance Award	Huawei
	Dec. 2017	National Intellectual Property Model Enterprise	State Intellectual Property Office
Semiconductor Manufacturing International (Beijing) Corporation	Mar. 2017	2016 Safety Month Best Practice Award	Beijing Yizhuang Development Zone Administration of Work Safety
	Jun. 2017	Beijing Safety Production Standardization (Level 2) Demonstration Enterprise	Beijing Safety Production Federation
	Jul. 2017	Beijing Youth Production Safety Demonstration Post	Beijing Administration of Work Safety Communist Youth League Beijing Municipal Committee
	Nov. 2017	Outstanding Organization of Safety Month Awards	Beijing Yizhuang Development Zone Administration of Work Safety
	Nov. 2017	Outstanding Team of Safety Month Awards	Beijing Yizhuang Development Zone Administration of Work Safety
	Dec. 2017	Annual Quality Benchmarking Enterprise of Quality Light	General Administration of Quality Supervision, Inspection and Quarantine of P.R.C. "Quality Light" Public Selection Organizing Committee

## SMIC Awards in 2017

Winner	Awarding Date	Name of Award	Issuing Authority
Semiconductor Manufacturing North China (Beijing) Corporation	Dec. 2017	2017 "Green Manufacturing Company" in My Eyes (Network Selection)	China Quality Management Association For Electronics Industry
Semiconductor Manufacturing International (Tianjin) Corporation	Dec. 2017	2017 Advanced Unit of promoting green development in the industry	China Quality Management Association For Electronics Industry
Semiconductor Manufacturing International (Shenzhen) Corporation	2017	2016 Outstanding Unit for Trade Union Work	Tianjin Xiqing Development Zone Management Committee
Semiconductor Manufacturing International (Shenzhen) Corporation	Feb. 2017	2016 Advanced Unit of Fire Safety Work	Tianjin Xiqing Development Zone Management Committee
Semiconductor Manufacturing International (Shenzhen) Corporation	Dec. 2017	Tianjin National Health Lifestyle Action Health Unit	Tianjin Municipal Commission of Health and Family Planning
SJ Semiconductor (Jiangyin) Corporation	Feb. 2017	Safety Culture Construction Demonstration Enterprise	Shenzhen Pingshan District Administration of Work Safety
SJ Semiconductor (Jiangyin) Corporation	Aug. 2017	Special Equipment Standardization level I	Shenzhen Association for Special Equipment
SJ Semiconductor (Jiangyin) Corporation	Sep. 2017	China Quality Credit Enterprise	China Entry-Exit Inspection and Quarantine Association
SJ Semiconductor (Jiangyin) Corporation	Nov. 2017	Medal of "Government and Enterprise Cooperation, Emergency Model"	Shenzhen Pingshan District Comprehensive Fire Emergency Rescue Squadron
SJ Semiconductor (Jiangyin) Corporation	Dec. 2017	Dust Hazard Prevention and Control Demonstration Enterprise	Shenzhen Administration of Work Safety
SJ Semiconductor (Jiangyin) Corporation	Jun. 2017	Wuxi Science and Technology R&D Agency Certificate	Wuxi Science and Technology Committee
SJ Semiconductor (Jiangyin) Corporation	Jul. 2017	2016 Green Credit Rating Green Business	Jiangyin Environmental Protection Committee
SJ Semiconductor (Jiangyin) Corporation	Sep. 2017	Best Service Supplier	SMIC
SJ Semiconductor (Jiangyin) Corporation	Nov. 2017	Third Prize of "Safety Hidden Trouble Shooting" Event for the Third Staff of Wuxi City	Wuxi Federation of Trade Unions
SJ Semiconductor (Jiangyin) Corporation	Dec. 2017	Advanced Enterprises of Foreign Investment and Effective Investment	Jiangyin High-tech Zone Management Committee

## Index of "Environmental, Social and Governance Reporting Guide"

ESG Guide Number	Guidance Notes	Report Content or Instructions	Page
<b>A. Environmental</b>			
<b>Aspect A1: Emissions</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	6.1 Environment protection policy	P55
KPI A1.1	The types of emissions and respective emissions data.	6.6 Air pollution control	P62
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	6.3.2 Verification of greenhouse gases	P56
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	6.7 Waste management	P63
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	6.7 Waste management	P63
KPI A1.5	Description of measures to mitigate emissions and results achieved.	6.6 Air pollution control	P62
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	6.7 Waste management	P63
<b>Aspect A2: Use of Resources</b>			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	6.1 Environment protection policy	P55
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	6.4.2 Consumption of energy	P58
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	6.5.1 Consumption of water resource	P61
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	6.4.3 Main energy saving projects in 2017	P59
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	6.5.2 Main water saving projects in 2017	P61
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	2017 Corporate Social Responsibility & Performance Summary	P97
<b>Aspect A3: The Environment and Natural Resources</b>			
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	6.1 Environment protection policy	P55
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	6.4 Energy management; 6.5 Water resources management	P58, P61
<b>B. Social</b>			
<b>Employment and Labour Practices</b>			
<b>Aspect B1: Employment</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	7.2 Safeguarding of Rights and Interests	P67
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	7.1 Employee Overview	P67
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	7.3.3 Talent retention	P70
<b>Aspect B2: Health and Safety</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	7.4.1 Healthy and safe working environment	P71
KPI B2.1	Number and rate of work-related fatalities.	7.4.1 Healthy and safe working environment	P71
KPI B2.2	Lost days due to work injury.	7.4.1 Healthy and safe working environment	P71
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	7.4.1 Healthy and safe working environment	P71

ESG 指引编号	指引说明	报告内容或说明	页码
<b>Aspect B3: Development and Training</b>			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	7.3.2 Employee Career Development Booster	P68
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	7.3.2 Employee Career Development Booster	P68
KPI B3.2	The average training hours completed per employee by gender and employee category.	7.3.2 Employee Career Development Booster	P68
<b>Aspect B4: Labour Standards</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	7.2.1 Recruitment policies	P67
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	7.2.1 Recruitment policies	P67
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	7.2.1 Recruitment policies	P67
<b>Operating Practices</b>			
<b>Aspect B5: Supply Chain Management</b>			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	5.1 Supply chain profile	P49
KPI B5.1	Number of suppliers by geographical region.	5.1 Supply chain profile	P49
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	5.2.1 Supplier admittance 5.2.2 Supplier assessment and evaluation	P49, P50
<b>Aspect B6: Product Responsibility</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	4.3 Product quality and reliability control	P44
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	4.5 Customer evaluations and complaints handling	P46
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	4.5 Customer evaluations and complaints handling	P46
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	4.4 Customer information protection	P46
KPI B6.4	Description of quality assurance process and recall procedures.	4.3 Product quality and reliability control 4.5 Customer evaluations and complaints handling	P44, P46
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	4.4 Customer information protection	P46
<b>Aspect B7: Anti-corruption</b>			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	3.3 Business and ethics	P37
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	3.3.3 Anti-bribery policy	P37
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	3.3.3 Anti-bribery policy	P37
<b>Community</b>			
<b>Aspect B8: Community Investment</b>			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	8 SMIC's involvement in social responsibilities	P82
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	8.1 SMIC Private schools, 8.2 Charity and Public Welfare	P83, P87
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	8.1 SMIC Private schools, 8.2 Charity and Public Welfare	P83, P87

## 2017 CSR Index Summary

Performance indicators		Numerical value
Economic	Revenue (Million USD)	3101.2
	Net Profit (Million USD)	179.7
	Total Tax (Million USD)	31
	R&D Investment (Million USD)	427.1
Environment	Total Emissions (Million m3)	7,810,667
	Total amount of NOx (tons)	281
	Total amount of Sulphur Dioxide (tons)	25
	Volatile Organic Solvents (tons)	1,772
	Total Greenhouse Gas Emissions (tons of CO2 equivalent)	1,662,905*
	Total Direct Emissions (scope1, tons of CO2 equivalent)	416,679*
	Total Indirect Emissions (scope2, tons of CO2 equivalent)	1,246,226*
	Amount of Hazardous Waste (tons)	26,799
	Amount of Production Waste (tons)	19,282
	Amount of Water Treatment Sludge (tons)	13,363
	Amount of Domestic Waste (tons)	2,188
	Total Power Consumption (kWh)	1,424,981,151
	Total Natural Gas Consumption (m3)	11,301,468
	Total Steam Consumption (tons)	266,372
	Total City Water Consumption (m3)	11,045,399
	Packing materials consumption (tons)	289
	ISO 14001 Passing Percentage(%)	100%
Social	Employees (number)	17,718
	Proportion of Female Employees(%)	47.4%
	Labor Contract Signing Rate (%)	100%
	Employee Training Coverage (%)	100%
	Employee Training Time Per Capita (hours)	34.9
	Deaths Due to Work (number)	0
	Loss of Working Days Due to Recordable Injury (days)	973
	Social Donation Amount (10 Thousand Yuan)	257
	Employee Volunteer Service Time (hours)	20,528

\* For Shanghai Site, Beijing Site, Tianjin Site, Shenzhen Site and Lfoundry only.

## Report Evaluation and Recommendations

This report is SMIC's 9<sup>th</sup> Social Responsibility Report released to the public. In order to keep enhancing our management on social responsibilities and improving our ability and level on fulfilling social responsibilities, we are looking forward to your opinions and suggestions. We earnestly ask you to complete the questions in the feedback form and send it back by any of the following means:  
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Online evaluation by scanning the above code with mobile

### 1. Your general evaluation on SMIC's corporate social responsibility report is?

Good       Relatively good       Average       Bad

### 2. What topics in the report are most concerned by you?

Future Growth Potential       Employee's Physical and Mental Health       Talent Retention  
 Pollution Control       Resource Consumption       Others

### 3. Do you think if this report can reflect SMIC's influences on the economy, society and environment?

Yes       Average       No       No idea

### 4. What's your opinion on the clearness, accuracy and completeness of the information, data and indices disclosed in this report?

High       Relatively high       Average       Relatively low       Low

### 5. What should be improved in this report?

Page layout       Report length       Topic coverage       Form of release

You are appreciated to give opinions and suggestions on SMIC's efforts on corporate social responsibility and this report:

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