

► **COVER IMAGE:** The northeast corner of our headquarters in Shanghai. Our employees can walk or bike to work from our residential campus, just 1.4km away.



Semiconductor Manufacturing International Corporation  
2010 Corporate Social Responsibility Report  
10th Anniversary Edition





## ABOUT SMIC

Founded in 2000 and headquartered in Shanghai, Semiconductor Manufacturing International Corporation (NYSE: SMI; SEHK: 0981.HK) is the largest and most advanced semiconductor foundry in mainland China. We provide integrated circuit foundry and technology services from 0.35-micron to 40-nanometer at our 300mm and 200mm wafer fabrication facilities (fabs) in Shanghai, Beijing, and Tianjin.

We have customer service and marketing offices in the United States, Europe, Japan, and Taiwan, and a representative office in Hong Kong. We are building a 200mm fab in Shenzhen and we manage and operate a 300mm fab for the Wuhan Xinxin Semiconductor Manufacturing Corporation in Wuhan.

Near our fabs, we maintain residential communities with comfortable housing for our employees and award-winning schools for their children. For more information about SMIC, see [www.smics.com](http://www.smics.com).



## 2010 SMIC Corporate Social Responsibility Report 10th Anniversary Edition

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Dear Reader:

In 2010, SMIC celebrated its tenth anniversary. In 2011, as we reviewed our first decade, we evaluated our Corporate Social Responsibility. In this special report, we hope to show how our unique corporate culture has produced a sustainable business.

Sustainability is more than a buzzword. It is a requirement for key hires, customers, investors, and regulators who need assurance of our long-term viability before partnering with us. Key hires need this assurance before they move their careers and families here. Customers need it before they commit major resources to qualify their products here. Investors need it before they deploy their capital here. Regulators need it before they allocate scarce public resources here. These stakeholders ask: Can we grow together with SMIC? The answer is yes. The reason is that SMIC has been built to endure.

Our employees literally find a home here. Near each of our facilities, we maintain a residential campus that feels like a small town. Our Shanghai campus, for example, has single family homes, apartments of all sizes, restaurants, stores, and service providers of all kinds. It includes a medical center, dental clinic, pharmacy, gym, and various recreational facilities. Thanks to our fine teachers, the campus offers an award-winning school that sends many students to Ivy League colleges. Thanks to the vision and private support of many of our staff, there also is a church nearby where employees can worship with their families.

While the campus is dedicated to our staff, most of it, including the school, is open to the surrounding community. It forms a community within a community, made safe and comfortable by strict attention to environmental health and safety.

Our business partners also are comfortable here. At SMIC, they find an international workforce with the best global methods and managers, including those who speak their native language. They also find a stable workforce, often allowing them to work with the same SMIC staff for years. Our corporate culture is a network of long-term relationships. Such continuity preserves vital relationships, conserves human resources, and retains institutional knowledge.

The key to all these human networks is trust. Trust is the glue that holds all relationships together. It enables every hire, every sale, every purchase, every investment, every technology transfer, and every government permit. It also enables the retention of valuable staff and customers.

Accordingly, trust is the glue that binds this report together. Section 1 (Trust) shows how we earn the trust of stakeholders by complying with the letter and spirit of the law, including leading industry standards. Section 2 (People) shows how we gain the trust of our staff and surrounding communities by treating people fairly, with dignity, respect, and care. Section 3 (Environment) shows how we ensure the public trust by stewarding the natural resources and environment that we all share.

Together, these sections show SMIC's culture of social responsibility. It is a cultural network of trust formed by nurturing the lasting partnerships from which trust grows. The result is a company made more durable from stronger bonds and synergies with its stakeholders. It is a company worth joining and investing in, as reflected by our recent inclusion in the Hang Seng Corporate Sustainability Index Series (see section 1.2.2, below).

In this age of globalization, who can stand alone? Mutual support based on trust is the only sustainable path forward. SMIC and the community can grow together. SMIC and our partners can prosper together.

As a member of SMIC's initial management team, I helped develop our unique corporate culture. There is nothing else like it, as the Harvard Business School discovered when it researched and published two case studies on it (see section 1.5.3). I invite you to read these case studies and see what they have to say.

For all of the above reasons, it has been my privilege and joy to return as CEO.

T.Y. Chiu, CEO  
October 2011





▲Our production facilities in Beijing (left), Tianjin, (middle), and Wuhan (right).

►Our grass parking lots are one of the ways we stay green, shown here in front of our headquarters in Shanghai.







▲Restaurants on our Shanghai campus (top) lease space alongside other shops, and our middle/high school (bottom) shares the campus with our elementary school.



▲A model of our Shanghai residential campus. From top left: (1) fitness center and elementary school; (2) middle/high school, track/field, and apartments; (3) houses and apartments; (4) apartments.



▲Our Shanghai residential campus (top), with its apartments and single family homes set alongside the main canal.  
▲Our Beijing residential campus (bottom).



Sprinkled throughout are dozens of restaurants, stores, and other small businesses. Following this Shanghai model, all of our sites have residential campuses at various stages of development.





▲Our high school girls soccer team (above). Many of our graduates are studying at top U.S. universities, such as Princeton and Brown.

►Daily life in SMIC residential communities revolves around school, family, and social organizations. From left, a church cookout in Beijing; a school recess in Shanghai; and play time in Beijing.





## 1.0 Trust

Trust is the foundation of good business. Trust must be developed in each relationship between the company and our employees, customers, shareholders, vendors, regulators, and the residents of the communities where we operate. A trustworthy company is both efficient and harmonious. It is a good corporate citizen and an attractive business partner.

Trust must be earned. We earn trust by treating each individual fairly and by stewarding the capital and natural resources entrusted to us. Above all, we earn it by following the rules, including all the laws and standards laid down for our industry. A law-abiding company is a trustworthy company.

Corporate social responsibility means more than meeting legal minimums. It is a shared determination to embrace the law's spirit, as well as its letter. At SMIC, CSR is our conscious effort to meet the law's objectives in areas such as corporate governance, financial reporting, workplace safety, quality control, environmental stewardship, and many others, as discussed in the following pages.

►For more information about our business, please see our complete Annual Report, available on our Website at:

[http://www.smics.com/eng/investors/ir\\_report.php](http://www.smics.com/eng/investors/ir_report.php).



### 1.1 Building Trust by Meeting Legal Standards

As a public company listed on the Stock Exchanges of New York and Hong Kong since 2004, SMIC must comply with strict legal requirements for corporate governance, financial accounting, and transparent reporting. We also issue regular audited reports on our activities, performance, and legal compliance as required by the securities regulators of the United States and Hong Kong. See our policies, reports, and regulatory filings at [www.smics.com/eng/investors/ir.php](http://www.smics.com/eng/investors/ir.php).

#### 1.1.1 Code of Business Conduct and Ethics

Our Code of Business Conduct and Ethics (Ethics Code) helps ensure our legal compliance as well as our integrity and accountability. It addresses fraud, conflicts of interest, protection of intellectual property, transactions involving company securities and assets, relationships with customers, vendors, investors, and other parties, and more. See [www.smics.com/eng/investors/ir\\_ethics.php](http://www.smics.com/eng/investors/ir_ethics.php). It applies to all employees, directors, contractors, consultants, and agents, and requires them to comply with all company policies and applicable laws and to report any violations under confidential procedures. It is enforced by our Compliance Office, as supervised by our Chief Compliance Officer and our Board of Directors' Audit Committee. Violations result in warnings, discipline, termination, or prosecution.

All of our employees receive a copy of the Ethics Code and certify that they will comply with its policies and any additional policies or laws specific to their jobs. They also receive regular mandatory training and testing on the Ethics Code, and frequent messages about it from our Compliance Office, Legal Department, and outside legal counsel. Some key areas covered by our Ethics Code are discussed in the following paragraphs.

#### 1.1.2 Anti-Fraud Policy

Our Ethics Code demands honest business dealings. All our employees enjoy positions of trust, requiring their ethical use of customer, third party, and company assets, including physical and intellectual property. There is no place for fraud.

#### 1.1.3 Insider Trading Policy

In accordance with securities regulations, SMIC prohibits company insiders from misusing company information for personal gain and from dealing in company stock during blackout periods. Our Ethics Code outlines the key requirements of company policy and securities law. Our Compliance Office enforces these requirements.



***"Trust is earned by following the letter and spirit of the law. We work hard to earn trust and be a responsible business partner."***

**Barry Quan,**  
Chief Legal Officer

▼As a public company listed on the New York Stock Exchange and the Hong Kong Stock Exchange, SMIC complies with rigorous standards and reporting requirements.





***“Sound finances  
and honest  
communication  
engender trust.”***

**Gary Tseng,**  
Chief Financial Officer

#### 1.1.4 Public Reporting and Communications Disclosure Policy

Our corporate governance procedures guide our officers in preparing and disclosing our public communications, financial statements, and regulatory filings. In consultation with our Disclosure Committee, Audit Committee, Internal Audit, Legal Department, and outside legal counsel, our officers certify the accuracy of all such public disclosures under applicable laws and generally accepted accounting principles. This system helps ensure our reporting accuracy and internal accountability.

#### 1.1.5 Anti-Bribery Policy

Regardless of location or nationality, our employees, agents, and contractors must comply with the U.S. Foreign Corrupt Practices Act, Hong Kong Prevention of Bribery Ordinance, and other applicable anti-bribery and anti-corruption laws. Our rules for giving or receiving gifts are detailed in our Ethics Code and enforced by our Compliance Office.

#### 1.1.6 Classified Information Protection Policy

We have extensive procedures to secure confidential information and intellectual property. Our Classified Information Protection Policy (CIPP) protects the valuable information of SMIC and our customers and partners by prohibiting unauthorized use or disclosure. Our document management systems identify such information; our physical security systems limit access to it and the ability to copy or transfer it; and our Legal Department issues instructions regarding its retention or destruction. Our employees receive frequent CIPP training from our Legal Department and outside legal counsel, and our policies are strictly enforced.

#### Recognition from our Customers and Business Partners

Our customers and business partners expect us to provide quality service in compliance with industry standards. When we exceed their expectations, they recognize our progress with awards that inspire further improvement.

In 2010 we were called **“Best Supplier”** by GalaxyCore, **“Best Vendor”** by Siano, and **“Best Strategy Partner”** by RDA Microelectronics, among many others.

***“SMIC has become a world class foundry with reliability, integrity and extremely fast turn-around. TI is proud to count on SMIC as one of our foundry partners.”***

**Kevin Ritchie,**  
Senior Vice President of Texas Instruments,  
honoring SMIC with TI's  
2010 Supplier Excellence Award



#### 1.2 Building Trust by Meeting Industry Benchmarks

Leadership in environmental and other industry standards is more than technical compliance. It protects our most valuable assets – our people – and enables them to trust management and work more efficiently and profitably. It also protects our shared environment, building trust with all our stakeholders.

##### 1.2.1 Conflict Minerals Policy

We stand with our industry peers in opposing the abuse of Central Africa's people and environment by armed groups financed by the sale of minerals used in global supply chains. As a U.S.-listed public company, SMIC complies with the “conflict minerals” provision of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, and supports industry-wide efforts to identify and remove offending sources from supply chains.

##### 1.2.2 Hang Seng Corporate Sustainability Index Series

SMIC is honored to be part of the Hang Seng's new Corporate Sustainability Index Series. Companies chosen for this index “have attained a high standard of performance in the environmental, social and corporate governance areas.” Inclusion in the index is based on robust standards that emphasize objectivity and investability, making them “excellent benchmarks.”

As summarized by Hang Seng:

*International focus on corporate sustainability – encompassing environmental, social and corporate governance – has risen dramatically in recent years. Sustainability investment is growing across the globe as investors diversify their investments to increasingly focus on those companies that perform strongly with regard to corporate sustainability.*

For more information, see [www.hsi.com.hk](http://www.hsi.com.hk)

► SMIC is proud to be part of the Hang Seng Corporate Sustainability Index Series and compliant with a rising number of international and industry standards.



***“We implement  
leading standards  
throughout our  
organization. We  
want to be a green  
company.”***

**William Yan,**  
Associate Vice  
President, ESH







### 1.2.3 Industry and Environmental Standards

We use industry standards as a guide for our development and to meet our customers' requirements. This process ensures our business methodologies are informed by the best practices available and compatible with other leading companies.

Following audits by internationally recognized firms, we have been certified as compliant in important areas by the British Standards Institution (BSI) and other organizations aligned with the International Organization for Standardization (ISO). We also have been certified as a Sony Green Partner, which reflects the industry standard for semiconductor foundries. Our key certifications are detailed below and many of our compliance measures are discussed in section 3.0.



#### 1.2.3.1 Quality Management Systems (ISO 9001)

We have maintained ISO 9001 certification for Quality Management Systems for all our sites since 2002. This certification reflects our longstanding quality control standards. With ISO 9001 as guidance, we have developed reliable systems of checks, evaluation, and communication with our customers to ensure the quality of all procedures, including design, development, production, and service.



#### 1.2.3.2 Supply Chain Directives (ISO/TL 9000)

Similar to our ISO 9001 certification above, our TL 9000 certification focuses on Quality Management Systems for our customers in the telecommunications industry. TL 9000 emphasizes the integrity of supply chain directives. Our Shanghai, Beijing, and Tianjin sites have been certified since 2005.



#### 1.2.3.3 Defect Prevention (ISO/TS 16949)

Also based on ISO 9001 above, our ISO/TS 16949 certification focuses on Quality Management Systems for our customers in the automotive industry. The purpose of ISO/TS 16949 is to eliminate defects from one link to the next in the automotive supply chain, providing quality assurances for the final customer. All of our sites are certified.

#### 1.2.3.4 Occupational Health and Safety (OHSAS 18001)

Since 2003, our certification in Occupational Health and Safety Assessment Series 18001 has guided our health and safety management. With this standard as a framework, we strive to reduce risks, provide our employees with a safer and healthier workplace, and secure company assets. The rigorous process assures stakeholders of our commitment to risk reduction.



#### 1.2.3.5 Environmental Management Systems (ISO 14001)

We obtained our ISO 14001 certifications for Environmental Management Systems starting in 2002. Meeting this international standard certifies our responsible use of materials through recycling, waste reduction, and pollution prevention.



#### 1.2.3.6 Greenhouse Gas Measurement (ISO 14064)

We recognize the problem of global climate change. In June 2010, our Shanghai site became the first semiconductor facility in mainland China to obtain ISO 14064 verification, and our other sites obtained it shortly thereafter. SMIC conforms to this standard by implementing energy-saving measures to reduce greenhouse gas emissions. We measure our greenhouse gas output and set annual emissions-reduction targets.



#### 1.2.3.7 Hazardous Substance Management (GPMS and QC 080000)

In 2006, we became the first foundry in mainland China to receive GPMS certification for safe and environmentally-friendly products. Since then, all our fabs have received QC 080000 certification, assuring our compliance with the Directive on the Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment.



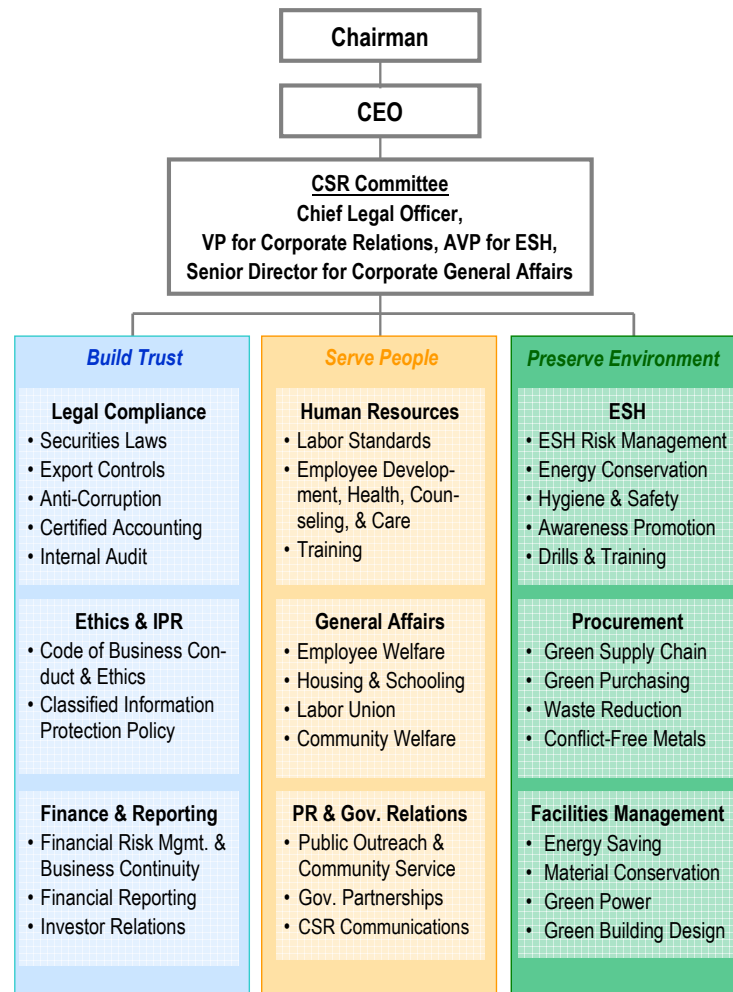
#### 1.2.3.8 Sony Green Partner

Our Shanghai headquarters site has been a Sony Green Partner since 2006. This program creates an industry-wide standard recognized by our leading customers as a reliable indicator of environmentally conscientious practices throughout the product development and manufacturing processes.



### 1.3 Building Trust by Institutionalizing CSR

Corporate social responsibility is embraced by our top executives. Leaders of key functions form our CSR Committee to coordinate our business practices and policies regarding legal compliance and care for people and the environment. Such responsibility extends throughout our organization, as ethics and good practices are built into our processes and each employee commits to uphold our Ethics Code. By institutionalizing CSR at SMIC, we ensure that we meet our commitments and our practices are aligned with the best in the industry.



### 1.4 Building Trust by Leading Regulatory Compliance

We lead regulatory compliance in areas such as international export controls, setting a positive example for industry in China and building trust with the rest of the world.

Export control regulations are designed to keep technology out of dangerous or unauthorized hands. In the semiconductor industry, even purely commercial technologies and products are strictly regulated as “dual-use” items if they also have a potential military or weapons use. To become the leading semiconductor company in China, we had to develop the leading Internal Compliance Program (ICP) for export control compliance.

Our ICP team consists of expert staff plus the leading consultant in the field. Together, they work with regulators and vendors to acquire licensed tools and technology. To comply with the licenses, they manage an internal system that tracks every regulated item, screens every customer and product order, generates records and reports, undergoes internal and external audit, and welcomes regular government visits and review.

As a result of our ICP leadership, we are a trusted customer of U.S. regulated technology. Among other distinctions, we are a longtime beneficiary of Special Comprehensive Licenses issued by the U.S. Government, and a charter member of its Validated End-User (VEU) program.

Overall, we have the most advanced U.S. licensing status in China, with approval to operate at the cutting edge of technology. We use this leadership position to promote our business. We also use it to promote best compliance practices and better U.S.-China cooperation by working directly with regulators, speaking at conferences, participating in the China-US Hi-Tech Working Group, and co-chairing the American Chamber of Commerce Export Compliance Working Group.

We view our compliance not only as a legal requirement but also as a shared obligation to prevent the dangerous misuse of technology. In the process, we promote the rule of law while building bridges within the international community.



▲ Our ICP Team audits our fab in Beijing, in 2010.

▼ Chinese and American officials gathered in Beijing in October 2010 for the annual meeting of the China-US High Tech Working Group. At the invitation of both governments, we spoke on export control compliance.







▲A US delegation led by Congressman John Boehner visits SMIC in late 2009 while studying Asia's role in global economic recovery.

►Our CEO, TY Chiu (left), meets the US Ambassador to China, Gary Locke, in 2011.



►At top left, a visit to our Shanghai fab by officials from the US Departments of Commerce and Defense in October 2010. The other pictures show senior US military officers visiting our facilities during their annual study of the global semiconductor industry. We have hosted these visits each year since 2007.



### 1.5 Building Trust by Bridging Differences

Long-term prosperity requires global stability. China is an ancient country in the midst of rapid regeneration. It now commands the world's second largest economy and grows more important to global stability and prosperity each year. Yet China remains a mystery to most outsiders, including many global leaders. It has never been more important to bridge the differences between China and the rest of the world, especially the United States. Cultural bridges improve understanding and cooperation and advance mutual interests, including SMIC's. As China's top player in the highly regulated foundry industry, which requires maximum international cooperation, we remain both builder and beneficiary of these cultural bridges.

#### 1.5.1 Bridges for Foreign Officials

As a high-tech leader in China, we frequently host foreign government delegations and introduce them to local leaders and conditions. We also engage actively with embassies, consulates, and chambers of commerce across China.

### 1.5.2 Bridges for Foreign Business Leaders

As the leading semiconductor company in China, we host foreign business partners on a daily basis. We also support major industry events such as Semicon China, held each March in Shanghai. During the week of Semicon, we help welcome hundreds of global business leaders to China.



◀Our chairman gives the keynote address at Semicon China 2010, one of the industry's largest annual events (left). Industry colleagues visit our booth at Semicon (right).

### 1.5.3 Bridges for Future Business Leaders

As the world studies China's development and investment environment, we often host business school delegations. Regular visitors include Georgetown, Columbia, the University of Virginia, and the University of Southern California. The most frequent visitor is Harvard Business School, which has sent many delegations of students, professors, and researchers, and published two case studies on SMIC (HBS Case Nos. 9-611-053 and 9-609-062).



◀This 2010 Harvard delegation divided into two groups for a tour of our Shanghai fab, and then reunited for a tour of our residential campus and lunch at one of our restaurants. Smaller groups, like this 2010 Harvard research team (bottom, right), can dine in our employees' homes and see how they live.

## 2.0 People

Our company's success depends on the well-being of our staff and the communities where we operate. Thus, we ensure that our employees receive fair treatment, good health benefits, and meaningful opportunities for advancement. Together, we fuel the economic and social development of our company and communities.

From our founding in 2000, SMIC has attracted far-sighted people who want to make a difference in our industry and world. Our employees come from around the globe not only to employ their skills in advanced technologies, but also to bring sound values to bear upon our business and communities. It is our employees and their families who have inspired and led our good corporate citizenship.



▲Our staff at work in our Beijing fab. As SMIC is the most technologically advanced foundry in China, our engineers must be highly skilled.

▼Our Shanghai residential campus (left), and Beijing staff on a trip (right).



### 2.1 SMIC Residential Communities

Wherever we build fabrication facilities, we also build residential communities for our employees and their families. Our residential community in Shanghai is a 276,000 square meter multipurpose campus. It includes housing of all kinds, K-12 school, medical and dental clinic, pharmacy, fitness center, track and field, basketball and tennis courts, more than a dozen restaurants, plus stores for groceries, clothing, music, toys, books, electronics, sporting goods, and much more. Overall, it forms a healthy, safe, and supportive neighborhood that is subsidized for our employees but open to the larger community. It also forms the model for our sites in Beijing, Tianjin, and Wuhan, which all have residential communities at various stages of development.

Designed for safety and convenience, each residential campus is tucked away from high-traffic areas, but open to the neighboring community. Our Shanghai campus houses most of our 6,000 Shanghai-based employees. It is just 1.4 kilometers from our headquarters facility, which is accessible by foot, bicycle, or free shuttle bus. In addition to the amenities described above, employees can use many of our school facilities, including running track, sports field, indoor and outdoor courts for basketball, badminton, volleyball, and tennis, and several playgrounds.

A core element of each residential community is our company school. It offers award-winning curricula in English and Chinese tracks for SMIC families and surrounding communities. It is featured in section 2.3, below.

These communities do more than provide housing and schooling for SMIC families. They bridge cultures and generations. Languages from around the world are heard, as well as dialects from every part of China. As is customary in China, many employees invite their parents to live with them. It is common to see grandparents strolling with grandchildren, and extended families walking together. We support this inter-generational culture by including parents in housing and health care coverage (see section 2.4.3).

These communities also serve our business interests in many ways. They improve the recruitment and retention of staff and their quality of life by leveraging the company's scale and resources for overall cost savings. In 2010 alone, our staff enjoyed cost savings of more than 150 million yuan from subsidized housing, amenities, tuition, and daily meals, as well as free daily commutes. At the same time, the SMIC School earned a profit even while subsidizing tuition for employees' children, and the company reduced traveling expenses by housing our many employees who work across sites in our own company guest rooms instead of city hotels. Other, less tangible benefits were no less important. Our employees were able to recover the time ordinarily lost in daily travel to work, shops, and restaurants even as they enjoyed the well-being of secure, community living.



***"We work continuously to improve the way our employees work and live. We focus on corporate culture and community spirit, and strive to ensure safety around our campuses."***

**Henry Yuan,**  
Senior Director,  
Corporate General Affairs



▲Above, some of our shops and restaurants in a mixed-use building with employee apartments. By leasing space to small businesses, we create local jobs, bring essential services to our employees' doorsteps, and integrate SMIC with the community.



►The finish line of a race on SMIC Sports Day in Shanghai, where employees engage in friendly but spirited competition with each other.



►Sports also are popular at SMIC schools. Here, one of our boys' teams plays soccer in Shanghai.



◀Residents of our Beijing residential campus make the best of winter.



◀Grandparents stroll with their grandchild through our Shanghai residential campus. Our neighborhoods are multi-generational communities where grandparents help to care for children.





►Our Shanghai residential campus and community playground. Our facilities have many safe, colorful spaces for children to play.

▼Our residential campuses are spacious and green. Below, some of our apartments in Shanghai.

▼The Shanghai Fitness Center swimming pool complex on a summer day.



## 2.2 Clubs and Organizations on Campus

### 2.2.1 Mothers Club

The Mothers Club meets twice a week. It enables parents and children to teach and learn from each other on topics ranging from classical Chinese poetry to geography, and history to character-building. Parents take turns developing presentations and teaching the children, encouraging engagement and responsiveness to the interests of the group. Over 2,000 people have participated in the Mother's Club.

### 2.2.2 Evergreen Club

The Evergreen Club provides social support for our senior citizens. About 40 members participate in weekly events, including singing and crafts. Members also sell homemade dumplings and stage performances at annual company events, such as Sports Day, the Spring Fair, and the Chinese New Year Party (see section 2.6, below).

### 2.2.3 Family, Relational, and Youth Programs

We promote programs that strengthen family and community bonds. Support groups for married couples meet regularly, as do groups for young singles. On several occasions in 2010, a one-day program called "No Apologies" attracted 900 participants to discuss healthy attitudes towards life, love, and relationships. There also are many youth programs, often connected to our company schools or local churches.



▲Some of our Beijing staff join a church trip to the Great Wall of China.

▼Parents teach Sunday School lessons in Beijing.



◀Members of the Evergreen Club meet to work on a project.





▲Class in session at our Shanghai elementary school.

▼Young Shanghai students on International Day in 2010.



▲Our youngest students on School sports Day.

►School and company officials preside over the 2010 high school graduation ceremony in Shanghai (left). Graduates from the class of 2011 (right).



### 2.3 SMIC Private Schools

Our schools provide a world-class education for our employees' children at low cost. In 2001, we established the SMIC Private School in Shanghai for the children of our employees. In 2004, we opened it to the general public while retaining priority and subsidies for our employees. Today, the school has over 2,000 students and 200 teaching staff, and ranks in the top 1% of China's private schools.



Our Shanghai school offers kindergarten to 12<sup>th</sup> grade education. Its English Track uses a U.S.-style curriculum while its Chinese Track follows China's national system. Both tracks combine elements from Western and Eastern-style education and include language training to help all students become bilingual. Both tracks also approach student development holistically, emphasizing personal integrity, community service, and best efforts in classroom and after-school activities. This approach is summarized in the school's motto: "Honor, Excellence, Community, Joy."

As an approved college testing center, we administer the SAT, ACT, and AP tests to our English Track students. Some of our students have won international competitions and merit scholarships. Most of them have received admissions to top universities in the United States, such as Princeton, Columbia, Dartmouth, Brown, Duke, Washington University of St. Louis, Johns Hopkins, Rice, Vanderbilt, Berkeley, UCLA, USC, NYU, Carnegie Mellon, Georgetown, University of Virginia, University of Michigan, University of Texas, University of North Carolina, as well as Amherst, Williams, Wellesley, Smith, and Middlebury.

Our schools in Beijing and Wuhan follow a similar model. Established in 2005, our Beijing school offers kindergarten through 9<sup>th</sup> grade education, with over 800 students and 140 teaching staff. Founded in 2008, our Wuhan school serves nearly 200 students with 30 teaching staff.

*"The SMIC School is a family. We respect each individual as unique and value their potential. As the school develops, we strive to mold personal character by instilling good morals in our lessons. We aim to help students discover what it means to live as productive and well-rounded citizens."*

**Dr. Shu-Kuang Hu**  
Chancellor, SMIC Schools



▲The class of 2011 graduates from the SMIC High School in Shanghai.



► One of many performances at our annual Christmas party in Shanghai.



► A second grade classroom at our Shanghai elementary school.



◀ Celebrating after a game in Shanghai.



◀ Our middle school boys' soccer team plays in the international school league in Shanghai.







▲▼Our high school boys (above) and girls (below) compete in a Shanghai basketball tournament.



▲In Fall 2010, families enjoy the Shanghai School Carnival.

►Baseball in Shanghai, with one of our boys at bat. The team also competes in an annual tournament in Xiamen, against other teams in the region.



### 2.3.1 Sports and Arts

Our Shanghai school offers the usual team sports, such as basketball, soccer, badminton, volleyball, swimming, cross country running, and others. Our *SMIC Sharks* compete in international school tournaments across Shanghai. Many of our students also join local sports leagues that compete internationally. Regarding arts and music, our students develop their talents at school and independently, and perform in seasonal concerts throughout the year.

### 2.3.2 School Sports Day

Every year, our elementary, middle, and high schools in Shanghai hold a combined sports day. Students from both the English and Chinese tracks participate in a variety of organized sports and games. The event promotes fitness, friendly competition, and school spirit.

### 2.3.3 School Carnival

In October 2010, the Shanghai School PTA hosted its annual school carnival on the elementary school grounds. It featured dozens of booths with games of all kinds and hundreds of items for sale, including hand-made crafts, second-hand books, and food from around the world. The carnival also showcased an eco-friendly booth to protect "our one and only earth." The booth invited visitors to bring electronic waste, such as broken or unwanted cell phones, computers, and chargers, and exchange them for a gift. In managing booths, students learned basic business skills, including marketing, sales, and teamwork.

### 2.3.4 International Day

One Saturday each spring, the classrooms of our elementary school become different countries. To prepare for this day, the teachers and students in each class choose a country to study and showcase. Then they design their classrooms to represent that country with costumes, props, foods, and performances. When International Day arrives, parents and other guests sample the food and culture of each classroom (country) and get their special passports stamped. International Day is now a tradition at all of our schools, and a model for other schools in the region.

### 2.3.5 Multi-lingual Speech Competition

Each year, the school holds speech competitions in multiple languages to promote language study and proficiency. In the Bilingual Speech Competition, elementary school students show their proficiency in both English and Mandarin and practice their public speaking skills. In the Foreign Language Speech Competition, middle and high school students give speeches in either French or Spanish.

### 2.3.6 Writing Competition

Between April and October 2010, our Shanghai school co-hosted a Chinese writing competition with local educational associations. Our students from grades 3-12 competed with students from eight local international schools. The theme "Living in Shanghai" gave international students a forum to share their experiences as expats.



◀Students learn a traditional Israeli dance on International Day.



▲Students dress up and learn about other countries on International Day, celebrated at each SMIC school.

▼The SMIC International Day Passport.



#### SMIC Continuous Improvement Team (CIT)

- SMIC's CIT program encourages innovative projects that improve quality control and standardization.
- During the 2010 CIT competition, SMIC rewarded 119 employees for outstanding CIT projects.

#### 2.4 SMIC Workforce

SMIC employs over 10,000 men and women. To ensure a productive work environment, our policies offer incentives for individual and team performance while maintaining clear standards for ethics, safety, and business conduct. Our nearby residential campuses also provide our staff with a desirable living environment. Together, these working and living environments form larger communities that bridge work and family life. These communities are both attractive and efficient, increasing the quantity and quality of time available for work and family. They enable productivity and contentment by reducing burdens and distractions. The net effect is to inspire loyalty, longer-term commitment, and best efforts to improve and develop the company. In short, they enhance the recruitment, productivity, and retention of the SMIC Team.

We appreciate the benefits of a diverse workforce, including the harmony that comes from mutual understanding and respect. A diverse staff also helps us to connect and communicate with our global base of customers, suppliers, and investors. Over 600 of our employees come from 25 countries overseas. While Mandarin and English predominate in our offices, a wide variety of dialects and languages can be heard in our residential communities and at company events. Diversity goes beyond nationality. It has always been our policy to welcome veterans and persons with disabilities, and we accommodate our colleagues' special needs wherever possible.

##### 2.4.1 Workplace Safety

As further explained in section 3.2, a safe work environment is a top priority. Thus, all our fabs comply with international standards for workplace safety and health, and management of hazardous materials.



►Engineers in our Beijing fab.

As detailed in section 1.2.3, we long have maintained leading certifications, aligning SMIC with the industry's best practices. Our Environment, Safety, and Health (ESH) Division manages our policy, planning, implementation, internal audit, standards compliance, and continuous improvement programs, and ensures renewal of our certifications following independent third party audit. We also meet or exceed all employment regulations protecting children. We do not hire employees under the age of 18, and we take additional precautions before assigning younger workers to potentially hazardous occupational posts.

##### 2.4.2 Salary and Financial Benefits

In addition to competitive pay, all employees receive stock options so that they can prosper along with the company. They also are entitled to comfortable housing in our residential communities, healthy meals in our company cafeterias, and first-class education for their children in our company schools – all heavily subsidized by the company. Other key amenities include free or low-cost commutes to work and use of recreational facilities, plus low-cost and convenient shopping and dining.

##### 2.4.3 Health Care Coverage

A healthy staff is essential. Thus, we provide excellent health insurance options for our employees and their dependents which, in many cases, includes employees' parents. Coverage is available worldwide. Additional health-related services are listed below.

###### 2.4.3.1 Health Clinics and Consultations

We maintain professionally-staffed health clinics at our manufacturing sites, residential campuses, and schools. To help our employees maintain good health and peace of mind, we offer thorough annual health examinations. In 2010, over 5,800 employees received health exams. Our clinics also invite medical experts to our facilities to lecture on healthy living and provide consultations. Our Shanghai campus hosts specialists most weekends.

###### 2.4.3.2 Health Education and Counseling

In 2010, our Employee Assistance Program (EAP) offered more than forty health-related courses, attended by over 800 employees. Nearly 600 employees attended lectures by visiting experts on stress management and personal growth. In addition, our Employee Care team regularly sends all-staff emails with advice on how to maintain a healthy lifestyle and stay safe throughout the year. We also provide professional counseling for employees who request it. In 2010, these services included more than 400 hours of counseling plus hundreds of informal visits.

▼A SMIC manager discusses workplace safety in a mandatory annual training conference.



▲The medical and dental clinics on our residential campus in Shanghai.

▼Each of our fabs has an in-house health clinic and first aid center. Below is the health clinic in our Shanghai fab.







▲Training in Shanghai.

***In 2010, we hosted more than 2,000 training sessions and our e-learning courses were accessed almost 48,000 times.***

## 2.5 Training and Education

### 2.5.1 On-Site Training

All new hires attend thorough on-board training with company instructors. Topics include our policies and practices related to manufacturing, research and development, quality control, production support, legal and ethical compliance, individual development, and personal safety. We also provide specialized training for certain roles.

In addition to on-the-job training, our employees develop their professional skills through in-house training sessions and e-learning courses. In 2010, we offered more than 2,000 training sessions and nearly 700 e-learning courses, which were accessed almost 48,000 times. To help our staff gauge and reach their potential, each quarter they must work with their supervisors on an Individual Development Plan. Every plan includes courses and benchmarks and serves as a quarterly report card.

Each year we invite outside experts to provide training for our managers. The goal is to strengthen teamwork, efficiency, leadership, and management throughout the company. We also provide language training for our diverse workforce. For our domestic staff, we offer Business English, English Management, and an English Salon, all taught by native English speakers. For our international staff, we offer beginning, intermediate, and advanced Chinese, taught by native Mandarin speakers.

►Managers in a training session with a guest instructor.



### 2.5.2 Total Development Program

To maintain a healthy and focused workforce, SMIC promotes balance between work, family, and leisure: a work-life balance. Our Total Development Program offers courses and group activities to cultivate interests and skills among our staff. Over 1,100 people have taken part in the programs, including courses in painting, sewing, calligraphy, music, languages, and much more. We also routinely organize group travel throughout China to enable our employees and their families to explore and understand China while getting to know their colleagues, neighbors, and other traveling companions.



▲Employees on a trip to Yellow Mountain.

### 2.5.3 Continuing Education Program

As our employees grow, so does our company. Higher education contributes to the welfare and contentment of our staff, and improves the quality and value of our workforce. Thus, our Continuing Education Program encourages our employees to pursue college degrees in their fields. For approved staff, we subsidize tuition and encourage managers to accommodate course schedules. Employees take courses at local universities and at our facilities, where we invite and host professors.

Employees who participate in our Continuing Education Program perform better and stay longer at SMIC, remaining 7.5 years on average.

Through 2010, our employees earned:

- 365 Associate's degrees
- 240 Bachelor's degrees
- 333 Master's degrees

***Employees who continue their education while working at SMIC perform better and stay longer.***



◀SMIC employees from Beijing on graduation day.



▲A carousel at the 2010 SMIC Fair.

▼SMIC Sports Day in Shanghai in 2011.



▼Our annual Chinese New Year dinner in 2011.



▲Performers at our Chinese New Year party in 2010.

▶An SMIC manager lectures at Shanghai Jiaotong University in 2010.

## 2.6 Fostering the SMIC Community

SMIC hosts a variety of events to promote recreation, fellowship, and community spirit to enhance the well-being of employees, their families, and the surrounding communities. Below are a few of our favorite annual events.

### 2.6.1 Annual SMIC Fair

Each spring, the SMIC Fair brings thousands of people together on our Shanghai residential campus for a full day of food, rides, games, prizes, and cultural attractions.

### 2.6.2 Annual SMIC Sports Day

Each fall, SMIC hosts a Sports Day to promote exercise, health, and teamwork among our staff. After a parade and opening ceremonies, our employees compete in dozens of team and individual athletic events.

### 2.6.3 Annual Chinese New Year Party

Nearly all our employees celebrate Chinese New Year with us. The festivities include traditional banquets with food and prizes for our employees and business partners, and music and dance performances by our employees.

### 2.6.4 Annual Christmas Party

Many of our employees celebrate Christmas or join their colleagues for the festivities. We generally host an evening of performances by staff, students, and local residents.

### 2.6.5 University Engagement

Many of our managers lecture at local universities and host field trips to our facilities. Science and technology are the most popular subjects, but law and foreign relations are gaining popularity.



## 2.7 SMIC Employees Reaching Out

Since SMIC's founding in 2000, our community spirit has extended beyond our own campuses. Our employees and their families contribute thousands of hours of charitable service, often in collaboration with their schools and faith groups, as well as outside charities. They donate time and money for environmental and humanitarian causes throughout the region, such as disaster relief from the 2008 earthquake in Sichuan and the 2011 tsunami in Japan.

Our tradition of community service began with our founding CEO, who personally funded rural schools and local churches all around China. His example has inspired our employees to continue their volunteer efforts with company support. Over the years, SMIC volunteers of all ages have connected with thousands of people, meeting needs and promoting fellowship and understanding.

### 2.7.1 SMIC at the Shanghai Expo 2010

The 2010 World Expo in Shanghai was the largest world's fair in history, drawing 73 million visitors over a six-month period. We contributed to the Expo in many ways, from organizing blood donations to facilitating group visits. Most importantly, we hosted family, friends, and strangers from around the world. In so doing, we helped countless people better understand China.

### 2.7.2 SMIC Blood Drive

Each year, we host blood drives for Shanghai and Beijing hospitals. With trained medical staff on hand to attend to donors, we encourage all employees to donate. In 2010, 231 of our employees donated blood.

### 2.7.3 Giving Tree

Our employees have long supported the Giving Tree project, which sends Christmas gifts to underprivileged children around China. Volunteers receive Giving Tree bags to fill with clothing, shoes, stationery, and toys according to a child's age and preferences.

### 2.7.4 Home Sweet Home

Home Sweet Home is a charity that provides housing, education, and job training for persons with disabilities. In July 2010, 21 volunteers from our Shanghai site helped the charity move to a new facility across town. Afterward, they shared a meal with the residents, and learned more about the lives and needs of disabled persons in Shanghai.

### 2.7.5 Elderly Home

Our employees often volunteer in activities that promote love and respect for elders in the community. For example, 34 of our Shanghai employees visited an elderly home in 2010 to sing for the residents and offer companionship.



▲SMIC employees embraced the 2010 Shanghai World Expo.

▼Each Christmas, employees assemble bags of warm clothes, school supplies, and toys for the Giving Tree, a nonprofit serving children of migrant and rural families in China.







▲Our dragon boat team competes each year near our headquarters.

### 2.7.6 Zhangjiang Dragon Boat Race

Our employees field a team in the annual Dragon Boat Race organized by the Zhangjiang High-Tech Park surrounding our Shanghai headquarters. The race brings together teams from local organizations for friendly competition, and highlights traditional Chinese culture. The event draws spectators as well as a television audience. In 2010, after weeks of training, SMIC won second place.

### 2.7.7 Zhangjiang Charity Run

The Zhangjiang High-Tech Park also organizes an annual charity run to raise awareness and funding for local charities supported by Community Center Shanghai. Each year, our employees form a team for the race and make donations to the cause. The event began in 2007 and has grown every year. By 2011, it featured dozens of teams from local companies, schools, and organizations and raised 198,000 yuan for charity.

### 2.7.8 Other Sporting Events

We host community sports competitions, including basketball and soccer tournaments, and otherwise make our athletic facilities available to our local communities. In addition, many of our employees also take part in such local sporting events as the Zhangjiang Swim Competition, Jinqiao 8K run, JP Morgan Corporate Challenge charity run, and the Shanghai Marathon.

►Our employees participate in charity races and fundraisers throughout the year. At right is our team for the 2011 Zhangjiang Charity Run, which our employees also funded generously.



## 2.8 SMIC Students Reaching Out

### 2.8.1 Students' Community Service Club

The Students' Community Service Club organizes dozens of charity and service events to help SMIC students complete their 100 hours of required community service. For example, about 20 students visited the Huge Grace Orphanage every month in 2010, caring for about 100 orphans and children with special needs.



### 2.8.2 Million Tree Project

Each year, the school's Environment Club joins Shanghai Roots & Shoots for its Million Tree Project. The project's goal is to plant one million trees in arid Inner Mongolia to reduce desertification and air pollution. In 2010, our students sponsored more than 1,000 trees.

### 2.8.3 Art Charity for the Red Cross

Since 2004, our Shanghai school has organized an annual Art Charity program with the Shanghai Red Cross Society. The program showcases our students' art creations and all the proceeds from sales help sick or disadvantaged children. In 2010, students from kindergarten to 8<sup>th</sup> grade exhibited 850 pieces of art and raised 220,000 yuan for sick children.

### 2.8.4 Rock for Charity

Rock for Charity is an annual charity concert produced by the SMIC School Students' Club. Begun in April 2007, the concert has grown to include students and teachers from nearby schools.

### 2.8.5 School Supplies for Rural Children

Many of our students donate new or "gently used" clothing, school bags, and school supplies to their less fortunate peers in western China. For example, a project sponsored by our Shanghai School PTA and Story Mom Program enables our students to donate their used school bags to rural school children. The goal for 2011 is to donate 1,000 school bags.

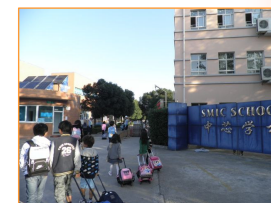


▲Our students are active in our communities, helping to care for children with special needs.



▲Our students hold an annual art sale to support the local Red Cross.

▼Our students walking to school in Shanghai. Each year they donate some of their school supplies to rural children.



◀Students from our Beijing school visit a fire station (left) and participate in the SMIC Charity Walkathon (right).

**See what international media say about the Chinese and SMIC faith communities:**

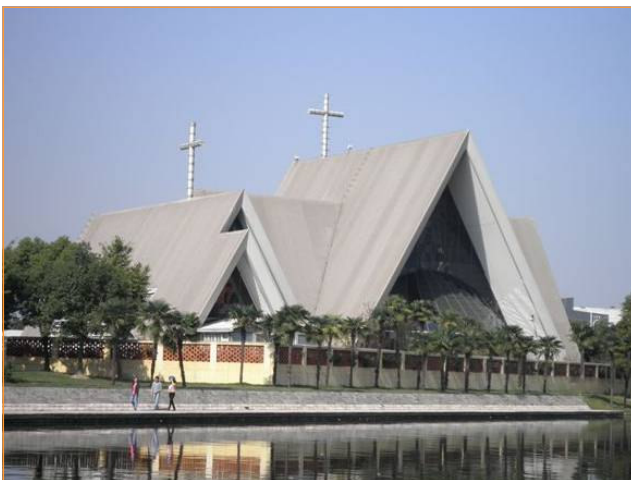
- BBC:  
A Report on "Faith in China"  
[www.bbc.co.uk/1/player/episode/b00ttrqx/Crossing\\_Continents\\_The\\_Church\\_in\\_China](http://www.bbc.co.uk/1/player/episode/b00ttrqx/Crossing_Continents_The_Church_in_China)
- Bloomberg Businessweek:  
"Praying for Success in Shanghai"  
[http://www.businessweek.com/magazine/content/08\\_28/b4092087099280.htm](http://www.businessweek.com/magazine/content/08_28/b4092087099280.htm)

►The Thanksgiving Church near our Shanghai campus, which hosts Chinese and English services on Sunday and various activities throughout the week.

►Journalists from Bloomberg Businessweek interviewed some of our employees about faith in China (left), and published a story (above).  
►The church choir performs during Sunday worship (right).

## 2.9 SMIC Faith Community Reaching Out

At the edge of our Shanghai campus is Thanksgiving Church, an official Chinese church supported and attended largely by our employees. Like any church, it is group of believers who seek fellowship and serve each other as they serve the surrounding community. In addition to attending Chinese and English worship services on Sunday, our church-goers remain a force for good throughout the week. They assist those in need by organizing disaster relief efforts, visiting orphanages, building rural schools, teaching English, providing counseling, and supporting all manner of charitable activities. They also support the community by leading, sponsoring, and attending youth and adult study, fellowship, and support groups. Our employees at our other sites have similar opportunities on their campuses and at any of the countless churches now available in China. According to a report by the BBC (left), churches increasingly are welcome in China for the charitable and social welfare services they provide.

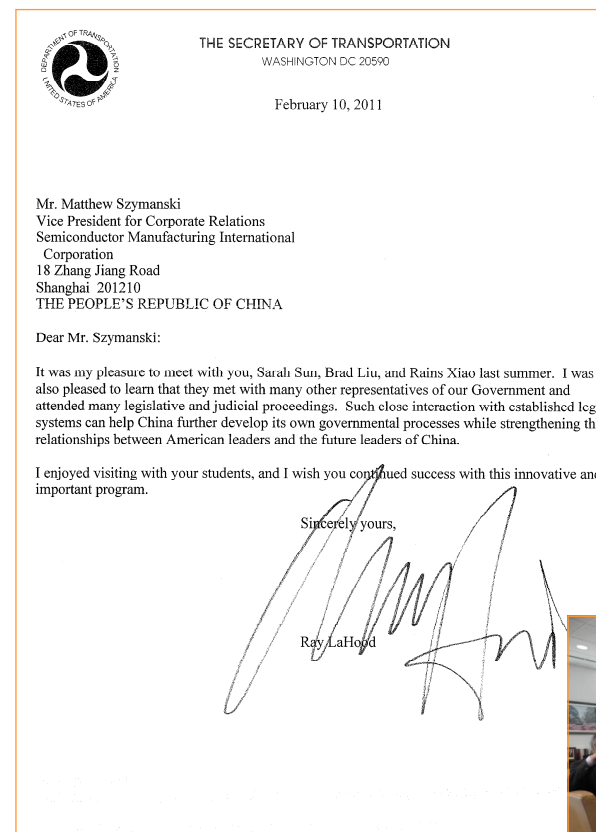


## 2.10 Individual Employees Reaching Out

In addition to joining group efforts, some of our employees develop their own projects for social and legal development in China. One example of many is below.

### 2.10.1 Rule of Law Immersion in Washington, DC

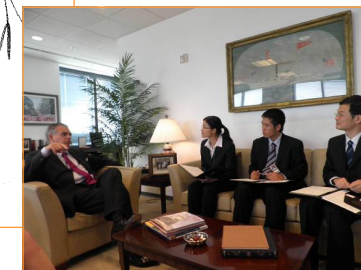
A frequent lecturer at Chinese law schools, SMIC's Matthew Szymanski funds a summer law program in Washington, DC for his top students. Since 2008, 13 of his students have met 316 American leaders representing both political parties, including 28 senators, 33 representatives, 44 administration officials, 9 judges, and 202 congressional staff. The students also have attended legislative and judicial proceedings and participated broadly in American life.



▲▼Mr. Szymanski lectures at Peking University, Jiaotong University, and East China University of Political Science and Law (above), and holds some classes at SMIC and his home (below).



▼◀In June 2010, Mr. Szymanski and his students met with US Secretary of Transportation Ray LaHood (below), who wrote this letter (left). Similar letters have come from 30 other US and Chinese officials.





### 3.0 Environment

Environmental stewardship is at the core of our mission, from our facilities' safety to our impact on natural resources a world away. Among semiconductor foundries, we are a leader in workplace safety and innovations to mitigate environmental impact. The results of our efforts benefit our neighbors and stakeholders, and are felt first in our own communities, which are safe and clean. As we begin our second decade, we continue to refine means to measure consumption, conserve resources, and replace harmful products and emissions with responsible alternatives. Slowing down is not an option.

Green policies are good business. As our customers seek to understand and minimize their environmental footprints, we support their work by doing the same (see section 1.2). As investors increasingly shift their capital toward companies with stronger environmental performance, we meet their expectations by continuing years-long practices of resource conservation and expanding our portfolio of standards certifications. As a result, we were honored in 2011 with selection to the Hang Seng Corporate Sustainability Index Series (see section 1.2.2).

▼The canal that runs through our Shanghai residential community is a popular fishing spot.



#### 3.1 Environment, Safety, and Health

Our policies and practices on environment, safety, and health (ESH) reflect the regulations and standards of our industry as well as our desire to protect our surroundings and staff. We focus on workplace safety, energy savings, waste reduction, a green supply chain, and management objectives such as transparency and employee training.

#### 3.2 Safe Work Environment

Workplace safety is paramount because life is precious and accidents are costly. A single significant accident can destroy lives and cripple a company. Robust safety practices are the best prevention, and they result in a well-earned reputation for safety that reassures workers as well as regulators, allowing everyone to focus on their jobs. Thus, safety management policies run throughout our operations, supported by a culture of accountability and accident prevention. These policies include training for employees and vendors, monitoring and emergency response at each site, and personal practice of safety as a measure of employee performance.

#### 3.3 Cleaner Production

Each of our sites has passed audits for conforming to the Cleaner Production methodology. By implementing the Cleaner Production methodology, SMIC seeks to minimize the impact of production on human health and the environment by utilizing resources efficiently, reducing or eliminating pollution from production, and regularly upgrading facilities.



#### SMIC Industry Certifications

##### Quality Certifications

- **ISO 9001**  
Quality Management Systems
- **ISO/TS 16949**  
Defect Prevention
- **ISO/TL 9000**  
Supply Chain Directives

##### Health and Safety Certifications

- **OHSAS 18001**  
Occupational Health and Safety
- **QC 080000**  
Hazardous Substance Mgmt.

##### Environment Certifications

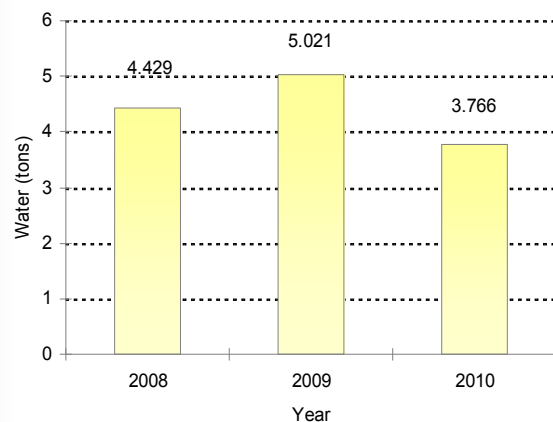
- **ISO 14001**  
Environmental Mgmt. Systems
- **ISO 14064**  
Greenhouse Gas Measurement

See also section 1.2.3, above, or [www.iso.org](http://www.iso.org).

◀Trees line all sidewalks and roads in our Shanghai residential community.

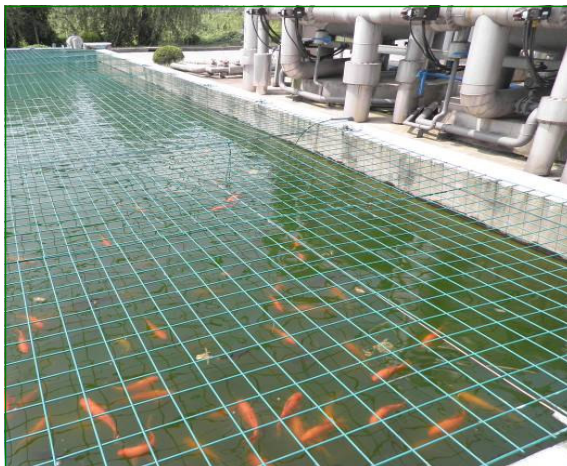
### 3.4 Water Conservation

At SMIC, we are sensitive to the growing demands placed on limited supplies of water around the world and in our own communities. We therefore implement water conservation measures wherever possible. Each SMIC site has upgraded its systems to minimize water consumption and cut waste. We also maximize use of industrial water sources, easing demand on community water supplies. Some examples are detailed below.



▲TABLE:  
Average Water Consumed Per Wafer, 2008-2010.

▼Wastewater from our Shanghai fabs is cleaned so thoroughly that golden carp flourish in it.



#### 3.4.1 Rainwater Reclamation

We have developed a Rainwater Reclamation System at our Beijing fab to collect and purify water on-site. After purification, the water we collect is suitable for our manufacturing needs, and can also be used for our on-campus landscaping and organic farming plots (see section 3.11). By limiting our use of fresh water from municipal sources, our new system minimizes our impact on community resources.

#### 3.4.2 Air Purification

To ensure that the ambient air in our fab production rooms ("clean rooms") is one hundred times cleaner than the air in hospital operating rooms, we purify and dehumidify the air using a Make-up Air Unit Collection System. The moisture removed from the air is treated, purified, and reused in our Ultra Pure Water purification systems. Water savings are achieved by removing water from the air and reusing it in production.

### 3.4.3 Water Purification and Recycling

Similarly, our Ultra Pure Water system recycles wastewater from our various production processes. Using reverse osmosis water treatment, we purify and recycle the wastewater instead of disposing of it, thereby reducing our water consumption and our burden on the public sewage system.

#### 3.4.4 General Water Treatment

Safe water is vital to our families and communities. We live near where we work, and we share the water supply with our neighbors.

Consistent with ISO14001, we treat all water used in our processes with advanced methods to meet industry standards and government requirements. We monitor our wastewater for key indicators of water quality, and it is checked multiple times each year by third party auditors.

		2008	2009	2010
Shanghai Mega-Fab	pH	7.37	6.97	6.75
	Suspended Solids (mg/L)	14.1	18	24.33
	* COD (mg/L)	119	92.3	134.67
	** BOD (mg/L)	39.4	22.97	36.73
	Fluoride (mg/L)	11.17	9.19	1.54
Shanghai Fab 8	pH	7.32	6.61	6.63
	Suspended Solids (mg/L)	9	10.33	15.33
	COD (mg/L)	43.57	48.7	99.53
	BOD (mg/L)	15	10.69	26.73
	Fluoride (mg/L)	4.45	3.47	1.13
Beijing B1	pH	6.9	6.6	6.6
	Suspended Solids (mg/L)	12	14.5	47
	COD (mg/L)	135	208.5	178
	BOD (mg/L)	\	\	\
	Fluoride (mg/L)	0.68	5.1	9.8
Tianjin F7	pH	8.04	7.00	7.30
	Suspended Solids (mg/L)	67.00	42.00	89.00
	COD (mg/L)	64.50	116.00	42.80
	BOD (mg/L)	29.00	43.00	16.00
	Fluoride (mg/L)	1.40	0.64	2.60
Wuhan F12	pH		6.91~7.6	7.05~7.07
	Suspended Solids (mg/L)		57	35.3
	COD (mg/L)		81	32
	BOD (mg/L)		6.8	27
	Fluoride (mg/L)		6.96	11.1

◀ TABLE:  
Expelled Water Quality, 2008-2010.

\* COD: Chemical oxygen demand

\*\* BOD: Biochemical oxygen demand

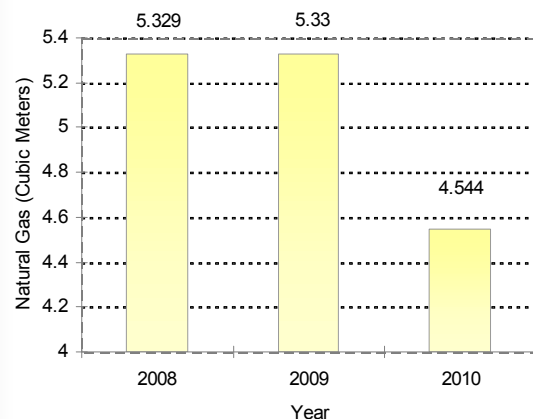


### 3.5 Natural Gas Conservation

Although natural gas is among the cleanest conventional fuels, SMIC has developed means to use it more sparingly, yielding both environmental benefits and cost savings. Two examples follow.

#### 3.5.1 Heat Capture and Reuse

Our Tianjin site installed a Boiler Economizer to collect heat from our production processes to heat water required by other systems. Whereas natural gas could heat the water we require, the boiler achieves the same result while achieving 95% greater efficiency.



▲TABLE:  
Average Natural Gas Consumed Per Wafer, 2008-2010.

#### 3.5.2 Air Treatment

Air emitted from our clean rooms has organic compounds that must be treated or "scrubbed" before discharge. Our Volatile Organic Compound treatment system treats the exhaust air by heating it to extreme temperatures. In addition to natural gas, we use steam generated by our manufacturing processes to produce the required heat. In 2010, SMIC used 14,157 tons of steam that otherwise would have been wasted, saving much natural gas and money.

▼Our HQ (background), with Shanghai skyline in the distance.



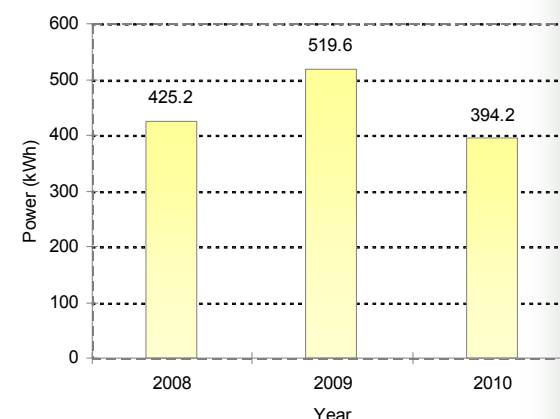
### 3.6 Electricity Conservation

Semiconductor manufacturing is energy intensive, but our conservation efforts yield significant energy savings and carbon reductions. Sound equipment maintenance, regular facilities upgrades, and thoughtful use of resources enable us to meet our energy consumption goals. As a result, our cuts in carbon emissions meet industry standards.

Throughout our facilities, solar panels power lights and street-signs, and solar water heaters serve our residents. We also have experimented with small wind turbines to reduce overall emissions. Further concrete examples follow.

#### 3.6.1 Alternative Refrigerant

Whereas conventional chillers use CFCs (Chlorofluorocarbons) as a refrigerant, the Lithium Bromide (LiBr) Chillers at our Wuhan site use water and a solution of lithium bromide. This system reduces lithium bromide to liquid waste for safe disposal instead of releasing CFCs into the air. It also reuses the by-product water vapor, ultimately reducing overall power consumption.



▲TABLE:  
Average Electricity Consumed Per Wafer, 2008-2010.

#### 3.6.2 Heat Reclamation

We need Ultra Pure Water (UPW) for the sensitive processes in our clean rooms. The purification process brings the water to high temperatures using electric heaters. At our sites in Beijing, Shanghai, and Tianjin, we have developed the Process Cooling Water (PCW) Heat Recovery System to capture heat from our production processes and preheat water for the UPW systems. This system reduces power consumption and the need for energy-intensive steam.

#### 3.6.3 Natural Cooling

We have developed a novel system to use outside winter temperatures at our Beijing and Tianjin sites to replace electric chillers that cool the water for production processes. Winter air brings the water to the temperature our processes require at nominal cost. It is hard to imagine a more environmentally friendly and economical way to reduce power consumption.

		2008	2009	2010
Shanghai Fab 1	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	0.1239	\	0.8699
	Fluoride (kg/hr)	0.0479	0.1555	0.10251
	HCl (kg/hr)	0.016	1.047	2.272
	NH <sub>3</sub> (kg/hr)	0.0053	0.0021	0.000379
	HNO <sub>3</sub> (kg/hr)	\	\	0.07766
Shanghai Fab 2	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	0.179	\	0.5771
	Fluoride (kg/hr)	0.0793	0.1684	0.2236
	HCl (kg/hr)	0.0377	0.828	2.166
	NH <sub>3</sub> (kg/hr)	0.0036	0.0123	0.000958
	HNO <sub>3</sub> (kg/hr)	\	\	0.11278
Shanghai Fab 3	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	0.1573	\	1.5676
	Fluoride (kg/hr)	0.1237	0.2979	0.2635
	HCl (kg/hr)	0.0538	1.023	3.772
	NH <sub>3</sub> (kg/hr)	0.0011	0.0009	0.003303
	HNO <sub>3</sub> (kg/hr)	\	\	0.1979
Shanghai Fab 8	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	0.2982	\	0.551
	Fluoride (kg/hr)	0.068	0.1345	0.0327
	HCl (kg/hr)	0.4717	0.56	2.692
	NH <sub>3</sub> (kg/hr)	0.0029	0.0011	0.0032
	HNO <sub>3</sub> (kg/hr)	\	\	1.3452
Beijing B1	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	0.013	0.11	0.061
	Fluoride (kg/hr)	0.003	0.056	0.005
	HCl (kg/hr)	0.004	0.035	0.081
	Cl <sub>2</sub> (kg/hr)	0.011	0.13	0.001
	NH <sub>3</sub> (kg/hr)	0.001	0.18	0.002
Tianjin F7	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	\	\	\
	Fluoride (kg/hr)	\	0.0015	0.213
	HCl (kg/hr)	1.36	0.012	0.00181
	Cl <sub>2</sub> (kg/hr)	0.067	0.0143	0.00652
	NH <sub>3</sub> (kg/hr)	0.024	0.0025	0.00803
Wuhan F12	H <sub>2</sub> SO <sub>4</sub> (kg/hr)	\	0.015	0.000228
	Fluoride (kg/hr)	\	0.169	0.000466
	HCl (kg/hr)	\	0.163	0.000438
	Cl <sub>2</sub> (kg/hr)	\	0.008	0.000928
	NH <sub>3</sub> (mg/m <sup>3</sup> )	\	3.832	0.211
	HNO <sub>3</sub> (kg/hr)	\	0.815	0.0136

### 3.7 Air Quality Control

We constantly seek ways to mitigate harmful emissions. We do this not only to satisfy regulations, but also to create safe air for our residential communities. It is vital that the air in our communities is safe.

The exhaust air from our production facilities is treated at several stages to remove organic and inorganic compounds before release. Our processes and results are consistent with ISO 14001 standards and government regulations, and are tested annually by both third-party auditors and government regulators.

#### TABLE:

Exhaust Air Quality, 2008-2010.

### 3.8 Waste Reduction and Recycling

Since our founding in 2000, we have sought ways to reduce waste. Most of our waste-reduction projects are employee-led and go far beyond industry standards. Even small projects to reuse materials have amounted to significant waste reduction. In addition, our facilities are routinely audited for responsible disposal of chemicals and industrial waste.

At our Shanghai headquarters site, employees reuse scrap wood to build bookcases, waste receptacles, outdoor benches, outdoor rest area pavilions, and more. The community bulletin board and safety signs in our Shanghai residential community are made of wood from shipping crates and other used materials.

The SMIC Second-Hand Markets are popular semi-annual events in our residential communities. These markets allow employees to offer unused personal items to others who will continue to use them, preventing both waste and needless consumption. The markets also collect clothing to donate to those in need.

▼ Packaging materials are recycled to create useful items around our facilities in Shanghai.





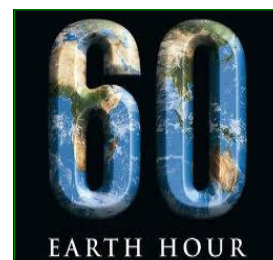
### 3.9 Environmental Awareness Promotion

In 2010, March was Environmental Protection Month at SMIC. Employees participated in World Water Day on 18 March, and organized a forum to share their ideas and advice on water conservation. The best ideas were published and distributed within the company. From 22–26 March, many employees also took part in Low Carbon Week by taking public transportation and using electricity conscientiously.

On 27 March, we invited employees to participate in the International Earth Hour, when people worldwide turned off all non-essential lights and electrical appliances from 20:30 to 21:30 to increase awareness of energy conservation. During the same week, employees participated in a campaign to “Save Energy, Lower Carbon, and Be Vegetarian,” to highlight the carbon dioxide emissions that a single person can prevent.

►An entry from SMIC employees for the ESH poster contest (left).

►SMIC participates in World Water Day and International Earth Hour (right).



### 3.10 Responsible Living

Leading companies implement green policies similar to ours, but we go one step further by taking them home with us. Our residential communities are distinctive for their low-density arrangements and plentiful greenery. The open design favored by our company's founders continues to benefit our employees and neighbors by providing leafy enclaves amid the bustle of China's largest cities.



In Shanghai, our HQ (above) faces a park, and our residential campus (below) contains a canal where ducks make their homes and residents catch fish. Some buildings and street lights use solar energy; many recycling facilities are on-hand for residents; and most “every-day” amenities are nearby, limiting the need for cars.



### 3.11 Organic Farming

For much of our history, our Shanghai site has reserved ten acres for organic planting and gardening. Three of these acres have been organic farming plots, which employees may use to grow vegetables and flowers. The remaining seven acres are for trees and vegetation that clean the air and surround our facilities in fields of green amid the modern landscape of our high-tech park.



*The foundry for your vision.*

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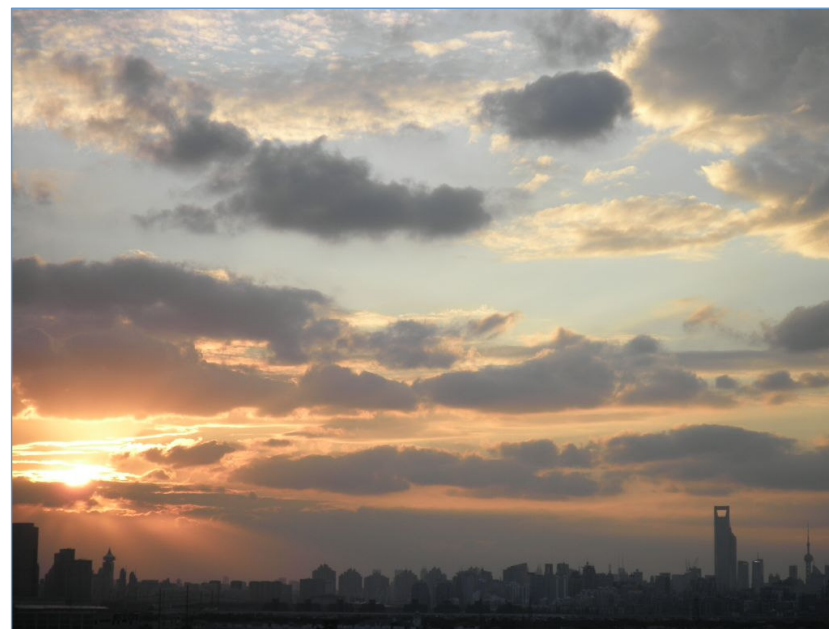
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▲The main entrance to our Shanghai headquarters facility. Green landscaping is not just found at SMIC. Our entire high-tech park is green, consistent with growing efforts nationwide.



▲Our view of the Shanghai skyline as we exit headquarters after a good day's work. Green policies will only improve our view.