



# 2021 Environmental, Social and Governance Report

Semiconductor Manufacturing International Corporation

Upgraded Version



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## About This Report

# About This Report

## Introduction

This is the Annual Environmental, Social and Governance (ESG) Report (hereinafter referred to as "This Report") released to the public by Semiconductor Manufacturing International Corporation (hereinafter referred to as "SMIC", "the Group", "we" or "the Company"). This Report discloses the ESG performance of SMIC in 2021 based on the principles of openness and transparency.

## Reference Standards

This Report is prepared in accordance with the *Environmental, Social and Governance Reporting Guide* and relevant provisions of *Listing Rules* issued by the Stock Exchange of Hong Kong Limited, and the Rules Governing the Listing of Stocks on STAR market, with appropriate reference to the Global Reporting Initiative (GRI) *Sustainability Reporting Standards* (GRI Standards), the *China Corporate Social Responsibility Reporting Guide* (CASS-CSR4.0) of the academic division of Economics of the Chinese Academy of Social Sciences, the *Corporate Social Responsibility (CSR) Guide for China's Industrial Enterprises and Industrial Associations* of the China Federation of Industrial Economics (CFIE), SJ/T 16000-2016 - *Guidance on Social Responsibility of Information and Communication Technology Industry* of the China Electronics Standardization Association (CESA) and the main principles of ISO 26000:2010 - *Guidance on Social Responsibility* by the International Organization for Standardization (ISO).

## Reporting Scope

The reporting scope of this Report includes the subsidiaries and major holding companies of Semiconductor Manufacturing International Corporation, which is consistent with the scope of the Annual Report. For ease of expression, the "country", "Chinese Mainland" and "the government" in this Report refer to the People's Republic of China and its administrative organs.

## Reporting Period

The reporting period of this Report is from January 1, 2021 to December 31, 2021. To make this Report more readily understandable, some content and data includes prior and/or subsequent years.

## Release Cycle

This Report is an annual report, which is usually released in the second quarter of the year subsequent to the reported year.

## Description of Report Preparation and Data Source

Members of the ESG Committee served as editors for this Report, while each functional department provided ESG-related business information and data. The Company's ESG Office organized and edited the data, which was then reviewed and confirmed by members of the ESG Committee.

The financial data quoted in this Report are from the 2021 consolidated financial statements, complying with *International Financial Reporting Standards (IFRS)*, which have been independently audited by Ernst & Young. Other information and data are mainly from relevant internal statistical reports or documents of the Company. The currency amounts of financial statements data included in this Report are measured in USD, the currency amounts of non-financial statements data included in this Report are measured in RMB if there is no special instruction.

## Confirmation and Approval

This Report was confirmed by the management and approved by the Board of Directors on May 31, 2022.

## Report Release

This Report is released in both paper and electronic edition including Chinese (simplified and traditional) and English versions. To browse the electronic version of this Report, please visit the website of Semiconductor Manufacturing International Corporation.



## Contact Information

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# Message from the Chairman

Dear Readers,



**Chairman of the Board of SMIC**  
**Dr. Gao Yonggang**

Thank you for your long-term care and support for SMIC, as well as your interest and supervision in our ESG work, and for urging us to move forward in this regard.

In 2021, the Company encountered unprecedented challenges and difficulties due to the combined impacts of COVID-19 and the "Entity List" but at the same time, the global shortage of chips has also created a rare opportunity for further development. Focusing on the primary tasks of "ensuring continuous production, meeting customer demand and alleviating shortages in the industrial chain", we have overcome such difficulties with precision and achieved gratifying results. The Company's revenue in 2021 reached US\$ 5.443 billion, with an annual growth rate of 39.3%; net profit attributable to shareholders of listed companies was US\$ 1.702 billion, up 137.8% year on year.

SMIC has always upheld and championed the ESG philosophy of "caring for people, the environment and society". In 2021, adhering to the basic principle of operating following laws and regulations, the Company committed to the national strategic "dual carbon" goal, implementing the ESG system, improving corporate governance, advocating green and low-carbon development, promoting energy conservation and emission reduction. Meanwhile, we showed our employees care and support, took an active role in public welfare undertakings, and deeply engaged ourselves in the development of communities. Our efforts have been recognized by employees, customers, suppliers, investors and others from various sectors of society.

SMIC values the safety and health of every employee and is always committed to creating an outstanding working and living environment for employees. In 2021, the Company invested nearly RMB 10 million yuan in epidemic prevention and control, taking strict measures in factories and living quarters, arranging vaccinations and PCR tests for employees, and distributing more than 3 million masks, which helped to contain the pandemic. In 2021, we recruited an increasing amount of excellent domestic and overseas talents, improved the mechanism for talent retention as well as development by optimizing the compensation and benefits system and implementing an equity incentive plan, and launched a "soul-casting project" to reshape our corporate culture, which further enhanced the cohesiveness and satisfaction of employees.

SMIC has been advocating and practicing green and low-carbon development. In 2021, the Company invested a total of RMB 1.098 billion yuan in environmental protection, with a year-on-year increase of 21%. More than ten energy conservation, water-saving and waste reduction projects were launched in our factories, saving 7,642,116 kWh of electricity and 1,350,664 cubic meters of water. As energy-saving and efficiency enhancement results are further revealed, the Company's confidence and determination in green and sustainable development continue to grow, requiring every employee to participate in green production and make joint efforts to build a more eco-friendly and sustainable integrated circuit industry chain. We believe in thinking kind thoughts and engaging in acts of kindness. Over the years, SMIC has been actively involved in various causes for the public good, helping the less fortunate and fulfilling its corporate social responsibility. The "SMIC Liver Transplant Program for Children" initiated by the Company has been held for nine consecutive years, with a total donation of RMB 33 million yuan, helping 656 children from underprivileged families complete liver transplantation operations. Moreover, our employees have always been enthusiastic about participating in various social activities for the public good, providing more than 13,000 hours of volunteer service in 2021 alone, highlighting their commitment to their local communities and desire to help those who need it.

Going through 21 years of trials and hardships, SMIC has always kept the idea of sustainable development in mind while shouldering its mission and social responsibility. We will continue to work with like-minded partners from all sectors to create a better future with vigor and dedication.

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## Responsibilities of the Board of Directors

As a responsible corporate citizen, SMIC deeply recognizes the importance of environmental, social and governance (ESG) in the pursuit of common development, and looks forward to working with all stakeholders to build a better world. The Board is responsible for SMIC's ESG policies, goal setting, schedule review and performance. The ESG Steering Committee takes the lead in guiding the ESG Committee for the formulation of the Company's ESG policies, sets and promotes targets to meet the Company's ESG goals, supervises the implementation of the ESG work of all functional departments and studies, plans and promotes the ESG-related issues for the Company, so as to achieve its sustainable development goals and show care for our people, the environment and society. The ESG Steering Committee reviews the annual ESG Report and submits it to the Board for approval.



## Analysis of Issues

The ESG Committee is responsible for risk identification, management, supervision and control, as well as facilitating the decision-making of the Board by providing risk analysis and relevant support. The Board is responsible for supervising major issues, and the ESG Committee is responsible for identifying and evaluating major issues by maintaining close communication with internal and external stakeholders, formulating the ESG goals and management policies based on relevant issues and keeping abreast of international trends and peer performance, as well as regularly reviewing the progress of related work.



## Daily Implementation

SMIC has established the ESG Office to improve the ESG information collection system. Based on the nature of SMIC's business, the ESG Office analyses and formulates ESG goals and policies and conducts regular reviews integrating ESG management into daily work to continuously improve our ESG performance.

# 2021 ESG Performance



## Economic Performance

Revenue

**US\$ 5.443 billion**

Annual growth rate

**39.3 %**



Net profit attributable to shareholders of the listed Company

**US\$ 1.702 billion**

Annual growth rate

**137.8 %**



R&D expenses

**US\$ 639 million**

Accounted for

**11.7 %** of revenue



## Environmental Performance

GHG emissions per unit

**9.9 kg CO<sub>2</sub>e/8-inch equivalent wafer photomask layer**

Electricity consumption per unit

**11.1 kWh/8-inch equivalent wafer photomask layer**

Water consumption per unit

**0.091 ton/8-inch equivalent wafer photomask layer**

Wastewater discharge per unit

**0.079 ton/8-inch equivalent wafer photomask layer**

Waste generated per unit

**0.40 kg/8-inch equivalent wafer photomask layer**



## Social Performance

Fresh graduates recruited

**800 persons**

**13,049 hours**

Number of employee volunteer service hours

Number of poor children saved through SMIC Liver Transplant Program for Children & amount invested

**105 persons**

**RMB 4.38 million**

Financial aid to college students

**180 persons**

**RMB 1 million**

Number of children saved & amount invested

**101 persons**

**RMB 3.68 million**

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# Approaching SMIC

Semiconductor Manufacturing International Corporation (SMIC, 00981.HK/688981.SH) is one of the leading foundries in the world and is the front-runner in manufacturing capability, manufacturing scale and comprehensive service in the Chinese Mainland. SMIC Group provides semiconductor foundry and technology services to global customers on 0.35 micron to 14 nanometer process node technologies.



- Company Profile
- Core Values
- Milestones of SMIC
- Honors of SMIC in 2021

# Company Profile



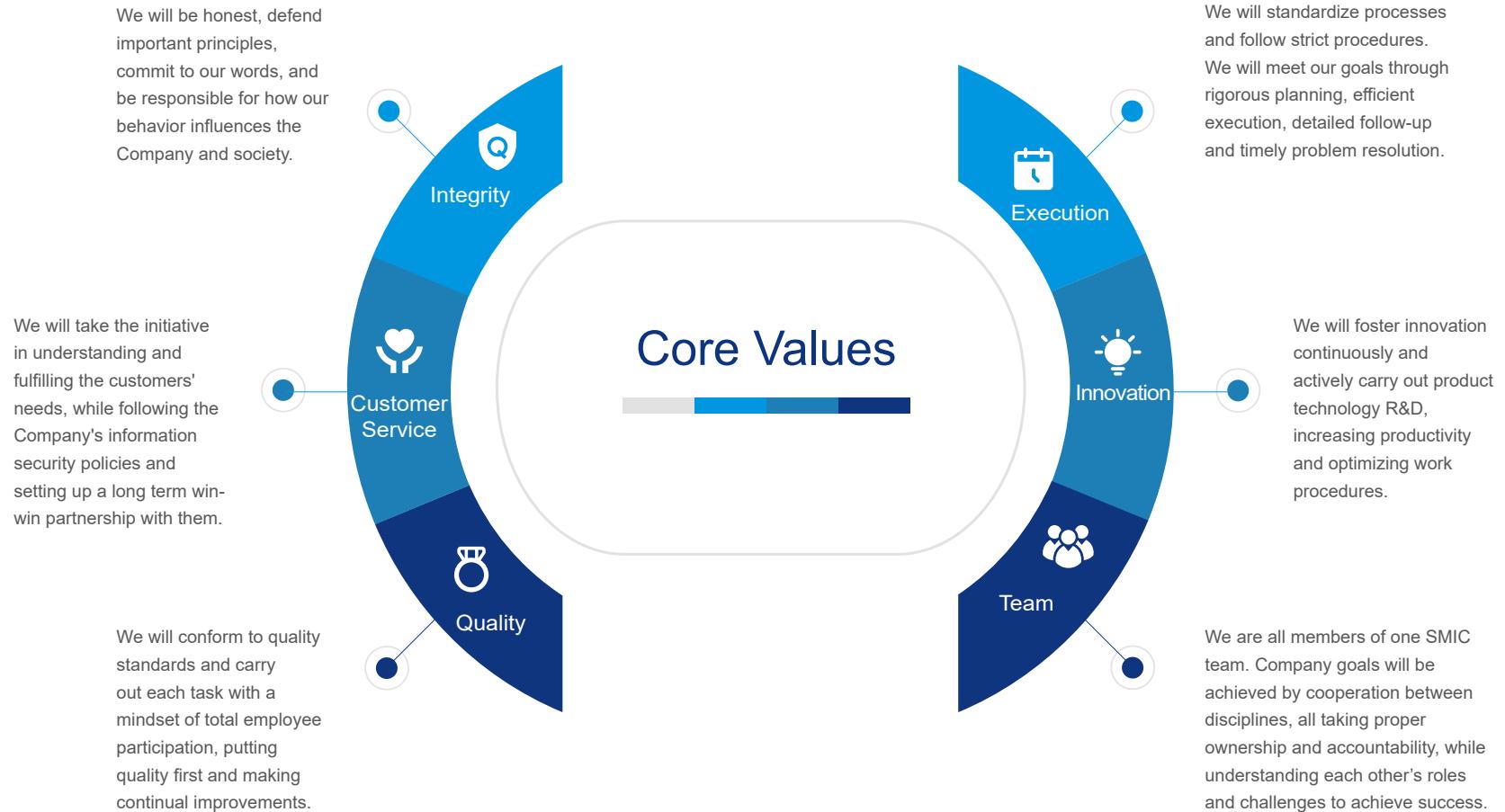
## About Us

Headquartered in Shanghai, China, SMIC Group has an international manufacturing and service base, with three 8-inch wafer fabrication facilities (fabs) and three 12-inch fabs operating in Shanghai, Beijing, Tianjin and Shenzhen, and three 12-inch fabs under construction in Shanghai, Beijing and Shenzhen. SMIC Group also has marketing and customer service offices in the U.S., Europe, Japan, and Taiwan, China, and a representative office in Hong Kong, China.

For more information, please visit [www.smics.com](http://www.smics.com).



# Core Values



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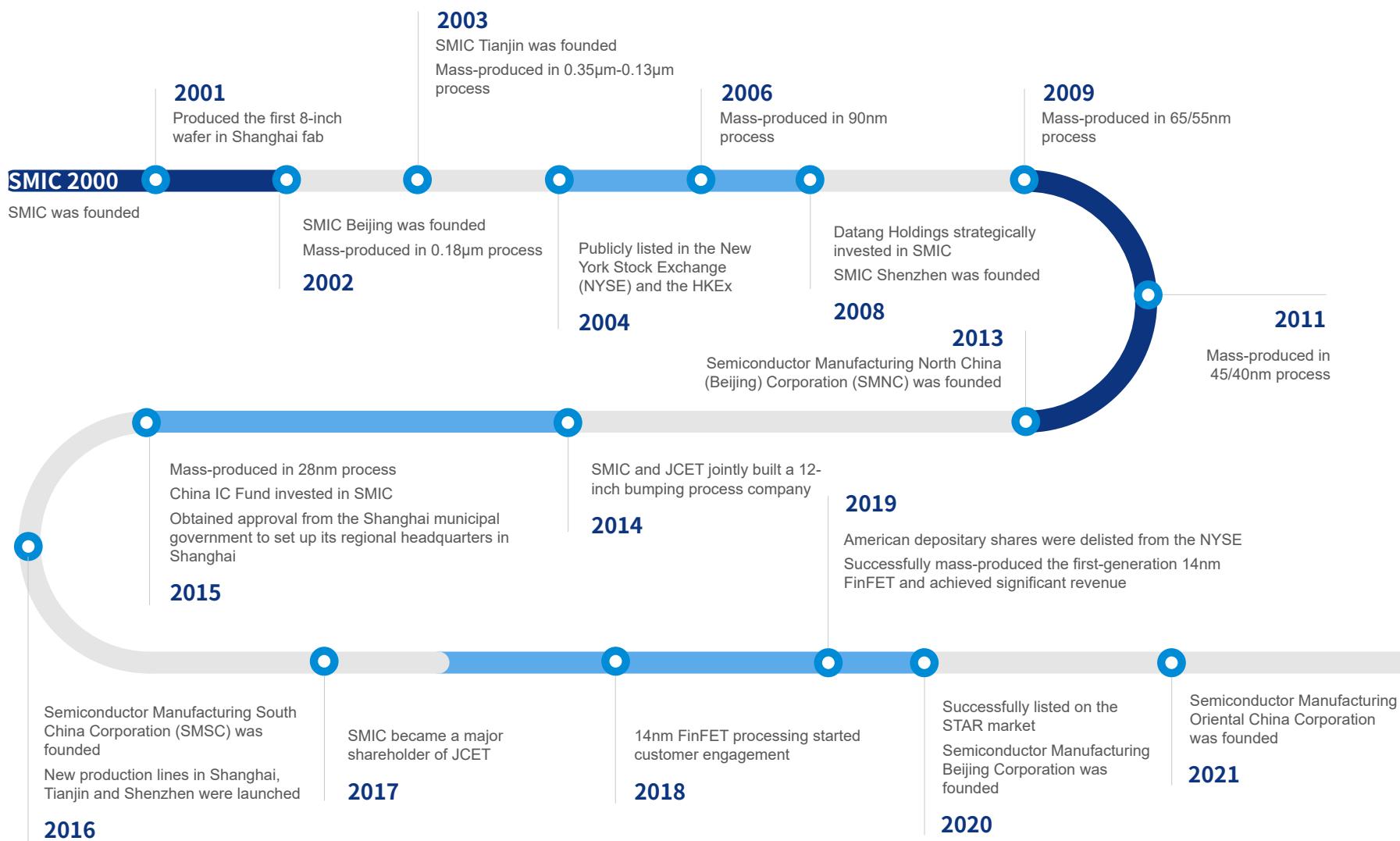
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# Milestones of SMIC



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## National May 1 Labor Prize

All-China Federation of Trade Unions  
April 2021

## Top 100 Enterprises of Electronics and Information Industry in 2021

China Information Technology Industry Federation  
October 2021

## The Science and Technology Innovation Board Value top 50

China Media Group  
June 2021

## Outstanding Contribution Award of the Industry

Shanghai Integrated Circuit Industry Association  
April 2021

## "Star of Zhangjiang" Leading Enterprise

Office for Advancing the Construction of Shanghai into a Scientific and Technological Innovation Center  
December 2021

## Outstanding CSR Award

Mirror Post, Hong Kong  
December 2021

## CSR Award

China Semiconductor Investment Alliance  
December 2021

## Award & Medal





## Corporate Governance

Standard operation constitutes the foundation of the SMIC's sustainable development. SMIC has always adhered to transparent principles of operation, laid stress on shareholder equity and based its corporate governance on a complete and effective board. Following these principles, the Board of the Company authorizes its committees to support the Board in fulfilling its supervising duty.

In 2021, SMIC continued to perfect corporate governance by further clarifying functions and powers of the Board, intensifying its efforts in risk control, optimizing information disclosure and shareholder communication policies, strengthening legal compliance and ethics supervision and promoting the standard operation and steady development of the Company.

- **SMIC Board of Directors**
- **Risk Management**
- **Business Conduct and Ethics**
- **Internal Audit**
- **Information Disclosure**

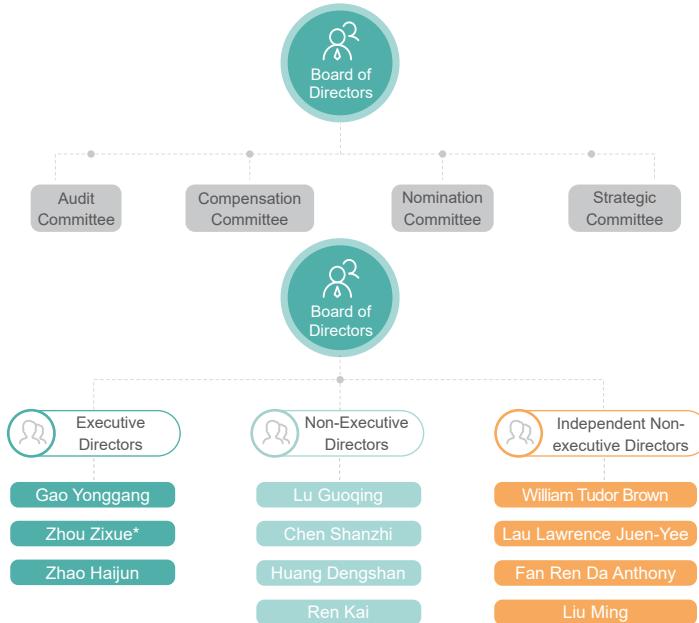


# SMIC Board of Directors

The Board of Directors has a duty to the Company's shareholders to direct and oversee the Company's affairs to maximize shareholder value. The Board, acting by itself and through its various committees, actively participates in, and is responsible for, the determination of the overall strategy of the Company, the establishment of corporate goals and objectives and the monitoring of their achievements, the oversight of the Company's financial performance and the preparation of the accounts, the establishment of corporate governance practices and policies, and the review of the Company's system of internal controls and risk management.

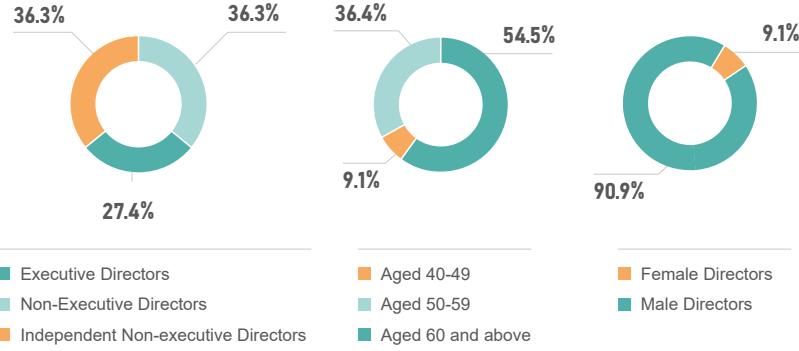
The Company's management is responsible for implementing its overall strategy and overseeing its daily operations and management. The Board can discuss enquiries on management information with the senior management.

The Board has established the Audit Committee, Compensation Committee, Nomination Committee, and Strategic Committee. The committees are governed by their respective charters setting out clear terms of reference. As of the end of the reporting period, The Board of Directors was organized as follows:



\*Dr. Zhou Zixue resigned as an executive director of the Company on March 17, 2022

## Information of Board Members



As of the end of the reporting period, the member's positions of the Board in these committees were as follows:

Board Members	Audit Committee	Compensation Committee	Nomination Committee	Strategic Committee
Gao Yonggang	--	-	Chairman	-
Zhou Zixue*	-	-	-	-
Zhao Haijun	-	-	-	-
Lu Guoqing	-	Member	-	-
Chen Shanzhi	-	-	-	Chairman
Huang Dengshan	-	-	Member	-
Ren Kai	-	-	-	Member
William Tudor Brown	Member	Chairman	Member	Member
Lau Lawrence Juen-Yee	Member	Member	Member	Member
Fan Ren Da Anthony	Chairman	Member	Member	-
Liu Ming	-	Member	-	Member

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## Audit Committee

The Audit Committee reviews the Company's accounts, financial reporting procedures and systems, audits the Company's financial statements and the risk management and internal monitoring systems.

The Audit Committee is responsible for reviewing:

- The quality and authenticity of the Company's financial statements and related disclosures
- Whether the Company complies with laws and regulations
- Business ethics and conducts
- Qualifications and independence of independent auditors
- The performance of the Company's internal audit departments and independent auditors
- The effectiveness of the Company's risk control and internal monitoring system

## Compensation Committee

The basic purpose of the Compensation Committee is to perform all the responsibilities of the SMIC Board of Directors with respect to the remuneration of the Company's executive directors and senior managers, including equity compensation.

The responsibilities of the Compensation Committee mainly include:

- Making recommendations to the Board on the Company's policy and structure for all Directors' and senior management's remuneration and on the establishment of a formal and transparent procedure for developing the remuneration policy
- Determining the remuneration packages of individual executive Directors and the senior management, and to make recommendations to the Board on the remuneration of non-executive Directors
- Reviewing, at regular intervals, the long-term incentive compensation or equity plans and schemes established or provided by the Company to Directors, employees and consultants, and to make recommendations to the Board

## Nomination Committee

The Nomination Committee ensures that the Board of Directors has the effective size, structure and composition to support the Company's strategy and shareholders' rights and interests.

The responsibilities of the Nomination Committee mainly include:

- Reviewing the structure, size and composition of the Board at least annually, and propose any change suggestions to the Board to implement the Company's corporate strategy
- Overseeing the implementation of Board diversity policies
- Identifying qualified persons to serve as directors and advising the Board on the selection and nomination of such persons
- Assessing the independence of independent non-executive directors
- Making recommendations to the Board on the appointment or reappointment of directors and the succession plan for directors

## Strategy Committee

The responsibilities of the Strategy Committee mainly include:

- Evaluating and considering any strategic options for the Company
- Participating and discussing matters related to potential strategic partners involved in the Company's future strategic planning
- Making suggestions to the Board of Directors on the Company's major affairs and major investment and financing plans
- Making recommendations to the Board and management of the Company on any strategic planning





# Risk Management

Based on the Enterprise Risk Management - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), SMIC has established a corresponding corporate risk management system. The Risk Management Committee is formed by the Company's top management from all levels of the Company's first-ranking organizations, which are responsible for formulating company-level risk strategies. In light of the identified risks, the Risk Management Committee can assess their frequency and impacts on the Company as a whole and decide on different risk levels and corresponding measures to ensure that related risks can be monitored.

In 2021, to strengthen the Company's risk management, the Enterprise Risk Management Committee abolished its rotating chairman system and appointed a permanent chairman: Dr. Ning Xianjie, the Senior Director of Enterprise Quality and Reliability, with an Enterprise Risk Management Office set up in the Q&R management sequence.

The Enterprise Risk Management Office will systematically push forward SMIC's risk management within the framework of industry standards and integrate resources to continuously improve the business continuity of the Group.



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# Code of Business Conduct and Ethics

## Ethics Compliance Office (ECO)

The ECO, an independent organization set up under the Audit Committee of the Board of Directors, is responsible for supervising and ensuring that the professional ethics and business conduct of the Company and employees comply with the Company's code of business conduct and ethics, implementing the Company's anti-fraud and anti-corruption policies, investigating any clues and complaints with regards to fraud and reporting the findings to the Chairman, the Audit Committee and the Board of Directors (if necessary) on a quarterly basis.

The ECO monitors the implementation of ethics compliance related policies, including but not limited to reviewing the expenses specified by the ECO, organizing employees' ethics compliance training, improving their awareness of ethics compliance, and publicizing the Ethics Hotline.

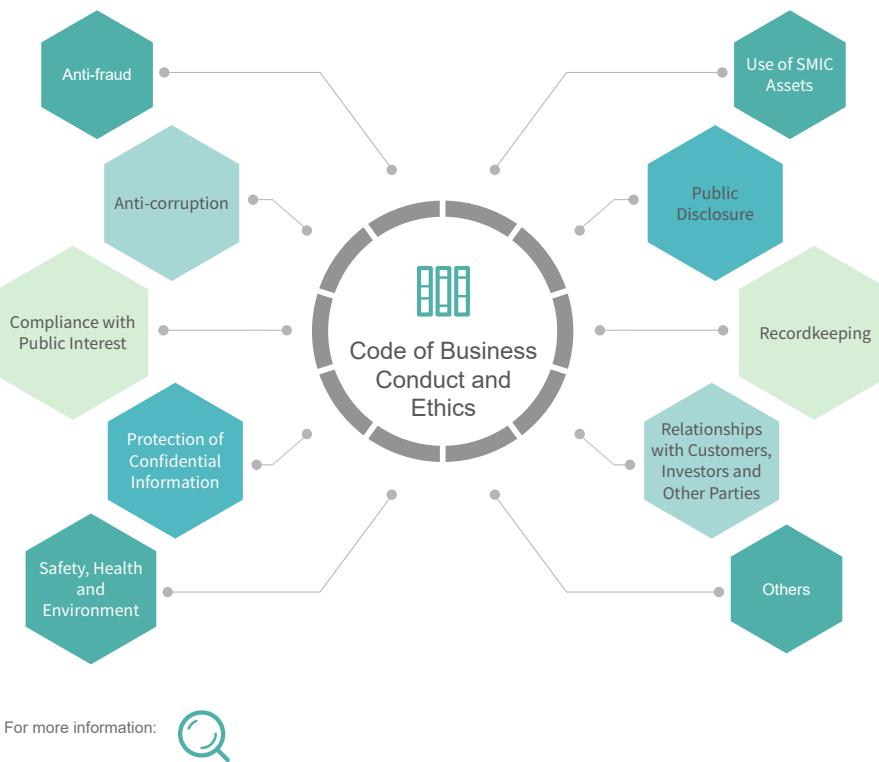
Our Code of Business Conduct and Ethics ("Code of Ethics") ensures our



legal compliance as well as our integrity, professionalism, and accountability.

The Code of Ethics applies to all employees, directors, contractors, consultants, agents and business partners, and requires them to comply with company policies and applicable laws, and to report any violations through Ethics Hotline.

The Code of Ethics is committed to the following:



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## Anti-fraud Policy

Honest dealings is an essential part of our business. Each employee is daily placed in a position of trust, charged with the ethical and appropriate use of Company assets, whether physical or intellectual, as well as similar assets of third parties.. Further, the action of each employee reflects on the Company as a whole. Accordingly, fraud such as misappropriation of company assets, false financial statements and duty embezzlement committed by employees will not be tolerated.

## Anti-corruption Policy

Our employees, contractors and business partners must comply with the anti-corruption laws and regulations of the place of registration, operation and listing, and other business activities. No offering or receiving of bribery is allowed. The ECO formulates a review mechanism for ethics compliance related expenses, and also details the rules for gift-giving and gift-receiving, etc.

## Signing Commitment Letter

In order to promote integrity and eliminate fraud, especially in the areas of commercial bribery, conflicts of interest, intellectual property and information security, we required all employees to sign the Commitment to Integrity and Self-Discipline as a commitment to ethical business behavior. In 2021, 100% of all new employees have signed the commitment letter. Meanwhile, all suppliers are required to sign the Supplier Commitment to Corporate Social Responsibility when they are qualified, and 100% of all new suppliers have signed the Supplier Commitment.

**100 %**

of all new employees have signed

**100 %**

of all new suppliers have signed

## Training

To continuously raise the awareness of ethical compliance within the Company and ensure compliance in our operations, we have carried out a number of training activities. We provided various trainings and seminars to employees throughout the years, that include mandatory annual training for all employees, trainings for new hires and new managers, special topic trainings to target group, case studies, etc.

In April 2021, a special training on “professional ethics and prevention education” was provided for target groups (Facility and Procurement), which enabled personnel in sensitive positions to keep the red line of professional ethics through vivid cases and legal provisions.

In June 2021, the Company carried out the annual compulsory training for all employees in the code of business conduct and ethics. The employee coverage rate was 100%, with an examination passing rate of 100%.

In November 2021, ethics training was provided to Board of Directors.

The employee coverage rate was

**100 %**

The examination passing rate was

**100 %**



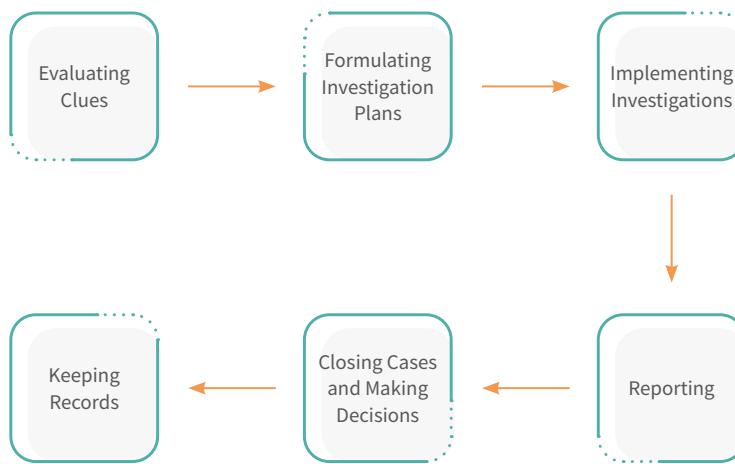
## Ethics Hotline and Investigation

To report any suspected violation of law, Code of Ethics, or other company policies, SMIC has open reporting channels and encourages any employees, investors, contractors, customers, suppliers, business partners and others to make reports to the ECO through the confidential email, [Code@smics.com](mailto:Code@smics.com), or telephone hotline, +86 (21) 2081 2121, in order to prevent non-ethical or illegal acts in connection with commercial interests. All information relating to informants will be kept strictly confidential. Reprisal, threats, retribution or retaliation against the informants is strictly prohibited.

All complaints through the ethics hotline are reviewed by the Compliance Officer or the Audit Committee. The Compliance Officer will conduct a formal investigation in accordance with relevant procedures.



An ethics compliance investigation includes the following steps:



The Compliance Officer maintains an ethics log of all reported cases, to record incoming complaints, investigations processes and resolutions, and reports the material violations to the Audit Committee. The Company regularly reviews the effectiveness of the reporting process to ensure its effective implementation. In 2021, a criminal case of employee bribery occurred in the Company. We actively took the initiative to report and cooperated with the investigation, and shared the case through our intranet warning platform after the judgment of the case took effect, reminding employees to pay great attention and resolutely prevent the recurrence of such cases.

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# 66 Internal Audit

Internal Audit, as an organization under the Board of Directors performing day-to-day duties, works with the Company's management team to assist the Audit Committee of the Board of Directors in assessing operational risks, and is committed to supporting and urging management to improve the Company's risk management, internal controls and corporate governance system.



## Planning and Reporting

- Internal Audit prepares an annual plan of audit activities and resource requirements based on risk assessment, which is approved by the Audit Committee and the Chairman.
- Internal Audit examines and investigates major risks identified by senior management.
- The results of major internal control audits, corrective actions by the management, and the follow-up audit findings on management's corrective actions are presented to the Audit Committee, the Chairman and CEO.
- A summary of audit reports is presented quarterly to the Audit Committee.



## Authority and Responsibility

- Internal Audit may request relevant departments to cooperate, consult relevant records, examine relevant assets, and contact relevant personnel at any time during the audit.
- Internal Audit audits the effectiveness of the Company's systems, procedures and internal control activities.
- After the completion of an audit, Internal Audit will report the audit results to the relevant management team, provide recommendations and suggestions for strengthening internal control and preventing risks, and follow up on and supervise the implementation of corrective measures.
- Internal Audit monitors the implementation of risk management mechanisms at the Company level and in relevant departments.
- Internal Audit will assist in establishing a sound anti-fraud mechanism, and identify the key areas, aspects and main contents of anti-fraud. Also, reasonable attention shall be paid to potential frauds during the internal audit process.

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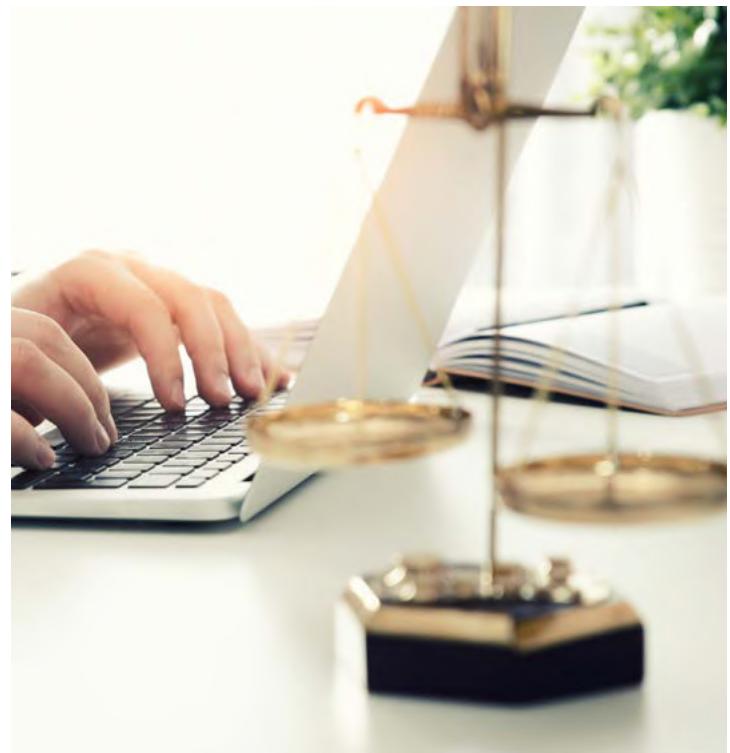
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# Information Disclosure

## Disclosure Policy

SMIC's Disclosure Committee develops and implements the Company's information disclosure policy and procedure, approves and supervises whether the Company's information is disclosed timely and in compliance. The disclosure policy applies to all SMIC employees and consultants, the Board and authorized spokespersons. The disclosure covers all documents and statements publicly presented orally and electronically by SMIC or in the form of media interviews, so as to ensure the timeliness, accuracy, consistency and compliance of the Company's external information disclosure.



## Shareholder Communication Policy

The Company sets up a professional team for investor relations management, which aims to strengthen the communication between the Company and shareholders/investors, and effectively establish channels for the Company's management to listen to suggestions from shareholders/investors, thereby enhancing corporate governance, maximizing the overall interests of the Company, and protecting the legitimate rights and interests of shareholders/investors. In the management of investor relations, the Company follows the principle of equal treatment of shareholders/investors, and discloses information in compliance with applicable laws and regulations. With integrity and honesty, it communicates with the capital market through multiple channels about the Company's operation and management status, financial status, product technology, major issues and other information, and actively discloses information related to the Company that is of interest to shareholders/investors, so as to fully protect the legitimate rights and interests of shareholders/investors.

The means of communication between the Company and shareholders/investors include but not limited to: announcements, general meetings of shareholders, earning calls, SSEE Interaction, investor hotline and mailbox, official website of the Company, road shows, general meetings of securities dealers, promotional materials and media interviews.

For more information, please see the SMIC official website:



### Shareholder Communication

On June 25, 2021, SMIC successfully held the 2021 Annual General Meeting and the 2021 First Extraordinary General Meeting in Shanghai.



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## Improving Governance Mechanisms

In 2021, we continued to explore and improve the Company's ESG governance mechanism.

On the basis of original CSR management, we innovated its mechanism and communicated with stakeholders in a more extensive and effective way.



- **ESG Strategy**
- **Communication with Stakeholders**
- **Management of Topics of Concern**

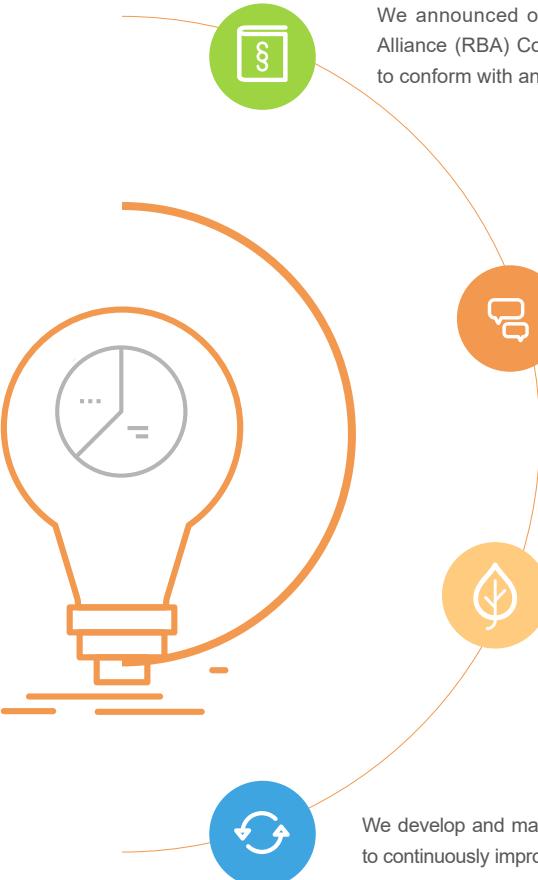
# ESG Strategy

## ESG Policy



While complying with related legal responsibilities and obligations, we keep practicing ESG diligently. Through the implementation of ESG projects, we expect to achieve internationally recognized standards in the areas of promoting social development, environmental protection and ethical responsibility. We will continue to be a company which conforms to high standards in environmental protection, social responsibility and corporate governance.

### To attain these objectives:



We announced our support for the Responsible Business Alliance (RBA) Code of Conduct and will push our suppliers to conform with and join the Code.

We uphold the human rights of our employees and the standards of business integrity, as required by the RBA Code, the Code of Business Conduct and Ethics of SMIC, Human Resources policies of SMIC, and all other SMIC policies.

We strive to maintain a safe workplace for our employees while minimizing adverse effects on the community, environment, and natural resources, and being consistent with our Environmental Protection, Safety, and Health Policy, related ISO and other international certifications.

We develop and maintain management systems to continuously improve the ESG system.

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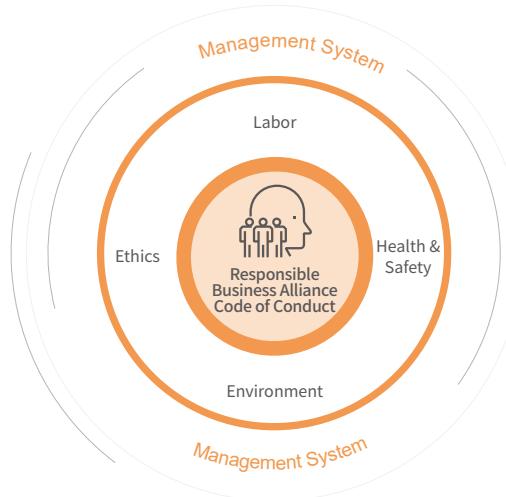
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## Responsible Business Alliance Code of Conduct

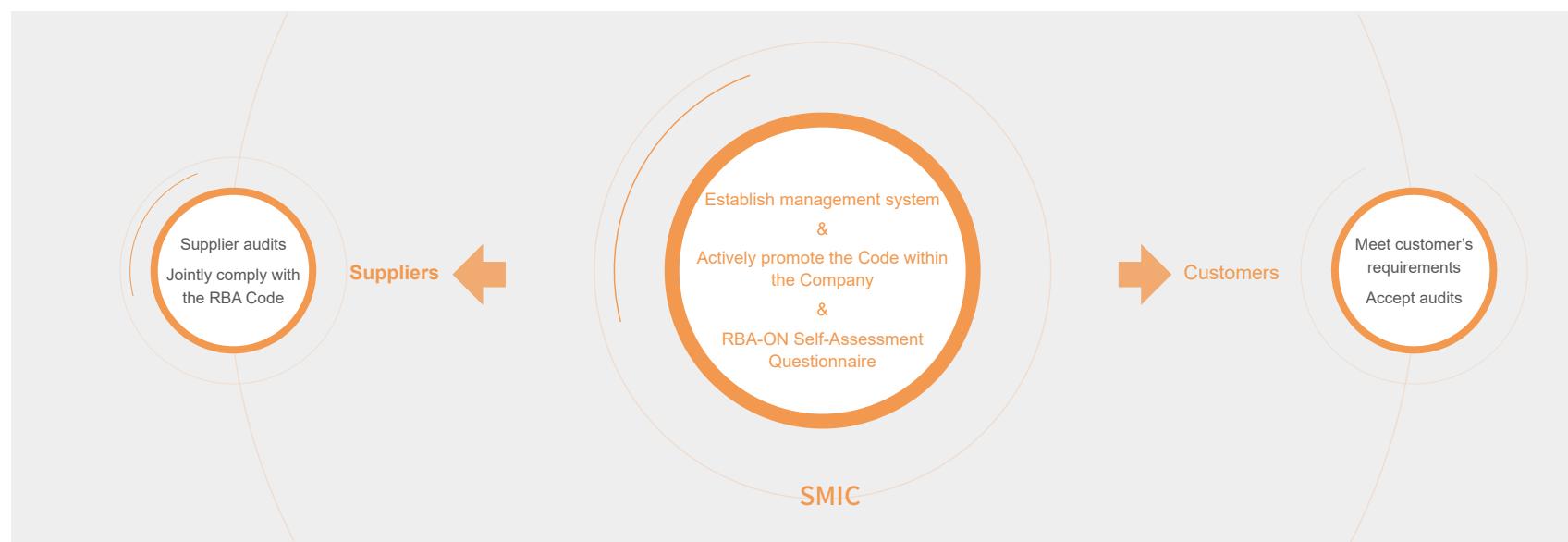
Since 2013, SMIC has adopted the Responsible Business Alliance online risk assessment (RBA-Online) system to evaluate the environment, health and safety, labor rights and ethical management of the Company and its plants, and established continuous improvement plans for existing risks. In 2021, the Company and its plants were rated as low risk upon assessment. We will continue to make improvement and try to keep risks at the lowest possible level.

SMIC not only complies with the Responsible Business Alliance Code itself, but also requires our suppliers to obey the Code.

In 2021, SMIC continued to select some major domestic suppliers for on-site audits. We learned about the implementation of our suppliers in complying with the RBA Code, and we continued to promote the contents of the Code.



Framework of Responsible Business Alliance



Responsible Business Alliance Implementation by SMIC

Carry out the "SMIC Liver Transplant Program for Children" and devote to alleviate disease-induced poverty

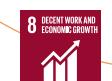
Set up Health Centers at the fabs and protect employees' health

Invest and build SMIC Private School to provide quality education

Gender equitable recruitment policy and career development channels

Care for employees and provide them with clean water and sanitation facilities

Protect employee's rights and benefits, put no restriction on employee freedom, and provide reasonable remuneration



## Sustainable Development Goals (SDGs) of the United Nations

In 2021, SMIC continued to incorporate some of the requirements by the UN's SDGs and China's National Plan on Implementation of the 2030 Agenda for Sustainable Development into ESG management. Combined with the actual situation, SMIC has selected 12 of 17 UN SDGs and implemented relevant measures.

Engage in the innovation and development of the domestic integrated circuit industry

Manufacture communication and computing related products to help close digital gaps and reduce inequalities

Advocate low-carbon life and organize philanthropic activities of environmental protection and contribute to sustainable development

Produce healthy, safe and high-quality integrated circuit products in accordance with international standards

Conduct energy-saving and emission-reduction projects, verify GHG emissions, and mitigate climate change

Organize "Pay Attention to the Ocean" beach cleanup activity and preserve the ocean



## ESG Governance Structure

SMIC's ESG governance structure is divided into four levels. The Board is responsible for SMIC's ESG policies, goal setting, schedule review and performance, as well as ESG reports and information disclosure. During the reporting period, SMIC set up the ESG Steering Committee with SMIC Chairman being director and Co-CEOs being vice directors. The ESG Steering Committee takes charge of setting up the ESG strategy, as well as ESG objective and development direction.

The ESG Committee was established from the CSR Committee. It is responsible for promoting implementation of the Company's ESG projects, and tracking execution results to achieve the ESG policy objectives. Under the leadership of ESG Steering Committee, ESG Committee is headed by Senior President of Corp Support, with all L1 Directors as its director members, and all department supervisors as its members, working together to push forward the ESG agenda. The ESG Committee holds monthly working meetings to review ESG-related issues, and reports the progress of ESG work to the Company management regularly. The ESG Office carries out ESG-related work directly, and reports work progress to the ESG Committee discretionarily.



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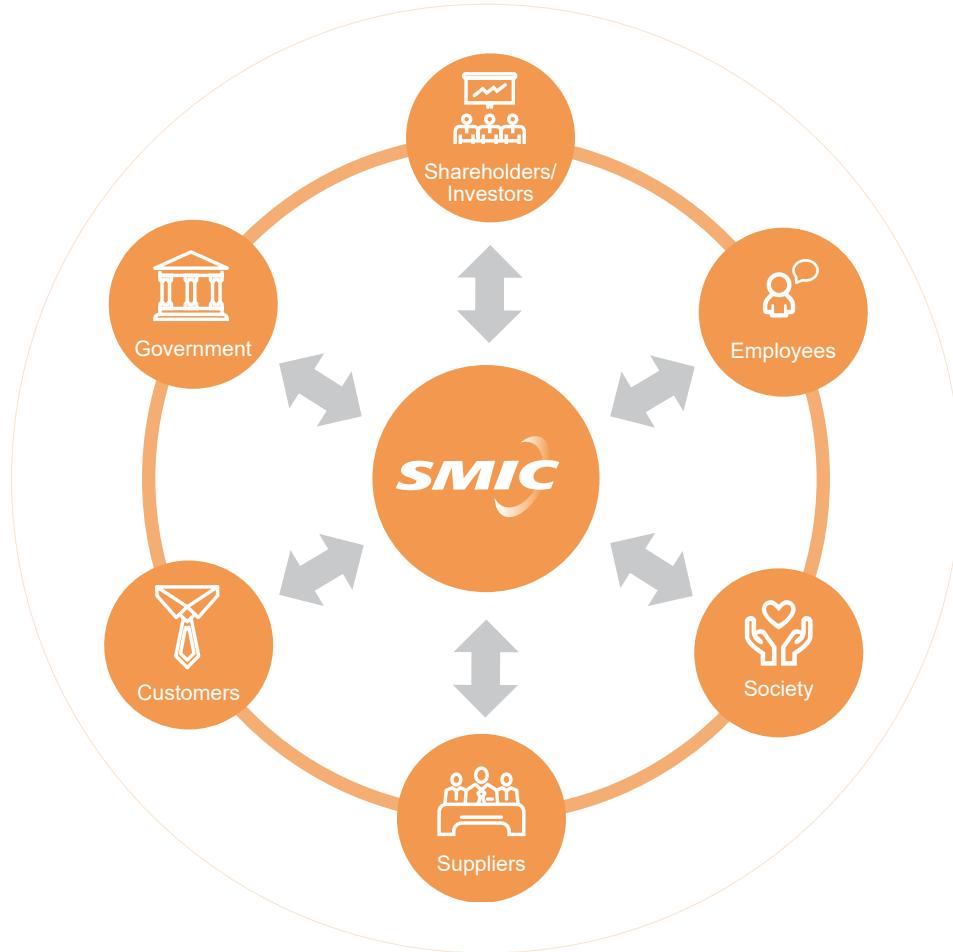
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# Communication with Stakeholders

SMIC identifies six major types of stakeholders based on levels of dependency, rights and responsibilities, and levels of influence.



SMIC attaches importance to safeguarding the interests of stakeholders. The ESG Committee members maintain good communications with all stakeholders by updating information on international and social trends, as well as the Company's status, and responding to the needs of all stakeholders.

Content	Description	Frequency
Identification of major stakeholders and topics of concern	ESG Committee is responsible for coordination	Every year
Stakeholder communication planning and execution	ESG Committee and relevant departments are responsible for establishing the communication channel with stakeholders	Proceed as scheduled
Stakeholder communication results verification	ESG Committee is responsible for discussing and reporting communication results and offering feedbacks on the topics of concern	Every year
Disclosure	ESG Report	Every year

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SMIC has established transparent and effective channels of communication with all stakeholders to better understand their needs and expectations, which are important references for the formulation of our sustainable development strategy.

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Stakeholders	Subjects of Communication	Communication Channels and Forms	Topics of Concern	2021 Communication Activities
 Employees	•All employees	<ul style="list-style-type: none"> <li>•Employee communication meetings</li> <li>•Official WeChat Account</li> <li>•Company announcement emails</li> </ul> <ul style="list-style-type: none"> <li>•Internal website</li> <li>•Ethics hotline for violation tip-offs</li> <li>•SMIC magazine</li> </ul>	<ul style="list-style-type: none"> <li>•Employee benefits and perks</li> <li>•Future growth potential</li> <li>•The Company's competitive advantage in the industry</li> <li>•Talent retention</li> </ul> <ul style="list-style-type: none"> <li>•Employee training and education</li> <li>•Employees' physical and mental health</li> <li>•Employees' personal career development</li> <li>•Corporate governance</li> </ul>	<ul style="list-style-type: none"> <li>•Quarterly communication meeting</li> <li>•Employee satisfaction survey and feedback</li> <li>•Annual corporate sports day event</li> <li>•Talent competition</li> </ul> <ul style="list-style-type: none"> <li>•Festival activities</li> <li>•Birthday parties</li> <li>•Various club activities and sports competitions</li> <li>•Cultural promotion activities</li> <li>•Volunteer activities</li> </ul>
 Shareholders/ Investors	<ul style="list-style-type: none"> <li>•Shareholders</li> <li>•Investors</li> <li>•Analysts</li> </ul> <ul style="list-style-type: none"> <li>•Information disclosure media designated by the CSRC</li> <li>•HKEx</li> <li>•Shanghai Stock Exchange</li> </ul>	<ul style="list-style-type: none"> <li>•Annual general meeting for shareholders</li> <li>•Extraordinary general meeting for shareholders</li> <li>•Quarterly earnings release and results announcement</li> <li>•Brokerage sessions</li> <li>•Non-deal roadshows</li> <li>•Communication via face-to-face meetings, phone calls, and emails, and regular collection of opinions and feedbacks</li> </ul> <ul style="list-style-type: none"> <li>•Disclosure of the Company's information via media designated by the CSRC</li> <li>•Release of the Company's regular reports, provisional announcements and the CSR report</li> <li>•Ad hoc company news published on the official website and WeChat official account</li> <li>•The "SSE Interaction" platform and investor hotline</li> </ul>	<ul style="list-style-type: none"> <li>•Employee equity incentive program</li> <li>•Outlook for semiconductor and the market of China</li> <li>•The Company's competitive advantages in the industry</li> </ul>	<ul style="list-style-type: none"> <li>•Future growth potential</li> <li>•Corporate strategy</li> <li>•Impact of Entity List</li> </ul> <ul style="list-style-type: none"> <li>•1 annual general meeting for shareholders</li> <li>•1 extraordinary general meeting for shareholders</li> <li>•4 quarterly results webcasts</li> <li>•Nearly 10 non-deal roadshow sessions</li> </ul> <ul style="list-style-type: none"> <li>•Nearly 30 Brokerage sessions (including online sessions)</li> <li>•More than 200 meetings (including teleconferences and online conferences)</li> </ul>
 Customers	•Global clients	<ul style="list-style-type: none"> <li>•Semi-annual customer satisfaction survey</li> <li>•Quarterly business/quality/technology evaluation meeting for customers</li> </ul>	<ul style="list-style-type: none"> <li>•Customer service and satisfaction</li> <li>•Innovation management</li> <li>•The Company's competitive advantage in the industry</li> </ul>	<ul style="list-style-type: none"> <li>•Product quality control</li> <li>•Protection of confidential information</li> <li>•Business ethics</li> </ul> <ul style="list-style-type: none"> <li>•2 semi-annual customer satisfaction surveys and related action plans</li> <li>•4 quarterly business assessment meetings</li> <li>•4 quarterly quality assessment meetings</li> <li>•4 quarterly technology assessment meetings</li> </ul> <ul style="list-style-type: none"> <li>•1 annual technology conference</li> <li>•153 responses on conflict minerals management topics</li> <li>•27 customer surveys related to responsible business alliances</li> </ul>
 Suppliers	<ul style="list-style-type: none"> <li>•Suppliers of raw materials</li> <li>•Suppliers of equipments</li> </ul>	•Scoring, on-site review, supplier questionnaire survey	<ul style="list-style-type: none"> <li>•Quality, price, delivery, service</li> <li>•Compliance with laws and regulations</li> <li>•Business ethics</li> </ul>	<ul style="list-style-type: none"> <li>•Supplier sustainability management</li> <li>•Anti-corruption</li> </ul> <ul style="list-style-type: none"> <li>•2 semi-annual ratings</li> <li>•3 special ESG audits for suppliers</li> <li>•34 on-site quality audits of suppliers</li> <li>•More than 100 supplier quality surveys via questionnaires</li> </ul>
 Government	<ul style="list-style-type: none"> <li>•National and local government institutions</li> <li>•National and local industry associations</li> </ul>	•Conferences	<ul style="list-style-type: none"> <li>•Future growth potential</li> <li>•Outlook for semiconductor</li> <li>•The Company's competitive advantage in the industry</li> </ul>	<ul style="list-style-type: none"> <li>•Pollution prevention</li> <li>•Innovation management</li> </ul> <ul style="list-style-type: none"> <li>•Engaged in occasional policy briefings, symposiums, trends &amp; predictions meetings, and marketing meetings</li> <li>•Published pollutant emissions data on the Company website</li> </ul>
 Society	<ul style="list-style-type: none"> <li>•Print media: newspapers, magazines</li> <li>•Electronic media: Internet, TV, radio, social media</li> <li>•Nursing homes, non-profit organizations, local communities</li> </ul>	<ul style="list-style-type: none"> <li>•Press releases</li> <li>•Interviews and special reports</li> <li>•Press conferences</li> <li>•Social media releases</li> </ul>	<ul style="list-style-type: none"> <li>•Participation in philanthropic activities</li> <li>•Promotion of environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>•Corporate governance</li> <li>•Economic benefits</li> <li>•Innovation management</li> <li>•Anti-corruption</li> </ul> <ul style="list-style-type: none"> <li>•Social participation</li> <li>•External cooperation</li> <li>•Biodiversity protection</li> </ul> <ul style="list-style-type: none"> <li>•Official WeChat Account</li> <li>•Spokesperson's responses to media on issues of concern, and communications on the Company's ideas and messages to the public</li> <li>•Organized a "Pay Attention to the Ocean Pollution" beach cleanup activity for environmental protection</li> <li>•Held multiple secondhand recycling activities for environmental protection</li> </ul>

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# Management of Topics of Concern

## Management Process of Topics of Concern

### Organize Topics of Concern

Evaluate, select, and organize appropriate surveyed topics of concern of stakeholders.

### Collect Topics of Concern

The *Environmental, Social and Governance Reporting Guidance, Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)*, *Guidance on Social Responsibility for the Electronics and Information Industry in China*, *GRI Sustainability Reporting Standards (GRI Standards)*, *ISO 26000: 2010 Guidance on Social Responsibility* and other standards are used as the basis for collecting topics of concern as well as feedbacks from stakeholders.



### Analyze Topics of Concern

Survey the concerns of stakeholders, evaluate and analyze the survey results, and prioritize the concerns accordingly.

### Evaluate Topics of Concern

Report the investigation and analysis results to the ESG Committee for review, and report the review results to the Management of the Company.

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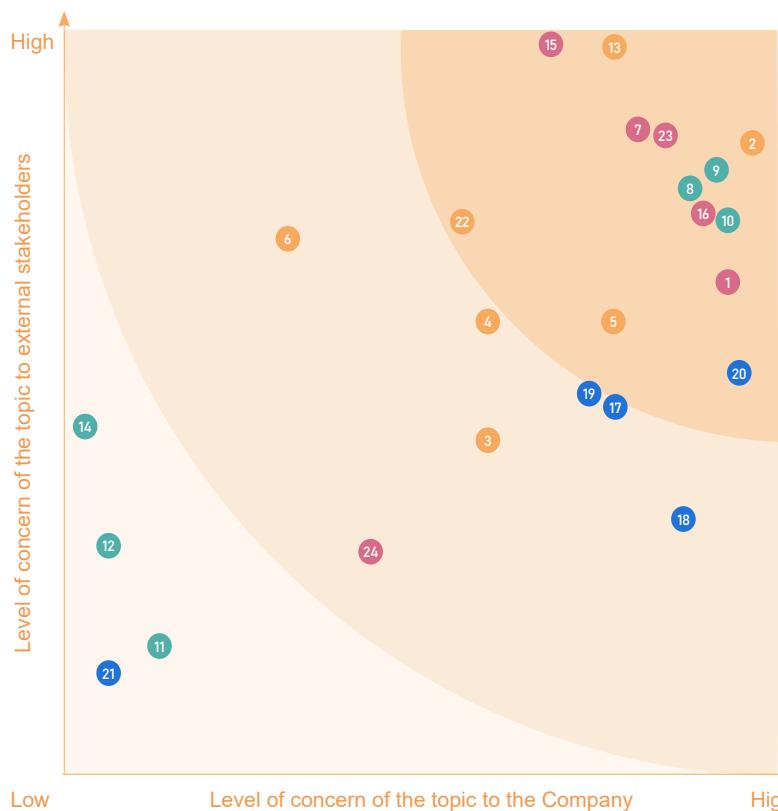
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## Analysis of Topics of Concern

In 2021, SMIC conducted questionnaire surveys, interviews, and online discussions on major topics of concern to employees, suppliers, customers, government, shareholders/investors, society (including media, NGOs, communities) and other stakeholders. We collected 1,635 answered questionnaires, including 1,230 from employees, 15 from customers, 370 from suppliers, 9 from shareholders/investors, 6 from media and 5 from the government. We then evaluated the levels of concern of different topics, and developed a matrix of major topics of concern through a comprehensive analysis.



No.	Topic	Category
1	Corporate governance	Corporate governance topics
2	Company competitive advantage and growth	Economic topics
3	Economic performance	Economic topics
4	Innovation management	Economic topics
5	Customer service and satisfaction	Economic topics
6	Communication and cooperation with stakeholders	Economic topics
7	Protection of confidential information	Corporate governance topics
8	Water resources management	Environmental topics
9	Energy management	Environmental topics
10	Climate change and GHG management	Environmental topics
11	Air pollutants management and control	Environmental topics
12	Waste management	Environmental topics
13	Product quality control	Economic topics
14	Green products	Environmental topics
15	Business ethics	Corporate governance topics
16	Compliance with regulations	Corporate governance topics
17	Talent recruitment and retention	Social topics
18	Labor rights and welfare	Social topics
19	Talent training and development	Social topics
20	Occupational health and safety	Social topics
21	Social participation	Social topics
22	Supplier sustainability management	Economic topics
23	Risk management	Corporate governance topics
24	Anti-corruption	Corporate governance topics

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# Maintaining Business Compliance and Growing with the Industry

As an international listed company, SMIC strictly complies with laws, rules and regulations of all jurisdictions, operates business legally, emphasizes on information protection, strengthens supply chain management, maintains close contact with customers, and shares growth with the industry.



- Compliance Management
- Adhering to Independent Innovation
- Fortifying Information Security Network
- Optimizing Customer Service
- Improving Product Quality
- Strengthening Supply Chain Management

# Compliance Management

## Export Compliance Management

The United States and many other countries have adopted international export control systems. 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. SMIC established an internal compliance program (ICP) to ensure compliance with international export control laws and treaties for high-tech products. We, along with relevant suppliers and customers, strictly abide by the restrictions and regulations of these export licenses.



We have incorporated our internal compliance mechanisms into the ICP Handbook, including policies and procedures to ensure compliance with all legal requirements.

Our ICP Handbook contains nine chapters:



In 2021, the Company's Co-CEO issued an export compliance policy statement, asking all employees to fully understand our export control compliance obligations, and commit to accepting the statement. The ICP team provides regular training and maintains the ICP website. Meanwhile, our ICP is verified through regular external audits.

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## Responsible Minerals Control Mechanism

SMIC is committed to fulfilling its social responsibilities, and does not support mineral transactions that may violate human rights. We implement control on tantalum, tin, tungsten, gold (collectively referred to as "conflict minerals") and other minerals (cobalt, mica, etc.) from conflict zones in the Democratic Republic of the Congo and adjoining countries (collectively referred to as the "D.R.C.") and other conflict-affected and high-risk areas. The Company formulated the SMIC Responsible Minerals Policy to guide compliance management.

The Responsible Minerals Management Working Group, which is composed of Legal, Procurement, Customer Engineering, Corporate Social Responsibility and other departments, formulates and issues relevant policies, and establishes a management and supervision system, requiring all suppliers concerned to provide evidence of compliance with responsible minerals management, and achieving regulatory compliance through close communication with suppliers.

Responsible minerals management policies and procedures include, but are not limited to, compliance with U.S. laws (Section 1502 of the Dodd-Frank Act) and the U.S. Securities and Exchange Commission (SEC) disclosure rule on conflict minerals. Meanwhile, in accordance with the OECD (Organization for Economic Co-operation and Development) Due Diligence Guidance, the RMI (Responsible Minerals Initiative) due diligence tools are used to conduct due diligence on suppliers to ensure the legality of the minerals.

The key to responsible minerals management is to effectively manage suppliers, and ensure that all links in the supply chain meet management requirements. In 2021, SMIC conducted due diligence on all suppliers in strict accordance with due diligence requirements, using the Conflict Minerals Reporting Template (CMRT), the Extended Minerals Reporting Template (EMRT) and the Cobalt Reporting Template (CRT) created by the RMI. All of our suppliers responded to the survey, and provided corresponding evidence.

At the same time, SMIC actively responds to due diligence requests from our customers and assists them in implementation of responsible minerals management. As per customer requests, we responded a total of 153 responsible minerals surveys in a timely manner, demonstrating our effective management of responsible minerals.

We ensure that 100% of conflict mineral smelters in our supply chain are on the RMI conformant list; some of our cobalt smelters are RMI listed, and others are in the process of obtaining RMI certification.



Supplier survey completion

**100 %**

Number of responses to customer surveys

**153**

Smelter compliance

**100 %**

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# Adhering to Independent Innovation

SMIC attaches much importance to innovation, which is an important part of our corporate culture. We have established a sound internal management system for innovation, and we encourage continuous innovation in R&D, productivity improvement and working process optimization.

## Protection of Intellectual Property Rights

To increase the competitiveness of the Company and maintain the hard-won advanced technological achievements, SMIC attaches great importance to the protection of intellectual property rights in every link of R&D, production, procurement and sales to avoid intellectual property risks.

We collaborate with appropriate partners to ensure that we do not infringe on others' intellectual property rights during the R&D process; we put in place an early warning mechanism to effectively use intellectual property assessment and early warning measures; we try to fully understand the market and consult patent literature during the R&D process to make sure that our R&D results are internationally up-to-date to avoid loss of intellectual property; we apply for patents and trademarks in a timely manner to protect the inventors from malicious squatting and applications; we maintain our initiative by keeping abreast of our competitors, the intellectual property systems of various countries, and international rules and norms.

## Patent Protection

Based on its own characteristics, SMIC combines patents with project R&D, promotes innovation based on projects, and effectively boosts the development of intellectual property rights. SMIC's patent protection strategies, which include targeted patent mining and layout, participation of technology experts in patent review, a patent incentive mechanism, a patent training mechanism, strict control of patent applications and other implementation measures, encourage researchers and developers to engage in technological innovation, and protect our R&D achievements in a timely manner.

To build a patent portfolio of an appropriate number of IP assets with strong overall competitiveness, SMIC organizes regular brainstorming sessions and patent knowledge training to continuously encourage employees to apply for patents, while performing regular evaluation and hierarchical management of proposal submission, patent application, patent authorization, and patent maintenance in key areas to ensure patent quality, and enhance the overall competitiveness of our patent portfolio. To increase work efficiency and streamline management, SMIC has also established a patent management system to electronically manage the entire process from the proposal submission, review, writing and submission of patent application, through to the subsequent dynamic patent evaluation.

In 2021, SMIC continued to reinforce independent R&D, and increase investment in technological innovation. The R&D expenses were US\$ 639 million. As of the end of the reporting period, SMIC filed 17,980 patent applications, of which 12,467 were granted. SMIC is leading the semiconductor industry in Chinese Mainland in terms of the number of applied and granted patents.

R&D expenses

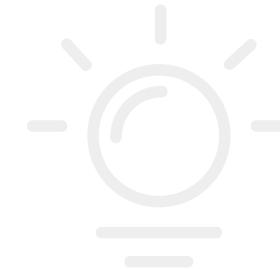
**US\$ 639 million**

Number of patent applications

**17,980**

Number of granted patents

**12,467**



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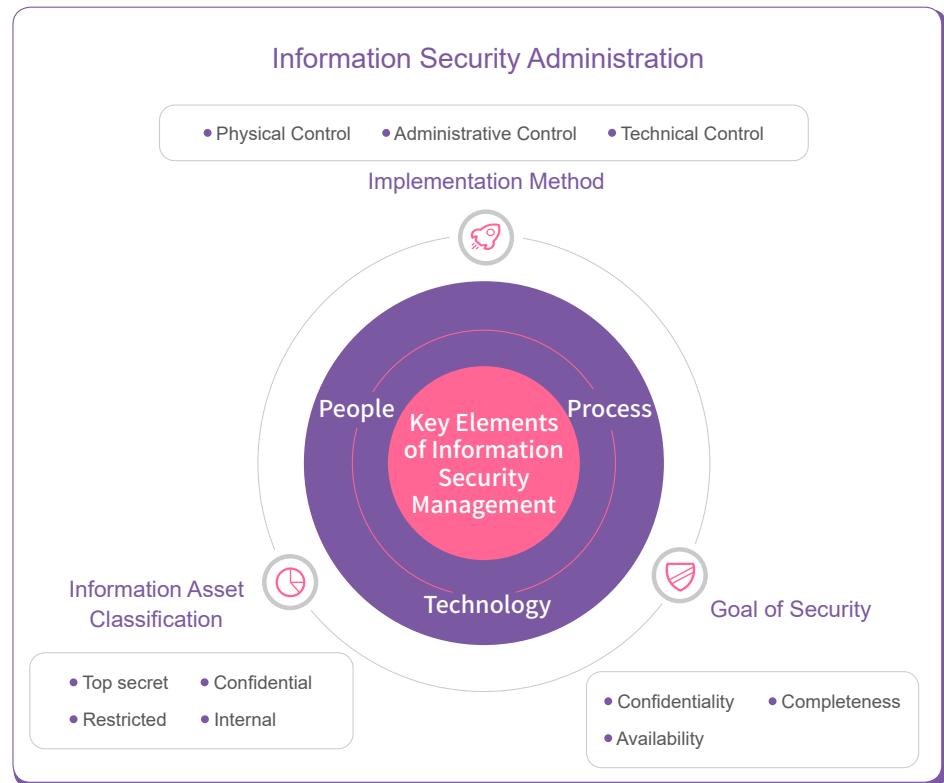
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# Fortifying Information Security Network

SMIC adheres to the core 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, as well as stakeholders' information.

We have established a comprehensive protection system for information security, including management system optimization, deployment of technical preventive controls, and security awareness promotion. Our system has received the ISO 27001:2013 information security management system certification. The Company set up an Information Security Committee to effectively develop, strengthen and implement information protection strategy to achieve physical security, data security, production area security, as well as personal information security.



## An All-encompassing Protection, Control and Monitoring Technology System

SMIC has created a complete technology system for the protection, control and monitoring of confidential information by continuously strengthening the security team and optimizing such information security technologies as physical environment control, network access control, enhanced identity authentication, data communication confidentiality, data storage, confidentiality and data usage control.

- Strengthen the classification of information assets, implement hierarchical management, and effectively protect the Company's confidential information on intellectual property.
- Divide physical areas into different zones based on levels of business confidentiality, and optimize multi-level protection schemes.
- Establish a log collection, analysis and management platform for key and core systems, so as to better analyze big data for daily operations and maximize the value of data, and build an effective violation warning and tracking mechanism based on this platform.
- Set up an Information Security Inspection and Supervision Department to step up inspection efforts.
- Strengthen visitor registration, access control and monitoring systems to regulate security access for visitors.
- Continue to implement the access control mechanism for the confidential information of the Company and customers, and unify management based on the principle of authorized access and on-demand access.
- Conduct regular audits of the access, transfer and storage of specific confidential data to ensure controls are consistently effective.
- Continue to monitor, report and handle information security incidents, and optimize the process, so as to effectively reduce the risk of confidential information leakage and improve the effectiveness of prevention and control measures.

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## All-round Protection



960,000 tests are performed each month, including:

- Information security check on sensitive information
- Compliance inspection when entering and leaving the Company
- Electronic equipment inspection
- Mail inspection
- Security compliance inspection on manufacturer/visitor information

100% of manufacturers and visitors receive information security training.

100% of current employees receive annual retraining, which covers:

- Information security policy and core philosophy
- Information security management measures
- Information security violation case sharing



We have passed information security audits and received certification by eight customers and audit institutions to ensure customer product information security in the manufacturing process.

100% of new employees receive information security training.

Corrective measures for employee information security violations include:

- Conducting various forms of communication and training
- Improving internal and external data transfer and control technology
- Strengthening physical inspection
- Increasing the frequency, quality, and accuracy of compliance inspections

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## An Intelligent in-depth Protection Platform

An intelligent in-depth protection platform for chip manufacturing was built by SMIC in 2021.

Transforming from a passive threat-centered security defense to an intelligent business-centered security protection, a flexible self-adaptive active security protection platform has been built around business objectives. The platform boasts intelligent business-centered security protection capabilities, enabling a closed-loop security system that is intelligent, self-adaptive and interconnected, and that covers intelligent threat detection, intelligent security analysis, and intelligent security control and management.

Active defense means have been adopted to coordinate the whole network for collaborative protection, and, in combination with intelligent association analysis through AI and big data, a flexible, dynamic, and self-adaptive protection system has been created featuring intelligent active identification and automatic handling of threats as well as intelligent operation and maintenance of policies.

Comprehensive, in-depth protection has been provided for the five objects of protection of the industrial Internet, i.e., equipment, control, network, application and data, preventing viruses, hacking and leakage.

## Safety Awareness Education and Promotion

In 2021, the Company continued to enhance employees' awareness of information security by regularly communicating information security policy to employees through emails, communication sessions, etc. Meanwhile, the Company optimized channels for updates on work related to information security, and provided a centralized display platform to help employees fully understand the Company's information security policy.

## Customer Information Protection

SMIC highly values the protection of customer information, privacy and intellectual property rights, which requires the highest level of information control. Therefore, information security control measures are comprehensively implemented to ensure the security of customer information.



# Optimizing Customer Service



Customer service is one of the core values of SMIC's corporate culture. We have been committed to providing excellent service for our customers based on our customer-oriented principle. With superior manufacturing, technology and service, SMIC has strong confidence to execute its customer service strategy with providing outstanding service to customers through multiple strategies to achieve common success. Through unremitting efforts to create value for our customers in the long term, we have established good relationships with our customers globally and won their trust.

SMIC has professional sales and customer service teams in Shanghai, Beijing, Tianjin, Shenzhen, and Taiwan (China), as well as California (USA), Milan (Italy), Tokyo (Japan) and other cities around the world, providing worldwide customer services.

**Customer Satisfaction**  
**> 80 percent**  
**for consecutive years**

To better collect customer feedback, we adjusted the content of the customer satisfaction questionnaire, and optimized the statistical approach in 2021.

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In 2021, SMIC actively participated in important semiconductor industry conferences and events, where we learned from the past and envisioned the future together with other upstream and downstream manufacturers, technical elites, and customers.

### CSIA - ICCAD 2021 Annual Conference (ICCAD)

The CSIA - ICCAD 2021 Annual Conference was held in Wuxi from December 22 to 23, 2021. SMIC, together with industry partners, presented at the exhibition. Peng Jin, Senior Vice President of the Company, delivered a keynote speech at the Summit.



### The 11th SMIC Executive Summit

In 2021, the Company held the 11th SMIC Executive Summit under the theme of "Blooming Spring, Brighter Future" in Shanghai. The participants freely exchanged their views on the future development of the industry and indicated that they would continue to work closely together and advance hand in hand.



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# Improving Product Quality

SMIC promises to deliver high-quality products to customers on time and strives for achieving outstanding quality.

## Quality Management Systems

Guided by industry standards, we set up a sound, credible internal management system to meet customer needs.

We have been audited and approved by a number of internationally recognized organizations, including the British Standards Institution (BSI) and other bodies aligned with the International Organization for Standardization (ISO). Main certifications obtained by the Company are as follows:



In 2002, the Company was certified by the ISO 9001 Quality Management System. With its guidance, we have developed a reliable system for inspection, evaluation, and customer communication to ensure the quality of design, development, production, and service processes.

See certificate below for details.



Management System Certificate-ISO 9001



In 2005, building on ISO 9001 certification, the Company was certified by TL 9000. The TL 9000 certification focuses on the quality management system for customers in the telecommunications industry, emphasizing the integrity of supply chain directives.

See certificate below for details.



Management System Certificate-TL 9000



Based on the ISO 9001 certification, the IATF 16949 certification focuses on the quality management system for customers in the automotive industry, with the goal of eliminating defects between all links of the automotive supply chain and providing quality assurance for end customers.

See certificate below for details.



Management System Certificate-IATF 16949

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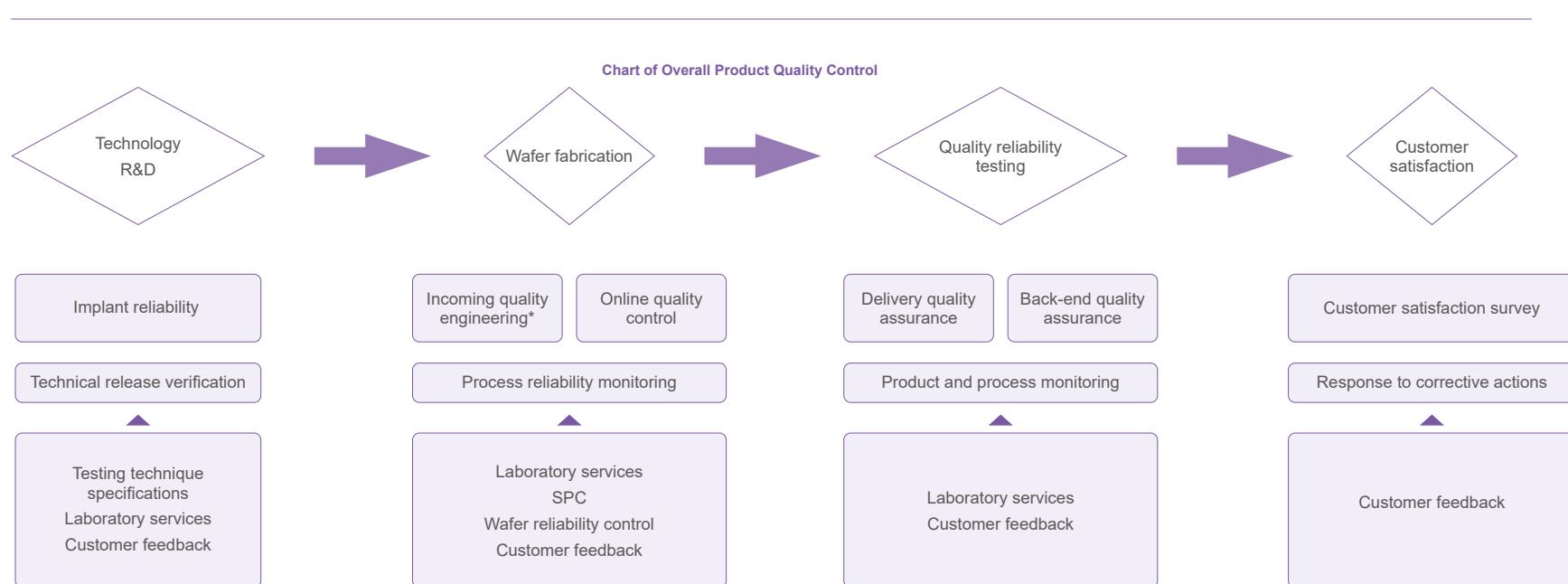
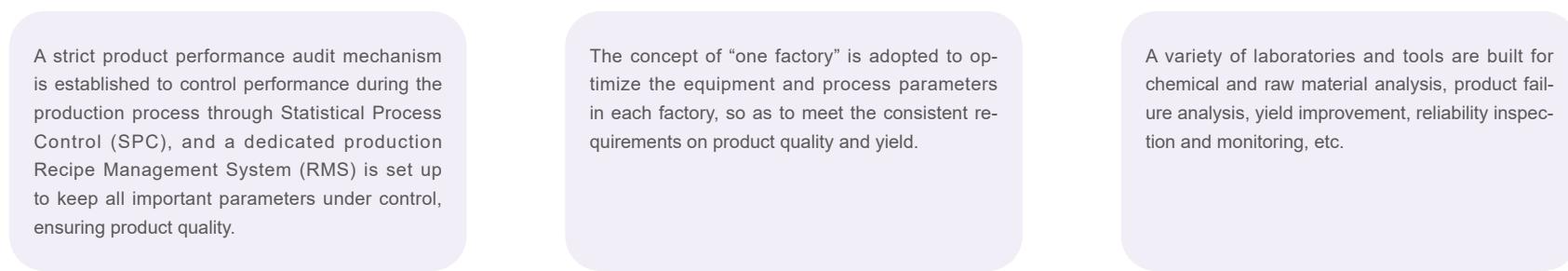
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## Product Quality Management

SMIC implements a comprehensive process control system to ensure product quality throughout the manufacturing process, from R&D to mass production.



\*Incoming quality engineering includes incoming quality control and supplier quality assurance.

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## Customer Evaluation and Complaint Handling

SMIC has built a complete system to track and handle customer complaints. All customer complaints will be investigated by relevant departments in time and an 8D (Eight Disciplines Problem Solving) analysis report will be completed within 10 days. Targeted improvement measures will be taken based on root causes identified in the report to prevent similar incidents from happening again. All customer complaints in 2021 have been handled in a timely manner according to customer complaint handling procedures.

## Product Quality Assessment and Recall

SMIC has established product quality assessment and product recall procedures, based on which unqualified products will be dealt with in a timely manner to avoid any impact on customers. At the same time, we manage and control the safety and health risks of our products according to the Hazardous Substances Process Management scheme (QC 080000), so that our products comply with the relevant international and Chinese Mainland regulations and customer requirements. In 2021, there were no major product recalls for SMIC, and no products sold were recalled for safety or health reasons.

## SMIC Shanghai Quality Summit and the 40th CIT (Continuous Improvement Team) Awarding Ceremony

In 2021, SMIC continued with quality improvement projects to strengthen product quality control. We organized the SMIC Shanghai Quality Summit and the 40th CIT (Continuous Improvement Team) Awards Ceremony at the end of the National Quality Month in September, aiming to raise product quality awareness and ensure a total quality management among all employees.

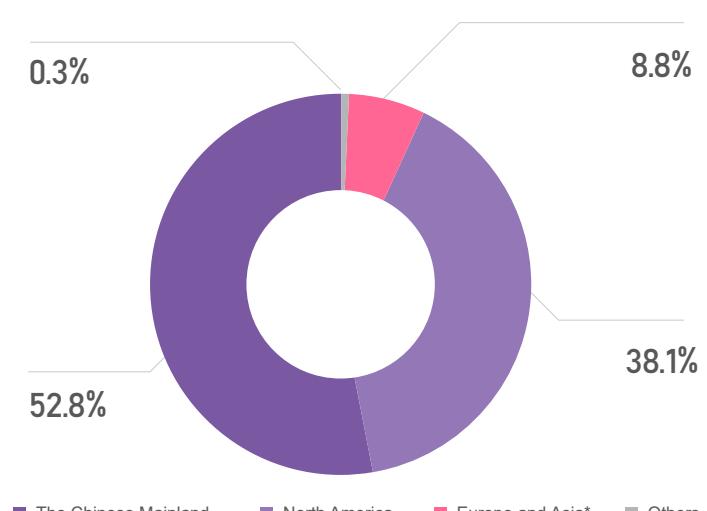


# Strengthening Supply Chain Management

The manufacturing of integrated circuits is in the mid-section of the industry and is closely connected to both upstream and downstream industries. SMIC, being a large domestic company specializing in manufacturing of integrated circuits in China, procures a wide range of supplies and services, including production equipment, maintenance parts for production equipment, raw materials, fab facilities, firefighting equipment, and professional services, among others.

Based on the concept of win-win cooperation with suppliers, the Company strives to reduce risks derived from the supply chain, and ensure stable production and operation.

Distribution of Raw Material Suppliers of SMIC in 2021

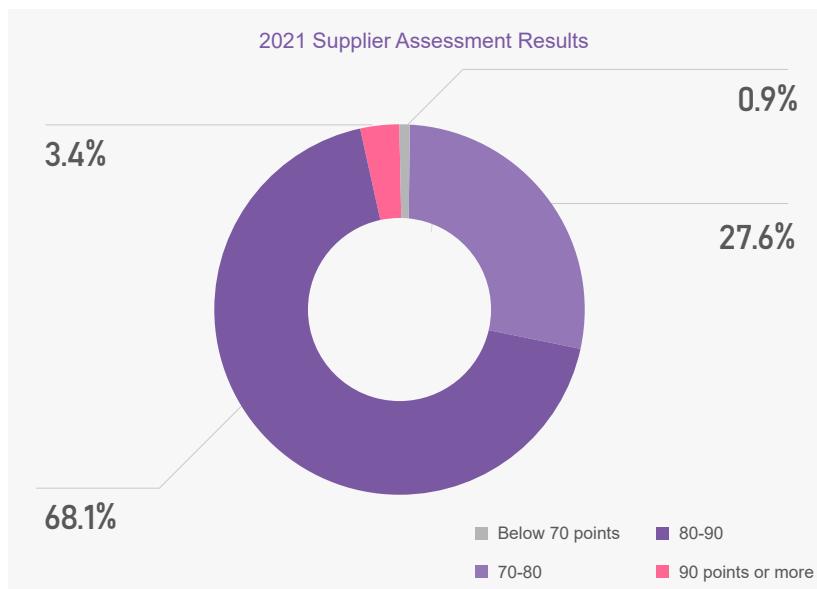


SMIC has established a comprehensive supplier management system that focuses on managing the key links in the supply chain, including the pre-approval process, supplier evaluation, and supplier improvement.

Suppliers of SMIC can only be added to the Company's approved supplier list when they are evaluated to meet relevant qualifications and achieve a satisfactory score.

Meanwhile, we have been constantly improving the assessment and evaluation mechanism for contracted suppliers. Contracted suppliers are scored every six months by SMIC based on indicators including quality, cost, delivery and service, safety and environment, etc. If any project fails to meet the standards, the supplier must provide an improvement plan and make improvement within a specified time limit.

In 2021, we further optimized the supplier assessment and evaluation mechanism, emphasizing on the quality dimension, resulting in a more comprehensive and professional evaluation of suppliers. In 2021, the overall performance of SMIC's suppliers was stable, and suppliers scoring 80 or above (out of 100 points) reached 71.6%.



SMIC is highly willing to aid suppliers in continuous improvement. In 2021, we have conducted a total of 34 on-site supplier audits, and 10 supplier quality presentations, effectively conveying SMIC's quality requirements and promoting the improvement of the suppliers' management capabilities. We have conducted 13 suppliers QSA improvement sessions to address their weak points and reduce their risk levels.

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## Supplier Capability Improvement

SMIC attaches great importance to growing together with suppliers, especially factory contractors. To ensure construction safety of contractors and reduce operational risks, the Company's Environment, Safety and Health (ESH) department continues to carry out construction safety training for all operators.

The training covers:

- 1 SMIC environmental protection, safety and health regulations
- 2 Knowledge and requirements of site construction safety
- 3 Key safety points covering nine types of high-risk works including hot work, elevated work, etc.
- 4 Case sharing on construction accidents

In 2021, the Company conducted contractor ESH training for

**34,968 person-times**

unit: person-time



### Contractor ESH Excellence Award Ceremony

To increase our communication and interaction with contractors, learn from each other, and make progress together, SMIC has set up a system of annual contractor communication meetings, on which excellent contractors are awarded.

At the award ceremony, we summarized our contractors' annual construction safety achievements, shared their experience in managing construction environment, safety and health, drew lessons from major contractor construction safety accidents, and commended contractors for their excellent performance in construction environment, safety and health management.





# Practicing Low-carbon and Green Production

In 2020, China announced the "dual carbon" goals, namely achieving carbon peak by 2030 and carbon neutrality by 2060. SMIC is increasing its focus on environmental engagement under the guidance of this "dual carbon" strategy. In 2021, the Company strengthened its environmental protection policies, established targets for energy conservation and carbon reduction, paid attention to the risks and opportunities posed by climate change, maximized resource and energy efficiency, implemented various energy conservation and emission reduction measures and promoted green production to build an eco-friendly enterprise.

- Tackling Climate Change
- Environmental Protection
- Policy and Management
  - Energy Management
  - Water Resource Management
- Wastewater Management
- Air Emissions Management
- Solid Waste Management
- Environmental Protection Awareness

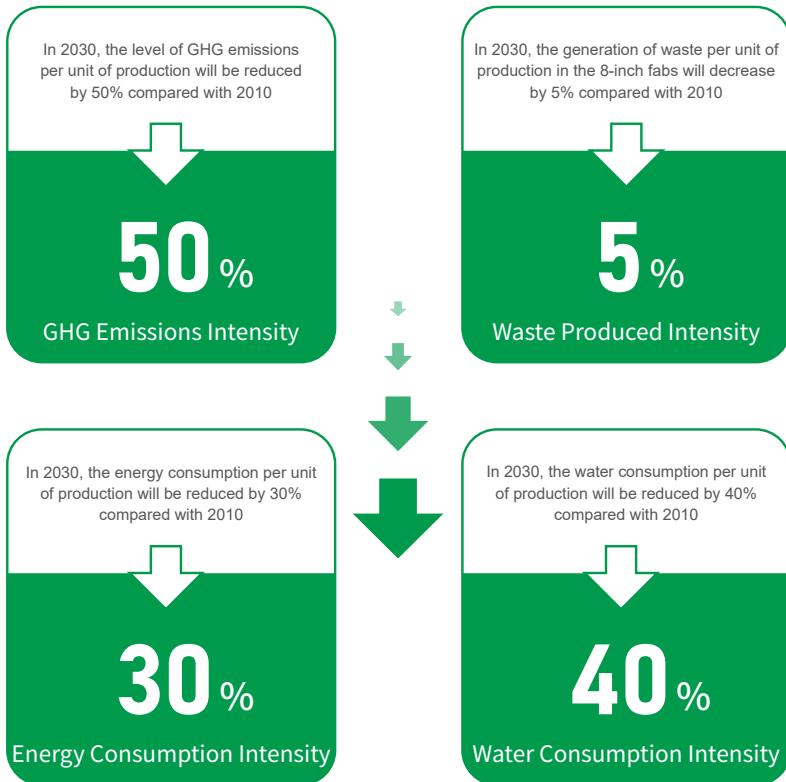


# Tackling Climate Change

As climate-related risk grows, our ecological and economic environment is also facing challenges. China has announced the goals of achieving carbon peak by 2030 and carbon neutrality by 2060 in view of its inherent need to promote sustainable development and its responsibility to build a shared future for mankind. Realizing industrial transformation and low-carbon development has become an urgent historical mission for all sectors and industries in the “dual carbon” era. In active response to the national policies, SMIC has formulated a number of targets for effective energy conservation and carbon reduction.



## Targets and Measures



To achieve these targets, SMIC invested nearly RMB 1.1 billion in environmental protection in 2021, representing a 21% increase over the previous year. These funds were mainly used for pollutant monitoring, third-party audits of environmental management systems, as well as the operation, reconstruction, and expansion of environmental protection facilities for wastewater, air emissions, solid waste, etc.

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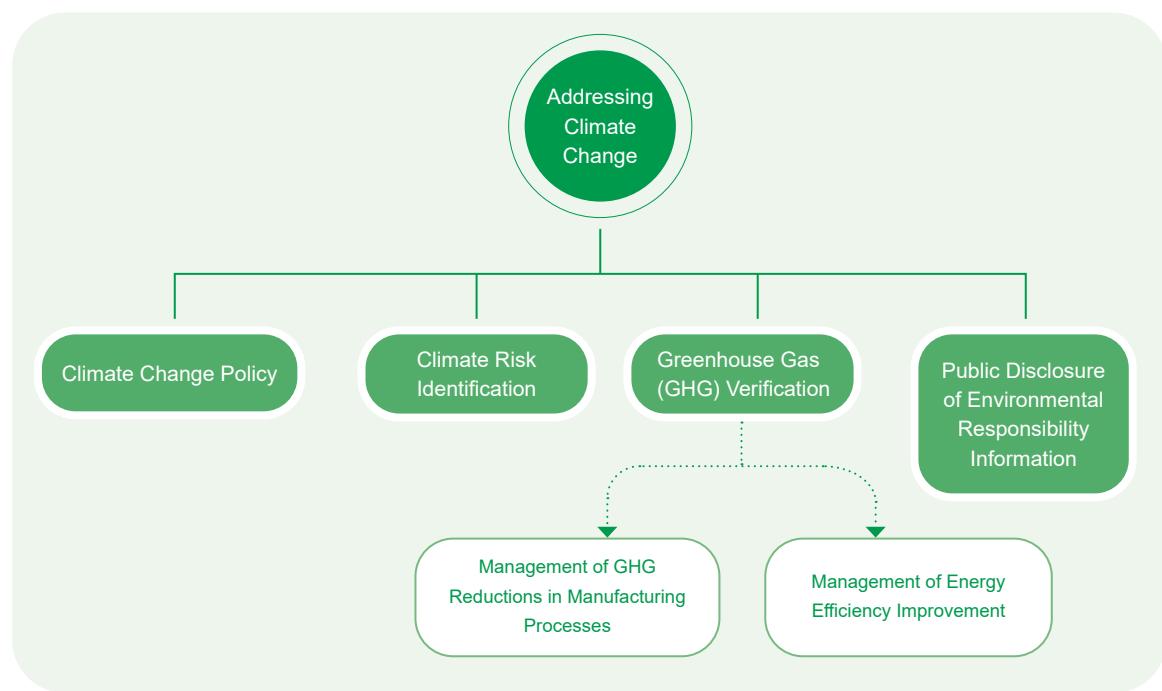
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## A Comprehensive Framework for Addressing Climate Change

SMIC is responsible to all stakeholders, including investors, customers and employees, and remains committed to sustainable development. On the basis of identifying and assessing climate change risks, we have developed a comprehensive framework for addressing climate change, including the release of climate change response policy, verification of annual greenhouse gas (GHG) emissions, and disclosure of environmental responsibility information, to further improve energy efficiency, strengthen the management of GHG reductions in manufacturing processes, etc.

To ensure the openness and transparency of environmental information disclosure, every year, SMIC completes the climate change questionnaire of Carbon Disclosure Project (CDP), a global environmental information research center, aiming to actively assume its environmental responsibility by disclosing its own environmental performance. We look forward to working with our ecological partners to achieve the goal set in the Paris Agreement of "limiting global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels".



## Climate Change Policy



### 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:   
HaiJun Zhao, CEO

Date: 2021/11/1

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## Identification of Climate-related Risks

SMIC pays great attention to the direct impacts of climate change, and recognizes the potential risks it may cause to the business. We seize opportunities to achieve low-carbon development using cutting-edge, innovative semiconductor technologies. We actively perform the responsibility of mitigating climate change impacts, formulating climate change response policies, and implementing GHG emissions reduction measures. With reference to the framework and recommendations of the world-leading Task Force on Climate-related Financial Disclosures (TCFD), we comprehensively analyze the possible financial impacts of climate-related risks, and opportunities on the Company's operation and development strategy, from the perspectives of corporate governance, strategy, risk management, as well as metrics and targets, to form a matrix of information on climate-related risks and opportunities, and to develop relevant management methods and countermeasures to reduce the adverse impacts of climate change on finance.

### Climate Change Risk and Opportunity Matrix



#### Transition risks:

- 1 Regulation and requirements for existing products
- 2 Environmental information disclosure
- 3 Innovation risk of carbon reduction technology development
- 4 Change in consumers' low-carbon preference
- 5 Stakeholders' growing concern about negative feedback

#### Physical risks:

- 1 Typhoons
- 2 Floods
- 3 Droughts
- 4 Extreme precipitation
- 5 Rising temperature
- 6 Sea level rise

#### Opportunities:

- 1 Developing green products
- 2 Building a sustainable supply chain
- 3 Innovating and developing low-carbon energy conservation projects
- 4 Obtaining green building certifications
- 5 Expanding renewable water resources

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## Analysis of the Financial Impacts of Climate Change

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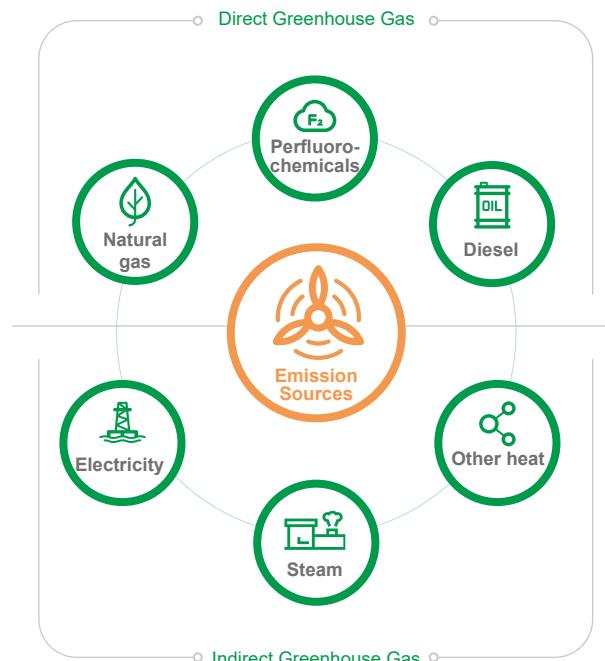
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Type	Climate-related Risks	Potential Financial Impacts
 Transition risks	Regulation and requirements for existing products	Existing national and local laws and regulations, as well as new policies such as the "dual carbon" goals, will result in more stringent requirements and supervision on products and factories; policies may be further tightened in the future, which will increase operating costs for the Company.
	Enhanced environmental information disclosure obligations	With the improvement and implementation of management measures for carbon emissions and carbon trading, various countries and regions, as well as capital markets and stock exchanges, have raised environmental information disclosure requirements for companies. Companies need to disclose GHG emissions, emission reduction measures and the impact of operations on the environment. Failure to disclose this information in a timely manner will likely expose SMIC to compliance risks.
	Innovation risks of the development of carbon reduction technology	To control the carbon emissions of products, it is necessary to develop more effective environmental protection processes, increase the use of new technologies, and update to cleaner production equipment to meet the demands for low-emission products. This process may mean an increase in operating costs in the short term.
	Change in consumers' low-carbon preference	Customers increasingly prefer to purchase low-carbon products. If we fail to meet their requirements in terms of sustainable development such as energy conservation and consumption reduction, the Company may lose customers and thereby revenues.
	Stakeholders' growing concern about negative feedback on the environment	As concepts such as carbon neutrality and sustainable development grow in popularity, customers, investors and other stakeholders are paying more attention to the disclosure of environmental information. When the information disclosed falls short of their expectations, the image and reputation of the Company as well as capital market recognition may be adversely affected.
 Physical risks	Typhoons	The Company's operations in Shanghai and Shenzhen are vulnerable to extreme weather such as typhoons, which may cause power outages and floods. The resulting safety accidents or suspension of R&D and capacity utilization may lead to a decrease in production capacity.
	Floods	Global warming will increase water-related risks, including river floods and flash floods. The Company's production and R&D centers in Shanghai are at risks of flooding, which will damage the infrastructure and related facilities of the operations and plants, resulting in reduced capacity utilization and financial losses.
	Droughts	The Company's operation in Beijing faces a moderate to high risk of droughts. Droughts will cause water supply shortage and a stricter control on water resources, which will lead to increased water costs, or even insufficient water supply, increasing operating costs.
	Extreme precipitation	Extreme precipitation will affect the production and transportation processes of suppliers in the supply chain, thereby causing reduced capacity utilization. Companies need to deploy countermeasures, and operating costs may increase.
	Rising temperature	In hot summer, rising temperatures will lead to increased refrigerant demand and possibly increased operating costs.
	Sea level rise	The Company's major operations are currently located in China's northeastern, eastern and southern coastal areas, which may be threatened by rising sea levels, resulting in operation damages.

# GHG

## GHG Verification

SMIC carries out verification of GHG under ISO 14064 standards. We calculate the GHG emissions of fabs every year to learn the Company's GHG emissions and implement emission reduction measures as planned. SMIC's primary sources of emission fall under the following categories:



Total GHG emissions in 2021 reached 2,239,093 tons with a year-over-year increase of 5.2%. However, the GHG emissions of per 8-inch equivalent wafer photomask layer dropped to 0.0099 ton, i.e., a 16.8 % decrease in emission intensity.

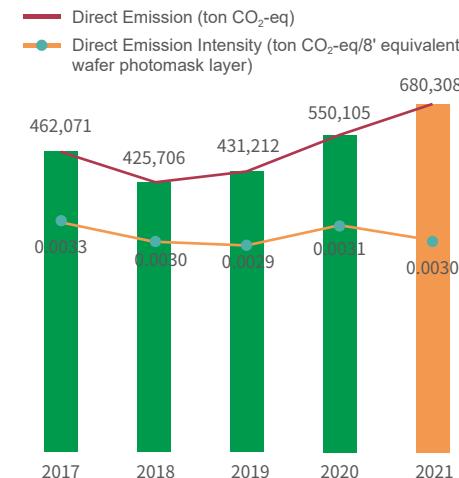
## Direct GHG Emission

Direct GHG emission sources: Combustion emissions from fossil fuels such as diesel and natural gas, chemical vapor deposition and fluoride gas emission during dry etching processes, organic waste gas emission from combustion, refrigerant gas leaks, wastewater treatment emissions, pure water treatment emissions, etc.

Meanwhile, we conducted verification of Perfluorochemicals (PFC) gases, and developed emission reduction measures. During the reporting period, the amount of PFC gases used was 672 tons, and the corresponding GHG emissions were 503,164 tons of carbon dioxide equivalent.

We adopt practices to reduce GHG emissions of PFC gases as follows:

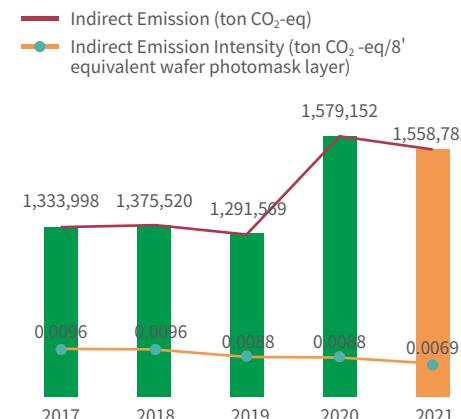
- Optimize processes to reduce the use of PFC.
- Use efficient local PFC treatment facilities to increase treatment efficiency.



Note: Direct emissions are calculated based on the discharge coefficient and mass balance provided in the 2019 IPCC Guidelines for National Greenhouse Gas Inventories.

## Indirect GHG Emission

Indirect GHG emission sources: Outsourced energy such as electricity, steam, and heat.



Note: Indirect emissions are calculated based on the discharge coefficient and mass balance provided in the 2019 IPCC Guidelines for National Greenhouse Gas Inventories.

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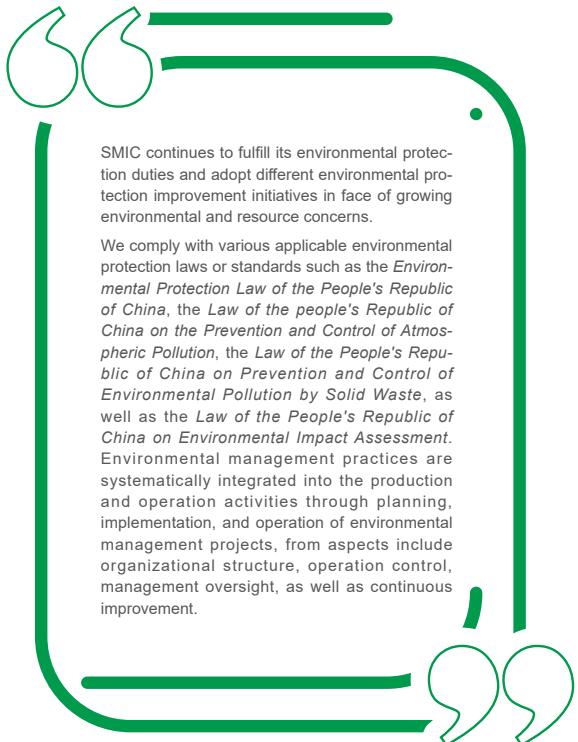
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SMIC continues to fulfill its environmental protection duties and adopt different environmental protection improvement initiatives in face of growing environmental and resource concerns.

We comply with various applicable environmental protection laws or standards such as the *Environmental Protection Law of the People's Republic of China*, the *Law of the people's Republic of China on the Prevention and Control of Atmospheric Pollution*, the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, as well as the *Law of the People's Republic of China on Environmental Impact Assessment*. Environmental management practices are systematically integrated into the production and operation activities through planning, implementation, and operation of environmental management projects, from aspects include organizational structure, operation control, management oversight, as well as continuous improvement.

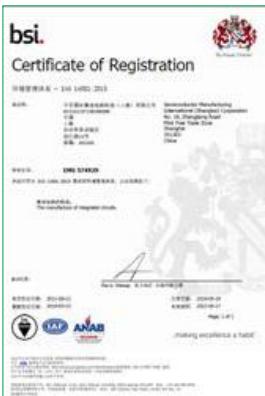
Since the founding of the Company, we have set up an Environment, Safety and Health (ESH) department, established environmental protection management policies, and implemented the ISO 14001 Environmental Management System. We have continued to develop, improve and optimize our environmental protection, safety and health policies. Our latest management policies are as follows:

## SMIC Environmental Protection, Safety and Health Policy

The Company was established in 2000. Its main business is to provide customers with high-quality chip manufacturing services. We focus on R&D innovation and quality management, and put an emphasis on preventing pollution, improving resource efficiency, reducing energy consumption, protecting human resources, and preventing accident losses.

We believe that the implementation of Environmental Safety and Health (ESH) standards among all employees is one of the most important steps to ensure employee well-being. We will continue our efforts to fulfil the responsibility of environmental protection and strengthen our operational risk management to ensure sustainable development.

## To achieve this goal, SMIC promises to:



# Energy Management

SMIC proactively responds to the state's call for energy conservation and emission reduction, and have established energy management teams. We continuously implement energy conservation and emission reduction projects, achieving a win-win solution between economic gains and environmental benefits.

## Energy Management Mechanism

SMIC has built a complete system for energy management in accordance with the ISO 50001 Energy Management System. Through systematic and organizational construction, we implement a three-tier energy management system, adopt an energy management accountability system, and appoint professional energy management agencies or individuals to ensure the implementation of energy management.



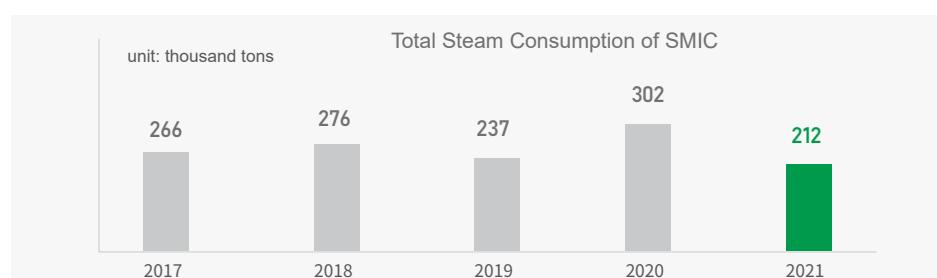
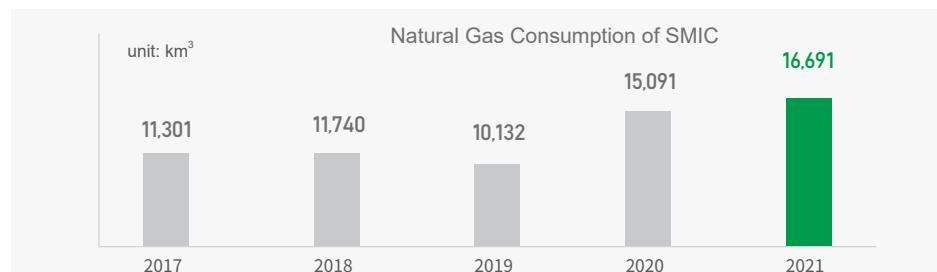
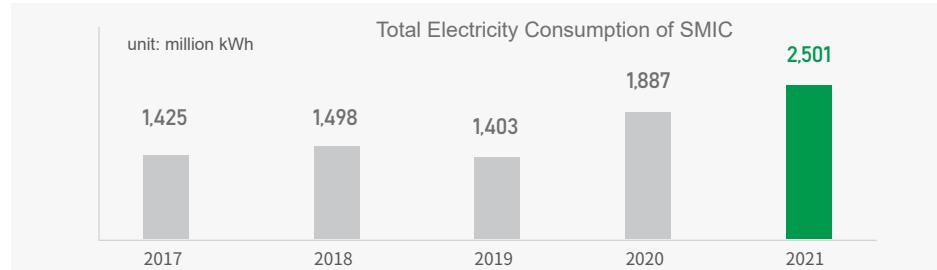
## Energy Consumption

In 2021, the total energy consumption of SMIC was 2,887.69 million kWh, and the energy consumption intensity was 12.77 kWh per 8-inch equivalent wafer photomask layer, on a par with 2020.

The direct energy consumption was 165.28 million kWh, and the direct energy consumption intensity was 0.73 kWh per 8-inch equivalent wafer photomask layer.

The indirect energy consumption was 2,722.41 million kWh, and the indirect energy consumption intensity was 12.04 kWh per 8-inch equivalent wafer photomask layer.

The energy consumption distribution is as follows:



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### Electricity Consumption Intensity of SMIC

unit: kWh/8-inch equivalent wafer photomask layer



### Natural Gas Consumption Intensity of SMIC

unit: L/8-inch equivalent wafer photomask layer



### Steam Consumption Intensity of SMIC

unit: kg/8-inch equivalent wafer photomask layer



## Major Energy Conservation Projects

### Resin Pure Water System Heat Recovery Energy Conservation Project



Capital Investment

¥1.5 million

Annual Electricity Conservation

838,039 kWh

Annual Steam Conservation

6,057 tons

Annual Savings

¥2.29 million

### Ice Machine Energy-Saving Transformation Project for the Ice Water System



Capital Investment

¥6.3 million

Annual Electricity Conservation

3,397,000 kWh

Annual Savings

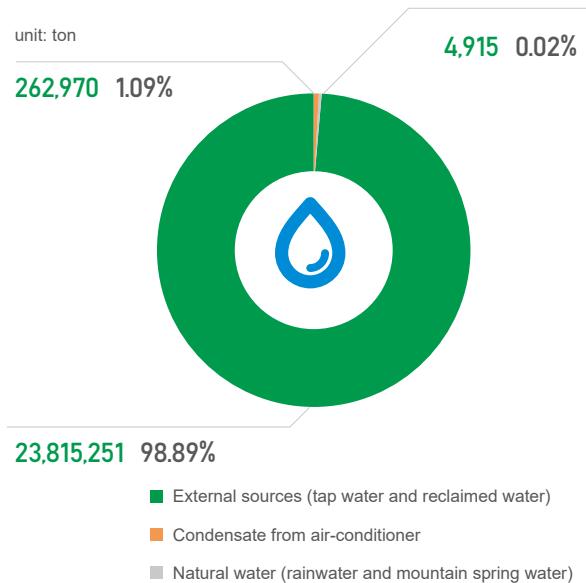
¥2.07 million

# Water Resource Management

As water resource serves as an indispensable part of the integrated circuit industry, SMIC upholds the principle of rationally utilizing water resources to mitigate the impact on the environment, and implements water resource management from three aspects, namely expanding water sources, improving water utilization, and enhancing wastewater treatment, to reduce water resources risks.

## 66 Expanding Water Sources

Since fabs of SMIC are located in different areas, and available water sources vary by local conditions, effective measures are needed to expand water sources. The water sources of SMIC include tap water, external reclaimed water (recycled water), condensate from the air-conditioner, natural water (rainwater and mountain spring water), and so on. The percentage distribution of water resources in 2021 is as follows:



## Water Resources Management



Expanding Water Sources



Improving Water Utilization



Enhancing Wastewater Management

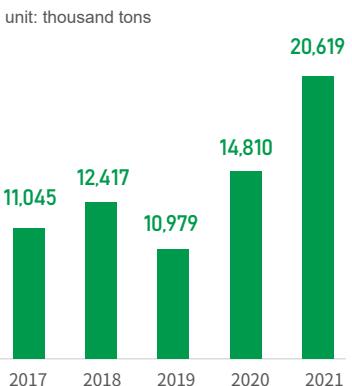
## 66 Improving Water Utilization

Nowadays, integrated circuit wires are becoming narrower, leading to higher cleanliness requirements and greater water demand. Therefore, water recycling becomes more urgent.

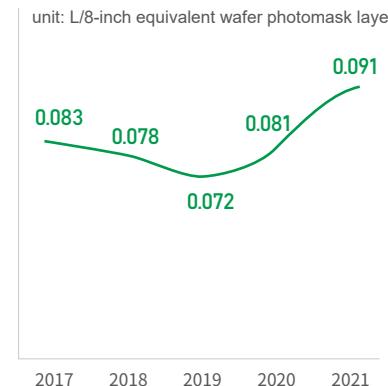
Through water consumption reduction in the facility system, increase in wastewater reclamation, improvement of the system's water production rate, and lower water draining losses, the Company constructs water-saving projects, implements water-saving management measures, improves water utilization, and reduces external water source consumption.

Data on the Company's water consumption in 2021 is shown below:

### Total Water Consumption in SMIC



### Total Water Consumption Intensity in SMIC



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# Wastewater Management



## Classification Management System for Wastewater

The classification of wastewater treatment is essential to achieve the highest treatment efficiency. In order to achieve the goals of contaminant reduction and resource recycling, the Company keeps improving its current treatment equipment and setting up new treatment facilities; also, it diverts wastewater from each manufacturing equipment to wastewater treatment system for initial contaminants removal, and then condenses and reuses the wastewater through a recycling system, achieving a double reduction of contaminant concentration.

Wastewater produced during SMIC's processes includes hydrofluoric acid wastewater, acidic and alkaline wastewater, grinding wastewater, and high-concentration waste liquid. All types of wastewater are classified and properly managed from process equipment, and are channeled into different diversion systems based on their compositions and concentration.



The Company uses continuous monitoring devices for water quality and quantity monitoring at the outlets of wastewater treatment facilities in each fab to monitor and record real-time changes in water quality and quantity. In case of any unusual conditions, the devices will respond immediately with follow-up treatment.

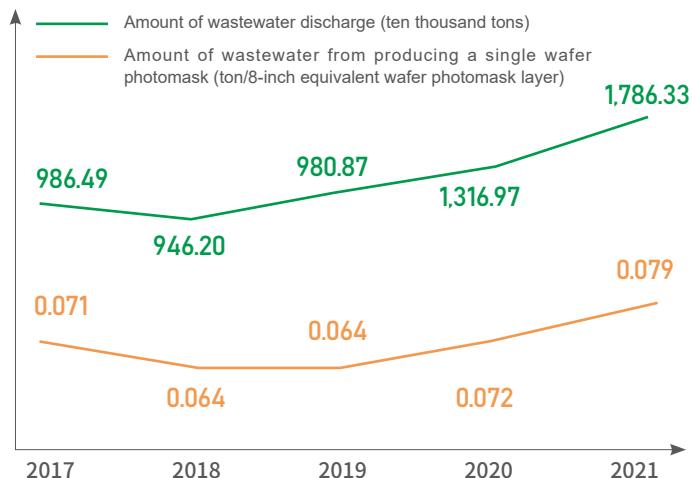
In addition to following wastewater discharge standards, we are striving to be environmentally friendly. We have taken measures to reduce chemical oxygen demand (COD) and suspended solids that have direct influences on aquatic life, so as to reduce the impacts of wastewater discharge on the environment.

Please see the monitoring data published by the Company for detailed information:



## Wastewater Discharge and Monitoring

The amount of wastewater discharged correlates with the tap water consumption and the amount of water recycled. With the change of the Company's product portfolio, the water consumption and wastewater discharge per product increase accordingly. We have stepped up water recycling to reduce wastewater discharge, realizing a 0.079 ton/8-inch equivalent wafer photomask layer of wastewater discharge per product in 2021.



Note: The 2017-2020 data in the chart does not include statistics for SJ Semiconductor Corporation and LFoundry, and hence is different from the disclosed data in CSR reports.

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# Air Emissions Management



In order to minimize the impacts on air quality in its business locations to the full extent, SMIC pays great attention to the treatment of pollutants in the air emissions discharged by the Company.

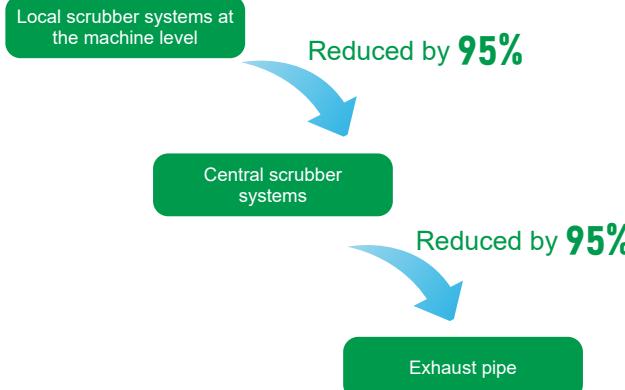
## Pollutants Treatment

SMIC takes tiered and classified approaches to treat air emissions. Specifically, we treat air emissions at both the machine level and the plant level.

Gas pollutants emitted from machines are processed by local scrubber systems, and the target pollutants reduction rate can exceed 95%;

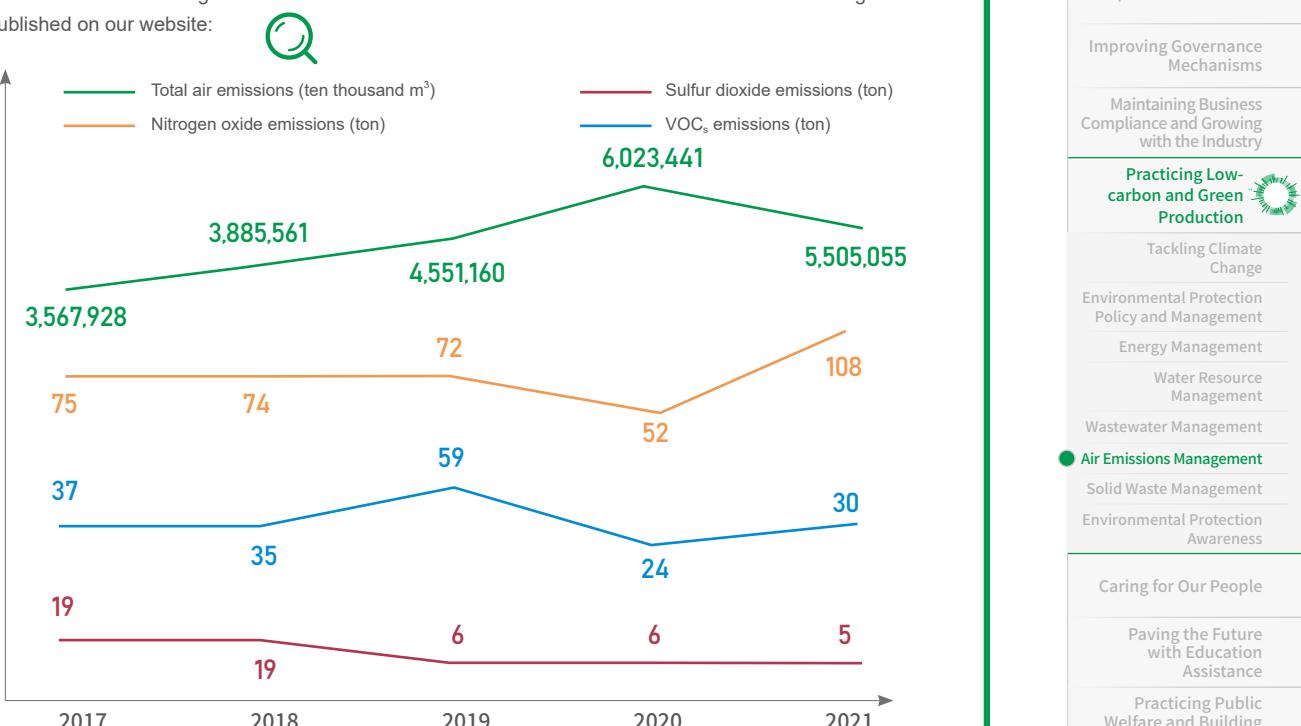
After passing through the local systems, various air emissions are transported to the central scrubber systems, where the target pollutants reduction rate can reach around 95%;

Finally, the air emissions are discharged via an exhaust pipe that meets the state-mandated height requirement.



## Pollutants Discharge Monitoring

To ensure compliance with emission standards, we have engaged third-party agencies to test the air emissions and all testing results have met national standards. Please see the detailed monitoring data published on our website:



Note: The 2017-2020 data in the chart does not include statistics for SJ Semiconductor Corporation and LFoundry, and hence is different from the disclosed data in CSR reports.

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# Solid Waste Management

SMIC has established a comprehensive waste management system in strict compliance with national rules and regulations on waste disposal.

SMIC practices waste classification and treatment based on the characteristics and nature of different wastes. The types of waste include general solid waste, hazardous waste, and domestic waste.



## General solid waste

Refers to non-hazardous solid waste generated directly or indirectly in the production process, such as water treatment sludge, equipment parts, pipes, cleanroom gloves, wooden boards and waste cartons, and foamed plastics. This kind of waste is sorted and delivered to qualified vendors for comprehensive recycling.



## Hazardous waste

Refers to waste included in the National Hazardous Waste List, such as acid waste, alkali waste, medical waste, rags contaminated with hazardous chemicals, and waste fluorescent tubes. This type of waste will be harmlessly disposed of by legally qualified vendors.



## Domestic waste

Refers to waste generated in daily life, such as beverage packaging, used batteries, waste paper and food residues. Such waste is sorted and delivered to qualified vendors for recycling or disposal.

## Data on Waste Generation

year	2017	2018	2019	2020	2021
General solid waste (ton)	31,402	32,500	36,026	31,753	41,285
Hazardous waste (ton)	25,002	25,340	21,570	28,085	47,578
Domestic waste (ton)	1,972	1,364	1,294	2,014	2,686
<b>Total</b>	<b>58,376</b>	<b>59,204</b>	<b>58,890</b>	<b>61,852</b>	<b>91,549</b>

Note: The 2017-2020 data in the table does not include statistics for SJ Semiconductor Corporation and LFoundry, and hence is different from the disclosed data in CSR reports.

## Source Control

SMIC has been carrying out clean production projects to optimize the parameters of raw materials usage, reduce resource consumption, and minimize waste generation at the source of production. We keep exploring possibilities for reusing the waste generated from raw materials through production processes in the fab and maximizing the recycling of resources to reduce environmental impacts. When recycling cannot be achieved in the fab, we proactively work with other industries and resort to external resources to maximize resource efficiency. Only when no sustainable approach to recycling is available will we transfer the waste to a qualified waste-disposal vendor.



## Management of Vendors

SMIC conducts strict management of waste disposal vendors. We only sign contracts with waste disposal vendors that have been accredited by the government and have met our assessment requirements. During cooperation, the Environment, Safety and Health (ESH) department of the Company carries out on-site or on-board inspections of the vendors, and strictly implements the "Waste Transfer Joint Form" system when it comes to hazardous waste.



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# Environmental Protection Awareness

SMIC proactively engages its employees in environmental protection activities, upholding the idea that "everyone bears responsibility for environmental protection", and has organized a variety of activities to strengthen employees' environmental awareness. In 2021, the Environment, Safety and Health (ESH) department held themed activities on environment-related festivals, including second-hand fairs, used clothes recycling, etc., to engage its employees.

Number of employees participating in the second-hand fairs from 2014 to 2021

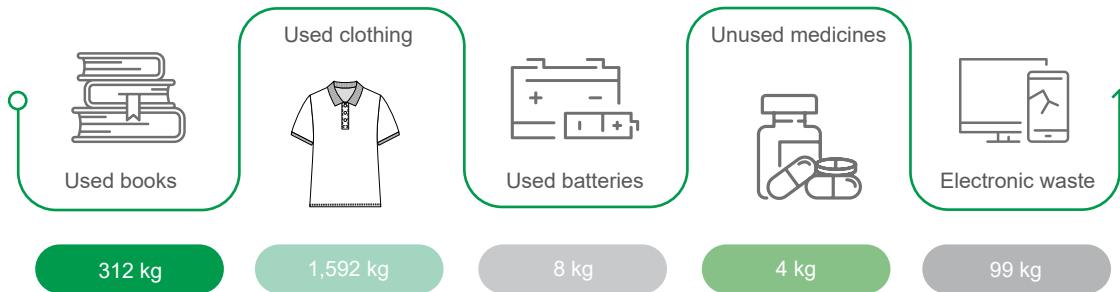
**5,078** persons

Weight of recycled articles through the second-hand fairs from 2014 to 2021

**22,763** kg



## Second-hand Fairs



## Online Charity

SMIC actively participates in online charity. In 2021, the Company's employees actively participated in the Alipay Ant Forest, planting more than 100 trees in total.

**100** trees



## Beach Cleanup Activity for Environmental Protection and Charity

The ocean is the birthplace of life and provides resources for people's livelihood. Since 2014, the Company has organized annual environmental protection and welfare events, inviting employees to get involved and help safeguard our blue planet together.

On October 30, 2021, SMIC organized a cleanup trip to Shanghai Binjiang Forest Park. Around 70 employees from different departments participated and helped to clean up marine debris. A total of 342.11kg of marine garbage was collected in the event, raising people's awareness of environmental protection.



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# Caring for Our People

SMIC has always believed that only by providing our people with a broad perspective, a big stage, a work-life fulfillment, and opportunities to realize their personal aspirations can we build a more promising future together.

The Company, as a result, has adopted a people-centered approach to ensure that every employee is treated fairly and equally, that their rights and interests are effectively protected, and that they have the opportunity to continuously improve and develop themselves.



- **Talent Attraction**
- **Talent Retention**
- **Employees' Rights and Benefits**
- **Career Development**
- **Care for Employees**

# Talent Attraction

## Diversified Talent Structure

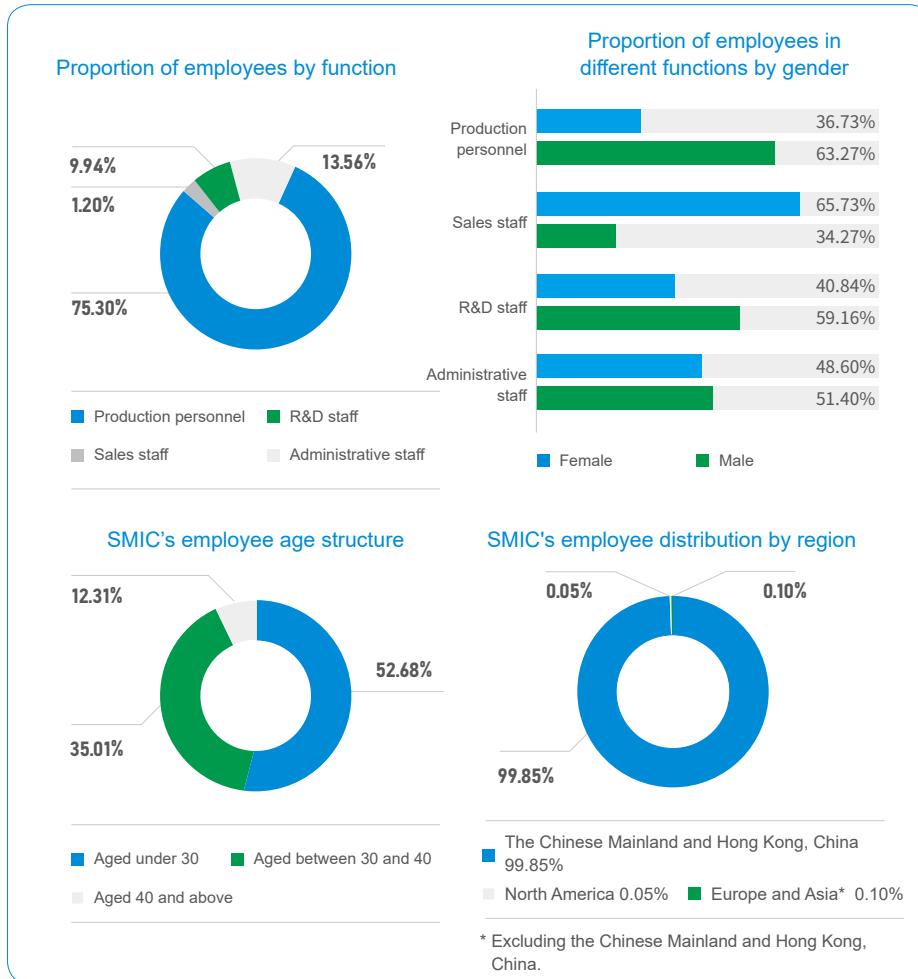
Since its inception in 2000, SMIC has attracted a large number of visionary talents joining forces to change the industry and the world.

Coming from all over the world, our talents have contributed professional knowledge, excellent skills, and added value to the industry and the local communities. These employees from different regions and cultural backgrounds have contributed to an inclusive culture based on mutual understanding and respect, which helps us better connect and communicate with customers, suppliers, and investors around the world.

-  **Gender diversity:** We value workplace equality and advocate for workplace gender diversity by offering equal development platform and opportunities for male and female employees. In the reporting period, the Company had 10,768 full-time male employees and 6,913 female employees.
-  **Function diversity:** A fair representation of various functions in each business unit enables the sustainable development of SMIC. Our employees are categorized into production personnel, sales personnel, R&D personnel, and administrative personnel.
-  **Age diversity:** Young professionals inject new energy into our teams. Our employees' average age is only 31 years old. At the same time, we have a group of experienced core personnel that are committed to the Company's long-term growth.
-  **Region diversity:** Our employees are from more than 20 countries and regions around the world.

SMIC recruited more than 5,800 new employees from around the world in 2021. As of the end of the reporting period, we had 17,681 full-time employees in total, with a labor contract signing rate at 100%. Additionally, SMIC is committed to recruiting individuals with disabilities, and we make every effort to accommodate their needs.

In 2021, the percentage distribution of SMIC's employees by functions, and by gender in each function were as follows:



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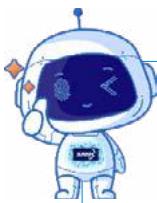
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## Campus Recruitment

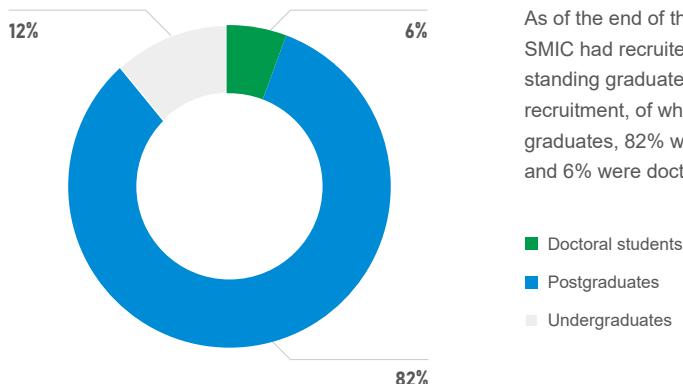
Campus recruitment enables SMIC to effectively manage its talent reserve, supplying the Company with high-potential talents. Faced with an increasingly competitive talent landscape in 2021, SMIC prioritized recruiting graduates and organized several on-site and online job fairs to diversify its recruitment channels.



- We launched our campus recruitment ambassador, a cartoon character called "Xiaoxin". The image quickly became popular among the students.
- We organized virtual seminars to showcase SMIC's workplace, business lines, and employee benefits through live streaming.
- We held 19 on-site recruitment sessions at Tsinghua University, Peking University, Fudan University, among other renowned universities.
- For the first time, online overseas recruitment sessions were launched to attract global talents.



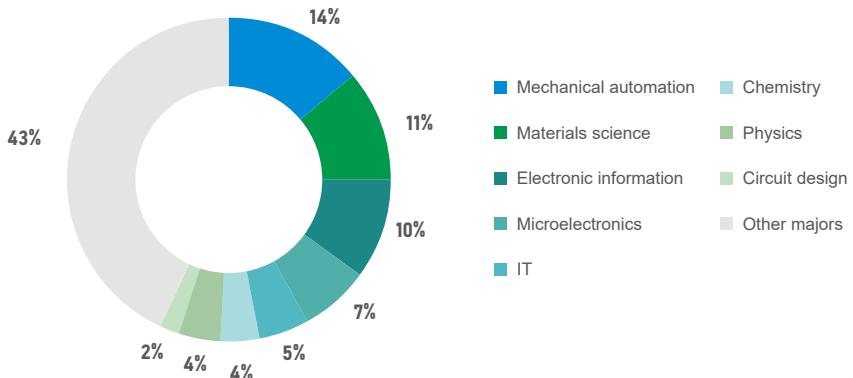
Proportion of talents from campus recruitment by education level (%) in 2021



As of the end of the reporting period, SMIC had recruited more than 800 outstanding graduates through campus recruitment, of which 12% were undergraduates, 82% were postgraduates, and 6% were doctoral students.

- Doctoral students
- Postgraduates
- Undergraduates

Proportion of talents from campus recruitment by major in 2021



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## Social Recruitment

Although COVID-19 has posed great challenge to talent recruitment, the Company has developed a series of recruiting plans and actively participated in social recruitment, creating high-quality employment opportunities for talents.

In 2021, based on an assessment of the recruitment needs of different business segments, we created an Employee Persona that suited the Company. We also used a range of recruiting channels to find the right person for the right job. As a result, we have successfully recruited a large number of professionals and injected new energy into the Company.

As of the end of the reporting period, SMIC had recruited about 5,000 new employees through the above-mentioned channels.



## Internal Position Transfer

SMIC has always been committed to creating a flexible and dynamic development platform.

The Company encourages its employees to become well-rounded, and has designed a comprehensive mechanism for position transfer. Through listening to their voices and understanding their advantages, we help employees satisfy their needs for development and fulfill their potential.



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# Talent Retention

Employees are the most crucial assets of the Company. We make continued efforts to retain top performers by offering competitive remuneration and benefits, diverse career development paths, corporate culture building activities, etc.

In 2021, we have improved employee experience, boosted morale and work efficiency, as well as improved the sense of belonging by building a positive and friendly working environment. We constantly strengthened our systematic talent training system, and continued to build up the Company's talent team to meet the Company's growing talent demands.



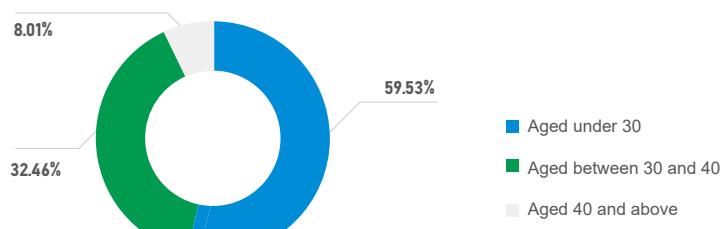
In 2021, against the backdrop of an increasing overall turnover rate in the IC industry, SMIC's employee turnover rate was around 21.22%, including 21.19% in the Chinese Mainland and Hong Kong, China, 0.02% in North America and 0.01% in Europe and Asia (excluding the Chinese Mainland and HongKong, China).

Deatils on employee turnover distribution are as follows:

Employee turnover by gender in 2021



Employee turnover by age in 2021



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## STAR Market Share Incentive Plan

To further enhance the Company's long-term incentive mechanism to attract and retain top-tier talents, the Company implemented STAR market share incentive plan in May 2021. The total number of incentive recipients for the first grant was 3,944, totaling 67,535,200 shares, and the reserved portion of shares totaled 8,115,200 shares. The grant recipients include directors, senior management, core technical personnel, middle and senior business management, and technical and business backbone of the Company.

With the launch of STAR market share incentive plan, the Company gradually improved its long-term incentive system, effectively inspired employees' enthusiasm, shored up the confidence of top performers in the Company's development prospects, and strengthened the bonds of common interests of employees and the Company.



SMIC has set up a variety of awards to motivate groups and individuals, to encourage employees to keep pursuing personal development, thereby enhancing the competitiveness of the Company. Our awards include:



**Chairman Special Retention Award :** To motivate teams and individuals to drive revenue growth and cost optimization by adopting innovative concepts

**Long Service Employee Incentive:** To appreciate senior employees' long-term devotion and commitment to the Company, the Company designs and issues souvenirs to employees who have completed 5, 10, 15 and 20 years of continuous service at SMIC. In the past three years, the total number of employees who have served SMIC for 5, 10, 15 and 20 years has exceeded 4,500.

A smooth communication mechanism is a prerequisite for genuine employee participation. SMIC has established various forms of communication for different communication subjects:

- Added a 24-hour communication hotline to collect and handle employees' issues in a timely manner.
- Set up a mailbox and an online opinion collection platform to ensure seamless communication channels.
- Established company quarterly communication meetings attended by the Chairman, CEO and managers at all levels.
- Held employee communication meetings and production assistant communication meetings involving managers and employees at all levels within the organization.
- Communicated with employees who applied for resignation to improve deficiencies on the Company's policies and management system.



Corporate quarterly communication meeting

Employee/manufacturing assistant communication meeting

In 2021, we carried out engagement surveys for the management and critical talent, and focused on collecting employees' feedback on corporate culture, strategic vision, career development, work, life, etc. We continue to identify improvement opportunities, and plan and implement relevant management initiatives.

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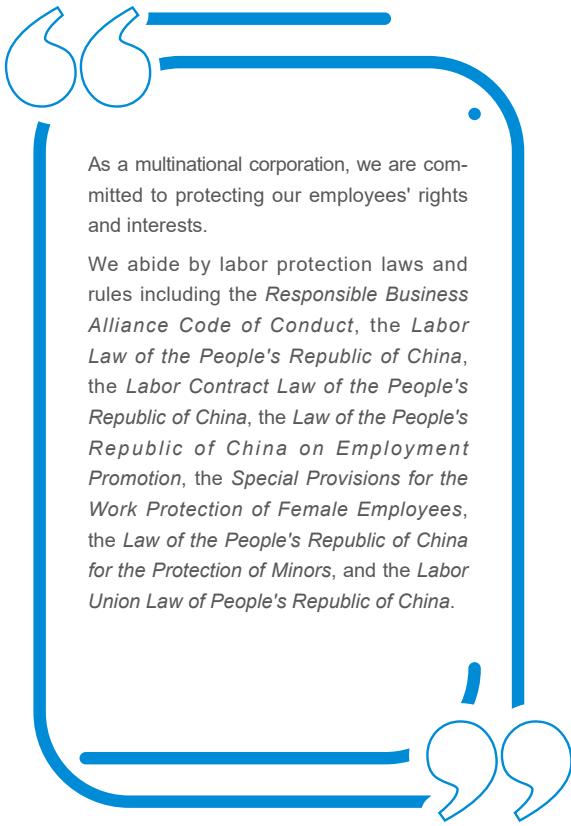
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# Employees' Rights and Benefits



As a multinational corporation, we are committed to protecting our employees' rights and interests.

We abide by labor protection laws and rules including the *Responsible Business Alliance Code of Conduct*, the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Law of the People's Republic of China on Employment Promotion*, the *Special Provisions for the Work Protection of Female Employees*, the *Law of the People's Republic of China for the Protection of Minors*, and the *Labor Union Law of People's Republic of China*.

Based on the principles of Responsible Business Alliance and SA 8000, the Company established and began to implement a labor rights and interests management system in 2015. After six years of operation and summarization, the labor rights management system has become increasingly perfect. We promised and guaranteed to provide all employees an equal, healthy and free working environment. We emphasize:



## Free choice of occupation

Sticking to recruiting by laws and regulations, SMIC has signed labor contracts with all employees, while entering collective labor contracts with the labor union in a regular period. We also endeavor to protect the personal information and privacy of our employees for continuously improving their satisfaction.

## Prohibiting child labor and protecting juvenile

We do not employ any person under the age of 16 in any circumstance. We do not assign job that may endanger health or safety to minor employees, including night shift, and overtime work, and regularly provide health examination for minor employees according to law.

## Ensuring normal rest of employees

For employees on the integrated hourly system, the maximum number of days the Company can arrange for employees to work is 6 consecutive days and 60 hours per week; for employees on the standard working hours system, the maximum number of overtime hours arranged per month is 36 hours.

## Remuneration and benefits

Salary paid to employees complies with laws and regulations, and a clear payroll is provided to employees on time.

## Humane treatment

We fight against inhuman acts, such as sexual harassment, sexual abuse, corporal punishment, mental or physical coercion, or verbal humiliation, and we have developed a disciplinary policy in support of these requirements.

## Nondiscrimination

Employees are treated equally regardless of nationality, race, gender, political party and religious belief.

## Freedom of association

The Company respects the human right of our employees, including freedom of religion, freedom of association, collective negotiation, and freedom to participate in the labor union.

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# 66

We have clarified the rights and interests of employees in the Employee Handbook and SMIC's series of labor rights documents. Once a violation of an employee's rights and interests occurs, an in-depth inquiry and prompt resolution shall be conducted, and the system and management process shall be reviewed and improved.

In 2021, we sequentially conducted target management, identification and update of laws and regulations related to labor rights and interests, risk assessment and preventive measures development, internal auditing, and corrective procedures. SMIC fully complied with provisions of labor rights and interests. Meanwhile, we communicated labor right requirements to suppliers and periodically reviewed part of our suppliers to promote joint protection of employee rights throughout the supply chain.



# 99



SMIC provides a comprehensive salary and benefit system for all employees, including salaries, bonuses, social insurance, commercial supplementary medical insurance, humane paid leave, and sick leave in accordance with national and local laws and regulations.

We pay attention to the career progress and personal ability development of each employee, and provide career development and promotion channels internally. In addition, the Company also provides other benefits to facilitate the personal life of employees, including:

- SMIC living quarters (LQ)



- Free commuting shuttle and meal allowance



- Various club activities



- Fitness leisure facilities near the Company



- Discounts provided by surrounding businesses



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# Career Development

SMIC recognizes employees' career development and has established such development paths with comprehensive supporting resources as well as a specific retention system and is committed to assisting employees to reach their highest potential.



## Career Development Paths

Learned from the top companies in China and around the world, we have been developing a career ladder system since 2019 and continue to improve the sequence of the positions (including five sequences) to explicitly present all available career development paths.



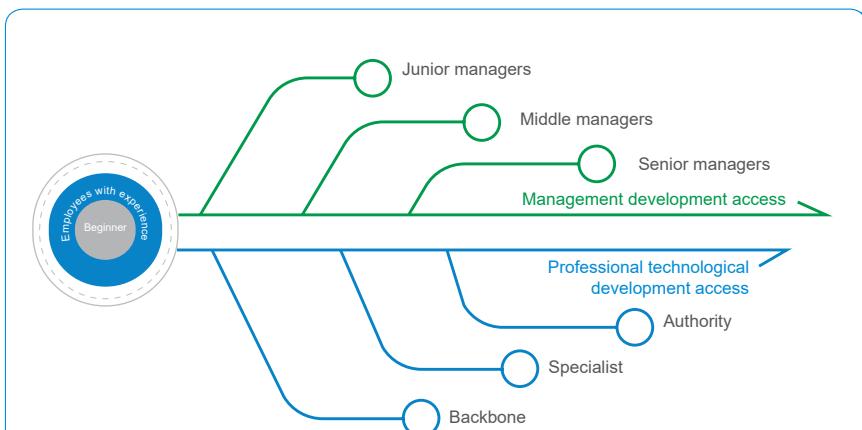
## Rapid Development Channel

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 set up a rapid growth project in the technique sequence. Employees entering the project will be given more attention, training and responsibilities so that they can quickly grow into the Company's technical backbone.



## Two-way Development Channel

The Company has established a two-way development channel in terms of management and professional skill supported by system safeguard and incentive measures, for meeting the common development demand of employees and the Company.



### Vertical Development Channel-Promotion

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

### 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 strengths. Horizontal development channel fully mobilizes their initiative and enthusiasm, and optimizes the Company's human resources allocation.

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## Career Development Booster

SMIC attaches great importance to employees' career development. Based on the needs of business operations and the performance potential of employees, SMIC provides employees with a full range of support by means of internal training mechanism, online learning platform, further study program and others, to promote the common development of employees and the Company.



### Internal Training Mechanism

Customized training programs for different groups of employees:

#### Training types

new employee orientation training, management training for frontline managers, and capacity development projects for middle and senior managers.

#### Multi-dimensional course content

corporate culture, professional skills, general skills and management, and leadership development, etc.

#### Multiple training formats

face-to-face, on-the-job training, job rotation, study group, reading group, E-Learning and knowledge base, etc.

As of the end of reporting period

The Company provided training in more than

**1,800**

courses in different categories

With a total course duration of

**492,145** hours

Total employee training attendance was

**228,895**

**100** %  
employees received training

With about  
**29** hours  
per capita training time

The average training hours of male employees are

**33.9** hours

Female employees are  
**22.2** hours

The average training hours of administrative staff are

**23.5** hours

Production staff are  
**30.8** hours

Sales staff are

**23.5** hours

R&D staff are

**27.1** hours



### Online Learning Platform

In order to facilitate employee learning at any time, the Company has set up an online e-learning platform. In the report period, the online platform covered over 1,520 courses, including the advanced semiconductor technology in China.

To adapt to the development of the employees in the new era, the Company in 2021 upgraded the online e-learning platform in respect of course contents and training system.



The online platform covered

**1,520+** courses

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## Knowledge Management System

SMIC established a knowledge management system (KMS), which allows employees to prepare and release knowledge documents according to certain rules and requirements, share and exchange ideas with each other. On such basis, we have designed point-based rules to encourage employees to contribute to the KMS knowledge management.

This system has facilitated the exchange and learning of employees' professional knowledge, playing a good role in the transmission and accumulation of professional knowledge skills.



As of the reporting period

KMS published

**18,985** articles

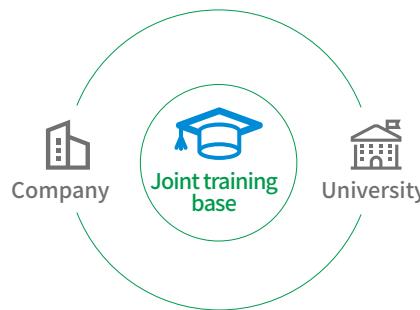
With a total of

**191,317** views by employees



## Further Education Program

**University-enterprise cooperation:** to further create a high-level talent team, the Company cooperates with domestic first-class universities to build a joint training base and carry out joint training of high-level talent engineering doctorate to promote the organic connection between talent cultivation of universities and talent demand of enterprises.



**Further education:** the Company supports the further education of employees by providing continuing education opportunities and platforms and cooperating with first-class universities to set up dedicated undergraduate classes, to meet the on-job learning needs of employees at different education levels, while providing certain tuition reimbursements to eligible employees.

**In 2021, approximately 658 SMIC employees participated in further education at all sites.**



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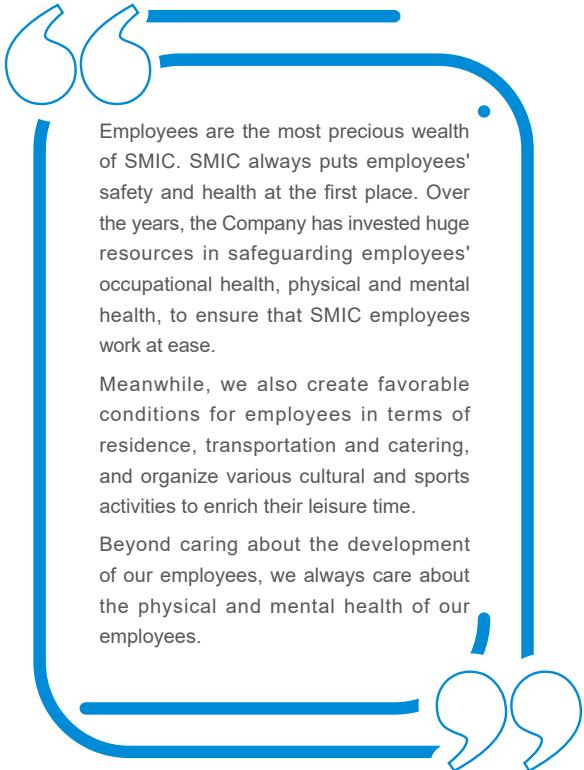
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# Care for Employees



Employees are the most precious wealth of SMIC. SMIC always puts employees' safety and health at the first place. Over the years, the Company has invested huge resources in safeguarding employees' occupational health, physical and mental health, to ensure that SMIC employees work at ease.

Meanwhile, we also create favorable conditions for employees in terms of residence, transportation and catering, and organize various cultural and sports activities to enrich their leisure time.

Beyond caring about the development of our employees, we always care about the physical and mental health of our employees.



## Safeguarding Employees' Occupational Health

We comply with multiple applicable occupational health and safety laws and standards, such as the *Prevention and Control of Occupational Diseases Law of the People's Republic of China* and the *Production Safety Law of the People's Republic of China*.

Since the establishment, SMIC has established an occupational health and safety management system in accordance with OHSAS 18001. Also, we provide sufficient funds to ensure occupational health and safety every year.

In 2021, SMIC invested nearly RMB 398 million in this area, and our occupational health and safety system was audited by a third party to ensure its effective operation.

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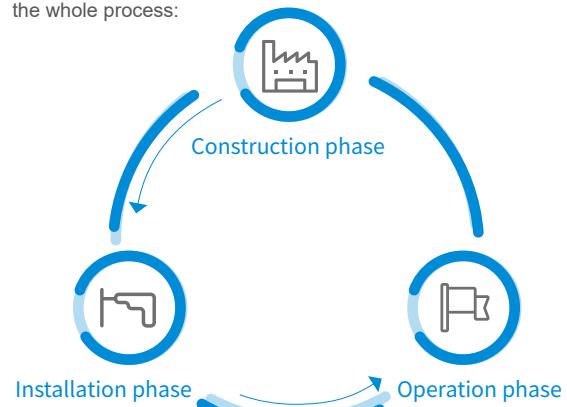
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## Creating Safe Working Environment

In 2021, SMIC continued to develop the goal of zero major fire accidents and ensured achievement of the target by implementing no-notice exercises, cross-fab risk control meetings, fire risk inspection and other management projects. The goal was achieved successfully.

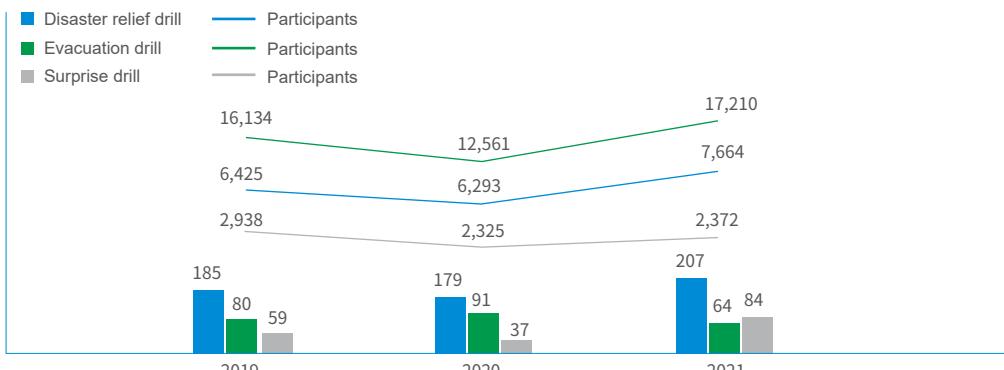
SMIC has built a risk identification and control system covering the whole process:



## Strengthening Health and Safety Management

In strict accordance with national occupational disease prevention and control law, SMIC organizes monitoring and analysis on occupational hazards annually to ensure that occupational hazardous factor at workplace is lower than national standard.

As specified in Law of China on Prevention and Control of Occupational Diseases, SMIC organizes annual occupational health examinations for employees who are exposed to occupational hazards and periodically organizes general health examination for employees that were not exposed to occupational hazards. In 2021, the Company organized a total of 4,369 employees to participate in the occupational health examination, with occupational physical examination and health records covering 100%; a total of 5,011 employees attended general physical examination.



\*ERT: Emergency Response Team, including basic and advanced training.

## Safety Rewards Received





## Consecutively Safety Month Activities

For many years, SMIC has a Safety Month which includes a series of safety promotion and drill activities. In June 2021, the 18th Safety Month event was held simultaneously at all SMIC sites. The Company management attended the opening ceremony. There are dynamic and static activities in Safety Month, the former includes Self Contained Breathing Apparatus (SCBA) training, firefighting training, fire hose training, etc and the latter includes safety knowledge contests, safety culture photography, displaying of posters, etc. Safety Month activities not only enhanced the employees' safety awareness but also improved their safety skills as well, providing security for the employees' health and safety.



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## Caring for Physical and Mental Health of Employees

SMIC established Health Centers, equipped with experienced medical personnel and adequate facilities, to provide free medical care and emergency medical assistance for employees.

In 2021, the Health Centers of the Company received a total of 20,058 health consultations, which greatly met the health-related needs of our employees. We also arranged a number of health promotion lectures and promotional activities, with an accumulated number of 1,118 participants, to improve their self-care and health awareness.

The number of health consultation

**20,058 persons**



### Improving CPR Training Coverage

In order to improve the first aid awareness of employees, the Company has established cardiopulmonary resuscitation (CPR) as a regular training program and offered a public training course on CPR in the fabs. The Company arranges a certain percentage of employees (including engineers, operators, etc.) to receive CPR training and retraining each year, and organizes relevant competitions. In 2021, 3,439 attendees participated in CPR trainings, more than doubled as compared to 2020.



The number of attendees  
participated in CPR

**3,439 persons**



### Adding Medical Support Equipment

In 2021, Health Centers of the Company has added medical facilities in all company sites. 10 new first aid kits, 64 new chemical emergency kits, and four new AEDs were added. As of the end of 2021, there were 122 first aid kits, 156 chemicals emergency kit, and 12 AEDs in the Company.



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## Psychological Care

Since establishment, SMIC employed professional psychological counselors to serve the employees and their immediate family members. In recent years, the Company improved the "three-level psychological crisis defense system", provided two 24-hour psychological care hotlines, and equipped standard psychological counseling rooms in each factory and dormitory areas. Various psychological training and group activities are carried out at the right time and place.

In 2021, psychological counselors of the Company showed solicitude for people subject to the impact of COVID-19 including front-line epidemic prevention personnel and isolated persons, and disseminated mental health knowledge and mental health care methods to relieve anxiety of the employees and reduce occurrence of psychological crisis, which demonstrated the Company's humanistic care.



13 lectures were held by external experts, and 120 training courses and group activities were provided by the consultants of the Company, with 6,130 employees attended.

Launched "psychological evaluation and health" on the company intranet to provide self-help psychological evaluation and psychological health popular science knowledge. 117 popular science articles were uploaded, and more than 1,480 employees participated in the assessment.

Opened a library featuring psychological publications in the Shanghai plant, providing 500 mental health-related books for employees to borrow for free.

Mental Health Awareness Month initiative entitled "psychology makes life better" was held, and more than 2,500 mental health materials were distributed.



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## Infectious Diseases Prevention

As a member of society, SMIC is obligated to prevent and control infectious diseases, and protect the lives and health of employees. As the COVID-19 pandemic continuously spread across the world and periodically resurfaces in certain areas of China in 2021, SMIC keeps paying attention to the development of pandemic and timely releases pandemic prevention and control information, implements all pandemic prevention and control measures, and achieves precise prevention and control.

- Distributed anti-pandemic masks to employees on a regular basis, with approximately 3 million anti-pandemic masks were distributed in 2021
- As of the end of the reporting period, the vaccination rate of the first dose of COVID-19 vaccine reached 94.16%, the full vaccination rate was about 92.28%, and the rate of booster vaccination was about 80%
- Organized regular nucleic acid testing for employees at high risk

Distributed anti-pandemic masks approximately  
**3,000,000**

The vaccination rate of the first dose of COVID-19 vaccine reached

**94.16 %**

The full vaccination rate was about

**92.28 %**

The rate of booster vaccination was about

**80 %**



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## Convenient and Caring Living Services and Facilities

At the beginning of its establishment, SMIC upheld the idea of building fab into home and strived to create comfortable and convenient working and living conditions for employees.



The Company builds living quarters and service facilities for employees near fabs in Shanghai, Beijing, Tianjin and Shenzhen, solving the housing problem of front-line employees.



The Company opens up several free shuttle buses to and from fabs, living quarters and downtown areas, greatly facilitating the commuting of employees.



SMIC sets up dining rooms in all fabs and provides diversified catering services for employees.

### Shanghai Living Quarter

The Company has two living quarters in Shanghai, i.e., SMIC (Shanghai) Zhangjiang Living Quarter and SMIC (Shanghai) Tangzhen Living Quarter.

SMIC (Shanghai) Zhangjiang Living Quarter is about 1.4 km away from the Company, next to Shanghai SMIC Private School. The living quarter also has children's activity center, ground garage, commercial building, and other service facilities. The SMIC (Shanghai) Zhangjiang Living Quarter dormitories have 2,704 beds, with an occupancy rate of 81%. It offers 298 family apartments, with an occupancy rate of 80%. Dormitories and family apartments serve 4,500 people in total.

SMIC (Shanghai) Tangzhen Living Quarters is about 7 km away from the Company, divided into Phase I and Phase II. There are 1,350 dormitory beds in Phase I, with a current occupancy rate of 52%, and 1,087 family apartments with its occupancy rate reaching 90%.

On August 8, 2021, Phase II of Tangzhen Living Quarters was formally opened to provide 1,528 houses, with 816 houses opened at first batch and its occupancy rate reaching 83%. Phase I and Phase II of Tangzhen Living Quarters serve about 4,800 people.



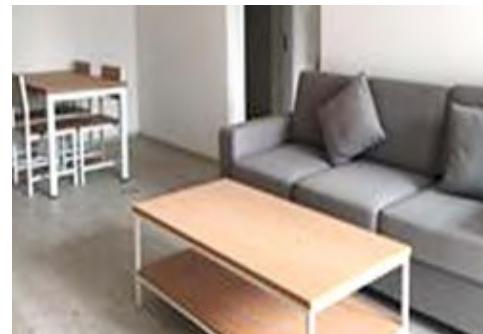
### Beijing Living Quarter

In addition to original apartments, SMIC provides accommodation for employees in Beijing by means of new construction and renting.

SMIC (Beijing) Living Quarter has 232 original-built apartments, 135 newly-built apartments and 371 one-bedroom apartments, as well as 1,953 beds in collective dormitories. Currently, 1,670 people are housed in the dormitories with an occupancy rate of 86%. A total of 4,077 people are served.

To meet more first-line workers' needs for accommodation, the collective dormitories in Yongkang Apartments, Youth Apartment and Blue-collar Apartment for rent have 2,165 beds and now accommodating 1,958 people with an occupancy rate of 91%.

In 2021, the Company rented 45 white-collar worker's apartments and public rental units in Yizhuang Development Zone to accommodate employees and their families.



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## Tianjin Living Quarter

SMIC (Tianjin) Living Quarter provides 168 apartments and 1,000 beds in collective dormitories with an occupancy rate of 89.5%, accommodating 1,300 people.

Meanwhile, the Company also rents 127 rooms with 458 beds in total, with a current occupancy rate of 82.5%.

In 2021, SMIC (Tianjin) Living Quarter replaced the aged children's slides and added NEV charging pile, to better serve employees.



## Shenzhen Living Quarter

The Company rented two sites as dormitories and six sites as talent apartments in Shenzhen to provide 1,441 beds for employees;

In 2021, the Company newly rented 217 dormitories, 140 Loft apartments and 40 talent houses.



In all SMIC company sites, we provide canteens of different sizes according to the number of employees, and grant food subsidies monthly. The SMIC cafeteria is operated by different food suppliers under strict supervision and inspection mechanism, so as to guarantee employees' food safety and health.

In 2021, all SMIC canteens still carried out the time-phased individual dining system according to epidemic prevention and control requirements, increased the line and desk spacing, and promoted frugal and healthy eating. All the restaurants in the fab have carried a "Clear Your Plate" campaign, calling on employees to save food.

### Food Festivals

The cafeteria serves both Chinese and western food, to meet the diverse appetites of employees. The cafeteria continued to hold all kinds of food festivals and culinary competitions in 2021.

#### Yunnan Food Festival:



#### Taiwan, China Food Festival:



#### Northeast China Food Festival:



#### Chengdu Food Festival:



### Beijing Cafeteria Renovation

No. 1 Cafeteria in Beijing site was renovated and opened for trial operation on May 24, 2021. This renovation project completely solved problems like circuit trips, water leakage in underground pipelines, blocked ventilating devices in kitchen, etc. Meanwhile, it added automatic fire extinguishing equipment for kitchen hearth, effectively reduced fire safety concerns, and it had no recordable missing items since its operation, gaining high praise from our employees.



### Free Shuttle Buses

To better serve our employees, conserve energy, and reduce carbon emissions, we provide free shuttles between fabs, living quarters, and nearby subway stations. Most shuttles used are new energy automobiles.

- Shuttle bus to and from Shanghai company and Phase II of SMIC (Shanghai) Tangzhen Living Quarter had its trial run on August 9, 2021. Currently, it runs 32 shifts in working days with an occupancy reaching about 75%.
- A new shuttle bus line was added in July and December 2021 respectively in Shenzhen company.



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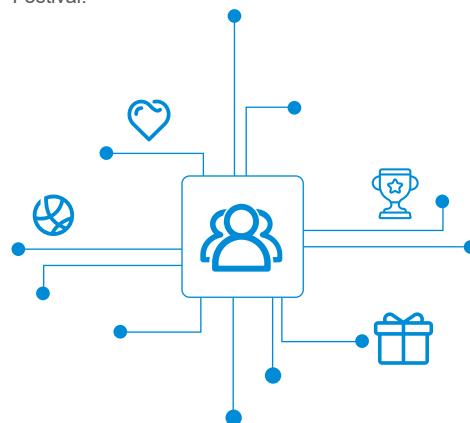
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## Wonderful Life of Employees

SMIC has set up a Labor Union, established a Labor Union management system, and adopted democratic management under applicable national laws to safeguard employee rights. The Labor Union consists of the chairman, vice chairman, Union members, and representatives from each department. Employees are voluntary to join the Union.

SMIC strictly performs its function of maintenance, construction, participation and education to serve its employees wholeheartedly. In 2021, the Labor Union of SMIC demonstrated care for employees' lives and sought for a harmonious employment relationship. The Union encouraged employees to actively participate in business-related activities including scientific innovation, labor competition, and excellent workers selection. Various cultural and sports activities were carried out for employees to showcase their talents and enrich their lives. Meanwhile, the Labor Union delivered various benefits to employees on their birthdays, Dragon Boat Festival, Mid-autumn Festival and Spring Festival.



### Care to Employees on Duty to Create Stronger Spring Festival Atmosphere

For Chinese New Year, all sites held activities to show care for the employees on duty and present them with gift packages. On New Year's Eve, the Company held red envelope lucky draw activities for employees on duty, delivering the sincerest blessings.



### SMIC Autumn Games

The Games is the annual sports event of SMIC. "2021 Autumn Games - Vigor of SMIC, Faster, Higher and Stronger" formally opened on October 12, 2021. In addition to team events and "All Member Check-In Day" activity, the 2021 Games added a brand-new activity - "All Member Walk" to encourage employees to get actively involved and advocate healthy lifestyles.



### The Best SMIC, the Charming Goddess

To endow female employees a happy and relaxed Women's Day, all SMIC sites held corresponding activities. Shanghai site presented flowers to every female employee; Shenzhen site presented a special gift to all female employees; Beijing site commended excellent female employees; Tianjin site organized the "Charming Goddess Festival" event, appreciated flowers together and took group photos, thus improving female employees' living quality and sense of happiness.



### The First Singing Contest

Singing is the best way to soothe troubles and express emotions. In 2021, we held the first singing contest - "Voice of SMIC". SMIC employees are not only professional but also versatile, and they showcased themselves on the stage.



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# Paving the Future with Education Assistance

Education creates hope for the future.

SMIC has been concerned about adolescent education for a long time. By building schools and providing high-quality educational resources, SMIC has been contributing to improve the situation of imbalanced educational resources and promote the development of cultural and educational courses.

By means of cooperating with many renowned universities at home, we set up scholarship and fellowship to reward those students who demonstrate outstanding academic performance and help impoverished student to achieve their dreams.



- **SMIC Private School**
- **Scholarship and Student Grant Programs from SMIC**

# SMIC Private School

SMIC has set up SMIC Private School at the early stage of its establishment aiming to address the educational concerns for employee's children. With continuous improvement in teaching and other aspects, this school has won wide acknowledgement and has been opened to society to contribute their excellent education resources. Until now, SMIC School is popular and loved by employees and local community. This school successfully organized is considered as a shining business card for its help in education.



## Shanghai SMIC Private School

Shanghai SMIC Private School, founded in September 2001, has developed into a 15-year system private school integrating kindergarten to high school. Shanghai SMIC Private School adheres to the people-oriented principle and holds a belief that every student is endowed with potential and entrusted with important tasks. The school pays attention to the unique personality development of each student, and provides a wide variety of extracurricular activities for students to help them explore their own talent.

The school has been awarded many honors such as "Excellent Primary and Secondary School in China", "National Characteristics Model School", "National Advanced School with Features", "Featured Project School", etc. As of the end of the reporting period, there were over 3,300 students from more than 20 countries, more than 500 teaching staff, among whom, one fourth are from oversea countries.

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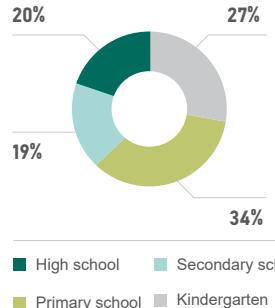
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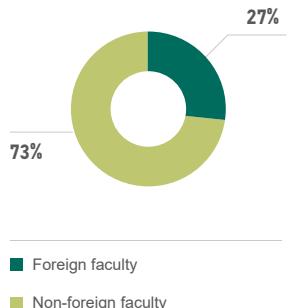
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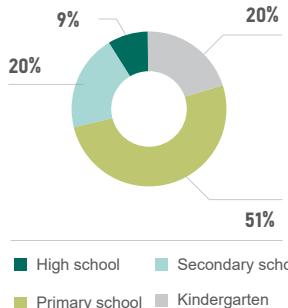
Composition of Faculty



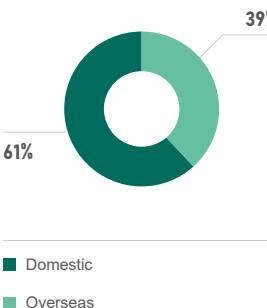
Proportion of Foreign Faculty



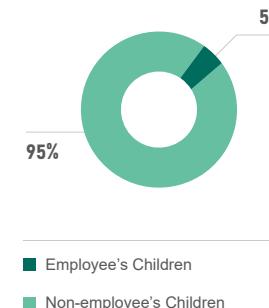
Proportion of Students in Different Stage



Source of Student



Ratio of Employee's Children



## Honors



**2020 Special Contribution Award**  
Shanghai Modern Service Federation

April 2021



**Hurun Education Top International Schools in China 2021**  
Top 80

April 2021



**Forbes China- Outstanding International Schools**  
Ranked 62th

May 2021



the School received good comments again from Western Association of Schools and Colleges (WASC) through online assessment.

October 2021



Shanghai Municipal Education Commission officially granted English Division of SMIC Private School with qualification of "School for Children of Foreign Workers (SCFW)" and, its English Division was renamed as International Division.

December 2021

## Celebrating the 20th Anniversary of Shanghai SMIC Private School

Year 2021 is the 20th anniversary for SMIC Private School, many kinds of activities and art exhibitions are held. We look back the school set-up history, carry forward the good tradition, seek the spirit of continuous innovation and also make an expectation for the next 20 coming years. The Company also gave a piece of wafer set with China Map as a gift to express best wishes for the future.



## International Week Activities

International Day is one of the age-old activities of the school, students learn the culture, art and history of a country and then act out in a creative way. In 2021, the school continued to hold the International Week activities, from which children learned how to collect materials, write manuscripts, design creative works and express artistically. They explored foreign culture without going global.



## School Sports Competition

Sports Day is a traditional autumn event for Shanghai SMIC Private School. In October, the Sports Day was held on schedule. The Sports Day mainly included competitions such as sprints, long-distance jump and tug-of-war among other fun activities. The students actively participated and displayed their youthful presence on the field.



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## Beijing SMIC Private School

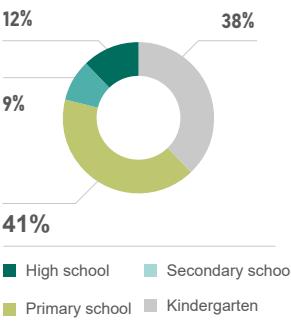
Beijing SMIC Private School was founded in the fall of 2005, offering complete education from kindergarten, primary school, middle school to high school. With a large number of excellent foreign teachers as well as students from more than ten countries and regions, the diversified cultural atmosphere endows the school an internationalized learning environment.

For more than 10 years, the school has provided education for students based on the idea of "Character First, Pursuit of Excellence, Caring for the World, Happy Growth", with holistic education as its aim to develop curriculum by combining Chinese and western elements. The school is committed to developing students' abilities of independent exploration and lifelong learning, respecting students' individual development, encouraging children to develop global vision and critical thinking, and cultivating world citizens with a sense of social responsibility. As of the reporting period, the school had 428 teachers and total 2,740 students.

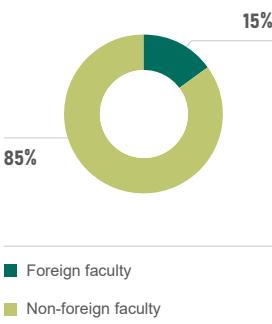
For more information 



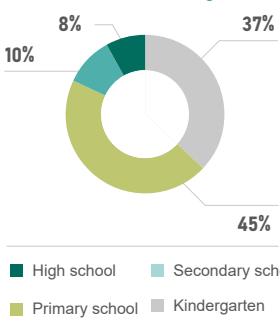
Composition of Faculty



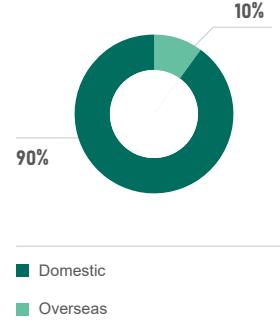
Proportion of Foreign Faculty



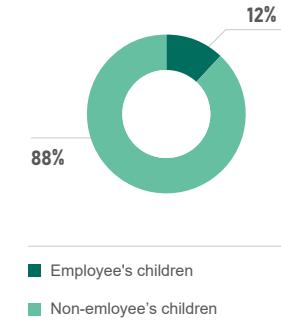
Proportion of Students in Different Stage



Source of Students



Ratio of Employee's Children



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## Charity Performance Show

December is the traditional "charity month" of Beijing SMIC Private School. On December 18, 2021, the School organized charity performance activities, art show, English drama show, Chinese traditional culture show and science & technology charity performance on the stage. The charity performance was also live-streamed and had over 20,000 viewers. Over RMB 80,000 of donation was collected on that day.



## The school team won the team champion in Beijing Badminton Competition for Primary and Middle School in 2021

On December 19, 2021, Lv Lanyi and Wu Zhengyue took the runner-up in women's doubles; Sun Jianyuan and He Qian took the third place in men's doubles; Lin Duan took the fifth place in men's singles and Beijing SMIC Private School won the team championship in Beijing Badminton Competition for Primary and Middle School.



## The Rhythmic Green Field

In 2021, on the green field of SMIC Private School, skipping rope game, spring sports meeting, class-break setting-up exercise competition and football matches were held successively. The children ran, jumped or chased one another, freely releasing their enthusiasm.



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# 1,000,000

## Scholarship and Student Grant Programs from SMIC

To encourage excellent college students and assist them in realizing their dreams, SMIC provides scholarship and student grant funds for many colleges and universities in China. Through China Soong Ching Ling Foundation, we subsidized outstanding postgraduates majoring in integrated circuits, enabling more outstanding students to successfully complete their studies and realize their dreams.

In 2021, we continued to promote the program and provided subsidy for 180 students, amounting up to RMB 1,000,000.

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# Practicing Public Welfare and Building Dreams with Love

Since its establishment in 2000, SMIC has been actively participating in social welfare activities. We are committed to medical programs caring for the health of young people and helping them recuperating their health. We encouraged our employees to attend public welfare activities, participate in community service and deliver care and love of SMIC.

In 2021, we overcame the hindrance of COVID-19 and our employees provided up to 13,049 hours of volunteer services, with an accumulated total of almost 120,000 hours.

- **Caring for the Health of Youngsters**
- **Flowing Goodwill**



# Caring for the Health of Youngsters



Strong youths lead to a strong country. SMIC constantly cares for youngsters' health. We have initiated and participated in a number of children health care programs to help children restore their health and re-embrace their lives.

In 2021, SMIC continued the medical programs such as "SMIC Liver Transplant Program for Children", contributing to liver transplantation, cochlear implant and medical assistance for congenital heart disease sufferers, and RMB 8.06 million was provided to help 206 children.

Accumulative total amount

**RMB 8.06 million**

Number of patients helped

**206 persons**



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## SMIC Liver Transplant Program for Children

Since "The Liver Transplant Program for Children" initiated by SMIC in April 2013, the Company has been donating to China Soong Ching Ling Foundation every year to help needy children in need who underwent liver transplantation in Renji Hospital Affiliated to Shanghai Jiaotong University School of Medicine. SMIC employees actively participated in the program, which got strong support from enterprises in industry and had become a well-known public welfare program in integrated circuit industry in China.



On June 16, 2021, the donation ceremony of the Ninth "SMIC Liver Transplant Program for Children" was held in Renji Hospital Affiliated to Shanghai Jiaotong University School of Medicine. SMIC together with employees, business partners donated a total of RMB 4.38 million through China Soong Ching Ling Foundation to support the "SMIC Liver Transplant Program for Children". In the report period, we helped 105 child patients in total.

As of the end of the reporting period, the donation amount has reached over RMB 33 million for "SMIC Liver Transplant Program for Children". A total of 656 children in poverty across the country were assisted and cured.



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### Liver Transplantation Program for Underprivileged Children

In order to help more underprivileged children in need of liver transplantation and regain new lives, SMIC cooperated with Soong Ching Ling Foundation to establish a special fund for underprivileged children who underwent liver transplantation in Renji Hospital Affiliated to Shanghai Jiaotong University School of Medicine.



In 2021, SMIC donated

**RMB 2.4 million**

for helping

**60 children**

### An Audio Gift: Cochlear Implant Program

People with severe hearing loss have a silent world. To help them restore their hearing, SMIC cooperated with Soong Ching Ling Foundation to fund impoverished patients who underwent cochlear implant surgery in the People's Hospital of Dali Bai Autonomous Prefecture. SMIC wishes that they can hear and talk with their families, and have happy get-together with their friends, and farewell to a silent world.



In 2021, SMIC donated

**RMB 537,800**

for helping

**16 persons**

### Small Heart, Big Dream: Congenital Heart Disease Program

Today, as various complex congenital heart surgeries presented characteristics of low age, high risk and high cost, which are unaffordable by many underprivileged families.

For "small heart, big dream", SMIC holds hands with China Soong Ching Ling Foundation and top "heart engineer" from Shanghai Children's Medical Center together to ensure the health for these children in need and add soaring swing for their dream. SMIC believes that "a small heart nurses big dreams". Along with China Soong Ching Ling Foundation and top "heart engineers" from Shanghai Children's Medical Center, we safeguarded their health and enabled them to soar freely.

In 2021, SMIC contributed

**RMB 743,200**

for helping

**25 children**



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# Flowing Goodwill



## Free Blood Donation

SMIC actively publicized and organized employees to participate in free blood donation. In 2021, 189 employees from SMIC Shanghai plant donated blood, with a total volume of 37,800 ml.

Donated blood volume

**37,800 ml**



## The 2021 Marching into Beijing Student Aid Program

On the eve of July 1, SMIC Beijing organized an activity entitled "Marching into Beijing for Helping Students in Their Studies", for which 8 children from Chengde City, Hebei Province and their guardians were invited to Beijing. Accompanied by volunteers of SMIC Beijing, the children had a three-day trip in Beijing during which they felt the charm of science, technology and culture, and sowed a seed of hope in their hearts.



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### Book Donation: A Book, A Love, A Beam of Light

From March to September, 2021, it took 6 six month to finish 4 reading corners with more than 2,000 books donated to 3 primary schools and 1 children's home, which brought knowledge and hope to them.

 500 books for  
Ankang Yongsheng Primary School

 500 books for  
Ankang Tangtang Primary School

 500 books for  
Ankang Zhongba Primary School

 700 books for  
Pingliang Children's Home



### Chiplet Home, Chiplet Clothes: Cloth Donation Activity

In August 2021, all employees of SMIC Tianjin participated in the 4th cloth donation activities named "chiplet home, chiplet clothes". Unused clothes are tidied and delivered to Charity Clothes Recycling program, a public welfare initiated by China Children and Teenagers' Foundation, which brought warmth to groups in need. A total of about 800 kg clothes were donated.



### Help Fighting against Flood Disaster in Henan Province

In the summer of 2021, Henan Province suffered from heavy floods. On July 23, employees from SMIC Beijing and SMNC organized donation to Henan disaster area to help with their reconstruction. By July 26, 464 employees donated a total amount of RMB 64,596.5, which was immediately transferred to Henan disaster area through China Soong Ching Ling Foundation for post-disaster reconstruction.

Donation amount

RMB 64,596.5



### SMIC Volunteers in the Street

From April to May in 2021, hundreds of SMIC volunteers went to the streets and carried out a series of public service activities, e.g., street cleaning, cultivating green plants, and putting shared bicycles in order. SMIC volunteers devoted their flowing goodwill in streets and lanes, living up to the concept of SMIC social responsibility. They have become a beautiful scenery in the city.



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Performance Indicator		Unit	Figure
Economic	Revenue	Billion USD	5.443
	Net profit attributable to shareholders	Billion USD	1.702
	R&D expenses	Million USD	639
Social	Number of employees	Person	17,681
	Proportion of female employees	%	39
	Labor contract signing rate	%	100%
	Employee training coverage rate	%	100%
	The average training hours completed per employee	Hour	29
	Number of work-related fatalities occurred in the past three years	Person	0
	Lost days due to work injury	Day	517
	Annual number of new occupational diseases	Case	0
	Cumulative number of occupational diseases	Case	0
	Times of safety training	Time	808
	Number of safety training participants	Person-time	98,765
	Number of safety production accidents (according to national standards)	Time	0
	Total annual safety investment	100 million yuan	3.98
	Amount of social donations	10 thousand yuan	912.5
	Employee volunteer hours	Hour	13,049
Environmental	Cumulative number of patents applied	Piece	17,980
	Accumulative number of patents granted	Piece	12,467

Performance Indicator		Unit	Figure
Environmental	Total volume of air emissions	10,000 cubic meters	5,505,055
	Total volume of nitrogen oxide emissions	Ton	108
	Total volume of sulfur dioxide emissions	Ton	5
	Volatile organic solvents	Ton	30
	Total GHG emissions	Ton of CO <sub>2</sub> e	2,239,093
	Total direct emissions (Scope 1)	Ton of CO <sub>2</sub> e	680,308
	Total indirect emissions (Scope 2)	Ton of CO <sub>2</sub> e	1,558,785
	Hazardous waste	Ton	47,578
	General industrial solid waste	Ton	41,285
	Domestic waste	Ton	2,686
	Total electricity consumption	Million kilowatt-hours	2,501
	Total natural gas consumption	1,000 cubic meters	16,691
	Total steam consumption	Kiloton	212
	Total water consumption	Kiloton	20,619
	Total amount of packaging materials used for finished products	Ton	417.63
	Intensity of packing material for finished products	Ton/million USD	767
	Total investment for annual environment protection	100 million yuan	10.98
	Times for environmental protection training	Time	86
	Number of participants in environmental	Person-time	18,715
	Passing rate for ISO 14001 certification	%	100%

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ESG KPIs	KPIs Description	Disclosure Chapter
<b>A. Environmental</b>		
<b>Aspect A1</b>	<b>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.	Environmental Protection Policy and Management
KPI A1.1	The types of emissions and respective emissions data.	Tackling Climate Change Wastewater Management Air Emissions Management Solid Waste Management
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tons) and where appropriate, intensity (e.g. per unit of production volume, per facility).	Tackling Climate Change GHG
KPI A1.3	Total hazardous waste produced (in tons) and where appropriate, intensity (e.g. per unit of production volume, per facility).	Solid Waste Management
KPI A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Solid Waste Management
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	Air Emissions Management
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Solid Waste Management
<b>Aspect A2</b>	<b>Use of Resources</b>	
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	Energy Management
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).	Tackling Climate Change GHG
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Water Resource Management

ESG KPIs	KPIs Description	Disclosure Chapter
<b>B. Social</b>		
<b>Aspect B1</b>	<b>Employment and Labor Practices</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.	Talent Attraction
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Talent Attraction
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Talent Retention
<b>Aspect B2</b>	<b>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.	Care for Employees

ESG KPIs	KPIs Description	Disclosure Chapter	ESG KPIs	KPIs Description	Disclosure Chapter	
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Summary of ESG Indicators for 2021	General Disclosure	Aspect B6 Product Responsibility		
KPI B2.2	Lost days due to work injury.	Summary of ESG Indicators for 2021		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.	Adhering to Independent Innovation Fortifying Information Security Network Optimizing Customer Service Improving Product Quality	
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Care for Employees	Career Development	KPI B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Improving Product Quality	
<b>Aspect B3 Development and Training</b>				KPI B6.2 Number of products and service related complaints received and how they are dealt with.	Optimizing Customer Service	
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	KPI B6.3 Description of practices relating to observing and protecting intellectual property rights.		Adhering to Independent Innovation		
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	KPI B6.4 Description of quality assurance process and recall procedures.		Improving Product Quality		
KPI B3.2	The average training hours completed per employee by gender and employee category.	KPI B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.		Fortifying Information Security Network		
<b>Aspect B4 Labor Standards</b>				<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 preventing child and forced labor.	Employees' Rights and Benefits	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.	Code of Business Conduct and Ethics	
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	Employees' Rights and Benefits	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.	Code of Business Conduct and Ethics	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Employees' Rights and Benefits	KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Code of Business Conduct and Ethics	
<b>Aspect B5 Supply Chain Management</b>			KPI B7.3	Description of anti-corruption training provided to directors and staff.	Code of Business Conduct and Ethics	
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Strengthening Supply Chain Management	General Disclosure	<b>Aspect B8 Community Investment</b>		
KPI B5.1	Number of suppliers by geographical region.	Strengthening Supply Chain Management		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.	SMIC Private School Scholarship and Student Grant Programs from SMIC Caring for the Health of Youngsters Flowing Goodwill	
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Strengthening Supply Chain Management		KPI B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	SMIC Private School Scholarship and Student Grant Programs from SMIC Scholarship and Student Grant Programs from SMIC Caring for the Health of Youngsters Flowing Goodwill	
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Strengthening Supply Chain Management	KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Scholarship and Student Grant Programs from SMIC Caring for the Health of Youngsters Flowing Goodwill	
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Strengthening Supply Chain Management				

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# Vision of the Future

There have been sporadic outbreaks of COVID-19 in 2022. The release of this Report comes at a time when the country still encounters severe challenges in aspects of epidemic prevention and control work. And SMIC is making all-out efforts to prevent and control the epidemic, so as to ensure the safety of our employees and continuous production. It still not be changed that SMIC face complex external environment including the lasting impact of the "Entity List", other difficulties and challenges. Whilst the national "dual carbon" strategy has brought new opportunities for many industries to achieve low-carbon transformation and green development.

While continuing to operate in compliance with laws and regulations, SMIC address the following issues:

- Continuously strengthening our close cooperation with customers and other stakeholders, steadily expanding production, locking inventory and expanding new ones.
- Adhering our operation under the compliance with laws, continuing to reach the international market and integrating deeply into the global industrial chain to serve customers worldwide.
- Enhancing our ESG governance and working together to boost the sustainable development of the Company.
- Accelerating low-carbon energy conservation projects, developing innovative environmental protection technologies and promoting the green transition of the Company.
- Improving employee benefits, taking talent development seriously and creating a safe, healthy and people-centered working and living environment for employees.
- Continuing to participate in social activities for public welfare and make charitable donations, and actively bear social responsibility.

In 2022, we will continue to pursue sustainable development by upholding the philosophy of "caring for people, the environment and society", fulfill our commitments to all stakeholders and contribute to the development of a better society.

# Feedback Form

This is SMIC's 2021 Environmental, Social and Governance (ESG) Report released to the public. To continuously improve our ESG management and ability to fulfill social responsibility, we would love to hear your comments and suggestions. We sincerely request your assistance in answering the questions listed in the feedback form, and sending it back to us in one of the following ways.

Email: ESG@smics.com

Mailing address: No. 18 Zhangjiang Road, Pudong New Area, Shanghai, P.R.C.

To: ESG Work Office

Zip code: 201203

1. What do you think of the SMIC ESG Report in general?

Good     Fairly good     Average     Poor

2. What issues in the Report concern you the most?

Innovation management     Occupational health and safety  
 Employee training and development     Sustainable supplier management  
 Climate change and GHG management     Customer service and satisfaction  
 Community involvement     Others

3. Do you think the Report reflects SMIC's significant economic, social and environmental impact?

Yes     To some degree     No     I don't know

4. What do you think of the degree of accuracy and completeness of the information, data and indicators disclosed in the Report?

High     Fairly high     Average     Relatively low     Low

5. What aspects of the Report do you think need improvement?

Layout     Length     Issues covered     Form/medium

Your comments and suggestions on SMIC's ESG work as well as the Report are welcome here. Please scan the QR code with your mobile phone and evaluate online.



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# Risk Warning

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## To Readers,

The Report mainly summarizes the Company's ESG performance over the past year, and some sections may contain forward-looking or aspirational statements. Such statements, which are included in "Message from the Chairman", "Vision of the Future", and the policy overview in each chapter, are SMIC's forecasts of future events based on the current situation and estimates based on its best judgment, and should not be used as a primary basis for investment. These statements are inherently subject to known or unknown risks and uncertainties, including, but not limited to, international political risks (changes in China-US relations, for example), economic and trade risks, supply chain risks (supply chain disruption due to restriction on sales by suppliers, for example), customer risks (customers are restricted from placing orders, for example), risk of changes in operating laws and regulations, an order or judgment in a pending lawsuit, common IP litigation risks in the integrated circuit industry, the macroeconomic situation, management changes, and currency exchange rate fluctuations.

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