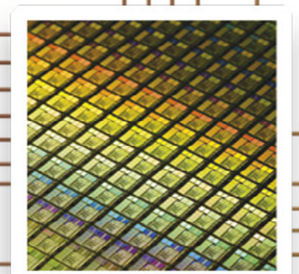
TSMC 2014 Corporate Social Responsibility Report



The Chinese character 永, meaning perpetual or eternal, represents TSMC's commitment to sustainable business

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TSMC's Core Values

Integrity

Integrity is our most basic and most important core value. We tell the truth. We believe that the record of our accomplishments is the best proof of our merit. Hence, we do not brag. We do not make commitments lightly. Once we make a commitment, we devote ourselves completely to meeting that commitment. We compete to our fullest within the law, but we do not slander our competitors and we respect the intellectual property rights of others. With vendors, we maintain an objective, consistent, and impartial attitude. We do not tolerate any form of corrupt behavior or politicking. When selecting new employees, we place emphasis on the candidates' qualifications and character, not connections or access.

Commitment

TSMC is committed to the welfare of customers, suppliers, employees, shareholders, and society. These stakeholders all contribute to TSMC's success, and TSMC is dedicated to serving their best interests. In return, TSMC hopes all these stakeholders will make a mutual commitment to the Company.

Innovation

Innovation is the wellspring of TSMC's growth, and is a part of all aspects of our business, from strategic planning, marketing and management, to technology and manufacturing. At TSMC, innovation means more than new ideas, it means putting ideas into practice.

Customer Trust

At TSMC, customers come first. Their success is our success, and we value their ability to compete as we value our own. We strive to build deep and enduring relationships with our customers, who trust and rely on us to be part of their success over the long term.

Overview

TSMC believes a company's corporate social responsibility is to uplift society. As an important part of the technology industry, we will not only aim to maintain our leadership in worldwide competition and promote Taiwan's globalization and economic growth, but also continue to carry out our corporate social responsibility and do our utmost to be good corporate citizens in the future.

CSR Guidelines

Our 10 principles for practicing corporate social responsibility are important standards for continuing to support positive change in society:

01. We insist on honesty and integrity. We are honest to our shareholders, employees, customers, and to the public alike.
02. We respect the rule of law and always obey the law.
03. We abhor cronyism. We do not seek favoritism from the government or any government official, and we do not bribe.
04. We practice good corporate governance, and balance the interests of shareholders, employees, and all stakeholders in the Company.
05. We do not engage in politics.
06. We provide good job opportunities with a safe, comfortable, and intellectually challenging environment to give our employees both physical comfort and mental stimulation.
07. We do our part to control climate change and place great importance on the protection of the environment.
08. We emphasize and reward innovation, and actively manage the risks that innovation may bring.
09. We invest and develop power-efficient technologies to provide customers with more advanced, efficient and ecologically sound products to contribute to a greener world.
10. We support educational and cultural activities, and care for our communities over the long term.

CSR Management Approach

TSMC's decision-making and operations in corporate social responsibility (CSR) are led by the Company's Chief Financial Officer, who was appointed by the Chairman to act as an overall coordinator for the entire company's CSR activities. To better carry out and coordinate sustainability efforts, the Company founded the "Corporate Social Responsibility Committee" in 2011, bringing together representatives from all of TSMC's CSR-related business segments. Since 2012, CSR has been a topic on TSMC's Board meeting agenda. Annual CSR performance is reported to the Board.

The CSR Committee holds quarterly meetings to discuss related topics, led by the CFO and the President of the Volunteer Program. The quarterly CSR meeting systematically and effectively carries out our corporate social responsibilities by following a "Plan-Do-Check-Act" cycle to regularly review interaction with stakeholders and the issues that concern them, discuss progress in CSR activities and set future plans. Through close cooperation between organizations, CSR is now an integral part of TSMC's daily operations.

Stakeholder Engagement

TSMC's stakeholder management procedure is divided into four stages: identification, analysis, plan, and engagement. In order to pursue sustainable operations, TSMC establishes individual communication channels with each of our stakeholders according to their influence and issues of concern. We communicate with stakeholders through multiple channels established by CSR-related units, and compile their economic, social and environmental concerns.

TSMC believes that sustainability, ethics, and integrity are fundamental to a company's long-term success. As we carry out our CSR principles, it is our firm belief that customers will trust us more because of our honesty and integrity, respect for the law, and good corporate governance. Investors will be more willing to invest over the long term because of our clear core values, and employees will feel closer to the Company as they identify with those values. Carrying out TSMC's social responsibilities brings us greater competitive advantage, creates greater value for shareholders, and benefits all of our stakeholders.

DJSI Industry Group Leader

In 2014, TSMC was recognized by the Dow Jones Sustainability Indexes (DJSI) as the Semiconductors and Semiconductor Equipment Industry Group Leader for a second consecutive year, once again affirming the Company's commitment to sustainability and corporate social responsibility. Moreover, TSMC is one of only two semiconductor companies chosen as index components for 14 consecutive years.

ROBECOSAM Sustainability Award Industry Leader 2015

Report Scope and Profile

Through our 2014 CSR Report, we would like to demonstrate our continuing efforts in sustainable development from the economic, environmental and social dimensions.

This report outlines our performance in the full 2014 calendar year for the most relevant CSR topics to our stakeholders and our business. It mainly covers the topics identified with "materiality", while we also report some special topics to describe other activities in 2014. Regarding the report boundaries, this report contains CSR-related data and activities of all TSMC fabs located in Taiwan, our overseas subsidiaries including TSMC China, WaferTech in the United States, and other subsidiaries' information with materiality. There is no significant change from previous reporting periods in the scope and boundaries (please refer to "Stakeholder Engagement" for our identification of materiality and our boundary of each material topic). Financial figures in this report are based on consolidated financial information and were in NT dollars unless otherwise specified. Environmental performance is expressed in commonly accepted benchmarks.

We publish this report annually and the 2014 report is based on the Global Reporting Initiative (GRI) G4 framework with an attached table in the appendix for the readers' reference. In addition, we refer to United Nations Global Compact, and also provide a reference table in the appendix. This report is published in both English and Chinese and is available on TSMC's corporate website.

Report Assurance

DNV GL Business Assurance reviewed this report against the DNV GL VeriSustain Protocol and the GRI G4 guideline. It also verified that this report is in accordance with the comprehensive option of the G4 guidelines. Financial data and Greenhouse Gases (GHG) emission/reduction data are based on a verified financial report and GHG Inventory report. DNV GL's Report Assurance Statement can be found in the annex of this report.

16 16 U.S. LEED Certifications at "Gold" Class or higher

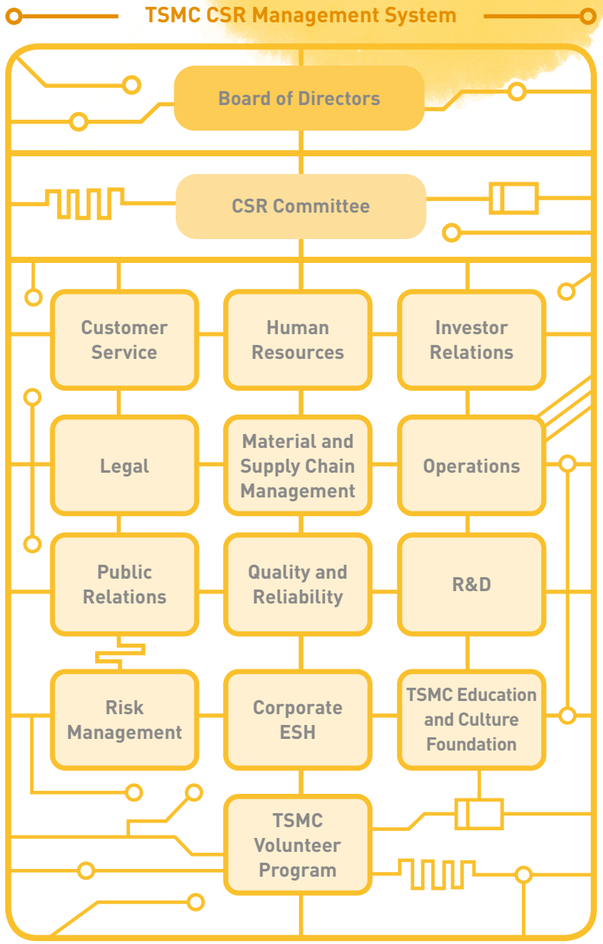
2 DJSI Semiconductors and Semiconductor Equipment "Industry Group Leader" for the 2nd consecutive year

3.7 Market capitalization reached a record US$115 billion in 2014

3,211 Volunteer numbers increased to 3,211 in 2014

5,500 Recruited over 5,500 new employees in 2014

91,000 91,000 students from remote townships have participated in the "TSMC Aesthetic Tour" and "TSMC Science Tour"



2014 CSR Achievements, Awards, Recognitions, and Future Goals

The Summary of TSMC CSR Achievements and Goals

TSMC CSR Goals and Achievements in 2014 are summarized as follows:

	CSR-related Topics	Commitments or Goals	Performance Indexes or Guidelines	2014 Achievements	Future Focuses
Governance	Regulatory Compliance	Continuously promote compliance awareness	• Maintain a good record of regulatory compliance and prevent noncompliance	• Provided various regulatory compliance training courses with special focuses on anti-corruption, fair competition, environmental regulations, and export control, which also promoted the compliance awareness • Advised local government on legal policy. For example, our advocacy of stronger trade secret protection caused favorable reforms	• Continue reinforcing the compliance program and prompting employee awareness on TSMC's ethic standards and key compliance area, including (but not limited to) anti-corruption, fair competition, labor law compliance • Provide our comments and recommendation to government authorities to bridge the gap between local legislation and global practices so as to improve the local investment environment and boost economic development
Economic	Shareholder Value Creation	Achieve profitable growth	• Financial objectives: - Average ROE across cycle greater or equal to 20% - 10% profit before tax compounded annual growth rate from 2010 to 2015	• 2014 ROE reached 27.9%, profit before tax increased 40.2% • Dividend-adjusted share price increased 36.7% during 2014 and market capitalization reached a record US$115 billion	• Continue to invest in advanced technologies to drive future growth, while maintaining or improving structural profitability and return on investments • Continue to enhance corporate governance and maintain good relationship with investors
	Innovation Management	Advanced technology	• Extend Moore's Law	• 16FF+ technology passed full reliability qualification on-schedule in the fourth quarter of 2014. This enhanced version of TSMC's 16FF technology operates 40% faster than planar 20nm System-on-Chip technology (20SoC) or consumes 50% less power at the same speed. It offers customers a new level of performance and power optimization targeted at the next generation of high-end mobile, computing, networking, and consumer applications	• 10nm 3rd generation FinFET technology for both digital and analog products • 7nm CMOS platform technology for SoC • EUV and multiple e-beam to extend Moore's Law

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	CSR-related Topics	Commitments or Goals	Performance Indexes or Guidelines	2014 Achievements	Future Focuses
Economic	Innovation Management	Spectrum of technology	• TSMC continues to conduct research and development on a broad mix of capabilities. The Company enhanced its SoC (System-on-Chip) roadmap, with higher integration and more variants	• 55nm high voltage process entered production with the industry's smallest SRAM bit cell offering to support narrow border design of Super Retina display driver IC for high-end mobile phones • Successfully produced the world's smallest CMOS-MEMS monolithic accelerometer for customers • TSMC qualified for manufacture a new TSV-based platform in 2014. This is an important industrial milestone to integrate TSV with active devices • The first foundry to implement GaN technology in a 6-inch fab	• Special SoC technology (including new NVM, MEMS, RF, analog) and 5nm transistors • Cost-effective solution with better form factor and performance for SIP
	Customer Satisfaction	Maintain TSMC's position as the most advanced and largest provider of semiconductor manufacturing technologies and foundry services	• Customer satisfaction rating	• The score of the Customer Service question in Annual Customer Satisfaction Survey consecutively trends up in the recent 3-year trend, and it enhanced by 2.3% in 2014 compared to the previous year • The Customer Service Composite Index (including Service, Technology and QR) from Quarterly Business Review consecutively trends up in recent the 3-year trend, and it enhanced by 1.7% in 2014 compared to the previous year	• Maintain TSMC's leadership in the semiconductor industry
	Supply Chain Management	Single plant rate and risk reduction	• To have multiple supply sources for raw materials	• Reached annual goal for single-plant reduction • Required suppliers implement BCP and established back-up plant	• Continuously reduce single plant rate for advanced nodes, particularly for 28nm and 20nm
		Increase local supply	• Purchasing amount and ratio from local suppliers	• Increased local supply ratio of raw material in 2014	• Decentralize manufacturing sites from the high-risk areas (e.g. frequent natural disaster areas) and increase backup source
		Conflict-free sourcing for raw materials	• To comply with US SEC's rule on conflict mineral	• Assured supplier's products and its raw materials that supplied to TSMC are conflict-free	• To ensure suppliers' fully compliance according to conflict-free smelter list updated by GeSI/EICC
		Green supply chain	• Continuously improve supplier's sustainability scoring	• 52 critical suppliers' sustainability scores reached 2014 target • Eliminated hazardous substances of supplier's raw materials • Reduced waste and encouraged recycling	• Ensure supplier's sustainability score reaches annual target

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	CSR-related Topics	Commitments or Goals	Performance Indexes or Guidelines	2014 Achievements	Future Focuses
Environmental	Greenhouse Gas Reduction	Reduce PFC emission intensity	• Tons of CO_2 equivalent/8-inch wafer equivalent • Reduce PFC emission intensity to 30% below the year 2010 level by 2020	• PFC emissions intensity in 2014 were 33% less than 2010	• Adoption of best practices recognized by the World Semiconductor Council
	Energy Conservation	Reduce power usage intensity	• KWh/8-inch wafer equivalent-mask layer • Reduce power usage intensity to 2% below the year 2010 level by 2015 • Reduce power usage intensity to 12% below the year 2010 level by 2020	• Power consumption (KWh/8-inch wafer equivalent-mask layer) reduced by 3.5% from 10.2 in 2013 to 9.8 in 2014 • Fab 15 received ISO 50001 certification • Received 5 more US LEED Green Building certificates, one Taiwan EEWH green building and two Taiwan Intelligent Building certificates • F12 Phase 6 received Green Factory certificate	• Continuous promotion of ISO 50001 Energy Management System • Continuous promotion of the adoption of green building and green factory standards • Enhancement of daily management to avoid energy waste • Continuous installation of energy saving and recovery systems
	Water Conservation	Increase water usage intensity	• Liter/8-inch wafer equivalent-mask layer • Reduce water usage intensity to 2% below the 2010 level by 2015 • Reduce water usage intensity to 30% below the year 2010 level by 2020	• Water usage (L/8-inch wafer equivalent-mask layer) reduced by 10.1% from 51.5 in 2013 to 46.3 in 2014	• Continuous promotion of process optimization to reduce water usage • Continuous development and installation of water recycling system
	Waste Management	Increase waste recycling rate (%)	• Waste Recycling Rate (%) • Achieve 95% waste recycling rate by 2015	• Achieved a waste recycling rate of more than 93% in 2014, which is the 6th consecutive year greater than 90% • Achieved a waste landfill rate of 0.15% in 2014, which is the 6th consecutive year less than 1%	• Continuous promotion of waste recycling and waste reduction at the source • Requiring process tool vendors to provide low chemical consumption tools • Collaborating with suppliers to develop new waste recycling technologies

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	CSR-related Topics	Commitments or Goals	Performance Indexes or Guidelines	2014 Achievements	Future Focuses
Social	Labor-Management Relationship and Employee Engagement	Establish a positive employee relationship and a highly engaged work environment	• Results for Core Values Survey • Loss resulting from labor disputes	• In 2014 TSMC Core Values Survey showed that 97% of participating employees agreed they are willing to commit fully in their work to make TSMC an even more successful company, while 95% of them concurred with the statement that they are willing to contribute their talents to TSMC and grow together with the Company for the next five years • Quarterly labor-management meetings were conducted; in addition, the Company respects employees' rights entitled by the law and does not impede their freedom of association. However, with the harmonious relationship between our management level and employees over the years, no employees have issued a request to form one thus far • As of the end of 2014, there had been no loss resulting from labor disputes	• Continuously reinforce the Company's core values, maintain unobstructed communication channels, and foster a positive, warm and encouraging environment
	Mechanism to Address Labor Issues and Talent Retention	Handling labor-related issues with caution and provide timely response; maintain a healthy turnover rate and ensure the growth momentum of the Company	• Cases of labor-related issues • Turnover rate	• In 2014, a total of 62 cases were filed via our internal Ombudsman channel; all of them were handled with caution and addressed in a timely manner • In 2014, the turnover rate for all employees was 6%; this continued to fall within the range of our definition for a healthy turnover rate between 5% and 10%	• Continuously enhance management excellence and two-way communication and engagement to make our employees bring all their potential into full play in the right position
	Employees' Health and Safety And Work-Life Balance	Maximize our employees' productivity and promote a balanced life	• Health age • The growth of revenue per headcount (RPH) • Reasonable weekly working hours	• In 2014, the average health age for our employees was 2.9 years younger than their real age in average • TSMC had over 10% Compound Annual Growth Rate of RPH from 2009 to 2014 • In 2014, the weekly working hours were maintained within a reasonable range with the same high-quality work performance	• Continuously enhance the efficiency and effectiveness of our employees via health promotion programs, human resources practices and improvement actions

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	CSR-related Topics	Commitments or Goals	Performance Indexes or Guidelines	2014 Achievements	Future Focuses
Social	Talent Acquisition	Expand talent to support business growth and provide job opportunity	• Quantity and quality of new hires	• In 2014, TSMC recruited over 5,500 employees, not only successfully fulfilling our business needs but also providing more job opportunities for our society • In 2014, TSMC proactively collaborated with 30 universities to create more diversified and high-quality job opportunities for disabled persons. As of the end of 2014, we hired 399 disabled persons; translating to an 8% increase compared with 2013	• Continuously attract talent in Taiwan and around the world • Continuously strengthen the connections with schools and communities
	Volunteer Program	Expand volunteer program influence	• Volunteer number • Voluntary service hour	• Six major regular volunteer programs (included 14 sub "Fab/ Division Volunteer Programs") • Volunteer numbers increased by 67.8% from 2,119 in 2013 to 3,211 in 2014 • Voluntary service 36,823 hours in 2014.	• Integrate each function voluntary events • Discover personal voluntarily activities, build up register platform
	TSMC Education and Culture Foundation	Narrow the gap in educational resources between rural and urban areas. Inspire the youth's interest in Art and Science	• The number of the participants of the education and art programs	• 91,000 students from remote townships have participated in the "TSMC Aesthetic Tour" and "TSMC Science Tour" to cultivate their appreciation of art and experience the charisma of science • The Children Arts Education Center, the cooperation of TSMC Foundation and Taipei Fine Arts Museum, has been inaugurated in April 2014. Over 158,000 personnel in total has been visited it this year • "Lifting the Ability of High School Physics Experiments", providing professional development for 350 science teachers from 283 high schools all over Taiwan • 253 teams in total over the nation participated in the "TSMC Cup-Competition of Scientific Story Telling ," gaining overwhelmingly positive responses form high school students and teachers	• Continuous promoting arts and Chinese culture, and inspiring the science potential of talents
	Social Contribution	Integration of resources Support the ones in need	• Participant count of caring projects • The amount of contribution received	• "TSMC i-Charity" platform was launched in 2014 for employees to proactively take part in philanthropic activities and contribute to the society. As of December 2014, over NT$18 million of contributions were received from over 9,000 participating employees	• Continue to encourage employees to propose caring projects, share results, and suggest new ideas for doing good

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2014 CSR Awards and Recognitions

TSMC actively participated in various CSR-related awards to share experience and gain external feedback. Through this participation, we have a better understanding of external concerns that allows us to review internal performance for continuous improvement. TSMC has been honored with many awards over the years, and the awards and recognitions we received in 2014 are as follows:

Category	Organization	Awards and Recognitions
Overall CSR	Dow Jones Sustainability World Index (DJSI)	• DJSI Semiconductors and Semiconductor Equipment "Industry Group Leader" for the 2nd consecutive year (i.e. the Company with the highest sustainability score out of its industry peers in the DJSI's 24 industry groups, made up of 59 industries and the 2,500 largest companies in the world) • RobecoSAM Sustainability Award, "Gold Class" • RobecoSAM Sustainability Award：Industry Leader • Membership in the Dow Jones Sustainability World Index for a 14th consecutive year
	Fortune Magazine	• World's Most Admired Companies
	Financial Times-Standard Chartered	• Taiwan Business Awards for "Economic Contribution – Large Company" • Taiwan Business Awards for "Responsible Business – Large Company"
	The Goldman Sachs Group	• Member on the GS SUSTAIN Focus List, which incorporates 60 global industry leaders
	CommonWealth Magazine	• Most Admired Company in Taiwan • Excellence in Corporate Social Responsibility Award • Theme of the Year Award：Corporate Governance
	GlobalViews Magazine	• Excellence in Corporate Social Responsibility, Environmental Protection Category
	Taiwan Institute of Sustainable Energy	• Gold Medal for Sustainability Report • Taiwan Top 10 Sustainability Benchmark Award

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Category	Organization	Awards and Recognitions
Economy, Governance	*Institutional Investor Magazine*	• Best CEO (Technology/Semiconductors) – 2nd Place (buy-side) – All-Asia • Best CFO (Technology/Semiconductors) – 1st Place (buy-side) – All-Asia • Best CFO (Technology/Semiconductors) – 1st Place (sell-side) – All-Asia • Best Investor Relations (Technology/Semiconductors) – 1st Place (buy-side) – All-Asia • Best Investor Relations – (Technology/Semiconductors) – 1st Place (sell-side) – All-Asia • Best Investor Relations Professional (Technology/Semiconductors) – 1st Place (buy-side) – All-Asia • Best Investor Relations Professional (Technology/Semiconductors) – 1st Place (sell-side) – All-Asia
	IR Magazine	• Grand prix for best overall investor relations (Large cap) – Greater China • Best in Sector – Technology – Greater China • Best corporate governance – Greater China • Best sustainability practice – Greater China • Best financial reporting – Greater China • Best IR by a Taiwanese company • Best IRO – Taiwan
	FinanceAsia	• Asia's Best Company in Technology • Region's Best Borrowers – Taiwan
	R.O.C. Securities & Futures Institute	• 11th Information Disclosure of Public Companies Ranking – Ranked A++
Environment	U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification	• "Platinum" certification in LEED–Existing Building: Operation and Maintenance (LEED-EB O&M) – Fab 12 Phase 3 Manufacturing Facility • "Gold" certification in LEED–NB: Fab 15 Phase 3/4 Manufacturing Facility, Fab 12 Phase 6 Office Building, Fab 15 Phase 1 Office Building ,FabAB15 Tower Note: Up to the end of 2014, TSMC received 16 U.S. LEED certifications. (2 "Platinum" class, 14 "Gold" class)
	R.O.C. Ministry of the Interior "Ecology, Energy Saving, Waste Reduction and Health (EEWH)" certification	• Diamond class "Green Building" certification: Fab 12 Phase 6 Office Building Note: Up to the end of 2014, TSMC received 3 Taiwan EEWH Diamond class "Intelligent Building", 7 Taiwan EEWH Diamond class "Green Building" certifications.

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Category	Organization	Awards and Recognitions
Environment	R.O.C. Ministry of Economic Affairs Industrial Development Bureau	• "Green Factory Label" – Fab 12 Phase 6
	ISO 50001 Energy Management System certification	• Fab 15
	R.O.C. Environmental Protection Administration	• "Annual Enterprise Environmental Protection Award" – Advanced Backend Fab 2 • "Energy Conservation and Carbon Reduction Action Mark" – Fab 5, Fab 12 A, Fab 14 A, Fab 15 • "Excellence in Toxic Substance Management Award" – Fab 6 • "Enterprise Green Procurement Award" – Fab 2 and 5, Fab 12 A
	National Council for Sustainable Development	• "National Sustainable Development Award" – Fab12 A
	R.O.C. Ministry of Economic Affairs	• "Excellence in Carbon Reduction Award" – Fab 8, Fab 12 B • "Water Conservation Award" – Fab 2 and 5
	Hsinchu Science Park Administration	• "Low Carbon Enterprise Award" – Fab 12 B, Fab 12 A • "Water Conservation Award" – Fab 12 A
	Southern Taiwan Science Park Administration	• "Excellence in Environmental Protection" – Advanced Backend Fab 2
	Hsinchu County Environmental Protection Bureau	• "Enterprise Environmental Protection Evaluation" – Fab 2 and 5, Fab12 B • "Environmental Education Award" – Fab 2 and 5, Fab 12 B
Safety, Health and Wellness	R.O.C. Ministry of Labor	• "Excellence in Labor Safety and Hygiene Award" – Fab 3
	Hsinchu Science Park Administration	• "Excellence in Labor Safety and Hygiene Award" – Fab 2
	Central Taiwan Science Park Administration	• "Excellence in Labor Safety and Hygiene Award" – Fab 15
	Southern Taiwan Science Park Administration	• "Excellence in Labor Safety and Hygiene Award" – Fab 14 A
Employees	Ministry of Labor, Executive Yuan	• Work-Life Balance Award
	Health Promotion Administration, Ministry of Health and Welfare	• Health Management Award • Healthy Weight Management Award • Pioneering Weight Management Award

1 | Letter from the Chairman

Morris Chang
Chairman

As the world's largest dedicated IC foundry, TSMC is keenly aware that as a company grows bigger, it also exerts a greater influence on industry and society. We place great importance upon integrity, respect the rule of law, and hope that the way we do business serves as a benchmark for sustainability and a positive force in society.

The goal of TSMC's corporate social responsibility is to make society better. Over the past 27 years, we have striven for the highest achievements to maximize economic value-added with effective strategy and quality management. At the same time, in our everyday operations we hold fast to business ethics, insist on integrity, obey the law, oppose corruption, and abhor cronyism. TSMC serves as an example and sets the tone for society, seeking to raise the standards of ethics, business, and rule of law.

Focus on Corporate Governance and Balancing the Interests of Stakeholders

TSMC greatly values corporate governance, and endeavors to balance the interests of shareholders, employees, society, and all stakeholders. In our industry's ever-changing competitive environment, we work together with our customers and suppliers to stimulate unceasing innovation and create more products that help the public enjoy better quality of life and work more efficiently. We share our success with partners in our value chain, and maintain good relationships with our shareholders, employees, society, customers, suppliers, and other stakeholders to ensure that all of their interests are balanced.

Living a Happy, Balanced Life, and Commitment to Charity

TSMC's vision for society is one that works together towards sustainable development, equality and justice, and a harmonious environment to live and work, and we create employment opportunities by providing good jobs.

In 2014, we recruited 5,500 new employees worldwide through fair, open, and impartial processes. We are committed to offering total compensation that is above the industry average, and creating a challenging, safe, and comfortable work environment with opportunities for continuous learning. At the same time, we wholeheartedly promote work/life balance so our colleagues can enjoy a happy and fulfilling life.

Apart from work, we also encourage our employees to participate in society. The TSMC Education and Culture Foundation provides long-term support to educational and cultural activities, while the TSMC Volunteer Association provides long-term care to communities to serve society in a meaningful way. The TSMC Volunteer Society has expanded quickly over the past several years, growing 68% in 2014 to reach 3,200 people.

When the Kaohsiung City Gas Explosion occurred in August 2014, TSMC responded immediately to society's needs, and invited our supplier partners to join the reconstruction effort. Once reconstruction came to a close, we were honored to have received many accolades from the public, a testament to how we have made society better.

Caring for the Earth and Generations to Come

TSMC responds to global climate change by actively conserve energy and reducing carbon emissions. Currently, TSMC has earned international green building certification for 16 of our 300mm fabs, and also helped two suppliers gain certification in 2014.

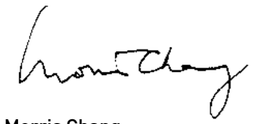
Even as our wafer production grew 2.5 times in the past 10 years, TSMC has achieved a 6% reduction in power consumption and 30% reduction in water consumption per unit of wafer area, and also met an extremely challenging target for reducing perfluorinated compounds (PFCs). We have already set new medium to long-range environmental goals: For each unit of production, TSMC will cut PFC emissions by 30%, greenhouse gas emissions by 18%, power consumption by 12%, and water consumption by 30% from 2010 levels by 2020. We also aim to maintain a waste recycling rate of more than 95%.

As a leader in green manufacturing, TSMC actively promotes a green supply chain, and took the initiative to join the Electronic Industry Citizenship Coalition (EICC) in 2014. TSMC is systematically applying the EICC code of conduct to management and compliance in environmental protection, health, safety, risk management, labor rights, and ethics. We are also extending these principles through our supply chain by guiding key suppliers to adopt EICC tools and standards. In addition, we conducted due diligence measures on relevant suppliers to ensure TSMC's commitment to procure materials from conflict-free sources.

Looking forward, we will continue to pursue a fair and good society, commit ourselves to the sustainable development of our company and society, create win-win outcomes for all of our stakeholders, and continue to serve as an uplifting force in society.

TSMC Corporate Social Responsibility Matrix
TSMC Social Responsibility: Uplift Society

	Morality	Business Ethics	Economy	Rule of Law	Sustainability	Work/Life Balance Happiness	Philanthropy
Integrity	●	●					
Law Compliance				●			
Anti-Corruption Anti-Bribery Anti-Cronyism	●	●		●			
Environmental Protection Climate Control Energy Conservation				●	●		
Corporate Governance		●	●	●			
Provide Well-paying Jobs			●			●	
Good Shareholder Return			●				
Employees' Work-life Balance						●	
Encourage Innovation		●	●				
Good Work Environment						●	
Volunteers Organization					●	●	●
Education and Culture Foundation							●



Morris Chang
Chairman

2 | Stakeholder Engagement

In 2011, TSMC formed a CSR committee led by Volunteer Program President Ms. Sophie Chang and Senior Vice President Lora Ho. TSMC's CSR committee includes representatives from Customer Service, Human Resources, Investor Relations, Legal, Material and Supply Chain Management, Operations, Public Relations, Quality and Reliability, R&D, Risk Management, Corporate ESH, and the independent TSMC Education & Culture Foundation. These representatives participate in our quarterly CSR meetings, and communicate with stakeholders over the course of their regular duties, compile concerns, and ensure implementation of appropriate initiatives and programs responsive to those interests and concerns. In 2012, we included CSR in the Board of Directors' agenda for the first time. Our annual CSR achievements and projects are regularly reported to the Board of Directors each year to serve as an important reference for decision making.

TSMC pursues sustainable growth and values the expectations of its stakeholders. The Company's long-term dedication and establishment of multiple transparent, effectively, and timely communication channels has won recognition from our external stakeholders. Following a gas explosion in Kaohsiung city on July 31, 2014, relevant executives of TSMC immediately held a meeting to formulate a response. TSMC began by collecting donations from employees through the "TSMC i-Charity" platform, and quickly consolidated internal and external resources to join the reconstruction effort after close communication and collaboration with stakeholders. We were honored with acclaim from society and the thanks of the residents of the disaster area after the completion of our project. For more information, please see the section "Kaohsiung Gas Explosion Reconstruction Project" in Chapter 6.7.2.

Stakeholders Working with TSMC in the Kaohsiung Gas Explosion Reconstruction Project

Suppliers: To allow residents of the disaster area to resume normal life as soon as possible, TSMC worked with cooperating suppliers to repair homes and storefronts and drew additional resources to the project by accepting donations from 20 member companies of Semiconductor Equipment and Materials International (SEMI) Taiwan, multiplying the impact of our efforts.

Employees: In addition to timely and enthusiastic employee donations through the "TSMC i-Charity" platform, 60 members of the Employee Volunteer Program staffed the "Love, Hope, and Reconstruction" summer camp, leading children from Kaohsiung on a fulfilling and happy three-day visit to Hsinchu and Taipei.

Government: Due to the massive scale of the reconstruction effort, TSMC collaborated with the Kaohsiung City Government to complete the initial "first aid" stage of the project, before handing the project to the government for continued rebuilding.

Communities/Nonprofits: TSMC, residents of the disaster area, and the Kaohsiung San Sin High School of Commerce and Home Economics held a celebration banquet for cooperating suppliers, donor companies, and the 462 residents who received help from TSMC. The banquet marks TSMC's sincere thanks for participating companies and engineers, as well as our blessings for the people of Kaohsiung.

Stakeholder Management Objectives

TSMC applies a "Plan-Do-Check-Act" model to continuously improve social responsibility performance through continuous communication with stakeholders and invites them to participate in many of our activities. Our objectives for managing stakeholder concerns are as follows:

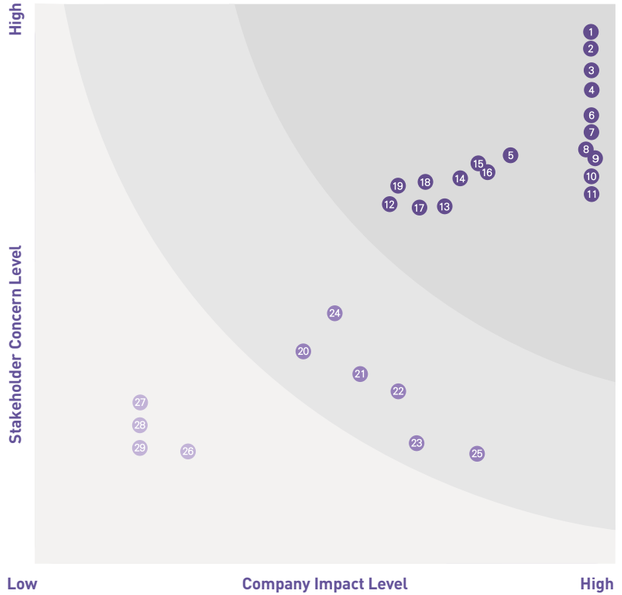
- Fully understand stakeholders' concerns and continue to improve CSR-related performance.
- Obtain stakeholders' trust and respect for TSMC.
- Disclose TSMC's efforts and performance to maintain and enhance TSMC's reputation.

Stakeholder Management Procedure

TSMC's stakeholder management procedure is divided into four stages: identification, analysis, plan, and engagement.

- Stakeholder Identification: TSMC defines stakeholders as the internal or external persons or organizations which can influence TSMC or be influenced by TSMC. According to this definition, we have identified that TSMC's stakeholders include employees, customers, suppliers, shareholders and investors, government, communities and non-governmental/non-profit organizations.
- Analysis of Stakeholders' Topics of Concern: After identifying our stakeholders, we establish individual communication channels with each of them according to their influence and issues of concern. We communicate with stakeholders through multiple channels established by CSR-related units, and compile their economic, social and environmental concerns, and also consult the G4 sustainability reporting guidelines. We have identified 29 topics of stakeholder concern, and have analyzed and prioritized them according to their level of concern and potential impact on the Company for inclusion into key annual projects.
- Stakeholder-Related Projects: TSMC's CSR-related units incorporate the results of the analyses described above into their daily work, annual plans, or cross-functional projects as a key reference for the Company's sustainable development strategy.
- Stakeholder Engagement and Measurement: TSMC and its stakeholders have differing levels of interactions according to priority so as to use company's resource efficiently and to create win-win relationships.

Results of Materiality Analysis



1 Governance
2 Customer Service and Satisfaction
3 Water Resource Management
4 Global Climate Change
5 Pollution Prevention
6 Semiconductor Prospect
7 Code of Ethics and Business Conduct
8 Company's Competitiveness
9 Future Growth
10 Continuous Increase of Profit
11 Compliance
12 Right People with Shared Vision and Values
13 Supply Chain Management
14 Employee Engagement
15 Occupational Safety and Health
16 Employee's Physical and Mental Well-being
17 EICC
18 Encouraging a Balanced Life
19 Social Participation
20 Green Products
21 Human Rights and Labor Law Compliance
22 Labor–Management Relations and Grievance Mechanisms
23 Freedom of Association and Collective Bargaining
24 Dividend Policy
25 Grievance Mechanisms for Impacts on Society
26 Overall (Environmental cost)
27 Transport
28 Environmental Grievance Mechanisms
29 Biodiversity

■ Identification of Material Aspects and Boundaries

● Material

Issue of Materiality	Boundary / G4 Aspect	Within the Organization				Outside of the Organization		
		TSMC	Subsidiaries			Customer	Supplier	Community
			TSMC China	WaferTech	Other Subsidiaries			
Governance								
Corporate Governance	Anti-Corruption	●	●	●	●		●	
	Anti-Competitive Behavior	●	●	●	●			
	Labor Legal Compliance	●	●	●	●			
	Environmental Law Compliance	●	●	●	●		●	
	Conflict Minerals	●	●	●	●		●	
Code of Ethics and Business Conduct	Anti-Corruption	●	●	●	●		●	
Compliance	Labor Legal Compliance	●	●	●	●			
	Environmental Law Compliance	●	●	●	●		●	
	Anti-Competitive Behavior	●	●	●	●			

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● Material

Issue of Materiality	Boundary / G4 Aspect	Within the Organization				Outside of the Organization		
		TSMC	Subsidiaries			Customer	Supplier	Community
			TSMC China	WaferTech	Other Subsidiaries			
Economic								
Semiconductor Prospect	Economic Performance	●	●	●	●			
Company's Competitiveness		●	●	●	●			
Future Growth		●	●	●	●			
Continuous Increase of Profit		●	●	●	●			
Supply Chain Management	Procurement Practices	●					●	
	Supplier Environmental Assessment	●					●	
	Conflict Minerals	●	●	●	●		●	
EICC	Supplier Labor Practice Assessment	●	●	●			●	
	Supplier Human Rights Assessment	●	●	●			●	

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● Material

Issue of Materiality	Boundary / G4 Aspect	Within the Organization				Outside of the Organization		
		TSMC	Subsidiaries			Customer	Supplier	Community
			TSMC China	WaferTech	Other Subsidiaries			
Environmental								
Pollution Prevention	Materials	●						
	Overall (Environmental cost)	●						
	Effluents and Waste	●	●	●			●	
	Emissions (Air pollutants, GHG)	●	●	●			●	
Global Climate Change	Emissions (Air pollutants, GHG)	●	●	●			●	
	Energy	●	●	●			●	
Water Resource Management	Water	●	●	●			●	

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● Material

Issue of Materiality	Boundary / G4 Aspect	Within the Organization				Outside of the Organization		
		TSMC	Subsidiaries			Customer	Supplier	Community
			TSMC China	WaferTech	Other Subsidiaries			
Social								
Right People with Shared Vision and Values	Diversity and Equal Opportunity	●	●	●	●			
	Training and Education	●	●	●	●			
	Child Labor	●	●	●	●			
	Forced or Compulsory Labor	●	●	●	●			
	Non-discrimination	●	●	●	●			
Encouraging a Balanced Life	Labor/Management Relations	●	●	●	●			
	Forced or Compulsory Labor	●	●	●	●			
Employee Engagement	Labor/Management Relations	●	●	●	●			
	Freedom of Association and Collective Bargaining	●	●	●	●			

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● Material

Issue of Materiality	Boundary / G4 Aspect	Within the Organization				Outside of the Organization		
		TSMC	Subsidiaries			Customer	Supplier	Community
			TSMC China	WaferTech	Other Subsidiaries			
Social								
Employee Engagement	Labor Practices Grievance Mechanisms	●	●	●	●			
	Human Rights Grievance Mechanisms	●	●	●	●			
	Non-discrimination	●	●	●	●			
Employee's Physical and Mental Well-being	Occupational Health and Safety	●	●	●	●			
Occupational Safety and Health	Occupational Health and Safety	●	●	●	●		●	
Customer Service and Satisfaction	Customer Privacy	●	●	●	●	●		
Social Participation	Other	●						●

■ Summary for TSMC Stakeholders Engagement in 2014

Stakeholders	Stakeholders Engaged	Communication Channels	Benefits and Results	Relevant Sections
Employees	• All employees	• Corporate intranet and internal emails • Announcements • Human resource representatives • Regular/Ad-hoc communication meetings • Employee voice channels, such as immediate response system/employee opinion box/wellness center/wellness website, etc.	• A host of two-way communication channels maintain the unobstructed flow of information between managers and employees, to ensure that employees' opinions and voices are heard, and their issues are addressed effectively, impartial submission mechanisms, including quarterly labor-management communication meetings, are in place to provide timely support. Our continuous efforts lie in reinforcing mutual and timely employee communication, based on multiple channels and platforms, which in turn fosters harmonious labor relations and creates a win-win situation for the Company and the employees	6.3 Employee Engagement
Customers	• Customer Operation organizations • Quality Management team	• Annual customer satisfaction survey • Customer quarterly business review meeting • Customer audits	• Through frequent interactions with customers and regularly inviting customers to provide suggestions about TSMC, we are able to thoroughly understand their level of satisfaction and needs. Furthermore, we can make improvements and future planning based on customers' voice	4.2.1 Customer Service and Satisfaction
Suppliers	• Raw material suppliers • Facility/Equipment suppliers • Tool suppliers • Electronic parts suppliers	• Supplier quarterly business review meeting • Supplier questionnaire survey • Supplier on-site audit • Annual supply chain management forum	• We work with suppliers to improve quality, delivery and cost of ownership as well as environmental protection, ESH enhancement, labor rights protection and sustainability management	4.2.2 Supply Chain Management
Shareholders & Investors	• Shareholders who directly or indirectly participated in General Shareholders' Meeting • Investors and analysts who attend Quarterly Earnings Conferences in person or via telephone or the Internet • Investors or analysts who sent questions or feedback via telephone or emails • Taiwan Stock Exchange and US SEC	• Hold Annual Shareholder Meeting • Hold Quarterly Earnings Conference • Participate in investor conferences and meetings • Answer investors' questions and collect feedback via telephone and emails • Issue Annual Reports, Corporate Social Responsibility Reports, 20-F filings to US SEC, material announcements to Taiwan Stock Exchange, and corporate news on the Company's website	• Through various events and channels, TSMC communicates operating results and strategies, and answers shareholders' and investors' questions. TSMC also regularly provides their feedback to the Company's management to aid decision making	4.1.4 Investor Engagement
Government	• Science Park Administrations • Environmental Protection Administration • Local Environmental Protection Bureaus • Water Resource Agency	• Through official correspondence • Through meetings (such as communication meetings or public hearings) • Communication with government authorities through industry organizations, including the Association of Science Park Industries, Taiwan Semiconductor Industry Association, World Semiconductor Council, and Chinese National Federation of Industries	• Provide constructive opinions to government agencies through various communication channels in order to improve the adequacy of laws, and overall quality of the industry regulatory environment	3.4 Regulatory Compliance 5. Environmental Dimension

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Stakeholders	Stakeholders Engaged	Communication Channels	Benefits and Results	Relevant Sections
Government	• Taipei Fine Arts Museum	• Construction funded by TSMC Education & Culture Foundation	• Sponsoring Taipei Fine Arts Museum to establish the Children Arts Education Center for children's arts appreciation. In total over 158,000 people have visited the center	6.6.1 TSMC Volunteer Docent Program Promoting Science Education
Community/ Non-profit, Non-governmental Organizations	• The citizens of Hsinchu, Taichung and Tainan • The CommonWealth Magazine Foundation/ The Wu Chien-Shiung Foundation • The United Daily and the China Times	• Holding Arts Events in Communities • Sponsoring Non-profit organizations to hold Education Programs • Collaboration in holding literary and arts activities for youth	• Over 12 years, the Hsinchu Arts Festival has gained overwhelming appreciation from the community. In total over 270,000 people have participated in the Festival	6.6.1 TSMC Volunteer Docent Program Promoting Science Education
	• National Museum of Natural Science (Taichung) • 13 Elementary schools • Hsinchu Veterans Home • St. Teresa Children Centre • Tainan Jacana Ecology Park • Taiwan Fund for Children and Families, Hsinchu Branch • Society of Jesus Hsinchu Social Service Center St. Francis Xavier Home for Girls • Kuskus tribe of Mudan Township in Pingtung • Hua-Shan Social Welfare Foundation • Hsinchu Jen-Ai Children's Home • Syin-Lu Social Welfare Foundation • Genesis Social Welfare Foundation • Old Five Old Foundation • Hui-Ming Blind School	• In collaboration with National Museum of Natural Science, employees serve as volunteer docents on weekends • Holding volunteer events with schools, such as book reading event, TSMC graduation award, Christmas evening party, photography course, and school work guidance • Volunteers accompany the elderly at Hsinchu Veterans Home and the children at St. Teresa Children Center periodically • Sponsoring or donating goods to non-profit organizations or institutions • Fab/Division held annual volunteer activities with cooperation units	• Through frequent volunteer activities, we better understand the true needs of non-profit organizations, institutions and schools. We can dynamically adjust our service models or end the partnership, and observe TSMC volunteers' public statements and image	6.6.2 TSMC Volunteer Program

TSMC values the views and suggestions of all stakeholders. In addition to contacting shareholders to understand their expectations, we have also established many channels to help them understand our efforts and performance in all aspects of corporate social responsibility. In addition to the multiple communication channels mentioned above, we have also established a "Stakeholder Engagement" section on our corporate website, as well as a CSR mailbox to gather a broad range of views from the public. The CSR mailbox is managed by dedicated public relations staff, and submissions are sent to relevant departments (Human Resources, Investor Relations, Public Relations, ESH, the TSMC Education & Culture Foundation, and others) according to the nature and range of issues addressed. In 2014, the TSMC CSR mailbox received 61 submissions, including requests for surveys, studies, and visits, suggestions from the public, complaints, and requests for collaboration. All received timely responses from dedicated personnel.

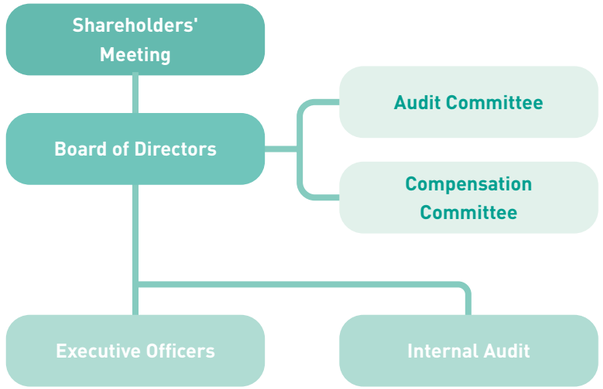
TSMC believes that maintaining good communication with stakeholders can not only help us understand our economic, social and environmental challenges, but also creates value for our company and society, and allows the Company to continue sustainable growth.

3 | Corporate Governance

TSMC advocates and acts upon the principles of operational transparency and respect for shareholder rights. We believe that the basis for successful corporate governance is a sound and effective Board of Directors. In line with this principle, the TSMC Board delegates various responsibilities and authority to two Board Committees, Audit Committee and Compensation Committee. Each Committee has a written charter approved by the Board. Each Committee's chairperson regularly reports to the Board on the activities and actions of the relevant committee. The Audit Committee and Compensation Committee consist solely of independent directors.

TSMC Corporate Governance at a Glance
• 5 of our 8 Board members are independent directors
• One of the members of the Board Directors is female
• Audit Committee and Compensation Committee are made up of independent directors
• Committee Charters are publicly disclosed on TSMC's website
• Audit Committee self-assessment process is in place

3.1 Governance Structure



3.1.1 Board of Directors

3.1.1.1 Board Structure

As the highest governance body, TSMC's Board of Directors consists of eight[Note] distinguished members with a great breadth of experience as world-class business leaders or scholars. We rely on them for their diverse knowledge, personal perspectives, and solid business judgment. Five of the eight members are independent directors: former British Telecommunications Chief Executive Officer, Sir Peter Bonfield; Co-Founder, Chairman Emeritus of the Acer Group, Mr. Stan Shih; former Texas Instruments Inc. Chairman of the Board, Mr. Thomas J. Engibous; Professor of Princeton University, Gregory C. Chow; and Chairman of National Performing Arts Center and advisor to the Taiwan Executive Yuan, Ms. Kok-Choo Chen. One of the members of the Board Directors is female. The number of Independent Directors is more than 50% of the total number of Directors.

We do have one major shareholder on our Board, i.e. the National Development Fund, Executive Yuan, R.O.C., which is also one of our largest shareholders. It has served as our director since our founding. As a corporate entity, the National Development Fund, Executive Yuan, R.O.C. is required to appoint a representative to act on its behalf.

The Chairman and Vice Chairman of the Board of Directors are not executive officers of the Company. The Board approved the appointment of two members of our senior management team to jointly serve as the President and Co-Chief Executive Officer of TSMC. These two Co-CEOs report to and perform such duties as designated by the Chairman of the Board.

Note: For further information on the composition and nature of our Board such as the number of each director's other significant positions and commitments and the nature thereof, please see our most recent Form 20-F filed with the U.S. SEC at ⊕.

3.1.1.2 Board Responsibilities

Under the leadership of Chairman Morris Chang, TSMC's Board of Directors takes a serious and forthright approach to its duties and is a dedicated, competent and independent Board.

In the spirit of Chairman Chang's approach to corporate governance, a board of directors' primary duty is to supervise. The Board should supervise the Company's: compliance with relevant laws and regulations; financial transparency; timely disclosure of material information, and

maintaining of the highest integrity within the Company.

TSMC's Board of Directors strives to perform these responsibilities through the Audit Committee and the Compensation Committee, the hiring of a financial expert for the Audit Committee, and coordination with the Internal Audit department.

The second duty of the Board of Directors is to provide guidance to the management team of the Company. Quarterly, TSMC's management reports to the Board on a variety of subjects. The management also reviews the Company's business strategies with the Board, and updates TSMC's Board on the progress of those strategies, obtaining Board guidance as appropriate.

The third duty of the Board of Directors is to evaluate the management's performance and to dismiss officers of the Company when necessary. TSMC's management has maintained a healthy and functional communication with the Board of Directors, has been devoted in executing guidance of the Board, and is dedicated in running the business operations, all to achieve the best interests for TSMC shareholders.

We opened a new chapter in corporate social responsibility and formally added Corporate Responsibility Report to the agenda of the Board of Directors in 2012. The responsibility of implementing economic, environmental and social tasks is delegated to our team of experienced management. Every year the Board of Directors receives regular reports on the results of our CSR initiatives and future plans. We believe that this is an important step towards firmly establishing TSMC as a sustainable, evergreen company well into the future.

3.1.1.3 Election of Directors

As the highest governance body of our company, our directors hold a tenure of three years. Our Board members are nominated through a highly selective process that considers not only their respective professional technical competence but also their respective reputation for ethical behavior and leadership. The independence of each independent director candidate is also considered and assessed under relevant law such as the Taiwan "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies". The final slate of candidates is put to the shareholders for voting at the relevant annual shareholders' meeting. Under R.O.C. law, in which TSMC was incorporated, any shareholders holding one percent or more of our total outstanding common shares may nominate their own candidate to stand for election as a Board member. This democratic mechanism allows our shareholders to become involved in the selection and nomination process of Board candidates.

3.1.1.4 Directors' and Executive Officers' Compensation

TSMC's Articles of Incorporation restricts the amount of compensation payable to its directors that the Company may make from its distributable earnings (defined as net income after required regulatory provisions). Over the years, TSMC directors' compensation declined from 1% of TSMC's distributable earnings to 0.3%, before being capped to no more than 0.3% of its distributable compensation. In addition, directors who also serve as executive officers of the Company are not entitled to receive any director compensation. For information of Executive officers' compensation, please refer to Chapter 6.1 "Right People with Shared Vision and Values" of this report. For more details of compensation, please refer to TSMC's 2014 Annual Report.

3.1.1.5 Avoiding Conflicts of Interests

The avoidance of conflicts of interests is governed by several corporate processes. First, any director or executive officer who, for him/herself or on behalf of another, wishes to engage in any business activity that overlaps with TSMC's business must obtain the prior approval of our shareholder meeting or Board of Directors respectively in accordance with relevant laws. Second, each board member and executive officer must complete an annual declaration on related party transactions which is reviewed by our Audit Committee. Third, we are subject to strenuous reporting requirements on reporting any related party transactions under both R.O.C. and U.S. security rules.

3.1.2 Audit Committee

TSMC's Board of Directors established the Audit Committee in 2002. The Audit Committee assists the Board in fulfilling its oversight of the quality and integrity of the accounting, auditing, reporting, and financial control practices of the Company.

The Audit Committee is responsible to review the following major matters:

- Financial reports
- Auditing and accounting policies and procedures
- Internal control systems
- Material asset or derivatives transactions
- Material lending funds, endorsements or guarantees

- Offering or issuance of any equity-type securities
- Legal compliance
- Related-party transactions and potential conflicts of interests involving executive officers and directors
- Ombudsman reports
- Potential fraud investigation reports
- Corporate risk management
- Hiring or dismissal of an attesting CPA, or the compensation given thereto; and
- Appointment or discharge of financial, accounting, or internal auditing officers, etc.

Under R.O.C. law, the membership of the Audit Committee shall consist of all independent Directors. TSMC's Audit Committee satisfies this statutory requirement. The Committee also engaged a financial expert consultant in accordance with the rules of the U.S. Securities and Exchange Commission. The Audit Committee annually conducts self-evaluation to assess the Committee's performance and identify areas for further attention.

TSMC's Audit Committee is empowered by its Charter to conduct any study or investigation it deems appropriate to fulfill its responsibilities. It has direct access to TSMC's internal auditors, the Company's independent auditors, and all employees of the Company. The Committee is authorized to retain and oversee special legal, accounting, or other consultants as it deems appropriate to fulfill its mandate. The Audit Committee Charter is available on TSMC's corporate website.

3.1.3 Compensation Committee

TSMC's Board of Directors established the Compensation Committee in 2003. The Compensation Committee assists the Board in discharging its responsibilities related to TSMC's compensation and benefits policies, plans and programs, and in the evaluation and compensation of TSMC's directors of the Board and executives.

The members of the Compensation Committee are appointed by the Board as required by R.O.C. law. According to TSMC's Compensation Committee Charter, the Committee shall consist of no fewer than three independent directors of the Board. Currently, the Compensation Committee is comprised of all five independent directors; the Chairman of the Board, Dr. Morris Chang, is invited by the Committee to attend all meetings and is excused from the Committee's discussion of his own compensation.

TSMC's Compensation Committee is authorized by its Charter to retain an independent consultant to assist in the evaluation of CEO, or executive officer compensation. The Compensation Committee Charter is available on TSMC's corporate website.

3.1.4 Corporate Social Responsibility Committee

Our experienced management team as guided by our independent board members help guide TSMC in implementing its corporate social responsibilities. The implementation of our corporate social responsibilities also rests on our CSR Committee. The CSR Committee has been appointed by the Chairman of the Board and its primary responsibility is to monitor and address major economic, environmental and social topics. The CSR Committee reports directly to the Chairman of our Board. The Committee annually reports to the Board on the status of its implementation of various CSR reforms and performance benchmarks. The CSR Committee is jointly led by our Chief Financial Officer and the President of the Volunteer Association (who is not an executive officer of TSMC). It holds quarterly meeting in order to discuss and review CSR implementation status and developments. Having the President of the Volunteer Association brings a fresher and socially balanced perspective into the workings of our CSR Committee.

3.2 Political Contributions

TSMC has consistently remained politically neutral, but encourages employees to fulfill their duties as citizens and actively participate in politics and vote for the candidates the employees believe to be the best public servants. TSMC executives have also expressed concerns from time to time and have made public comments on certain matters affecting industry, the economy and our employee's livelihood. In the past, TSMC made legally proper political donations to local political parties between 2000 and 2004 to support the development of democracy in Taiwan. Due to a R.O.C. legislation a few years ago, TSMC is now prevented from making political contributions because it is over 50 percent owned by foreign investors. TSMC has fully complied with this law.

3.3 Code of Ethics and Business Conduct

3.3.1 Ethics Values

Integrity is the most important core value of TSMC's culture. TSMC is committed to acting ethically in all aspects of our business; constantly and vigilantly promoting integrity, honesty, fairness, accuracy, and transparency in all that we say and do.

At the heart of our corporate governance culture is TSMC's Code of Ethics and Business Conduct (the "Code") that applies to TSMC and its subsidiaries, and this Code requires that each employee bears a heavy personal responsibility to preserve and to protect TSMC's ethical values and reputation and to comply with various applicable laws and regulations. In so doing, each of us:

- Must not advance our personal interests at the expense of, or in conflict with the Company;
- Must refrain from corruption, unfair competition, fraud, and waste or abuse of corporate assets;
- Must not undertake any practices detrimental to TSMC, the environment and to society;
- Must procure all of our raw materials from socially responsible sources;
- Must abide by both the spirit and letter of all applicable laws, rules and regulations; and
- Must avoid any efforts improperly to influence the decisions of anyone, including government officials, agencies, and courts, as well as our customers, suppliers, and vendors.

In order to build and sustain an environment of innovation, technology leadership, and sustainable profitable growth, the Code requires that we must promote business relationships founded upon an unwavering respect for the intellectual property rights, proprietary information and trade secrets of TSMC, our customers, and others.

With respect to information disclosure, TSMC's officers, especially our CEO, CFO, and General Counsel, with oversight from our Board, are responsible for the full, fair, accurate, timely, and understandable financial accounting and financial disclosure in reports and documents filed by the Company with securities authorities and in all TSMC public communications and disclosures.

Our core value in ethics is implemented in four ways by all of our employees, officers and Board members who must wholeheartedly embrace and practice the Code. First, TSMC's management sets the "tone from the top" by acting in accordance with the Code so that they may be an example to all stakeholders. Second, working-level managers are responsible for ensuring their staff's understanding of and compliance with applicable rules and regulations. Thirdly, we encourage an environment of open communications in discussing any questions related to the Code. Any stakeholder may consult his or her direct supervisors, Human Resources or Legal to obtain timely advice. Lastly, TSMC requires all employees to stay vigilant and whistle-blow any noncompliance by anyone to their supervisors, the function head of Human Resources, the responsible corporate Vice President that oversees the Ombudsmen system, or to the Chairman of the Company's Audit Committee directly. In particular, the Ombudsmen system allows for anonymous reporting and is open to external parties such as our vendors and subcontractors. TSMC treats any complaint and the investigation thereof in a confidential and sensitive manner, and strictly prohibits any form of retaliation against any individual who in good faith reports or helps with the investigation of any complaint.

In addition, we expect and assist our customers, suppliers, business partners, and any other entities with whom we deal (such as consultant or third party agents who act for or on behalf of TSMC) to recognize and understand TSMC's ethics standards to fulfill our responsibilities as a corporate citizen.

Any modification to the Code requires the approval of our Audit Committee composed of independent directors to ensure our ethics compliance program is independently judged in light of the highest ethical standards.

3.3.2 Code Administration and Disciplinary Action

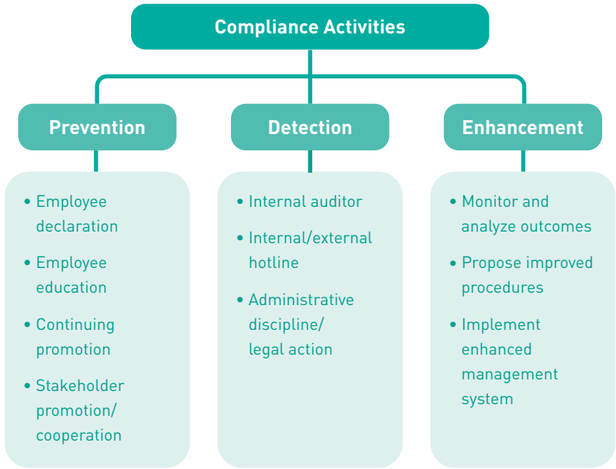
To educate and remind our employees of their responsibilities under the Code, we publish our Code and relevant policies on our intranet and promote its awareness through training courses, posters, and internal news articles. We also have an introductory training course on the Code which is available to all employees online, as well as advanced courses delving into more specific individual topics such as anti-corruption and insider trading (available online or in person).

As part of our ethics compliance program, all employees must disclose any matters that cause, or may cause, actual or potential conflict

of interest. In addition to such proactive disclosure requirement employees with certain job responsibilities and senior officers must periodically declare the existence of any conflict of interest situation. All departments and subsidiaries of TSMC are also required to conduct Control Self-Assessment (CSA) tests annually to review employees' awareness of the Code. The results of such CSA are reviewed to gauge the results of our compliance program.

As for our suppliers, vendors and contractors, we require all of them to declare in writing that they will not engage in any fraud or any unethical conduct when dealing with us or our officers and employees. We also communicate our ethical culture to our business partners through regular live seminars to prevent any unethical conduct and detect any sign of Code violations.

The Internal Auditor of TSMC plays a critical role in ensuring the Company's compliance with the Code and relevant rules and regulations. To ensure that our financial, managerial, and operating information is accurate, reliable, and timely and that our employee's actions are in compliance with applicable policies, standards, procedures, laws and regulations, our Internal Auditor conducts audits of various control points within the Company in accordance with its annual audit plan approved by the Board of Directors and subsequently reports its audit findings and remedial issues to the Board and management on a regular basis.



We do not tolerate any violation of the Code and treat every possible violation incident seriously. Any violator of the Code (or relevant regulations) will be severely punished to the full extent of our policies and the law, including immediate dismissal, termination of business relationship, and judicial prosecution as appropriate.

3.4 Regulatory Compliance

TSMC's commitment to integrity has been the cornerstone of TSMC's robust compliance efforts, which are comprised of legislation monitoring, compliance policies, training and an open reporting environment.

TSMC operates in many countries. Therefore, in order to achieve compliance with governing legislation, applicable laws, regulations and regulatory expectations, we closely monitor domestic and foreign government policies and regulatory developments that could have a material impact on TSMC's business and financial operations. TSMC's Legal Organization periodically updates our internal departments, management and the Audit Committee of applicable regulatory changes so that internal teams may comply with new regulatory requirements in a timely manner. We are also a proactive advocate for local legislative and regulatory reform. For example, we have achieved remarkable results in strengthening trade secret protection in Taiwan, and our major comments on legal reforms to the government have been accepted constructively. TSMC is increasingly dedicated to identifying regulatory issues and will continue to be involved in advocating public policy changes that foster a positive and fair business environment.

Under the framework of the Code, TSMC has established policies, guidelines and procedures in different compliance areas, including: Anti-bribery/corruption, Anti-harassment/discrimination, Antitrust (unfair competition), Environment, Export Control, Financial Reporting/Internal Controls, Insider Trading, Intellectual Property, Proprietary Information Protection ("PIP"), Privacy, Record Retention and Disposal, as well as procuring raw materials from socially responsible sources ("Conflict-free Minerals"). It is our belief that the above-mentioned policies are crucial in

strengthening overall compliance with the Code. TSMC, its employees and its subsidiaries and affiliates are expected to fully understand and comply with all laws and regulations that govern our businesses and make ethical decisions under any circumstances.

Training is a major component of our compliance program, conducted throughout the year to refresh TSMC's employees' commitment to ethical conduct, and to get updated information on laws and regulations related to their daily operations. Highlights of our compliance training program include the following:

- Publicizing our compliance policies via posters, news articles, and compliance guidelines which our employees can access through our intranet;
- Live seminars focusing on such specific topics as Anti-bribery/ corruption, PIP, Contract Management, Intellectual Property, Privacy Protection, Conflict Minerals, Insider Trading, and Export Control (latter two being primary topics in 2014) which are mandatory for employee affected by these topics to ensure adequate awareness;
- A wide range of on-line learning programs updated frequently to provide most up-to-date and accurate information and timely and flexible access for employees to understand the law and key compliance issues, covering Antitrust, Anti-harassment, Insider Trading, Export Control Management, PIP, Privacy Protection, to name just a few;
- External training of TSMC's internal teams in Taiwan and abroad to receive on current developments of new laws and regulations. External experts are also invited to give in-house lectures on key issues, while our internal lawyers comply with applicable continuing legal education requirements.

To ensure that our conduct meets the highest legal and ethical standards, TSMC provides multiple channels for reporting business conduct concerns. First of all, we have implemented the "Complaint Policy and Procedures for Certain Accounting and Legal Matters" and "Procedures for Ombudsman System" that allow employees or any whistleblowers with relevant evidence to report any financial, legal, or ethical irregularities. To foster an open culture of ethics compliance, we encourage employees to report suspected wrongdoing within the organization or any parties with whom we do business via the above-mentioned reporting system. We also established an Ombudsman system open to external reporting. Below is a summary of the Number of Reported Incidents:

	FY 2013	FY 2014
Incidents submitted to the Ombudsman System[Note]	35	45
Incidents submitted to the Audit Committee Whistleblower System	-	-
Incidents reported to the "hotline"	19	42
which were treated as plausible	1	-
Sexual Harassment Investigation Committee	7	4
which were found after investigations	5	4

Note: There is no case for ethics, finance and accounting matters.

In 2014, the Company complied with the Taiwan Securities Trading Act, Company Law and relevant labor and environmental laws and regulations. TSMC was fined for NT$12,000 for one isolated incident of an administrative error by the competent authority. TSMC has been implementing relevant remedial measures.

3.4.1 Major Accomplishments

In 2014, TSMC achieved several major accomplishments in regulatory compliance, including the following:

- In addition to rigorously fulfilling our obligations to regulatory compliance matters, TSMC has discharged its civic duties as a responsible corporate citizen by advising the local government on law and policy reform. TSMC regularly urged the Government to amend any outdated laws and regulations, which may be inconsistent with global practice to improve our investment environment and economic development. For example, after Taiwan's legislature accepted TSMC's advice of imposing criminal liability on trade secret misappropriation in 2012, TSMC worked closely with the authorities concerned to carry out the amendment of relevant laws including the Communication Security and Surveillance Act, the Intellectual Property Case Adjudication Act, and the Witness Protection Act. To protect R&D work and fair competition, we will continue to be an advocate of trade secret protection.
- Throughout 2014, TSMC offered a wide range of training courses on various compliance topics, including 12 topics via on-line education and 36 topics via live seminars. These courses were developed and conducted by compliance and legal professionals. In 2014, we primarily focused training on insider trading and export control, having achieved a high completion rate for both courses (over 5,000 employees for insider trading and over 15,000 employees for export control). TSMC will regularly review and update our training programs and identify new areas of training as necessary.
- TSMC is subject to the U.S. Securities & Exchange Commission (SEC) disclosure rule on conflict minerals released under Rule 13p-1 of the U.S. Securities Exchange Act of 1934. As a recognized global leader

in the hi-tech supply-chain, we acknowledge our corporate social responsibility to strive to procure conflict free minerals in an effort to recognize humanitarian and ethical social principles that protect the dignity of all persons. We have implemented a series of compliance safeguards and maintained frequent communications with our suppliers and subsidiaries. We make it an annual requirement for our suppliers and subsidiaries to sign and submit the conflict-free representation letter as well as Conflict Minerals Reporting Template. In 2014, we also provided our suppliers and subsidiaries with in-person training lectures to promote awareness.

- In order to prevent any unauthorized export of controlled items, a formal system, namely EMS, has existed for a number of years and continuously updated and sustained to reinforce TSMC's internal compliance measures, which measures are taken to ensure compliance by TSMC and all of its subsidiaries with all applicable regulations covering the export of information, technologies, products, materials and equipment. TSMC's EMS allows TSMC to streamline its complicated SHTC (Strategic High-Tech Commodities) export process and creates efficiency for both TSMC and its customers. TSMC's EMS was certified in September 2012 by the Bureau of Foreign Trade, the Taiwan regulator, as a qualified ICP (Internal Control Program) exporter. Because of its successful implementation, TSMC has also frequently earned recognition as "best in class" and was asked to share our experience on EMS implementation to third parties that included a variety of domestic and foreign organizations and industrial peers.
- TSMC adopted its Personal Data and Privacy Protection Policy to comply with the Personal Information Protection Act of Taiwan that became effective in 2012. This Policy aims to provide TSMC and its worldwide subsidiaries with global standards for handling personal data and respecting personal privacy in the workplace. Furthermore, to educate TSMC individuals about the restrictions and procedures applicable to handling personal data and respecting personal privacy in the workplace, TSMC rolled out several privacy awareness initiatives, including a variety of training programs such as seminars and both in-person and online courses. All staff within our Human Resources department was provided with proper training to ensure their compliance with relevant policies and guidelines when handling personal data of TSMC employees. Compliance posters in our facilities also increase employees' awareness of privacy protection in the workplace. Through these action steps, we are dedicated to promoting awareness of data protection and privacy and to creating a culture whereby an individual's personal data and privacy are protected and handled in line with global standards.

3.5 Proprietary Information Protection

We understand the critical value of proprietary information and how crucial it is to safeguard it in order to protect our company's competitive advantages. Therefore, we established a *Proprietary Information Protection (PIP) Program*, which governs how proprietary information (including trade secrets, intellectual property, etc.) will be protected to preserve the best interests of our company, our shareholders, our employees, our customers, and our suppliers.

We have adopted a variety of approaches to ensure our proprietary information is adequately and effectively protected as described below.

- Security and surveillance systems are used to continuously monitor and control access of personnel and vehicles in and out of our company's premises. More importantly, these systems help to prevent prohibited items from being used to smuggle any proprietary information out of the premises.
- PIP-related messages are promoted to all employees on a regular basis; we also gather feedback, offer online training courses, and conduct internal compliance checks.
- Severe PIP violations reported will be treated seriously and handled appropriately. Severe violators can face termination of employment and even legal actions.
- We regard our suppliers as our partners, and thus provide security training and management to help them fit in our security management policy. Each individual supplier must sign a nondisclosure agreement, take PIP and work safety trainings and pass relevant exams before receiving a working badge. We also hosted a security symposium for suppliers to share successful experiences and review improvement plans. This symposium successfully helped our suppliers to follow our PIP regulations.

All in all, the scope of PIP program can be summarized as follows:

- Establishment of PIP guidelines, policies and management procedures
- Implementation of physical security measures and controls for PIP
- Leveraging IT security capabilities to deploy PIP solutions
- Providing PIP training
- Promoting and rewarding PIP best practices and relevant innovations
- Conducting internal compliance checks
- Dealing with PIP violation incidents

3.6 Risk Management

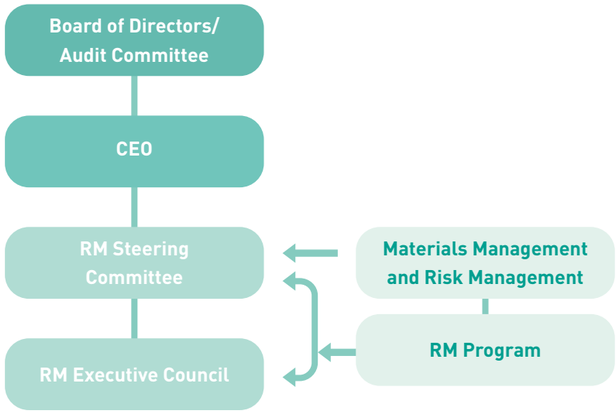
Our Board of Directors plays a key role in helping the Company identify and manage economic risks. Our Risk Management organization periodically briefs our Audit Committee on the ever-changing risk environment facing TSMC, the focus of our enterprise risk management, and risk assessment and mitigation efforts. Our Audit Committee's Chairperson also briefs the Board on such discussion and actions.

TSMC and its subsidiaries are committed to proactively and cost effectively integrating and managing strategic, operational, financial and hazardous risks together with potential consequences to operations and revenue. TSMC operates an Enterprise Risk Management (ERM) program based on both its corporate vision and its long-term sustainability, and responsibility to both industry and society. ERM seeks to provide the appropriate management of risks by TSMC on behalf of all stakeholders. A Risk MAP that considers likelihood and impact severity is applied for identifying and prioritizing corporate risks. Various risk treatment strategies are also adopted in response to identified corporate risks.

To reduce TSMC's supply chain risks, a cross-function task force comprised of members from fab operations, material management, risk management and quality system management worked with TSMC's suppliers to develop business continuity plans, and enhance supply chain resilience capability to effectively manage the risks faced by its suppliers. As a result of those efforts, there was no interruption in TSMC's supply lines in 2014.

As TSMC continued to expand production capacity with advanced technology in 2014, seismic protection engineering design, risk treatment practices and green factory projects were initiated and implemented, beginning in the design phase for all new fabs. The Risk Management Organization Chart Is as Follows:

■ Risk Management (RM) Organization Chart



- RM Steering Committee
  Consists of functional heads (with Internal Audit head sitting as an observer);
  Reports to Audit Committee;
  Reviews risk control progress; and
  Identifies and approves the prioritized risk lists.
- RM Executive Council
  Consists of representatives from each function;
  Identifies and assesses risks;
  Implements risk control program & ensures effectiveness; and
  Improves transparency & how risks are managed.
- RM Program
  Coordinates the RM Executive Council activities;
  Facilitates functional risk management activities;
  Initiates cross function communication for risk mitigation; and
  Consolidates ERM reports into the RM Steering Committee.

For details on the Risk Management, please refer to "6.3 Risk Management" of TSMC's 2014 Annual Report ⊕ or "Item 3. Key Information — Risk Factors" of TSMC's 2014 Form 20-F. ⊕

4 Economic Dimension

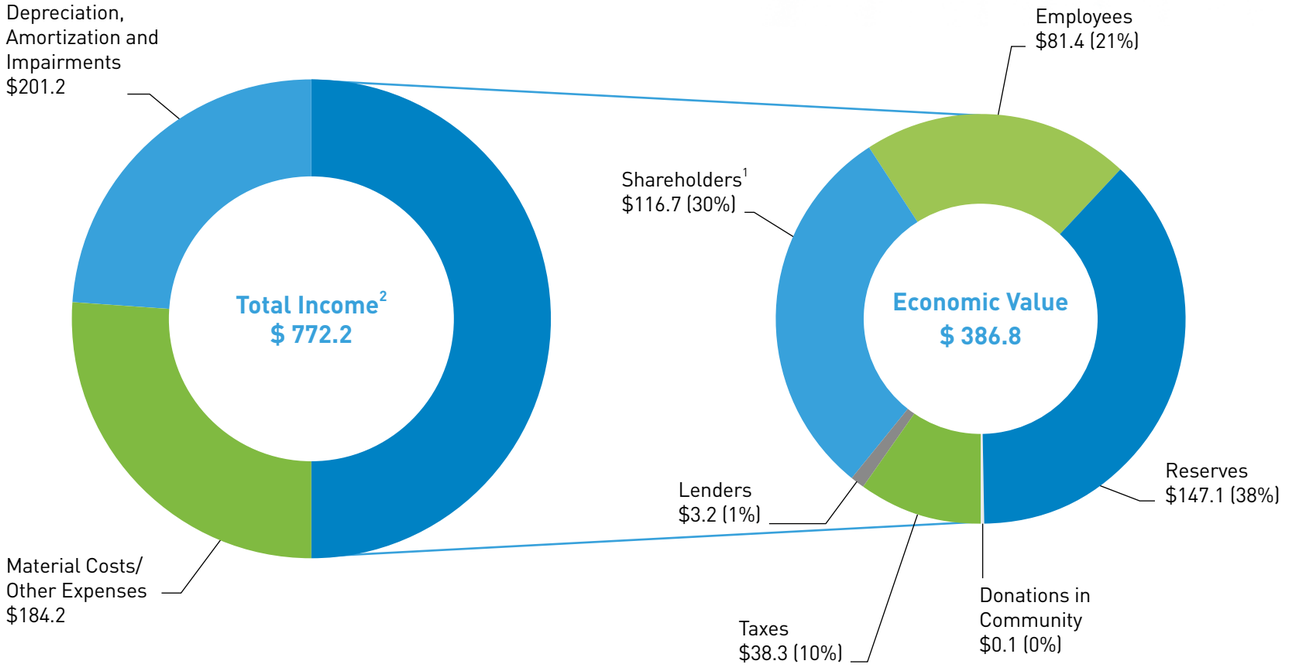
Summary

In 2014, TSMC continued to reap the benefits of correct strategic choices made over the last several years. Not only did revenue and earnings per share grow significantly to record levels, but TSMC met customers' demand with record speed in ramping up 20-nanometer technology, achieved key milestones in developing new advanced technologies, enabled a greener and more responsive supply chain, paid record taxes to governments, hired record number of employees with record compensation, delivered record stock prices for shareholders, and made possible a record level of cash dividend to be approved in 2015 Annual Shareholders' Meeting. Indeed, 2014 was another record year for TSMC and its stakeholders.

Thanks to its strong operating performance, TSMC generated total income of NT$772.2 billion in 2014 (see definition in Note 2 below). After subtracting the costs of procured and consumed goods and services, depreciation, amortization, and impairments, economic value of NT$386.8 billion was created in 2014. Among the economic value, 30% was distributed to shareholders, 21% to employees, 10% to governments, and 1% to lenders. The remaining 38% was reserved within the Company to enable greater economic value creation in the future.

In order to sustain the strong economic performance, TSMC identified its top material issues in economic dimensions as: (1) to drive increasing economic value creation for stakeholders; (2) to achieve best-in-class customer service and customer satisfaction; and (3) to actively engage in supply chain sustainability management. Moreover, TSMC endeavored to ensure the products and raw materials supplied by its suppliers are conflict-free. In December 2014, TSMC joined the Electronic Industry Citizenship Coalition (EICC), hoping to extend its positive influence to the semiconductor industry and communities.

Unit: NT$ Billion



Note:
1. Pending for shareholders' approval.
2. Total income includes net revenue, realized (unrealized) gross profit on sales to associates, other operating income and expenses, net (except impairment) and non-operating income and expenses (except finance costs).

Looking forward, TSMC believes its investments and focuses on technologies and supply chain management will continue to satisfy market demand with better, greener, and more cost-effective semiconductors, and, in return, render even greater economic value for all its stakeholders for many years to come.

4.1 Company Profile

4.1.1 An Introduction to TSMC

Founded on February 21, 1987, and headquartered in Hsinchu, Taiwan, TSMC pioneered the foundry business model by focusing solely on manufacturing customers' semiconductor designs. As a pure-play semiconductor foundry, the Company does not design, manufacture, or market semiconductor products under its own brand name, ensuring that TSMC does not compete directly with its customers. Today, TSMC is the world's largest pure-play semiconductor foundry, manufacturing 8,876 different products using 210 different technologies for 453 different customers in 2014.

With a diverse global customer base, TSMC-manufactured semiconductors are used in a wide variety of applications covering various segments of the computer, communications, consumer, industrial and standard semiconductor markets.

Annual capacity of the manufacturing facilities managed by TSMC and its subsidiaries totaled 8.18 million 12-inch equivalent wafers in 2014. TSMC's managed manufacturing facilities include three 12-inch wafer GIGAFAB™ facilities, four 8-inch wafer fabs, and one 6-inch wafer fab in Taiwan, as well as two 8-inch wafer fabs at wholly owned subsidiaries: WaferTech in the United States and TSMC China Company Limited.

TSMC provides customer service through its account management and engineering services offices in North America, Europe, Japan, China, South Korea, and India. The Company employed more than 43,000 people worldwide at the end of 2014.

By leveraging the successful mass production of 28nm, including 28HP, 28HPM, 28HPL and 28LP, TSMC continuously delivered a highly competitive performance/cost solution 28HPC (High Performance Compact) in 2014. This process is seamlessly applicable to the 28nm ecosystem, accelerating time-to-market for customers. Furthermore, 20nm System-on-Chip technology (20SoC) entered the production stage with smooth ramping and stable yield performance. By introducing the advanced patterning technique, this process provides better density and power value for both performance-driven products and mobile computing applications migration. In addition, 16nm FinFET Plus (16FF+) process passed full reliability qualification on schedule in the fourth quarter of 2014, and nearly 60 customer designs are currently scheduled for tape-out by the end of 2015. Due to rapid progress in yield and performance, 16FF+ volume ramp is expected to begin around July in 2015. TSMC's comprehensive 16FF+ design ecosystem supports a wide variety of EDA tools and hundreds of process design kits with more than 100 IPs, and all have been silicon validated. Also, 10nm technology is under development and on track to start risk production in the fourth quarter of 2015. The Company anticipates customer tape-out in the fourth quarter of 2015 and volume production in 2016. In addition to general-purpose logic process technology, TSMC supports the wide-ranging needs of its customers with embedded non-volatile memory, embedded DRAM, Mixed Signal/RF, high voltage, CMOS image sensor, MEMS, silicon germanium technologies and automotive service packages.

TSMC's subsidiaries TSMC Solid State Lighting Ltd. and TSMC Solar Ltd. engage in researching, developing, designing, manufacturing and selling solid state lighting devices and related products and systems, and solar-related technologies and products, respectively. In January 2015, TSMC announced a sale of all TSMC SSL shares held by TSMC and TSMC's subsidiary to Epistar Corp. After this transaction, TSMC completely exited TSMC SSL.

The Company is listed on the Taiwan Stock Exchange (TWSE) under ticker number 2330, and its American Depositary Shares trade on the New York Stock Exchange (NYSE) under the symbol "TSM."

Membership in Industry Associations

As a semiconductor industry leader, TSMC actively participates in trade and industry associations. TSMC executives have been nominated to and held senior positions in associations including the Taiwan Semiconductor Industry Association, the Association of Industries in Science Parks, the Chinese National Association of Industry and Commerce, the Taiwan Electrical and Electronic Manufacturers' Association, the Taiwan Business Council for Sustainable Development and the Chinese National Federation of Industries, holding positions such as Executive Board Director or supervisor. In addition, many TSMC employees also serve in industry associations as chairman or vice chairman in various committees, aiming to develop Taiwan's semiconductor industry and raise its international visibility through inter-industry cooperation and, and share our experience in sustainable business.

4.1.2 Market/Business Summary

TSMC Achievements

In 2014, TSMC maintained its leading position in the total foundry segment of the global semiconductor industry, with an estimated market segment share of 54%. TSMC achieved this result amid intense competition from both established players and relatively new entrants to the business.

Leadership in advanced process technologies is a key factor in TSMC's strong market position. In 2014, 42% of TSMC's wafer revenue came from manufacturing processes with geometries of 28nm and below.

Market Overview

TSMC estimates that the worldwide semiconductor market in 2014 reached US$354 billion in revenue, a 10% growth compared to 2013. Total foundry, a manufacturing sub-segment of the semiconductor industry, generated total revenues of US$42 billion in 2014, or 14% YoY growth.

Industry Outlook, Opportunities and Threats

Industry Demand and Supply Outlook

Following 11% growth in 2013, the foundry segment again posted double-digit growth, to 14% in 2014, mainly driven by fabless market share gains over IDM and by process technology advancement.

TSMC forecasts total semiconductor market to grow mid single digit in 2015. Over the longer term, due to increasing semiconductor content in electronics devices, fabless companies' continuing market share gains , and increasing in-house Application-Specific Integrated Circuits (ASIC) from system companies, foundry segment revenue growth is expected to be much stronger than the projected 4% compound annual growth rate (CAGR) for the total semiconductor industry from 2014 through 2019.

As an upstream supplier in the semiconductor supply chain, the condition of the foundry segment is tightly correlated with the market health of the 3Cs: communications, computer and consumer.

- **Communications**

  The communications sector, particularly the handset segment, posted a modest 4% growth in unit shipments for 2014. Smartphones, which have much stronger 25% growth and higher semiconductor content, have been leading the growth of the sector.

  The continuing transition to 4G/LTE and LTE-Advanced handsets will bring double digits growth to the market. Smartphones with increasing performance, lower power and more intelligent features continue to propel buying interest for new handsets in 2015. The growing popularity of mid-to-low-end smartphones in emerging countries is also a new catalyst driving the growth of the sector.

  Low power IC is an essential requirement among handset manufacturers. The SoC design for more optimized cost, power and form-factor (i.e. device footprint), plus the appetite for higher performance to run complicated software, will continue to accelerate the migration to advanced process technologies in which TSMC is already the leader.

- **Computer**

  The computer sector's unit shipments dropped 1% YoY in 2014, after a 10% decline in 2013. Slowing decline was driven by replacement cycles, Windows XP expiration, and the slowdown in tablet sales.

  The personal computer (PC) market is expected to decline low to mid single digit in 2015, with increasing variety (e.g. Convertible, Ultrabook and Chromebook), the introduction of new operating systems, and consumer replacement expected to stimulate PC demand.

  Requirements of lower power, higher performance and integration for key computer components such as CPU, GPU, Chipset, etc., should drive product design demand for leading process technologies.

- **Consumer**

  The consumer sector's unit shipments declined 3% in 2014, as growth from TV game consoles and set-top-boxes was offset by the decline on digital cameras, MP3 players, and handheld game consoles, as well as the result of smartphone cannibalization.

  Consumer electronics will be flat to slightly decline in 2015. The 4K UHD TVs will also continue the high growth within the otherwise flattening TV market in 2015. TSMC will be able to capitalize on these trends with advanced technologies for 4K UHD TV market.

Supply Chain

The electronics industry consists of a long and complex supply chain, the elements of which are highly dependent and correlated with each other. At the upstream IC manufacturing level, it is important for IC vendors to have sufficient and flexible supply to support the dynamic market situation. The foundry vendors are playing an important role to ensure the health of the supply chain. As a leader in the foundry segment, TSMC provides leading technologies and large-scale capacity to complement the innovations created along the downstream chain.

4.1.3 Innovation Management

Innovation is the wellspring of TSMC's growth, and is a part of all aspects of our business, from strategic planning, marketing and management, to technology and manufacturing. At TSMC, innovation means more than new ideas, it means putting ideas into practice.

4.1.3.1 Innovation at TSMC

In 2014, TSMC continued to invest in R&D with total R&D expenditure amounting to 8% of revenue, a level that equals or exceeds the R&D investment of many other high technology leaders.

TSMC has built an innovative working atmosphere to encourage employees to make their innovation ideas come true. The awards from around the world that TSMC has received demonstrate the outstanding performance of our talents.

4.1.3.2 Technology Leadership

TSMC recognizes that the technology challenge required to extend Moore's Law, the business law behind CMOS scaling, is becoming increasingly complex. The efforts of the R&D organization are focused on enabling the Company to continuously offer its customers first-to-market, leading-edge technologies and design solutions that contribute to their product success in today's complex and challenging market environment. In 2014, the R&D organization met these challenges by introducing into manufacture the industry leading 16FF+ technology, the first integrated technology platform to make use of 3D FinFET transistors. This enhanced version of TSMC's 16FF technology operates 40% faster than planar 20nm System-on-Chip technology (20SoC) or consumes 50% less power at the same speed. It offers customers a new level of performance and power optimization targeted at the next generation of high-end mobile, computing, networking, and consumer applications. The R&D organization continues to strengthen the pipeline of technology innovations that are required to maintain technology leadership. 10nm technology advanced development continues with the goal of entering risk production in 2015, while 7nm technology has now moved into the advanced development stage.

Awards Over the Years
• 7 IEEE Fellows (Incl. one life fellow)
• 1 U.S. National Academy of Engineering Member
• 1 IEEE Medal of Honor
• 1 IEEE Andrew S. Grove Award
• 1 IEEE Cledo Brunetti Award
• 1 IEEE Robert N. Noyce Medal
• 1 IEEE Corporate Innovation Award
• 1 "Stars of Asia" from Business Week
• 1 Robert N. Noyce Award from the SIA
• 1 Akira Inoue Award from SEMI
• 1 Nikkei Asia Prize for Regional Growth
• 1 Outstanding Scientific and Technological Worker Award from the Executive Yuan of the Republic of China
• 1 First-ever Outstanding Nano-Tech Award from the Ministry of Economic Affairs of the Republic of China
• 20 National Industrial/Enterprise Innovations Awards, the Taiwan government's most prestigious award for innovation achievement

In addition to CMOS logic, TSMC conducts research and development on a wide range of other semiconductor technologies that provide the functionality our customers require for mobile SoC and other applications. Highlights achieved in 2014 include: introduction of our first TSV platform for fingerprint sensor applications, and expansion of the range of CoWoS™ 3D packaging technology to the most advanced Si technologies; development of ultra-low-power RF technologies in 28nm, 40nm and 55nm nodes aimed at meeting the demand for IoT (Internet of Things) applications; the introduction into manufacturing of MEMs process technologies for accelerator and microphone applications, and a 100V GaN power transistor technology.

TSMC maintains a network of important external R&D partnerships and alliances with world-class research institutions, such as IMEC, the respected European R&D consortium, where TSMC is a core partner. TSMC also provides funding for nanotechnology research at leading universities worldwide to promote innovation and the advancement of nano-electronic technology. In 2014, TSMC announced the formation of joint research centers at National Tsing Hua University and National Cheng Kung University, with the aim of developing greater understanding into the devices and materials used in manufacture of advanced Si technologies.

Technology Leadership and Innovations
Advanced Technology
• First foundry to provide 65nm and 40nm production capacity
• First foundry to offer volume production of 28nm with TSMC's first-to-market 28nm high-k/metal gate (HKMG) technology portfolio
• World's first 28nm High-k/Metal Gate triple gate oxide technology (28HPT) which provides 10% faster speed compared to the 28HPM technology while keeping the same leakage power
• Introducing into manufacture the industry leading 16FF+ technology, the first integrated technology platform to make use of 3D FinFET transistors
Spectrum of Technology
• 55nm high voltage process entered production with the industry's smallest SRAM bit cell offering to support narrow border design of Super Retina display driver IC for high-end mobile phones
• Successfully produced the world's smallest CMOS-MEMS monolithic accelerometer for customers
• TSMC qualified for manufacture a new TSV-based platform in 2014. This is an important industrial milestone to integrate TSV with active devices
• The first foundry to implement GaN technology in a 6-inch fab

4.1.3.3 Open Innovation Platform® (OIP)

Innovation has long been both an exciting and challenging proposition. Competition among semiconductor companies is becoming more active and intense in the face of increasing customer consolidation, and the commoditization of technology at more mature, conventional levels. Companies must find ways to continue innovating in order to prosper further. Companies innovating openly from the "outside in" as well as from the "inside out" accelerate innovation through active collaborations with external partners. This active collaboration of TSMC with external partners is known as "Open Innovation". TSMC has adopted this path to innovate via the Open Innovation Platform® (OIP) initiative. OIP is a key part of TSMC's Grand Alliance.

The TSMC OIP initiative is a comprehensive design technology infrastructure that encompasses all critical IC implementation areas to reduce design barriers and improve first-time silicon success. OIP promotes the speedy implementation of innovation amongst the semiconductor design community and its ecosystem partners with TSMC's IP, design implementation and DFM capabilities, process technology and backend services.

A key element of OIP is a set of ecosystem interfaces and collaborative components initiated and supported by TSMC that more efficiently empowers innovation throughout the supply chain and, in turn, drives the creation and sharing of newly created revenue and profits. TSMC's Active Accuracy Assurance (AAA) initiative is critical to OIP, providing the accuracy and quality required by the ecosystem interfaces and collaborative components.

TSMC's Open Innovation model brings together the innovative thinking of customers and partners under the common goal of shortening design time, minimizing time-to-volume and speeding time-to-market and, ultimately, time-to-revenue. The model features:

- The foundry segment's earliest and most comprehensive EDA certification program delivering timely design tool enhancement required by new process technologies; and
- The foundry segment's largest, most comprehensive and robust silicon-proven intellectual properties (IPs) and library portfolio; and
- Comprehensive design ecosystem alliance programs covering market-leading EDA, library, IPs, and design service partners.

TSMC's OIP Alliance consists of 27 EDA partners, 39 IP partners, and 25 design service partners. TSMC and its partners proactively work together, and engage much earlier and deeper than before in order to address mounting design challenges at advanced technology nodes. Through this early and intensive collaboration effort, TSMC OIP is able to deliver the needed design infrastructure with timely enhancement of EDA tools, early availability of critical IPs and quality design services when customers need them. This is critical to success in order for customers to take full advantage of the process technologies once they reach production-ready maturity.

In October 2014, TSMC hosted an OIP Ecosystem Forum at the San Jose Convention Center in California, with keynote addresses from TSMC executives as well as OIP ecosystem partners. The forum was well attended by both customers and ecosystem partners and demonstrated

the value of collaboration through OIP to nurture innovations.

TSMC's OIP Partner Management Portal facilitates communication with our ecosystem partners for efficient business productivity. This portal is designed with an intuitive interface and can be linked directly from TSMC-Online.

4.1.3.4 TSMC University Collaboration Programs

TSMC University Research Centers in Taiwan

TSMC has significantly expanded its interaction with universities in Taiwan with the establishment of four research centers located at the nation's most prestigious universities. The mission of these centers is twofold: to increase the number of highly qualified students who are suitable for employment in semiconductor industry, and to inspire university professors to initiate research programs that focus on the frontiers of semiconductor device, process and materials technology; semiconductor manufacturing and engineering science; and specialty technologies for electronic applications. Following the establishment of two research centers at National Taiwan University and National Chiao Tung University in 2013, two additional centers were set up at National Cheng Kung University and National Tsing Hua University in 2014. These centers are funded jointly by governmental agencies together with a commitment from TSMC of several hundred million Taiwan dollars and in-kind university shuttles. In 2014, several hundred high caliber students across Electronics, Physics, Materials Engineering, Chemistry, Chemical Engineering and Mechanical Engineering disciplines joined the research centers.

A Vehicle to Make Ideas Come True - TSMC University Shuttle Program

The TSMC University Shuttle Program was established to provide professors at leading research universities worldwide with access to the advanced silicon process technologies needed to research and develop innovative circuit design concepts. This program links motivated professors and graduate students with enthusiastic managers at TSMC with the goals of promoting excellence in the development of advanced silicon design technologies, and the nurturing of new generations of engineering talent in the semiconductor field.

The program provides access to such silicon process technologies as 65nm and 40nm nodes for digital, analog/mixed-signal circuits and RF design, and the 0.11μm/0.18μm process nodes for micro-electromechanical system designs. Select research projects utilize the 28nm technology node. Participants in the TSMC University Shuttle Program include major university research groups in the U.S.: M.I.T., Stanford University, UC Berkeley, UCLA, University of Texas at Austin, and University of Michigan. In Taiwan, participants are: National Taiwan University, National Chiao Tung University, and National Tsing Hua University. Other participants include: Tsing Hua University in Beijing, The Hong Kong University of Science and Technology, and Singapore's Nanyang Technological University.

TSMC's University Shuttle Program participants recognize the importance of the program in allowing their graduate students to implement exciting designs such as low-power memories, analog-to-digital converters, and advanced radio-frequency and mixed-signal bio-medical systems. This is truly a "win-win" collaboration. In 2014, TSMC received specific letters of appreciation from professors at M.I.T., Stanford University, UC Berkeley, UCLA, University of Michigan, National Taiwan University and National Chiao Tung University.

4.1.3.5 Future R&D Plans

In light of the significant accomplishments of TSMC's advanced technologies in 2014, the Company plans to continue to grow its R&D investments. The Company plans to reinforce its exploratory development work on new transistors and technologies, such as 3D structures, strained-layer CMOS, high mobility materials and novel 3D IC devices. These studies of the fundamental physics of nanometer CMOS transistors are core aspects of our efforts to improve the understanding and guide the design of transistors at advanced nodes. The findings of these studies are being applied to ensure our continued industry leadership at the 20nm and 16nm nodes and to extend our leadership to the 10nm and 7nm nodes. One of TSMC's goals is to extend Moore's Law through both innovative in-house work and by collaborating with industry leaders and academia. We seek to push the envelope in finding cost-effective technologies and manufacturing solutions.

With a highly competent and dedicated R&D team and its unwavering commitment to innovation, TSMC is confident of its ability to deliver the best and most cost-effective SoC technologies for its customers, thereby supporting the Company's business growth and profitability.

■ TSMC R&D Future Major Project Summary

Project Name	Description	Risk Production (Estimated Target Schedule)
10nm Logic Platform Technology and Applications	3rd generation FinFET technology for both digital and analog products	2015
7nm Logic Platform Technology and Applications	CMOS platform technology for SoC	2018
3D IC	Cost-effective solution with better form factor and performance for SiP	2015 ~ 2016
Next-generation Lithography	EUV and multiple e-beam to extend Moore's Law	2015 ~ 2019
Long-term Research	Special SoC technology (including new NVM, MEMS, RF, analog) and 5nm transistors	2015 ~ 2019

The above plans accounted for roughly 70% of the total R&D budget in 2015
The total R&D budget is currently estimated to be around 8% of 2015 revenue

4.1.4 Investor Engagement

TSMC's business strategies and financial policies aim to uphold and increase shareholder value. We align ourselves with international standards that demonstrate our position and reputation as a sustainability champion. In 2014, TSMC was recognized by the Dow Jones Sustainability Indexes (DJSI) as the Semiconductors and Semiconductor Equipment Industry Group Leader for a second consecutive year, once again affirming the Company's commitment to sustainability and corporate social responsibility. Of the Semiconductor and Semiconductor Equipment Industry Group companies, TSMC scored highest in categories including Innovation Management, Supply Chain Management, Environmental Policy and Management System, Product Stewardship, Water-Related Risks, Human Capital Development, and Stakeholder Engagement.

■ TSMC Leads Semiconductors and Semiconductor Equipment Industry Group at Dow Jones Sustainability Indexes (DJSI)

2014 Total Score: Semiconductors and Semiconductor Equipment Industry Group		
	TSMC	Average
Total Score	88	52

2014 Dimensional Score			
	Weighting	TSMC	Average
Economic	40%	84	58
Environmental	35%	96	50
Social	25%	84	44

ROBECOSAM Sustainability Award Industry Leader 2015

ROBECOSAM Sustainability Award Gold Class 2015

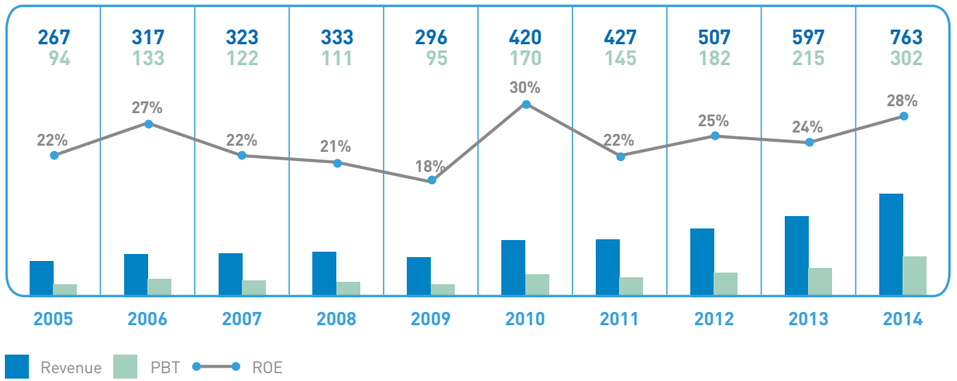
In order to serve investors and the investment communities, TSMC has established a highly effective communication system to disseminate information. Each quarter, our Co-CEOs and CFO jointly hold an earnings conference, which combines face-to-face interactions with an audio conference call, to report and discuss company performance with investors worldwide. Replays and transcripts of these conferences are then made available on the Company website for investors' reference. Each year, our Investor Relations team holds hundreds of investor and analyst meetings and conference calls, and actively participates in

broker-sponsored investor conferences and non-deal roadshows, extending our reach throughout Asia, Europe and North America. In 2014, more than 260 such meetings and conference calls were held with investors worldwide. All these efforts are focused on serving worldwide investors with accurate, timely, and transparent information and financial data regarding TSMC business strategy, operations and performance. In addition, E-mail updates covering all business activities and key events are regularly sent to thousands of members of the investment community. Information regarding TSMC's business fundamentals, dividend history, General Shareholders' Meeting materials, summaries of analysts' recommendations, credit ratings, and important filings with regulatory authorities is posted on TSMC's corporate website in a timely manner.

Committed to increase shareholder value, TSMC has set clear strategic financial objectives. These strategic financial objectives include: (1) average return on equity (ROE) across cycle greater or equal to 20%; (2) 10% compounded annual growth rate (CAGR) for profit before tax (PBT) from 2010 to 2015. These financial objectives can help investors better understand TSMC's long-term investment value, while its financial track record and business outlook for 2015 give investors high confidence in TSMC's capability to achieve these financial objectives. For example, during the past 10 years, TSMC's averaged ROE was 24% and CAGR for profit before tax was 13%, both of which met our long-term financial objectives. Supported by solid financial performance, TSMC's share performance including cash dividends increased 37% during 2014, marking 6 consecutive years of annual growth. Since the Company went public in 1994, TSMC's market capitalization has grown steadily. As of December 31, 2014, TSMC's market capitalization reached above NT$3.6 trillion or US$115 billion, up from NT$2.7 trillion or US$91 billion at the end of 2013.

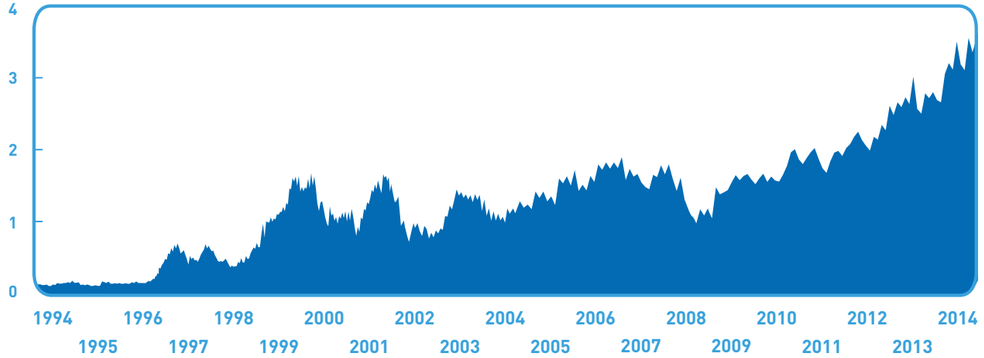
Since becoming a publicly listed company in 1994, TSMC has consistently delivered value to shareholders through cash dividends and share price appreciation, maintaining a strong balance sheet, and keeping one of the highest credit ratings among global semiconductor companies and Taiwan companies (Standard & Poor's (S&P) Ratings: A+; Moody's Ratings: A1; Taiwan Ratings: twAAA). Starting from 2004, TSMC has distributed cash dividends to our shareholders each year. From 2004 to 2014, TSMC paid out more than NT$740 billion, or US$23 billion, in cash dividends. Moreover, TSMC commits to its dividend policy that TSMC will maintain a stable and sustainable dividend policy, and will consider raising dividend per share when the free cash flow is sufficient to cover the previous level of dividend payment and any debt repayment.

Financial Performance 10 Year Averaged ROE = 24%; PBT CAGR = 13%

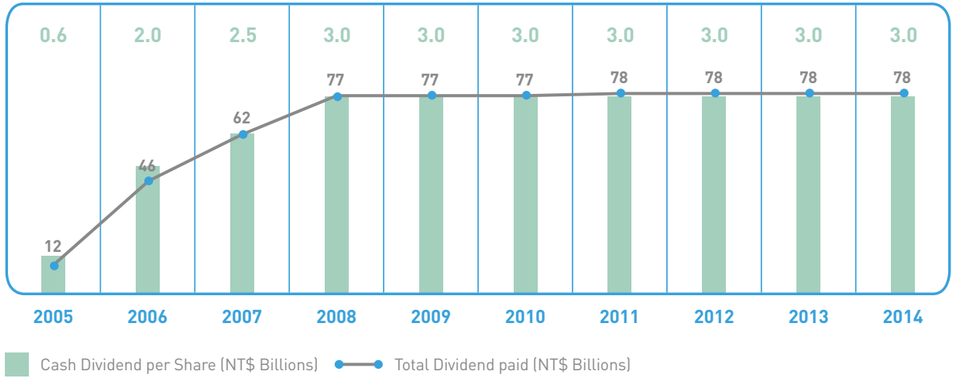


Market Capitalization Over NT$3.6 Trillion

Unit: NT$ Trillion



Cash Dividend Over NT$740B from 2004 to 2014



Annual investors' surveys conducted by media have recognized the transparency of TSMC's disclosure policies, corporate governance commitment, and equitable treatment of shareholders. Furthermore, in 2014, TSMC continued to receive various awards from globally noted institutions such as Institutional Investor and *IR Magazine*. For more information on awards and recognition in 2014, please refer to "2014 Awards and Recognitions".

4.1.5 Financial Highlights

Dividend Policy

TSMC does not pay dividends when there is no profit or retained earnings. TSMC has distributed cash dividends every year to its shareholders since 2004 and maintained dividends per share (DPS) at NT$3.0 every year from 2007 to 2014. TSMC intends to maintain a stable and sustainable dividend policy, and will consider raising DPS when the free cash flow is sufficient to cover the previous level of dividend payment and any debt repayment. On February 10, 2015, TSMC's Board of Directors adopted a proposal recommending distribution of a cash dividend of NT$4.5 per share. This proposal will be discussed and decided at the Annual Shareholders' Meeting on June 9, 2015.

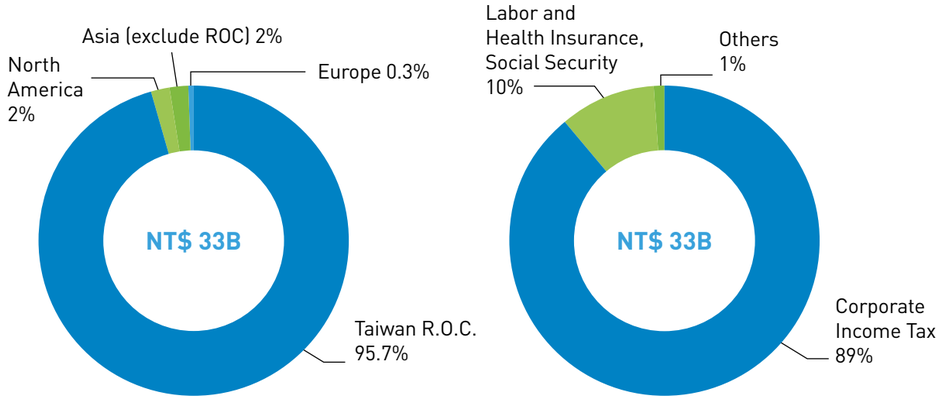
Tax Policy

TSMC supports tax policies and incentives that encourage innovation and foster economic growth. We aim for our tax approach to be transparent and sustainable in the long term, and our commits to the following:

- Act at all times in accordance with all applicable laws and regulations.
- Be transparent in financial reporting. Disclosures are made in accordance with applicable regulations and reporting requirements.
- Do not undertake transactions whose sole purpose is for tax avoidance.
- Develop strong, mutually respectful relationships with tax authorities based on transparency and trust.
- Always consider tax as part of major business decisions.

TSMC payments to the governments are primarily for corporate income tax. In 2014, TSMC's total tax payments on cash basis worldwide were NT$33 billion. Over 90% of TSMC's revenue and operating profit are generated from our business operations in Taiwan. Meanwhile, over 90% of our tax payments were also made to the Taiwan R.O.C. government. TSMC was the largest corporate taxpayer in Taiwan in 2014:

Breakdown of Total TSMC Tax Payments on Cash Basis Worldwide in 2014 Unit: %

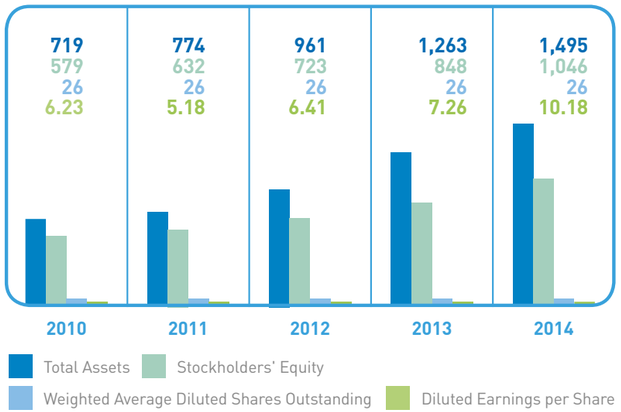


In accordance with applicable regulations, TSMC was eligible for tax incentives such as tax exemption and investment tax credits in 2014 as follows:

Law/Statute	Item	(In Billions of NT$)
Article 9 of the Statute for Upgrading Industries	5-year tax exemption	16.3
Article 6 of the Statute for Upgrading Industries	Purchase of machinery and equipment	5.1
Article 10 of the Statute for Industrial Innovation	R&D expenditures	3.3

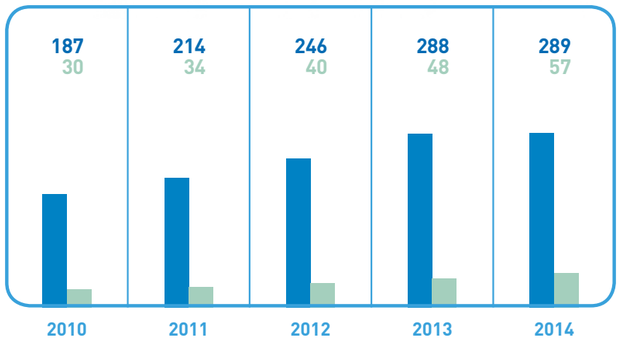
Assets and Capitalization - Year End

Unit: NT$ Billions except EPS



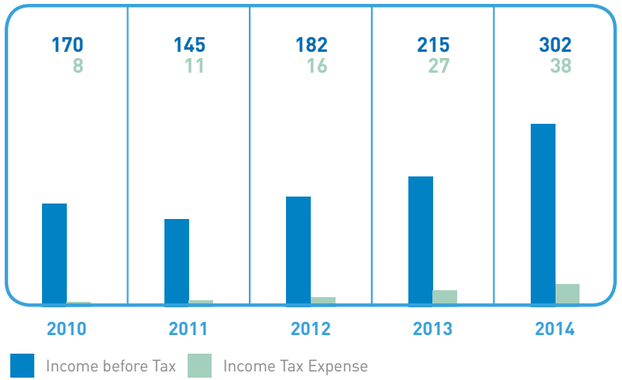
Capital and R&D Expenditures

Unit: NT$ Billions



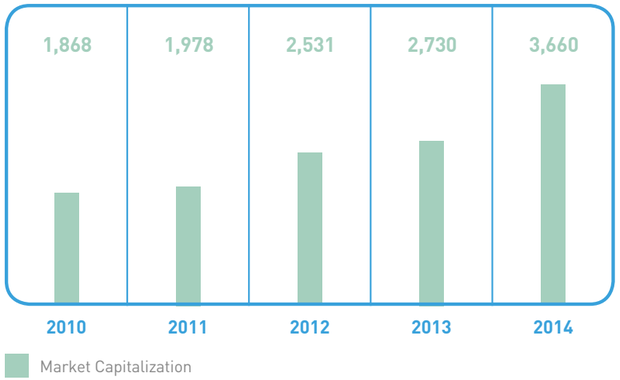
Income before Tax and Income Tax Expense

Unit: NT$ Billions



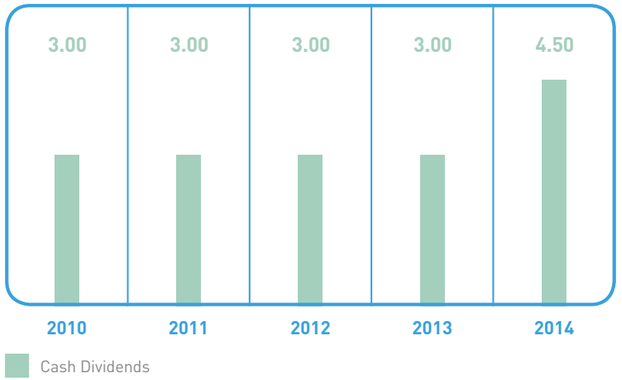
Market Capitalization - Year End

Unit: NT$ Billions



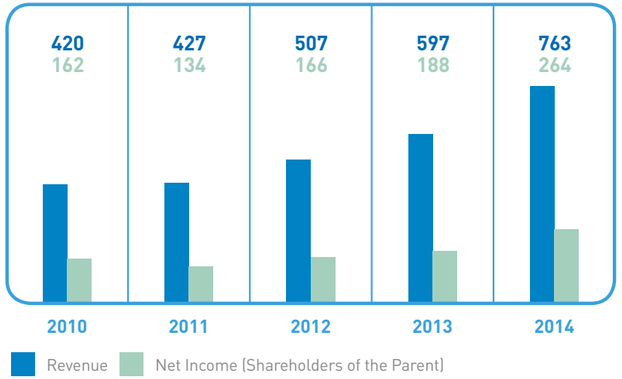
Dividends Distribution

Unit: NT$



■ Revenue and Net Income

Unit: NT$ Billions



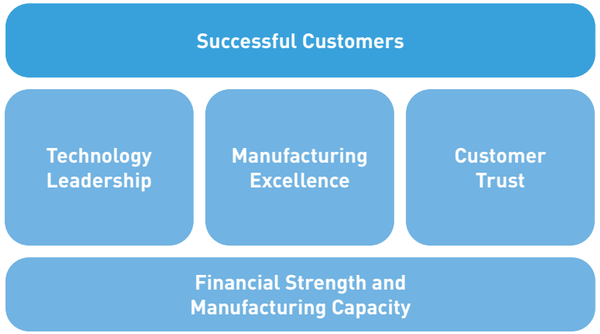
Note:
1. TSMC prepared 2010-2011 financial performance in accordance with R.O.C. GAAP.
2. The charts were prepared based on the audited financial statements, except market capitalization.

4.2 Customer Service and Supplier Management

Customer trust has always been one of TSMC's core values. At TSMC, our customers' success is our success, and we value our customers' ability to compete as we value our own. We strive to build deep and enduring relationships with our customers, who trust and rely on us to be part of their success over the long term.

TSMC has always treated suppliers as partners, and works together with them over the long term to build a stable and sustainable semiconductor supply chain. In addition to taking into account supply chain product quality, delivery, and cost, TSMC works with our suppliers to protect the environment. We pay attention to human rights, safety and health issues of our suppliers as well as business continuity and risk management, so that we can fulfill our corporate social responsibilities together. TSMC has been named "Semiconductors & Semiconductor Equipment" industry group leader by the Dow Jones Sustainability Indexes (DJSI) for a second consecutive year in 2014 as well as the recognition for the category of Supply Chain Management.

■ TSMC's Value Proposition



4.2.1 Customer Service and Satisfaction

Customer Service

TSMC believes that providing superior customer service is critical to enhancing customer satisfaction and loyalty, which is very important to retaining existing customers, attracting new customers, and strengthening customer relationships. With a dedicated customer service team as the main contact window for coordination and facilitation, TSMC strives to provide world-class, high-quality, efficient and professional services in design support, mask making, wafer manufacturing, and backend to achieve optimum experience for our customers and, in return, to gain customer's trust and sustain company profitability.

To facilitate customer interaction and information access on a real-time basis, TSMC-Online services offer a suite of web-based applications that provide a more active role in design, engineering, and logistics collaborations. Customers have 24-hour a day, seven-day-a-week access to critical information and are able to subscribe customized reports through TSMC-Online services. Design Collaboration focuses on content availability and accessibility, with close attention to complete, accurate, and current information at each level of the design life cycle. Engineering Collaboration includes online access to engineering lots, wafer yields, wafer acceptance test (WAT) analysis, and quality reliability data. Logistics Collaboration provides access to data on any given wafer lot's status in order, fabrication, assembly and testing, and shipping.

Customer Confidential Information Protection

Customer trust is one of TSMC's core values. The trust between customers and TSMC is one of the major reasons that customers are willing to rely on TSMC for their wafer manufacturing. As a result, TSMC handles and protects customers' confidential information with the highest standard.

TSMC is committed to customer proprietary information protection in order to protect customers' interest. TSMC has formulated the "Proprietary Information Protection" (PIP) Policy that defines the confidential information management procedures and handling guidelines. PIP promotion and training programs are regularly conducted and required to every TSMC employee in order to reinforce the awareness and capability of proprietary information classification and handling. TSMC also regularly conducts internal audit as well as annual refreshment training for all employees to ensure the compliance of PIP policy.

TSMC's daily operation workflow and system access privilege are based on the compliance of "Proprietary Information Protection" policy:

- TSMC implements data access control mechanism on all systems. Only customers and authorized TSMC employees with job requirements are allowed to access customer confidential information.
- TSMC continuously enhances web service security configuration with high security standard, such as multi-step authentication and multi-layer firewalls, in order to protect confidential information from customers.

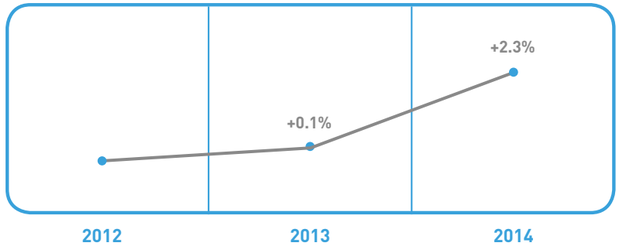
Customer Satisfaction

To assess customer satisfaction and to ensure that of our customers' needs are appropriately understood, TSMC conducts the Annual Customer Satisfaction Survey (ACSS) with most active customers, either by web or interview, through an independent consultancy.

Complementary with the survey, Quarterly Business Reviews (QBRs) are also conducted by the customer service team so that customers can give feedback to TSMC on a regular basis. Through both surveys and intensive interaction with customers by our customer facing teams, TSMC is able to maintain close touch with customers for better service and collaboration.

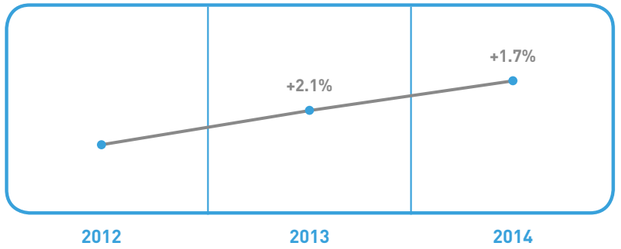
Customer feedback is routinely reviewed and considered by executives and then developed into appropriate improvement plans, all-in-all becoming an integral part of the customer satisfaction process with a complete closed loop. TSMC has maintained a focus on customer survey data as one of our key indicators of corporate performance, not just of past performance but also as a leading indicator of future performance. TSMC has acted on the belief that customer satisfaction leads to loyalty, and customer loyalty leads to higher levels of retention and expansion.

Annual Customer Satisfaction Survey
Customer Service Score Trend



Note: Customer Service Score (evaluated by customers for the service provided by TSMC's customer facing team)

Quarterly Business Review (QBR)
Customer Service Composite Index Trend



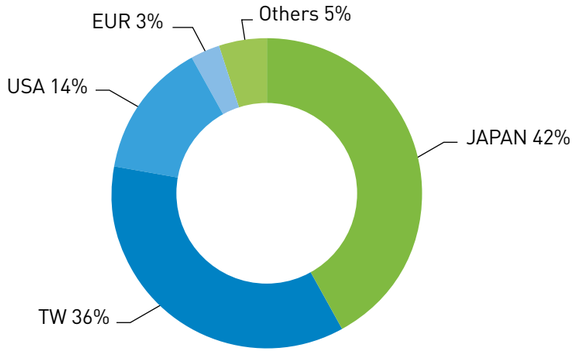
Note: Customer Service Composite Index (scores from QBR Customer Service, Technology, Quality and Reliability)

4.2.2 Supplier Management

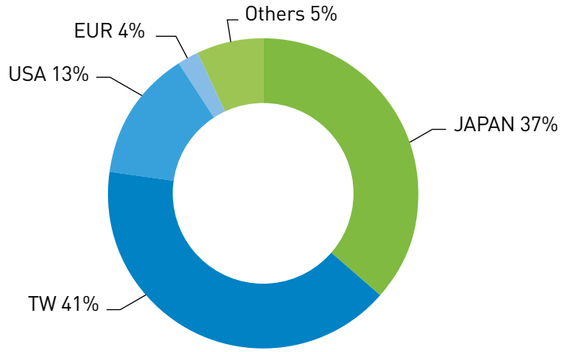
4.2.2.1 Supply Chain Overview

The purchasing of TSMC can be broadly classified into six major categories—equipment, spare parts, raw materials, facilities, IT, and general affairs. To strengthen the collaboration with our suppliers, shorten product development lead time, and eliminate unnecessary costs in the supply chain for quality customer service, TSMC has been striving for localization for years and sharing the benefits with our suppliers in a win-win manner. For raw materials, the localization rate stood at 40% at the end of 2014. (Please refer to TSMC 2014 Annual Report Ch. 5.3.5 for more information about raw material suppliers ⊕.) With this significant achievement, TSMC has created a substantial number of employment opportunities in Taiwan.

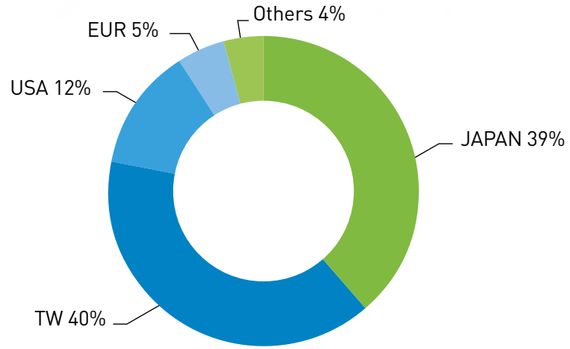
■ TSMC Material Source Profile (According to 2012 Procurement Amount)



■ TSMC Material Source Profile (According to 2013 Procurement Amount)



■ TSMC Material Source Profile (According to 2014 Procurement Amount)



4.2.2.2 Supply Chain Management Focus and Achievements

Without supplier's support, it is hard for TSMC to be successful in the process of leading-edge technology innovation and in challenging the limits of Moore's Law again and again. Suppliers must acknowledge and collaborate with TSMC in the requirements of quality improvement, environmental protection, social responsibilities and sustainability. The focus and achievements of supply chain management in 2014 were as follows.

Category	Goal	Achievement
Supplier Continuous Quality Improvement	Ensuring supplier's acknowledgement of TSMC's quality standard, work out improvement targets together and establish quality system	• TSMC held an annual supplier quality forum on Apr. 18 and 25, 2014, a total of 59 suppliers (280 attendees) are invited to this event
Green Supply Chain	Ensuring sustainability	• TSMC Fab15 participated in a Ministry of Economic Affairs project named "promotion of green growth industry" for counseling of green innovation system with six suppliers • Six suppliers made significant progress on carbon reduction after counselled by TSMC, and 2 among them will apply for green-building certification in 2015 • Overall purchasing amount of supplies and equipment with eco-labels was more than NT$2.2 billion in 2014, reaching 51% of spending on computer servers, network equipment and office supplies
Supplier Chain Risk Management	Ensuring supply	• TSMC held the annual "Supply Chain ESH and RM forum" on November 21, 2014 • Broadened "Supply Chain Risk Management Committee" and studying Business Continuity Plan for critical advanced materials • Continuous reduced single supply risk, a total of 42 specific actions have been done • Encourage local manufacturing continuously, and maintained local supply at 40%

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Category	Goal	Achievement
Intensive Supplier Management, Auditing and Counseling	Ensuring the fulfillment on the requirements of quality, environmental protection and social responsibilities for advanced raw material suppliers	• TSMC sent experts to 12 suppliers for on-site counseling to improve their quality system in 2014 • Conducted 53 suppliers' on-site audits and a total of 979 actions for suppliers. Up to Dec. 31, 2014, the action completion rate is around 85%
Better Supply Chain Transparency and Stronger Supplier Performance Management	Improving supply chain transparency and inventory visibility so as to improve supplier's self-management capability	• Conducted 92 critical suppliers' performance measurement in 2014 (including 54 raw material suppliers, 30 facilities and AMHS suppliers, and 8 equipment suppliers) • TSMC held the 14th annual Supply Chain Management forum on Dec. 4, 2014, over 500 suppliers participated in the forum and 9 outstanding equipment and materials suppliers awarded • Over 3000 suppliers (covered 80% spending amount) exchange information via TSMC new supply portal • For internet security control, 100% supply online users completed fixed IP setup • Critical supplier manufacturing site survey is on-going (completion rate 95%)
Sourcing Conflict-free Materials	Ensuring conflict-free supply chain	• Completed 2013 Form SD declaration • Completed 14 suppliers CMRT v.3.02 survey, and disclosed 31 smelter's mine location • Completed sign-off form for conflict mineral suppliers • TSMC held the 2nd conflict mineral supply chain management training for 34 supplier's representatives and TSMC subsidaries' buyers on Oct. 30, 2014
Complying "EICC Code of Conduct"	Joining EICC membership, and ensuring supplier's compliance of EICC code of conduct	• TSMC becomes EICC applicant in Dec., 2014 • Announced "Supplier Code of Conduct" (please refer to 4.3 EICC Membership ⊕)

Continuous Improvement on Quality

With increasing challenge of the stability of advanced products, it becomes more important to improve supplier's capability on quality management. TSMC has formed an expert team named "Supplier continuous quality enhancement task force" in 2014, including 121 experts from Incoming Material Quality and Reliability, SPC, laboratory, modules, facilities, and material management division. Compared with 2013, people involvement in auditing increased 44% at TSMC. We conducted 75 site audits for critical suppliers including 65 local audits and 10 overseas audits around Japan, US and Korea. Once the significant deficiencies have been found, the expert team will set specific goals and a clear timeline for suppliers to improve. Through the counseling and continuous improvement, we believe our suppliers will meet TSMC's standard day by day. As to Dec. 31, 2014, a total of 834 improvement items have been completed. As long as the supplier quality system improved and self-management capability strengthened, our product and process stability will be much more reliable.

TSMC held the annual supplier quality forum on Apr. 18 and 25, 2014, and a total of 59 suppliers (280 attendees) were invited. During the session, TSMC requested suppliers to conduct the comprehensive quality training and execution to ensure a stable and reliable supply chain. Even more practically, we sent experts to 12 suppliers for on-site counseling to improve their quality system. This year, we plan to shift our focus to enhancing suppliers' capability of self-management on quality. The "Corporate Synergy Development Center" will be invited to assist

2014 Annual Supplier Quality Forum

TSMC to host a series of courses of "Quality Tool Kits Practice" for suppliers. We expect suppliers to grow together with TSMC through the training.

Green Supply Chain

• Developing Suppliers' Green Standards

TSMC is committed to building a "green supply chain", attending to global environmental issues, and exerting its influence to encourage supply chain partners to follow.

■ TSMC Works with Suppliers to Build a Green Supply Chain

• Our Assessment of Suppliers' Green Performance Includes:

- **Code Compliance in Environmental Protection:** Suppliers must comply with local government regulations, including air pollution control, water pollution control, waste, and resource management. If there are violations of law or regulations, suppliers must take corrective action.

- **Energy Saving and Carbon Reduction Management:** Suppliers are required to collect carbon inventory data in their manufacturing plants, develop a product-based carbon footprint, and provide carbon reduction performance data.

- **Water Resources and Water Management:** Suppliers are required to collect water inventory data in their manufacturing plants to establish a water footprint, and to provide a specific water resource management plan.

- **Green Products and Hazardous Substances Control Specification:** In response to global hazardous substance controls and eco-friendly product specifications, we ask suppliers to comply with PFOS/PFOA/RoHS/REACH and other global chemical control standards.

- **Waste Management:** Suppliers need to continuously improve waste reduction performance and raise recycling and reuse ratios in their manufacturing facilities.

- **Tier-2 Suppliers' Green Supply Chain:** Suppliers must work with their upstream suppliers on environmental protection, reduction of carbon emissions, and water conservation related measures.

- **Environmental Management System and the Establishment of Environmental Objectives:** Suppliers must have ISO 14001, RC 14001, or other relevant environmental management system certification.

- **Other Environmental Protection Standards:** This includes the use of green procurement, adoption of green building designs, promotion of environmental education and others.

• Requiring Raw Materials Suppliers to Eliminate Hazardous Substances

TSMC promotes "green procurement" and requires raw materials suppliers to provide a statement to ensure that their products do not contain internationally banned hazardous substances harmful to the environment to ensure that products meet customer requirements such as the EU RoHS Directive. If significant deficiencies are found in supplier environmental audits, the supplier will be reviewed and asked to improve at a quarterly meeting chaired by a purchasing group manager.

• Green Requirements for Process Tool Suppliers

TSMC requires equipment suppliers to consider water, power, and material conservation when designing new generations of equipment, and also requires a long-term blueprint for carbon reduction and future environmental strategy. In addition, TSMC verifies that the energy performance of each tool meets or exceeds conditions set in the procurement contract after tool installation is completed.

Collaboration with Suppliers on Green

In 2014, TSMC's Fab15 participated in a Ministry of Economic Affairs project named "Promotion of Green Growth Industry" for counseling of green innovation system with six suppliers. The purpose of the

project is to reduce the environmental impact and reach the green innovation through assessment & improvement of energy conservation, green manufacturing process, the end-pipe pollutants treatment, environmental design, green management, social responsibility and green innovative thinking.

After four months, TSMC and the Industrial Development Bureau under the Ministry of Economic Affairs held a seminar on December 15, 2014 to share TSMC's experiences on counseling of green innovation system and the promotion of suppliers' green innovation. TSMC's Fab15 was awarded clean production mark after the project finished. Six suppliers also made significant progress on carbon reduction and two of them will apply for green-building certification in 2015.

TSMC and suppliers held performance presentation for green Innovation on December 15, 2015

Promoting Green Label Purchasing

TSMC encourages the use of computer servers, network equipment as well as office equipment and supplies with green labels, including computers and peripherals, recycled printer paper, recycled paper towels, and environmentally friendly cleaning supplies. In September 2014, TSMC won the recognition of "Outstanding Performance in Green Label Purchasing" from the Environment Protection Administration. The overall purchasing amount of supplies and equipment with eco-labels was more than NT$2.2 billion in 2014, reaching 51% of spending on computer servers, network equipment and office supplies.

TSMC received the award of 2014 Outstanding Performance in Green Label Purchasing from EPA

Supply Chain Risk Management

• **Code of Supply Chain Risk Management**

TSMC views supply chain risk management as part of the Company's competitive advantage. In a globalized world, any major natural disaster or accident can have an impact on TSMC, so we pay close attention to any risk to our supply chain partners, and take the initiative to provide assistance when necessary. Our concerns include:

– **Business Continuity Plan:** TSMC requires our suppliers to establish their own business continuity plans for a variety of potential natural or man-made threats. Appropriate plans, procedures, actions and periodic drills are required to ensure continuous operations and reduce the impact of accidents on TSMC.

– **Geographical Risk:** TSMC analyses the geographic location of manufacturers in our global supply chain using mapping tools. When a major accident or natural disaster occurs around the world, we can immediately begin business continuity plans and take the initiative to provide our supplier business partners with the resources needed to resume production.

– **Earthquake Risk Management:** TSMC proactively helps companies that need assistance by teaching them how to strengthen their anti-earthquake engineering.

– **Climate Change Risk Management:** Due to the increased risk of water shortage and flooding in recent years resulting from global climate change, we require our suppliers to prepare contingency plans, such as support from overseas production, to reduce the impact of such an event.

– **Fire Risk Management:** TSMC strictly asks suppliers to obey local fire codes and maintain/test their fire protection systems carefully. We believe that fires can be prevented, and share our own loss prevention and fire protection management experience with our suppliers.

– **General Environmental, Safety and Health Management:** TSMC requires major suppliers to obtain OHSAS 18001 certification or other health and safety management system certification.

– **New Influenza Pandemic Response and Prevention:** TSMC shares its experience in corporate pandemic response and prevention with our major suppliers.

– **Transportation Risk:** Suppliers must manage the quality of their transportation or logistic service and vehicles. In particular, appropriate training and contingency plans are required in the transport of dangerous or hazardous chemicals.

– **Suppliers' Supply Chain Risk Management:** In addition to requiring suppliers to manage their supply chain risk, we also require suppliers to have the ability to review their suppliers' risk management and to enhance the reliability of the supply chain.

– **Interruption of Information Systems Risk Management:** Some suppliers are highly dependent on IT systems in their production. TSMC asks that they have mechanisms for remote backup of information systems. Computer server rooms are also required to have fire and earthquake protection to reduce the impact of accidents.

• **Conducting Supply Chain Sustainability Risk Assessment**

TSMC has dealt with customers increased concerns in this area with its efforts on sustainable supply chain management in the past several years. Despite the difficult and forward-looking nature of some of our measures, we are dedicated to continuing our efforts. In 2009, TSMC developed a Sustainability Evaluation Score to assess suppliers' supply chain risk and sustainability. We use this score, combined with delivery, quality, financial, operational, and other risks, to form a supply chain risk index. TSMC refers to these indices as an important basis for procurement strategy.

• **Managing Contractors' ESH**

TSMC endeavors to be a good corporate citizen and meet its social responsibilities. We believe in going beyond providing a safe workspace for employees to establish a higher ESH standard with our partners in all industries. TSMC is committed to communicating with suppliers and contractors on environmental, safety, and health issues and encouraging them to improve their ESH performance. TSMC treats contractors like our employees and works together with them to adopt good safety protection, and leads members of our supply chain to reduce their environmental impact.

• **Identifying High-risk Work for Priority Management**

TSMC has established standards for high-risk work to strengthen contractor safety management. TSMC has been adopting high-risk work management and self-management to govern work performed by contractors since 2005. TSMC's high-risk work

management classifies work that may cause injuries, casualties or major property damage as level-1 high-risk operations. These include work in confined spaces, work with electrical shock risk, hot work, or disconnection of gas or chemical piping. Work that may result in system shutdowns or production interruptions are classified as level-2 high-risk operations. TSMC explicitly defines safety precautions and control procedures to be taken by personnel according to different operations.

- **Contractor OHSAS 18001 Requirement and Worker Skill Certification**

  In terms of self-management, TSMC requires that contractors performing level-1 high-risk work must complete worker certification and establish their own OHSAS 18001 safety and health management system before they are eligible to bid on contracts. This self-management is aimed at increasing contractors' sense of ownership and responsibility with the goal of promoting safety awareness and technical improvement for all contractors in the industry. Workplace accidents have decreased by half since these requirements were implemented in 2005.

In addition to routine audits by third party certification agencies, TSMC has also conducted audits of OHSAS 18001-certified contractors since 2008. If an audit finds that a contractor is not qualified, the contractor's level-1 high-risk work qualification may be revoked.

TSMC believes that we can help the community and the environment by leading our contractors to reach higher standards of environmental, safety, and health protection and create a better workplace.

- **Mitigating Single Supply Risk**

  To reduce supply chain risk and actively manage cost, TSMC broadened "Supply Chain Risk Management Committee" in June, 2014. Hundreds of members were involved, including members from Modules, Risk Managements, ESH, Material Management, Incoming Material Quality and Reliability and Technical Boards. We treated the 20nm team as the core and extended our tasks to 16nm, 28nm, 4Xnm, 65nm and 90nm in parallel. The goal for the committee is not only to reduce single supply (including 2nd source development and 2nd plant evaluation), but also to expend the supplier's capacity, continuously improve their quality, establish production profile and perform audits of high-risk facilities. For advanced materials' single supply risk mitigation, we successfully completed 42 activities, and we plan to complete more in 2015. In our opinion, supply chain resilience can only be improved considerably by working aggressively and collaboratively with our suppliers.

Intensive Supplier Management, Auditing and Counseling

- **Certification for Management Systems**

  TSMC encourages its suppliers to be certified for ISO 14001, OHSAS 18001 or other environmental and ESH management systems.

- **Site Audit, Assistance & Improvement Follow-up**

  TSMC visits our suppliers and performs audits according to an annual plan. When special concerns arise from these audits, we work with suppliers to develop appropriate solutions and provide support to meet our expectations. These solutions are executed by specified sponsors with a clear goal and time frame.

On November 21, 2014, TSMC held the annual "Supply Chain ESH and RM forum" and invited suppliers' managers who are in charge of ESH & RM to attend the forum. In the forum, we emphasized that local ESH codes' compliance is the consensus of collaboration between TSMC and suppliers. TSMC briefed the new revised laws and shared the audit findings and improvement recommendations for developing ESH management ability and reaching the target of continuous enhancement of environmental performance.

TSMC also follows the improvement status of the suppliers whose quality, delivery and sustainability issues should be enhanced. TSMC also invites senior managers from some of our key suppliers to discuss the overall performance and asks continuous improvement to ensure suppliers can comply with TSMC's requirements through semiannual or quarterly monitoring of key indicators through a scorecard and checklist.

In 2014, TSMC continued to audit main suppliers through questionnaires and site visiting. TSMC asked the top managers to promise the improvement of the audit findings related to environmental protection, safety and hygiene. TSMC also provided on-site assistance and experience sharing forum to promote their performance. As an integral part of the overall supplier management process, TSMC has formed a consolidated audit task force and planned more than 80 audit trips for the calendar year of 2015 to ensure suppliers' compliance with a multitude of standards, including those on labor, ethics, environmental, health, and safety.

■ **Consolidated Audit Scope & Focus**

● Primary ◎ Secondary ○ Optional X Null

Category	Member	Audit Content	2014 Focus	2015 Focus
Quality	IMQR/Module/FAC	Quality system	●	●
		Process control	●	●
		Facility control	●	●
		SPC	●	●
		Lab capability	◎	◎
ESH	ESH/RM/MSCM	Environmental regulation	●	●
		Climate change	X	◎
		Green supply chain	◎	●
		Occupational safety & hygiene	◎	●
		Chemical hazard management	◎	●
		Fire protection	●	●
Labor & Ethics	HR/Legal/MSCM	Labor policies • Freely chosen employment • Child labor • Working hours • Wages and benefits • Humane treatment • Non-discrimination • Freedom of association	◎	●
		Ethics standards • Business integrity • No proper advantage • Disclosure of info • IP • Fair competition • Protection of ID and non-retaliation • Privacy	◎	●
SCRM/Conflict Minerals Management	MSCM	Business continuity plan	◎	●
		Supplier capacity preparation	◎	●
		Inventory management	●	●
		Conflict minerals • Responsible Sourcing of Minerals	X	○

Building Supply Chain Transparency and Strengthening Supplier Performance Management

- **Intelligent Information**

TSMC provides a brand new, comprehensive web-based service platform to collaborate with TSMC suppliers in 2014. It supports new supplier registration, business qualification, forecast, supply chain inventory visibility, eQuotation, purchasing orders processing, quality collaboration, delivery & shipment confirmation, and payment tracking for suppliers. This full-functional platform enables transactions and supply chain information to be managed in real time. TSMC has worked closely with raw material and spare parts suppliers to exchange inventory information, so that in-bound supply chain inventories are transparent and demand fluctuations can be detected in the early stage. TSMC encourages our suppliers to implement ePO, eInvoice, and advanced shipping notice and inventory information in an integrated platform. The platform speeds up information flow, increases people productivity, reduces human error, and decreases overall supply chain cost. More than three thousand suppliers use TSMC's Supply Online system for data exchange, covering 80% of total spending amount. All these efforts mitigate the risk of supply interruption and prevent manufacturing of surplus materials.

- **Strengthening Supplier Performance Management**

TSMC focuses on supply chain sustainability management by setting ongoing targets and scoring suppliers on quality, cost, delivery, service and sustainability. TSMC periodically audits suppliers and encourages them to comply with TSMC's purchasing strategies. In 2014, TSMC continued its survey and performance measurement on

silicon wafers, reclaim wafers, gas, chemicals, quartz parts, masks and other raw materials suppliers, covering more than 90% of our total raw material purchase value. TSMC also encourages suppliers who collaborate with TSMC to diversify risk factors. We welcome all qualified suppliers to join and strengthen the TSMC supply chain.

- **Recognizing Excellent Suppliers**

  TSMC held its 14th annual Supply Chain Management forum on Dec. 4, 2014, and the theme of the forum was "Collaborate and Win Together". To show appreciation for the support and contributions of its suppliers during the past year, TSMC recognized and awarded 9 outstanding equipment and materials suppliers. As usual, over 500 suppliers around the world in the fields of equipment, materials, packaging, testing, facilities, IT systems and services, and environmental and waste management services participated in the forum.

TSMC President and Co-CEO Dr. Mark Liu shared the progress TSMC was making in the advanced technology nodes in the forum and highlighted some areas where TSMC needs to collaborate even more closely than before to overcome the challenges in the future so we can enjoy success together with our suppliers.

TSMC President and Co-CEO Dr. Mark Liu gave a keynote speech in 2014 TSMC 14th Supply Chain Management Forum

TSMC's Senior Vice President and Chief Information Officer Dr. Steve Tso updated the achievement and success of fast ramping for the advanced technology nodes during the past years. Dr. Tso recognized the contribution and support from our suppliers which requires the high level of trust basis for TSMC to have the unique collaboration model with suppliers and extends the Moore's Law successfully in the future.

Sourcing Conflict-free Materials

TSMC is subject to the U.S. Securities & Exchange Commission (SEC) disclosure rule on conflict minerals released under Rule 13p-1 of the U.S. Securities Exchange Act of 1934. As a recognized global leader in the hi-tech supply chain, we acknowledge our corporate social responsibility to strive to procure conflict- free minerals in an effort to recognize humanitarian and ethical social principles that protect the dignity of all persons. Meanwhile, we have implemented a series of compliance safeguards in accordance with industry-leading practices such as adopting the due diligence framework in the OECD's Model Supply Chain Policy for a Responsible Global Supply Chain of Minerals from Conflict-Affected and High Risk Areas issued in 2011.

TSMC is one of the strongest supporters of the Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI), and this will help our suppliers source conflict-free minerals through their jointly developed Conflict-Free Smelter Program (CFSP). We have asked our suppliers to disclose and timely update information on smelters and mines since 2011. We also encourage our suppliers to source minerals from facilities or smelters that have received a "conflict-free" designation by a recognized industry group (such as the EICC). We also require those who haven't received such designation to become compliant with CFSP or an equivalent third-party audit program. It is TSMC's goal to use conflict-free tantalum, tin, tungsten and gold in our products. We will continue to renew our supplier survey annually and require our suppliers to improve and expand their disclosure to fulfill regulatory and customer requirements. For further information[Note], please see our Form SD filed with the U.S. SEC.

Establishing Conflict-free Supply Chain

On October 30 2014, TSMC held its second annual training seminar on compliance with conflict minerals law and practice which was attended by 34 representatives from our suppliers and subsidiaries. Throughout our communications with our suppliers, we have been stressing the importance of establishing a world class conflict minerals management system and policy for a 100% conflict-free supply chain. We expect our suppliers to not only assure truthful reporting about their sourcing of conflict minerals but also actively managing their supply chains in compliance with our policies and procedures. We will continue to renew our supplier survey annually to ensure a 100% conflict-free supply chain. In 2014 we have finished the review of CMRT 3.02 provided by our 14 suppliers for the disclosure of 31 smelters for conflict minerals. According to the results so reviewed, all of our suppliers nor smelters have been providing conflict-free minerals to TSMC. We have also required suppliers to sign off on a representation letter to ensure the integrity of their disclosure.

To see the latest Form SD filed with the U.S. SEC, please go to http://www.tsmc.com/english/investorRelations/sec_filings.htm or www.sec.gov and search under the "Company Filings" section.

Note: For purposes of this section, "conflict-free" minerals refer to: (i) minerals that are derived from smelters (or other relevant sources) that have been validated by the EICC and GeSI CFSP (or an equivalent entity); or (ii) minerals that have been deemed as "DRC conflict free" (as defined under relevant law) under a country of origin reasonable inquiry determination and due diligence framework.

4.3 EICC Membership

TSMC is committed to ensuring that working conditions in its supply chain are safe, that workers are treated with respect and dignity, and that business operations are environmentally responsible and conducted ethically. In reflection of this commitment, TSMC in December 2014 became a member of the Electronic Industry Citizenship Coalition (EICC), the largest coalition of electronics companies committed to supporting the rights and wellbeing of workers and communities affected by the global electronics supply chain.

In addition to adopting the EICC Code of Conduct to measure the Company's own continuous improvement in social, environmental, and ethical performance, TSMC will progressively apply the Code of Conduct to the Company's major suppliers, supporting them with EICC tools and standards. As an integral part of the overall supplier management process, TSMC has planned more than 80 audit trips for the calendar year of 2015 to ensure suppliers' compliance with a multitude of standards, including those on labor, ethics, environmental, health, and safety. It is worth pointing out that the vast majority of TSMC's major suppliers are located in Japan, the United States, and Europe–developed regions generally associated with better social and environmental performance. As such, most of the audit resources and efforts will be expended on suppliers in Taiwan instead. For these suppliers, our assessment (based in part to the Taiwan Human Rights Report published by the U.S. Department of State) indicates the risks of child labor, restriction on the freedom of association, inhumane treatment of workers, etc., are not high. Instead, factors such as the ingrained culture of long working hours, the employment of foreign labor, and occasional environmental scandals perpetrated by local companies, are important considerations of the audit program. Associated audit findings and compliance gaps will be published in the CSR report in the following year.

The EICC Code of Conduct is a set of standards on social, environmental and ethical issues in the electronics industry supply chain and is in alignment with the UN Guiding Principles on Business and Human Rights, as well as key international human rights standards including the ILO Declaration on Fundamental Principles and Rights at Work and the UN Universal Declaration of Human Rights. The Code of Conduct contains provisions in the following areas:

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

5 Enviromental Dimension

Summary

TSMC's environmental policy, as set down by Chairman Dr. Morris Chang, is to do our utmost to achieve environmental sustainability and to be a world-class company in environmental protection. TSMC's strategies to achieve our environmental goals are to comply with regulations, strengthen recycling and pollution prevention, manage environmental risks, instill an environmental culture, build a green supply chain, and fulfill our corporate social responsibilities.

TSMC acknowledges responsibility for environmental protection. We not only comply with the environmental regulations of the locations where we operate, but also track new developments in global environmental issues, and take the lead in adopting new environmentally friendly measures. In addition to protecting the environment of our manufacturing sites in Taiwan and around the world, we lead our suppliers to establish a green supply chain. At the same time, TSMC also shares environmental protection knowledge and offers recommendations to government to face a variety of new challenges together. A summary of TSMC's environmental protection approaches follows:

TSMC has a long-term record of assisting governments in establishing regulations, promoting projects and providing recommendations. We understand the concerns about environmental topics stakeholders have, including stakeholders in academia, media, customers, sustainable evaluation organization and environmental protection non-governmental organizations through participation of environmental sustainable activities and the mailbox in our company's website. We have concluded that the most material environmental topics in 2014 are global climate change, TSMC's water management and pollution prevention (Please refer to the concerned topics materiality analysis of the stakeholders in Chapter 2 "Stakeholder Engagement" in this report) ⊕. Please refer to the related contents in this chapter for a summary of TSMC's management approaches for these three topics follows:

Global Climate Change

TSMC treats climate change as one of our material enterprise risks. We continue to promote company-wide greenhouse gas inventory and verification, and perfluorinated compounds greenhouse gas emissions reduction. At the same time, we also collaborate with industry, government and academia on climate change adaptation, which includes flooding and drought risk assessment and prevention. TSMC joined EICC (Electronic Industry Citizenship Coalition) in the end of 2014. We hope to collaborate with other EICC members to promote climate change management of the supply chain to reduce environmental impacts of the supply chain and keeping a stable supply of raw materials.

Water Resource Management

TSMC's goal is to be a leading global company in water resource management. Our water resource management policy is to promote water savings to reduce water usage per unit of production, and to promote collaboration between industries, government and academia to ensure that water shortages do not occur. Our strategy for reaching this goal is both to save water in daily operations and to adapt to water shortages, and implement these measures both internally and in our supply chain. daily water management is first to save water in the production process, followed by water reclamation and recycling measures. In addition, an effective real-time online water resource management platform helps TSMC significantly reduce water consumption.

Pollution Prevention

TSMC believes that pollution prevention is one of a corporation's most important responsibilities. TSMC's pollution prevention is based on the ISO 14001 environmental management system, and uses the "Plan-Do-Check-Act" management model to promote continuous improvement. We believe that conserving raw materials, energy, and resources as well as reducing waste and pollutants both save production costs and protect the environment. Currently, all TSMC existing fabs are certified by ISO 14001. It is mandatory for all new manufacturing facilities to receive these certifications within 18 months after mass production.

5.1 TSMC's Mid-to-long-term Environmental Protection Goals and Achievement Status

TSMC will continue expanding production capacity to fulfill global semiconductor demand. Although we have achieved the highest level of energy intensity performance in the global semiconductor industry and met an extremely challenging PFC emissions reduction goal over the past 10 years, we will continue improving our productive efficiency to reduce energy and resource consumption as well as our environmental impact. According to this, TSMC's mid-to-long-term environmental protection goals are set as follows.

- **Greenhouse gas PFC reduction:** Reduce PFC emission intensity to 30% below the year 2010 level by 2020 through adoption of best practices recognized by the World Semiconductor Council. Reduce the total GHG emission intensity to 18% below the year 2010 level by 2020.
- **Energy saving:** Reduce power usage intensity to 2% below the year 2010 level by 2015; 12% below the year 2010 level by 2020.
- **Water saving:** Reduce water usage intensity to 2% below the 2010 level by 2015; 30% below the year 2010 level by 2020.
- **Waste reduction:** Achieve 95% waste recycling rate by 2015, and maintain above 95% by 2020.

The Achievement Status of Our 2014 Quantitative Environmental Goals Is as Follows:

TSMC continued to improve our energy saving, water conservation and waste reduction technology, and implemented this technology in our newly-constructed fabs.

- **Greenhouse Gas-perfluorinated Compound (PFC) Emissions Reduction:** After we achieved our PFC total emissions reduction goal in 2010, we continue to move forward on emissions reduction. PFC emissions per 8-inch wafer equivalent in 2014 were 4% less than 2013 due to our continuing reduction efforts.
- **Energy Conservation:** TSMC reduced power consumption per 8-inch wafer equivalent per mask layer by 3.5% from 10.2 kWh in 2013 to 9.8 kWh in 2014; 7.7% improvement compared to 2010, which has achieved mid-term energy saving goal.

  TSMC reduced natural gas consumption per 8-inch wafer equivalent per mask layer by 7.6% from 0.0578 cubic meter in 2013 to 0.0534 cubic meter in 2014.
- **Water Conservation:** TSMC's water use per 8-inch wafer equivalent per mask layer in 2014 decreased by 10.1% compared to 2013 from 51.5 liters to 46.3 liters.
- **Waste Reduction:** Achieved a waste-recycling rate of 93%, in 2014, surpassing 90% for 6 consecutive years. In addition, our landfill rate is also less than 1% for 6 consecutive years.

5.2 Global Climate Change

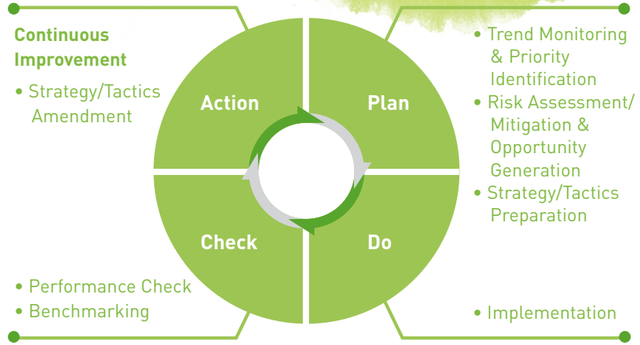
TSMC Is Highly Concerned about Climate Change

Global climate change is a major environmental concern for the United Nations and governments around the world, as well as for TSMC. We continuously monitor global climate change and international response trends as one of our enterprise risk management items to be evaluated and controlled, with regular reviews by senior executives, and reports are made to the Audit Committee of the TSMC Board of Directors when special issues are encountered.

5.2.1 TSMC's Climate Change Response Strategy

Climate Change Management Process

Because of the importance of climate change, TSMC uses the PDCA cycle to manage its climate change strategy, which is organized in several steps: Continuous Monitoring, Risk Assessment/Mitigation and Opportunity Generation, Strategy/Tactics Preparation, Implementation, Performance Check, Benchmarking, and Strategy/Tactics Amendment.



Climate Change Strategy

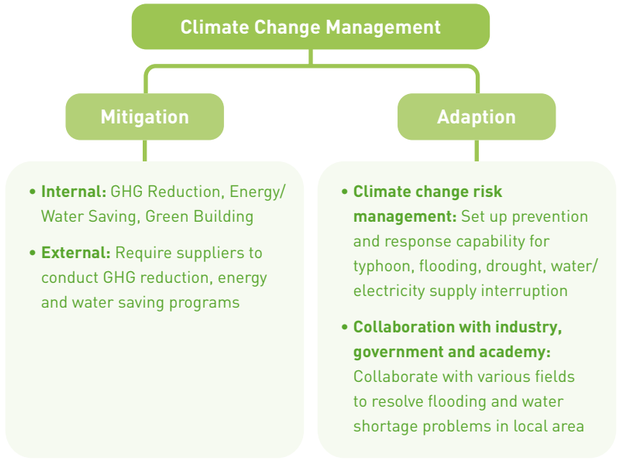
TSMC's strategies for responding to climate change are to:

- Consider both climate change mitigation and adaptation
- Consider both green manufacturing and green products
- Consider both TSMC and its supply chain
- Integrate industry, government and academia to solve climate change issues
- Collaborate with industries & supply chain to tackle climate change through experience sharing

TSMC not only continues to inventory and reduce its own greenhouse gas (GHG) emissions, but also takes action on climate change adaption in cooperation with industry, government and academia, including risk assessment and measures such as flood and drought control. These

measures have grown to gradually cover TSMC's supply chain in recent years, and we monitor our progress in mitigation through product carbon footprints and water footprints. These measures also reduce operational risk for the Company caused by climate change, and help to fulfill the Company's social responsibility.

■ TSMC Climate Change Management Structure



Monitoring Climate Change Risks in Three Dimensions

TSMC believes that climate change should be regarded as an important corporate risk, which must be controlled to improve our competitiveness. Climate change risks include legal risk, physical risk and other risks. Our control measures are as follows:

- **Regulatory Climate Risk Control:**

  Greenhouse gas control regulations and agreements of countries around the world are becoming more and more stringent. Enterprises are legally required to regularly disclose GHG-related information, and also limit GHG emissions. The cost of production, including materials and energy, may also grow along with future legal requirements such as carbon or energy taxes. TSMC continues to monitor legislative trends and communicate with various governments through industrial organizations and associations to set reasonable and feasible legal requirements. We have developed a Regulation Identification System on the TSMC ESH Platform. The content, impact and relevant actions of new or revised ESH regulations are posted on the system. All TSMC fabs will implement follow-up actions for mitigating the regulatory risks.

- **Physical Climate Risk Control:**

  Abnormal climate caused by the greenhouse effect has increased the frequency and severity of climate disasters each year. Storms, floods, drought, and water shortages are occurring more frequently, causing considerable impact on business operations and supply chains. TSMC believes that climate change control should take into account both mitigation and adaption, and this requires cooperation between industry and government to reduce risk. Therefore, in addition to water-saving measures at our own facilities and those of our upstream and downstream partners, TSMC is also leading the industry to collaborate with central government agencies and conduct a project to assess and mitigate climate natural disaster risk in three Taiwan Science Parks. This project also aims to establish a response and reporting system which can be effectively integrated with disaster relief resources. In order to ensure electricity and raw water supplies, TSMC participates in the Taiwan Science Park Industrial Union Experts Committee platform, and is actively involved in the meetings with Taipower Company and the Taiwan Water Corporation to discuss supply and allocation for response issues.

  TSMC executed flood potential analysis and risk mitigation for our Fabs located in the area of low altitude. TSMC has completed flood risk assessment and improvement for risk mitigation after striving in 2014.

- **Other Climate Risk Controls:**

  Climate change is an issue of concern to the global supply chain, necessitating energy conservation, carbon reduction, and disaster prevention. The Electronic Industry Citizenship Coalition (EICC) has also required members' suppliers to disclose GHG emissions information. TSMC not only discloses our own GHG emissions information each year, we also assist and require our suppliers to establish a GHG inventory system and conduct reduction programs. TSMC's suppliers are required by TSMC to submit GHG emissions and reduction information as an important index of sustainability scoring in our procurement strategy.

TSMC joined the Electronic Industry Citizenship Coalition (EICC) as an applicant member at the end of 2014. In addition to adopting the EICC Code of Conduct to measure the Company's own continuous improvement in social, environmental, and ethical performance, TSMC will also progressively apply the Code of Conduct to our major suppliers, supporting them with EICC tools and standards. TSMC looks forward to working and sharing with the other members of the Coalition for having a major positive influence on supply chain.

Several negative consequences including impact on finances, reputation and brand will affect TSMC if any significant non-compliant event occurs or main operation facilities are damaged by natural disasters. TSMC not only meets local and international code requirements, but also surpasses these requirements to reach higher environmental performance, and then shares its experience with industries for the common good.

■ Identification and Control Climate Change Risks in Three Dimensions

Risk	Risk Identification	Risk Control
Regulatory Risk	• The impact of new regulations • The cost of production, including materials and energy, may grow along with future legal requirements such as carbon or energy taxes	• Continue to monitor legislative trends • Communicate with governments through industrial organizations and associations to set reasonable and feasible legal requirements
Physical Risk	• Increase frequency and severity of climate disasters - storms, floods, drought, and water shortages	• Water-saving measures • Raise the foundation height of newly constructed fabs • Install gates for stopping flood for the Fabs located in low altitude areas • Collaborate with central governments to assess and mitigate climate natural disaster risk in three Taiwan Science Parks • Execute flood potential assessment because of climate change and develop risk mitigation mechanism
Other Risk	• Corporation Reputation • The mitigation and adaptation ability of climate change in supply chain	• Not only meet local and international code requirements, but also surpass the requirements to reach higher environmental performance, then share experience with industries for the common good • Assist and require TSMC suppliers to establish a GHG inventory system and conduct reduction programs

Climate Change Opportunities

TSMC believes that a company can increase its competitiveness and create opportunities through good climate change risk control. Therefore, TSMC continues to conduct energy saving and carbon reduction related projects to create opportunities as follows:

- **Regulatory Climate Opportunities:**

  The Taiwan Environmental Protection Administration (EPA) has set up a Greenhouse Gas (GHG) Early Reduction Project to encourage enterprises that have conducted voluntary GHG reduction before the GHG Reduction Act becomes effective to gain carbon credits through application. Enterprises can use their approved carbon credits for future GHG emission offsets or trading. TSMC began voluntary GHG emission reduction in 2000, and has reduced greater than 5.28 millions of tons of carbon dioxide equivalents over more than a decade. In early 2015, the GHG reduction of TSMC fabs in the past years has passed the review by the Taiwan EPA for early GHG reduction credits, which can serve as future GHG offsets for our company.

- **Physical Climate Opportunity:**

  Wafer Product: Climate change has caused energy saving and carbon reduction to become a major issue for electric and electronic products, and also a major requirement for TSMC customers. TSMC continues to develop advanced semiconductor technology in line with Moore's Law, lowering the energy and raw materials consumed per unit area in the manufacturing stage, and also lowering the power consumption in product use stage, which has continued to reduce product carbon, water and other environmental impact footprints. Based on this, we expect our customers to be more satisfied with TSMC's products and services.

  Green Business Opportunity: There is growing global demand for

green energy due to climate change. Since 2009, TSMC has engaged in researching, developing, designing, manufacturing and selling of solar-related technologies and products. In 2011, TSMC established "TSMC Solar Ltd." to continue to engage green energy business.

- **Other Climate Opportunity:**

  TSMC believes that risk mitigation and opportunity generation can strengthen TSMC competitiveness and also contribute to operation stability, increased revenues and sustainable development. TSMC joined EICC (Electronic Industry Citizenship Coalition) at the end of 2014. We collaborated with other members of EICC to promote climate change management of the supply chain for keeping a stable supply of raw materials and contributing to the minimization of environmental impact.

Greenhouse Gas Inventory

TSMC believes reducing GHG emissions is a key method for mitigating global warming and climate change, and conducting an inventory provides supporting data for reduction. An accurate inventory allows us to set priorities and reduction goals, raise the efficiency of the reduction process, and confirm reduction results. Therefore, we believe it is better to inventory greenhouse gases as early as possible.

TSMC believes that a company must know its actual GHG emissions as the first step toward energy conservation and carbon reduction, and has made this reduction an important part of its green supply chain since 2008. In addition to organization-level inventory, TSMC has also extended carbon inventories to our supply chain. In doing this, TSMC can establish a capability for product-level carbon footprint inventory and carbon management, thus increasing the competitive advantage of the products we manufacture. These efforts have won recognition from government, domestic and international environmental groups, major investors, and customers.

TSMC's GHG emissions can be categorized into Scope 1, 2 and 3 sources. Scope 1 emissions are the direct emissions of TSMC fabs including process gases (PFCs, HFC, N_2O, CH_4 and CO_2), fuel such as natural gas, gasoline and diesel, and fugitive emissions from septic tanks and fire-fighting equipment. Scope 2 emissions are mainly indirect emissions such as purchased electricity and steam. TSMC does not purchase steam. Therefore, our scope 2 emissions are primarily from purchased electricity. Scope 3 emissions are mainly indirect emissions including employee business travel, product and raw material transportation, suppliers' manufacturing, and waste disposal. Scope 1 and 2 emissions are calculated according to our annual inventory data; Scope 3 emissions are estimated by: (1) Statistical data: employees' business travel distances, and fuel consumed by shuttle buses and product shipping. (2) Carbon footprint database: raw materials production and transportation, waste disposal and transportation.

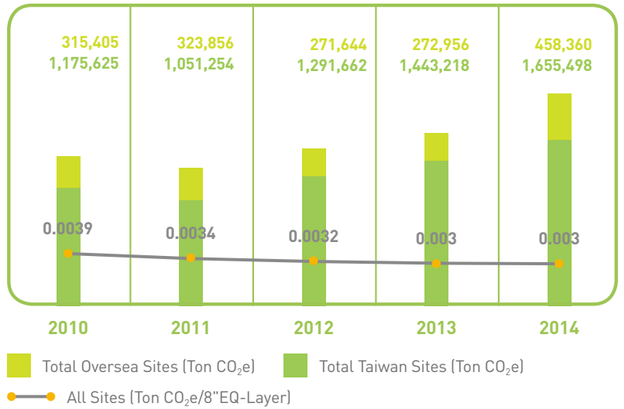
In 2005, TSMC set up a procedure of GHG emissions inventory for each TSMC fab in Taiwan. Each fab is required to complete scope 1 and scope 2 GHG emissions inventory of the previous year and to receive official ISO 14064-1 certification issued by an external verification party. TSMC also set up a dedicated internal ESH information system for each fab to register GHG inventory data regularly.

TSMC China and WaferTech have also adopted ISO 14064-1 standards for their GHG inventory, and submit their inventory results to TSMC headquarters annually. WaferTech has also gained 3rd party certification every year since 2012.

TSMC's U.S. subsidiary WaferTech continues to conduct GHG reduction to achieve a GHG reduction goal of 20% by 2017. WaferTech is actively engaged in Semiconductor Industry Association activities related to GHG measurement and reduction.

TSMC annual Scope 1&2 GHG inventories are as below.

TSMC Scope 1 GHG Emissions



TSMC Scope 2 GHG Emissions

Note: TSMC Taiwan fabs' scope 2 GHG emissions have been revised according to the newest electricity emission factor announced by the Bureau of Energy, Ministry of Economic Affairs, R.O.C.

GHG Information Disclosure

TSMC takes a pro-active attitude towards carbon disclosure, and publicly discloses climate change information through a variety of channels. We constantly review ourselves and obtain recommendations from external parties through continuous information disclosure. The related disclosure channels are as follows:

- Since 2006, TSMC voluntarily reports GHG inventory data to the Taiwan Semiconductor Industry Association (TSIA) and the Taiwan Environmental Protection Administration (EPA), Executive Yuan.
- Since 2005, TSMC has been participating in an annual survey held by the nonprofit Carbon Disclosure Project (CDP), which includes GHG emission and reduction information for all TSMC fabs, subsidiaries, joint ventures, and overseas offices. TSMC also takes further action to review the regulatory, natural disaster, financial, and operational risks and opportunities created by global climate change. The related information is disclosed on the CDP website.
- TSMC has disclosed GHG emissions and reduction-related information for evaluation by the Dow Jones Sustainability Index every year since 2001.
- Our GHG-related information has been disclosed in this CSR report on our company website annually since 2008. TSMC also provides information to customers and investors upon request.

5.2.2 Climate Change Mitigation

GHG Emission Reduction

- **Achievement of Our 10-Year PFC Emission Reduction Commitment**

  The semiconductor manufacturing process generally uses perfluorinated compounds (PFCs) such as CF_4, C_2F_6, SF_6, NF_3, CHF_3, C_3F_8, and C_4F_8, which are the major greenhouse gas emissions from the manufacturing process. After many years' effort, TSMC has achieved its goal of reducing perfluorinated compound emissions to 10% below the average emission level of 1997 and 1999. This emission target remains fixed as TSMC continues to grow and construct new fabs, and has been a great challenge to us.

  TSMC continues to actively participate in the World Semiconductor Council's establishment of a global voluntary reduction goal for the next 10 years. TSMC integrated past experience to develop best practices, which have been recommended by the Taiwan Semiconductor Industry Association and adopted by the World Semiconductor Council member companies as major measures to achieve these organizations' 2020 reduction goals.

- **Extending Our Green Building and Energy Conservation Projects**

  Since TSMC's Scope 2 GHG emissions are primarily from purchased electricity, continued promotion of green building and energy conservation projects can continue to reduce our Scope 2 GHG emissions. Please refer to the green building and energy conservation sections in this report for details.

From Green Building to Sustainability

Step One: Integrating Ecosystem, Life, and Manufacturing to Build Green Campus

Green Building Certification

TSMC began promoting green buildings in 2006, and committed to designing and building all new fabs and office buildings according to Leadership in Energy and Environment Design (LEED) and Ecology, Energy Saving, Waste Reduction, and Health (EEWH) standards. In addition, the Company also introduces green building concepts to existing buildings to improve their environment and efficiency. Currently, TSMC has received 16 LEED certifications, seven EEWH Taiwan green building certifications, and three intelligent building certifications. The next focus of TSMC's efforts are intelligent green campuses, which aim to incorporate mature products from the Internet of Things and continue to strive for green, intelligent, healthy, and sustainable buildings.

TSMC Certificated Green Buildings and Intelligent Buildings List

	Hsinchu							Taichung				Tainan				
Certificate Authority	P1 Headquarters	P1/P2 Fab	P3 Fab	P4 Office	P4/P5 Fab	P6 Office	P6 Fab	P1 Office	P1/P2 Fab	P3 Office	P3/P4 Fab	P1 Office	P1/P2 Fab	P3 Office	P3 Fab	P4 Fab
LEED Rating System	LEED_EB O&M	LEED_EB O&M	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC	LEED_NC
Taiwan EEWH				●	●	●	●							●	●	●
Taiwan Intelligent Building				●				●						●		

Green Campus Master Plan

TSMC's first green campus project in the region, targets to transform Fab12 in Hsinchu, Fab15 in Taichung, and Fab 14 in Tainan into green campuses. These green campuses emphasize sharing of energy, resources, efficient energy conservation of electricity and water, as well as improving waste reduction, and recycling to reduce cost. They also emphasize comprehensive site planning to integrate green fields, enliven natural landscapes, and restore local ecology so that the natural environment prospers along with industrial growth.

Green Campus at Hsinchu Green Campus at Taichung
Green Campus at Tainan

Greening Life in the Campus

TSMC creates office areas that integrate ecology, life, and productivity with a high-quality work environment. These include high-ceilinged interior courtyards with vegetated walls to ease the working atmosphere and create a comfortable space for innovation. In interior decoration, the Company uses green materials and low-organic paint and adhesives to improve air quality and provide employees with a suitable work area. In addition, TSMC's office buildings possess intelligent control systems that not only greatly reduce energy consumption, but provide additional convenience. At TSMC's Tainan site, an art installation designed by illustrator Jimmy Liao not only offers a pleasant atmosphere, it has become one of the South Taiwan Science Park's best-known sights.

Interior Green Facilities in Tainan Campus

Interior Green Facilities in Taichung Campus
Interior Green Facilities in Tainan Campus

Step Two: Sustainable Landscape Construction

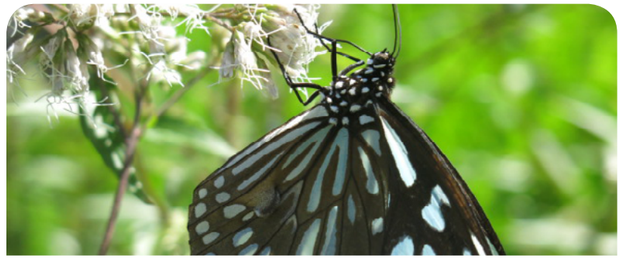
With the goal of reducing carbon-dioxide emissions, TSMC adopts sustainable landscape construction and design in the establishment of the green campus; We establish a native ecological system, to create an environment suitable for a wild range of indigenous species and vegetation. Presently, we have four goals and 12 objects to develop natural ecology.

TSMC Green Environmental Objects List

Goals	Objects
Native Plants Restoration	• Identify the species and cooperate with National Museum of National Science
	• Focus on endangered species of native plants, and intend to build suitable environment in each site
	• Taiwan Lily Restoration
Native Butterfly Conservation	• Connect Routing Routes of Purple Crows
	• Food for butterflies of China is considered, and designed in landscaping, in order to attract butterflies to visit
	• Build suitable habitat for butterflies
Dynamic Ecological Site	• Sustainable Green Landscaping Design
	• Use compost to increase the capacity of land
	• Avoid using insecticide in the campus
	• To build sustainable working environment by multi-logical species and design
Promotion of Environmental Education	• Ecological Visit tour for students
	• Green Building Experience sharing event

Taichung Site – Outdoor Green Wall

Taichung Site – Mallard



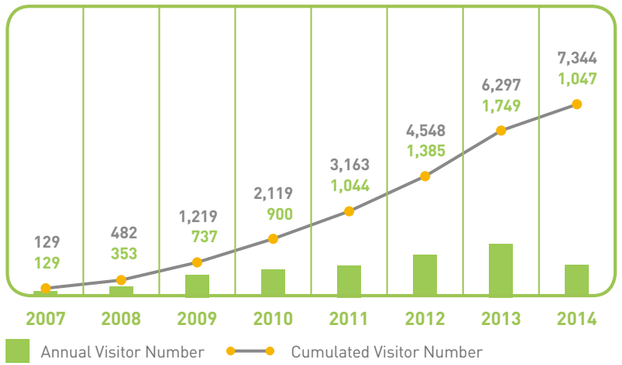
Purple Crows Taiwan Lily

Step Three: Promotion of Green Sustainability

Intelligent and Green Campus External Visits

TSMC's certified green buildings have hosted a number of visitors for on-site tours. In 2014, guests included USGBC Vice President Jennivine Kwan, the Tainan City Government, the Central Taiwan Science Park Bureau, the National Taiwan University EMBA program, the National Chiao Tung University Graduate Institute of Architecture, Chunghwa Telecom, Yulon Motors, Shinkong Insurance, and others totaling 1,047 people.

Annual Statistic Data of Green Campus Tour Participant



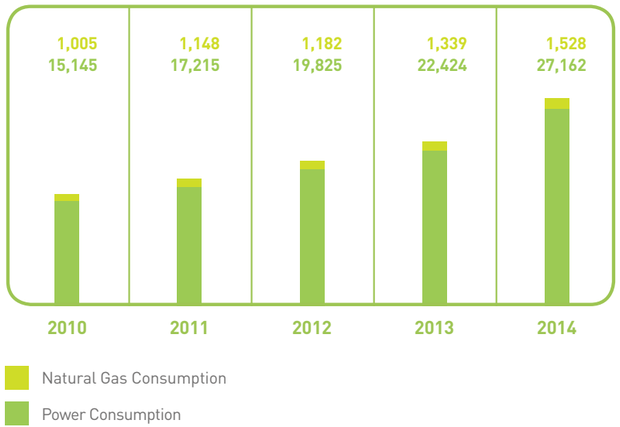
Energy Use Status

TSMC total energy consumption in 2014 was 28,690 trillion Joules. The majority is power usage, which is about 95% total energy consumption. Secondary is natural gas, which is about 5% total energy consumption. Diesel consumption is less than 0.05% total energy consumption. Among them, our renewable energy is mainly from solar panel with 5.65 million Joules production and is used in our facilities.

Green Campus Tour in Hsinchu Campus Tour in Tainan
Campus Tour in Taichung

TSMC Energy Consumption

Unit: Trillion Joules



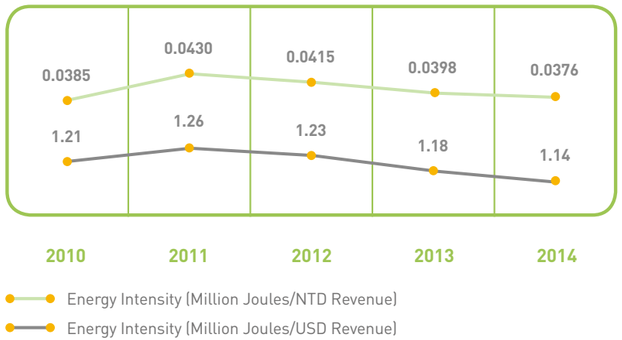
Note:

1. TSMC's annual power consumption is based on monthly power companies' bills, the conversion unit is 1 kWh = 3.6 million joules.
2. TSMC's annual energy consumption is based on monthly natural gas companies' bills, the conversion unit is 1 cubic meter of natural gas = 37.26 million joules.
3. TSMC's annual diesel consumption is less than five ten thousandths, not shown on the chart.

Energy Intensity

TSMC's revenue in 2014 is 762.806 billion NTD, which is the denominator for energy intensity calculation. TSMC reduced its energy consumption per NTD revenue by 5.54% from 0.0398 million Joules in 2013 to 0.0376 million Joules in 2014.

TSMC Energy Intensity



Energy Conservation Measures

• Energy Conservation in Taiwan

TSMC's primary source of energy is electric power, followed by natural gas. Consumption of other types of energy is negligible. As Taiwan's land area is small, and the development of renewable energy is limited, electric power currently comes primarily from coal and gas-fired generators, which emit large amounts of CO_2 despite efforts by the power company to improve efficiency. In response to this, the Taiwan government is conducting a renewable energy project focusing on expansion of wind and solar power, and TSMC is pleased to see this development. Before the completion of this government project, energy conservation is an important part of CO_2 emission reduction for industries in Taiwan. TSMC has consistently promoted energy conservation at all its facilities, reducing CO_2 emissions while saving costs at the same time.

• TSMC Green Fab Committee

At the end of 2010, TSMC set up a dedicated cross-department Green Fab Committee, which consists of the technical board, facility, new fab engineering, equipment, procurement, material management and environmental and safety personnel. The committee will define energy conservation indices and propose action plans to reduce energy consumption efficiently and achieve a better level of unit energy consumption. Since 2013, the committee expanded its scope to include the reduction of raw materials and scrap parts, and the improvement of effluent wastewater and air emission quality. In Green Fab Committee, technical boards will focus on improving energy efficiency of the facility and process tools in existing fabs, and transfer their experience to adopt as standards for new fabs and new process tools; the new fab planning department will adopt the best-known energy-conserving designs for new fab construction. At the same time, TSMC will also aim to purchase energy-efficient equipment by adjusting procurement specifications and encouraging and promoting green certification by suppliers. The committee also invites experts from procurement, material management, equipment and process to participate so as to execute broader and deeper environmental sustainability from sources reduction to expand the scope of resource recovery.

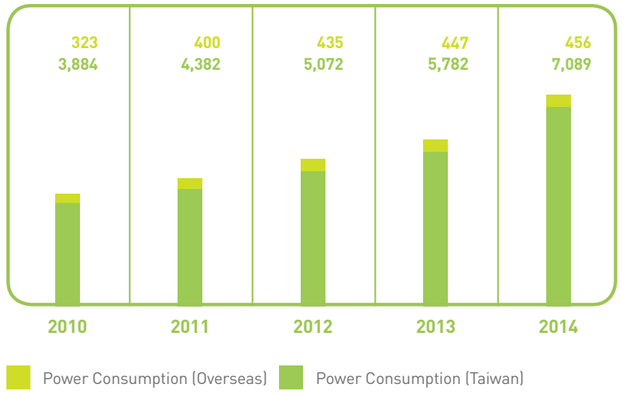
• Power Consumption Records

TSMC continuously promotes energy saving and primarily focuses on facilities systems. In the past two years, we have also increased our efforts to reduce consumption by manufacturing equipment. The power consumption density as calculated by wafer area is highly dependent on photo mask layers and production ramp-up in new

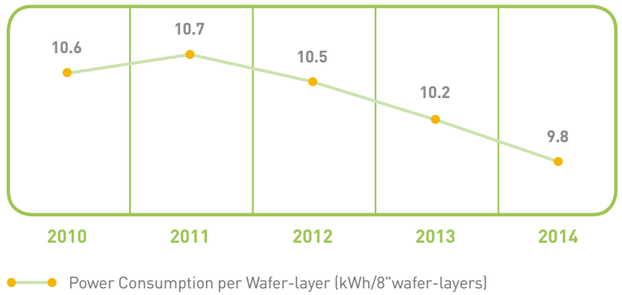
fabs. According to the energy consumption goal of International Technology Roadmap of Semiconductors (ITRS) and the statistical data of World Semiconductor Council (WSC), the complexity of logic ICs (foundry's major product) is higher than standard memory and results in higher power consumption. TSMC is nonetheless one of the semiconductor industry's most energy-efficient companies, and continues to implement additional power-saving measures. TSMC reduced its power consumption per 8-inch wafer equivalent per mask layer by 3.5% from 10.2 kWh in 2013 to 9.8 kWh in 2014.

TSMC Power Consumption

Unit: Million kWh



TSMC Unit Power Consumption



Note:

1. The statistical data for power consumption includes all mass production wafer fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, R&D, and power consumed by non-production activities.
2. The statistical data for unit power consumption density is for the power usage of mass production wafer fabs in Taiwan and overseas. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

• Major Power-Saving Activities in 2014

In 2014, TSMC continued to successfully complete a number of energy conservation programs in facility systems as well as process equipment. Although energy-saving measures for process equipment may impact production, we were able to achieve our goal for process equipment power conservation. Major activities are listed as below:

Category	Energy Saving Approach
Utility	• Via Big data algorithm to find the best operation mode of chill water systems and process cooling water system
	• Using high thermal insulating material covering the exhaust pipe and equipment
	• Lowered CDA pressure according to equipment's minimum requirements
	• Instate of distributed chiller by high efficiency central supply Process Cooling Water
	• Bypass Venturi vacuum generator to Process Vacuum system, saving compressed dry air consumption
	• To minimize energy consumption, dynamically adjusted chill system setting according to the seasons and atmospheric conditions
	• Change to low energy consumption LED lighting in non-cleanroom areas
	• Replace low-efficiency Uninterruptible Power Supply with high-efficiency types
	• Installed Automatic Tube Cleaning Systems and added Polarized Refrigerant Oil additive to enhance chillers' heat exchange efficiency
	• Adopt ceramic layer coating technology to improve old pumps high energy loss problem caused by coarse surfaces
	• Optimize energy efficiency of cooling tower by using tailor-made high-efficiency blades
	• Reduce energy loss caused by clogging or blade deformation by using bio-tech coating to reduce the fouling in wet scrubbers

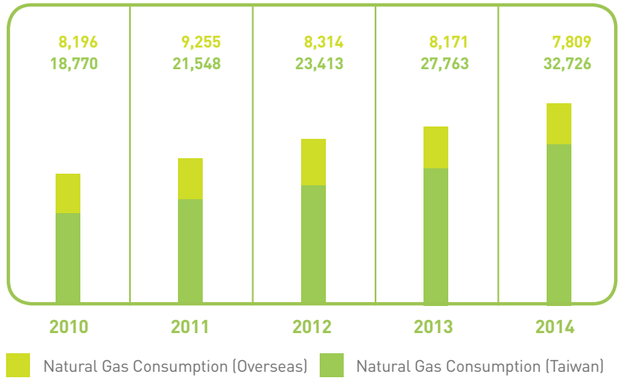
(continues on next page)

Category	Energy Saving Approach
Utility	• Replace low energy efficiency pumps with high efficiency types for water treatment systems
	• Adopt frequency control for non full-load operating equipment
	• Adopt high flux air filter to reduce pressure loss in cleanroom
	• Replace nitrogen used in local scrubbers with compressed air to reduce indirect energy consumption
	• Retrofitted chilling pumps' flow control to be frequency adjustable from original constant and full flow design
	• Optimize outlet temperature of Makeup Air Unit to reduce energy consumption
Production tool	• Adopt high-efficiency vacuum pump according to process characteristics to improve energy efficiency
	• Reduce nitrogen usage of dry type vacuum pump to reduce indirect energy consumption
	• Replace nitrogen usage in lithography process equipment by compressed air to reduce indirect energy consumption

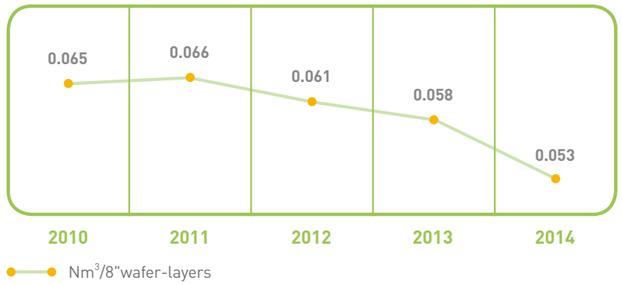
• Direct Energy Use Status

TSMC's direct energy consumption includes natural gas and diesel fuels. In TSMC, natural gas is mainly used for boilers and Volatile Organic Compounds (VOC) treatment systems, and diesel fuel is used for emergency power generators and fire pumps. TSMC reduced average natural gas consumption per 8-inch wafer per mask layer from 0.058 m3 in 2013 to 0.054 m3 in 2014, a reduction of approximately 7.6%, which shows gradual reduction of natural gas consumption per wafer.

TSMC Natural Gas Consumption Unit: Thousand NM^3



TSMC Unit Natural Gas Consumption



Note:
1. The statistical data for natural gas consumption includes all fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, R&D, and natural gas consumed by non-production activities.
2. The statistical data for unit natural gas consumption density is for the natural gas usage of wafer fabs in Taiwan and overseas. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

Diesel is primarily used in emergency power generators and fire pumps, which are only engaged during power supply disruptions, emergencies, and scheduled tests. Diesel is not a direct energy source for production and we used about 304,000 liters in 2014.

• Major Natural Gas-Saving Activities in 2014

TSMC strives for natural gas conservation by improving boilers and Volatile Organic Compounds (VOC) treatment systems by reducing heat loss, replacing heat sources, heat recovery and efficiency improvement. Major activities are listed as below.

Category	Energy Saving Approach
Boiler	• Eliminating heat loss of hot water conveyance by replacing boiler water humidifier to air washer
	• High efficiency heat pump to replace the boiler as a heat source
	• Cooling towers low-temperature waste heat recovery for preheating city water
	• Air compressor high-temperature waste heat recovery for heating ultra-pure water
VOC Air Pollutant Treatment System	• Installation of 3rd heat recovery system for natural gas saving
	• Installation inverter for system Zeolite rotor desorbed process

5.2.3 Climate Change Adaption

Collaborating with the Central Government to Evaluate and Control Climate Change Risk in Science Parks

TSMC and other semiconductor companies gained the support of the Science Park Industrial Association, Science Park Administration, National Science Council, Water Resources Agency, Taipower, and Taiwan Water Corporation to reevaluate risks caused by climate change and extreme weather, including: interruptions to water supply, power supply, gas supply, transportation and communication, as well as flood damage, wind damage, and drought. These re-evaluations will be used to develop response and improvement programs for implementation in the Hsinchu, Taichung and Tainan Science Parks.

The core considerations of the climate change risk assessment project for the Hsinchu, Central, and Southern Taiwan Science Parks are:

- The risks of typhoons and flooding
- Long-term drought risks
- Climate change risks that may lead to the restriction of industrial development

Climate change risk control strategy:

- Mid-term and long-term risk control
- Disaster emergency response
- Establishing related reference standards for future new construction

5.2.4 Supply Chain Climate Change Management

TSMC not only engages in climate change management but also requests and assists suppliers to follow. Our measures are below:

- **Energy Saving and Carbon Reduction Management:** TSMC's major raw material suppliers are required to collect carbon inventory data in their manufacturing plants, encouraged to develop a product-based carbon footprint and provide carbon reduction performance data.
- **Water Resources and Water Management:** TSMC's major raw material suppliers are required to collect water inventory data in their manufacturing plants, encouraged to establish a water footprint, and to provide a specific water resource management plan.
- **Climate Change Risk Management:** Due to the increased risk of storms, water shortage, flooding and transportation and communication disruption in recent years resulting from global climate change, we require our major raw material suppliers to prepare contingency plans, such as support from overseas production, to reduce the impact of such an event. Our first-tier suppliers are also required to manage their suppliers.

Note: Our major raw material suppliers account for 80% of total raw materials purchased by TSMC.

5.3 Water Resource Management

Water Resource Management Is One of TSMC's Top Issues in Climate Change

Water resource management is getting more important in most countries due to the detrimental impact of global climate change. The difference of rainfall between dry and rainy season in Taiwan has become increasingly extreme, and the risk of droughts and floods has become more apparent. These trends highlight the importance of water resource management, water saving and water shortage emergency response. TSMC has always strived to conserve water as much as possible, and we have made considerable achievements in the past 20 years. By lowering water consumption and increasing our recycling rate, our water usage per wafer has become a benchmark for global peers, and has led Taiwan's semiconductor companies to achieve the lowest average water consumption in the world. TSMC is aware that extremes in average rainfall are the result of global warming and climate change. These issues may require decades to resolve, and during that time, water resource management is a necessary part of TSMC's corporate climate change risk management and disaster adaptation. In addition, TSMC also acknowledges that water resource management requires very close collaboration with the government when compared to other climate change response measures. The combination of these factors has led TSMC to establish its water resource management policy and strategy.

TSMC Water Resource Management Policy and Strategy

TSMC's goal is to be a leading global company in water resource management. Our water resource management policy is to promote water savings to reduce water usage per unit of production, and to promote collaboration between industries, government and academia to ensure that water shortages do not occur. Our strategy for reaching this goal is both to save water in daily operations and to adapt to water shortages, and implement these measures both internally and in our supply chain. TSMC's daily water management is first to save water in the production process, followed by water reclamation and

recycling measures. In addition, an effective real-time online water resource management platform helps TSMC significantly reduce water consumption.

TSMC's core water resource management activities are focused on:

- Collaborating with the central government to evaluate the climate change risk of Taiwan's Science Parks, and to adopt measures reducing the impact of extreme climate disasters, beginning with basic infrastructure.
- Collaborating with the local government, public utilities, and other companies to coordinate local water resource allocation and share experience.
- Sharing TSMC's water saving experience to help other industries understand the importance of water resource risk and conduct water conservation together.
- Promoting internal and supply chain water inventories, conserving water, establishing a water footprint, and setting up water saving goals.

Water Resource Risk Mitigation and Adaptation

TSMC believes that water risk is one of our major operation risks, which must be monitored and controlled to improve our competitiveness. Water risks include regulatory risk, physical risk and other risks. Our control measures are shown as following table:

Risk	Risk Identification	Risk Control
Regulatory Risk	• The impact of new regulations	• Continue to monitor legislative trends • Communicate with governments through industrial organizations and associations to set reasonable and feasible legal requirements
Physical Risk	• Increasing frequency and severity of storms, floods and drought • Increased water stress or scarcity	• Lift the foundation height of newly constructed fabs • Collaborate with central governments to assess and mitigate climate natural disaster risk in three Taiwan Science Parks • Make suggestions to the governments on water risks mitigation and adaptation through industrial organizations and associations • Continue to develop and implement innovative measures for water saving
Other Risk	• The mitigation and adaptation ability of climate change in supply chain	• Assist and require TSMC suppliers to establish Water Management concepts and a management system

Collaboration with Local Authorities in Water Allocation and Conservation

Since water resources are inherently local, TSMC shares its water-saving experiences with other semiconductor companies through the Association of Science Park Industries to promote water conservation. At the same time, TSMC collaborates with the Science Park Administration to discuss raw water allocation and emergency response plans for water shortages. TSMC has also successfully resolved many water quality issues, including wastewater ammonia nitrogen reduction. In addition, we continue to hold technical forums to discuss water reclamation and assist small facilities in the Science Park to perform good water resource management in order to achieve the Science Park's goals and ensure long-term balance of supply and demand.

Actively Sharing Experience with External Parties

In recent years, TSMC and the Water Resource Agency of the R.O.C. Ministry of Economic Affairs jointly held a Water Recycling & Saving Demonstration in TSMC fabs located in Northern, Central and Southern Taiwan to share our experience and lead improvement in the water-saving performance of Taiwan industries.

Proactively Identifying and Responding to Water Resource Risk

TSMC understands that climate change can cause flooding and drought. We took the following actions to respond to water resource risks.

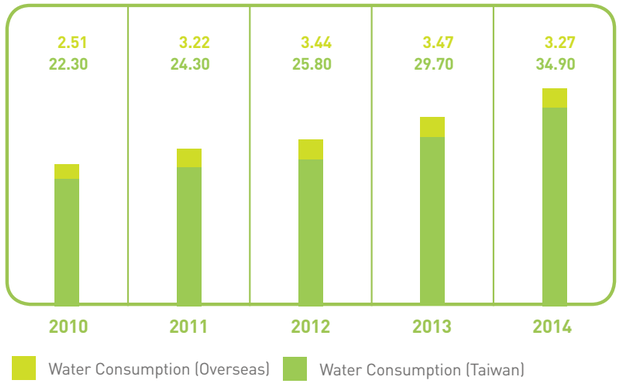
- Identified short-term and long-term water resource risks of the Science Parks in northern, central and southern Taiwan, where our fabs are located.
- Developed and executed short-term and long-term water resource risk mitigation projects such as wastewater recycling.
- Continuing to conserve water consumption in each fab.

Total Water Usage

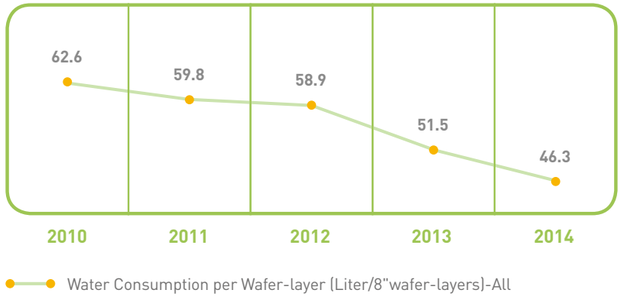
The primary water source for all TSMC fabs in Taiwan is city water supplied by Taiwan Water Corporation, a few are from rain water and air-conditioner condensed water. TSMC's water use per 8-inch wafer equivalent per mask layer in 2014 decreased by 10.1% compared to 2013 from 51.5 liters to 46.3 liters.

TSMC Water Consumption

Unit: Million Cubic Meter



TSMC Unit Water Consumption



Note:

1. TSMC annual water consumption statistic is calculated according to monthly water bill from the Water Company. The statistical data for water consumption includes all fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, R&D, and water consumed by non-production activities.
2. The statistical data for unit water consumption density is for the water usage of wafer fabs in Taiwan and overseas. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

Water Conservation – Reduction and Recycling

TSMC's facilities collect process water discharges through independent drainages, and reuse the water for the manufacturing process or secondary uses after treatment. These secondary uses, which do not come into human contact, include make-up water of cooling towers and wet scrubbers, cleaning water for sludge dewatering filters in wastewater treatment systems, and toilet water. Secondary uses of water are also optimized to reduce make-up water quantity. In order to fully utilize water drainage from the manufacturing process, TSMC separates drain pipes into more than 20 categories based on their characteristics and more than 15 categories of treatment systems.

TSMC is a fast-growing company, and in addition to adopting a minimum process water recycling rate of 85%, we also select low water consumption process tools, implement process water drainage segregation, set up process water reclamation systems in new factory construction, and continue promoting water-saving measures after mass production. The purpose of these measures is to reduce our raw water demand. TSMC also cooperates with industry experts to implement new technology for water reuse, such as reclaiming oxide slurry and reusing wastewater from refined oxide slurry.

Major Water Saving Measures in 2014

Since 2008, a number of TSMC fabs have achieved a process water recycling rate of higher than 90%, leading the global semiconductor industry. Our fabs in Taiwan total process water recycling rate reached 87.6% in 2014, which met or exceeded the criteria set by the Science Park Administration and also exceeded the worldwide semiconductor industry standard. TSMC's major water saving measures are as follows:

Category	Water Saving Measure
Water Use Reduction	• Recycle Makeup Air Units' air washing water through a circulation-and-treatment system
	• Optimization of water usage for process tools, air pollution control wet scrubbers, and cooling towers
Water Recycling	• Installation of Tetramethyl Ammonium Hydroxide recycling system
	• Installation of treatment system to treat caustic wastewater with ammonia, recycling wastewater for ultra-pure water systems or secondary water use
	• Reclaim Backside Grinding wastewater through an immersion ultra-filter system, a chemical-free process
	• Reclaim Chemical Mechanical Polish wastewater via chemical-free ultra-filter. Both water and solid wastes are recycled in a zero emission system
	• Installation of ozone wastewater recycling system for secondary water use
	• Installation of organic/acid water recycling systems, separated collection according to water quality, recycling water to ultrapure water systems or secondary uses such as cooling towers
	• Installation of general and copper-containing CMP wastewater recycling systems, recycling wastewater for ultra-pure water systems or secondary water use
	• Installation of wet scrubber water recycling systems to recycle wet scrubber effluent after treatment
	• Recycling of air conditioning condensation for cooling tower use

TSMC separates drain pipes into more than 20 categories based on their characteristics

Advanced wastewater recycling system, which can also reduce energy and resource consumption and waste generation

Water Saving Achievements and Process Recycling

In 2014, we saved a total of 56,220,000 cubic meters of water, which can provide a town with population of 620,000 with one year of water, or more than 1.75 times the volume of Hsinchu's Baoshan Reservoir II

■ TSMC Water Conservation Performance in Recent 5 Years

Item	2010	2011	2012	2013	2014
Average Process Water Recycling Rate (%) [1]	84.1	84.6	86.5	86.9	87.6
Process Water Saved (Million m^3)	34.66	37.73	53.37	52.23	56.22
Water Saved, Measured by Standard Swimming Pools [2]	13,866	15,094	21,347	20,918	22,490
Water Saved, Measured by the Full Capacity of Baoshan Reservoir II [3]	1.08	1.17	1.66	1.63	1.75
Process Water Saving/Total Water Usage	1.53	1.55	2.07	1.77	1.61

Note:

1. Average process water recycling rate is defined by the Science Park Administration.
2. A standard 50x25x2m swimming pool contains up to 2,500 cubic meters of water.
3. Baoshan Reservoir II is the major reservoir serving Hsinchu Science Park and the full capacity is 32.18 million cubic meters.

5.4 Pollution Prevention

TSMC believes that pollution prevention is one of a corporation's most important responsibilities. TSMC's pollution prevention is based on the ISO 14001 environmental management system, and uses the "Plan-Do-Check-Act" management model to promote continuous improvement. We believe that conserving raw materials, energy, and resources as well as reducing waste and pollutants both save production costs and protect the environment.

Legal Compliance and Pollution Prevention Is the Bottom Line

Taiwan has very limited land, large population, and high density of industrial factories. Therefore, some of its environmental regulations may be among the strictest in the world. To address increasingly stringent environmental standards, TSMC has established good communication channels with the government, and participates in discussions in the early stages of legislation to facilitate reasonable and feasible standards. Each plant also performs assessments to evaluate conformity to new legal standards, and improvement and preventive measures are taken immediately if nonconformance is discovered to ensure fully compliant.

TSMC has established comprehensive management and operations procedures for pipe-end treatments such as air and water pollution controls, and ensures these procedures are carried out precisely. TSMC has also installed monitoring systems on the discharging sides of pollution control facilities for online monitoring. Facility personnel follow emergency response and reporting procedures to take proper actions if operating conditions diverge from preset limits to avoid environmental pollution and violating legal requirements. TSMC and subsidiaries had no significant chemical leaks, environmental penalties, or fines in 2014.

Assisting Non-semiconductor Subsidiaries in Early Pollution Control

TSMC assists its non-semiconductor subsidiaries TSMC Solar, in assessing risk for their specific wastewater, air emissions, wastes, and chemicals to reduce their environmental impacts.

Resource Recycling is Our Consensus

For waste management, TSMC has transitioned from traditional "treatment and disposal" to a concept of effective resource management, and implements this concept in daily operations. We manage waste as a resource, categorize and collect waste at the source, raise waste recyclability, and also collaborate with waste treatment and recycling facilities to search for or develop possible recycling measures to reduce the amount of waste sent to incinerators and landfills. In addition, TSMC actively collaborates with raw material suppliers to reduce chemical usage and waste chemicals. We also study the feasibility of waste recycling by raw materials suppliers to reach our goal of sustainable resource recycling.

5.4.1 Source Reduction – Raw Materials Usage Reduction

TSMC seeks to optimize processes to minimize raw material use and waste production, protecting the environment while reducing costs at the same time. TSMC has a designated unit that periodically reviews raw materials reduction performance. Internally, we optimize our process recipe for raw material usage, which can not only reduce production cost but also reduce the generation of pollutants and wastes. Externally, we require our process tool suppliers to review and minimize their chemical usage step by step.

TSMC uses raw wafers as a major direct material in its manufacturing process. Raw wafers are composed of very high purity silicon, and cannot be recycled for wafer manufacturing processes. However, control wafers used for monitoring process conditions are reclaimed for reuse. We estimate one control wafer can be reused 10 times, which reduces both cost and waste.

■ TSMC Material Input and Output – Example of TSMC Fabs in Taiwan

Input	
Process Raw Material	Usage
Raw Wafer (Thousand Piece – 8-inch Equivalent)	1,965
Process Chemicals (Cubic Meters)	347,381
Process Gas (Tons)	7,196
Bulk Chemicals (Tons)	122,643
Bulk Gases (Million Cubic Meter)	1,519
Utility	Usage
Electricity (Million KWH)	7,089
City Water (Million Cubic Meter)	34.9
Natural Gas (Million Cubic Meter)	33

TSMC Fabs

Output	
Product	Quantity
Wafer (8-inch Equivalent Pieces)	1,939
Air Emissions	Quantity
Greenhouse Gases (Ton-CO_2e)	5,594,670
Volatile Organic Compounds (Kg)	101.02
Sulfuric Oxides (Ton)	41.29
Nitrogen Oxides (Ton)	45.97
Wastewater	Quantity
Wastewater (Million Cubic Meter)	19.1
Waste	Quantity
General Waste (Tons)	61,026
Hazardous Waste (Tons)	140,022

5.4.2 Water Pollution Control

Strategy of Segregated Treatment, Strict Monitoring, and Environmental Protection before Production

TSMC's water pollution control strategy is first to reduce pollutants in process wastewater, followed by water recycling and treatment of pollutants in water. Effluent water quality must be better than or compliant with governmental standards.

TSMC's major water-using process is an ultra-pure water system which turns raw water into ultra-pure water, mainly used in process tools for cleaning chemical residue on wafer surfaces. To reduce total water usage, TSMC's effluent water from ultra-pure water systems and process tools are graded by purity. The cleanest is reused in the manufacturing process; the second grade taken from the recycling treatment is employed in secondary uses such as cooling-tower water. Wastewater that cannot be recycled is discharged to treatment facilities for final wastewater treatment.

TSMC adopts a strict front-end wastewater categorization strategy to improve treatment efficiency. Wafer fabs' wastewater can be divided into fluoride, copper, ammonia, Tetramethyl Ammonium Hydroxide, general acid, and various polishing wastewaters. All types of wastewater are strictly categorized at process tools, and collected to wastewater treatment facilities through separated piping. In order to manage these drains strictly, there are more than 20 categories of drainage types, carefully operated and maintained by professional teams to comply with the standards of the Science Park Administration (SPA). The water is then discharged to the SPA wastewater treatment plant for further treatment after professional teams ensure the discharge complies with SPA standards. The treated wastewater is discharged to rivers from the SPA's wastewater treatment plants in compliance with river discharge standards. The SPA also conducts random measurement of the discharges of each company in Science Park.

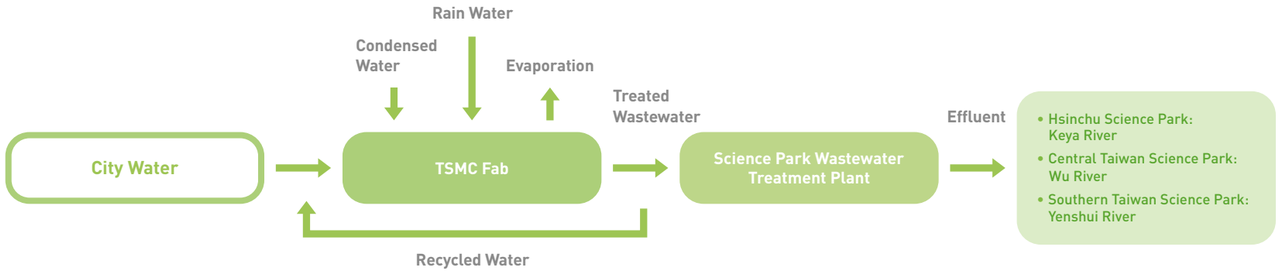
Measures for Wastewater Treatment Emergency Response

TSMC operates only after ensuring that the environment will not be polluted. Each fab is equipped with effective wastewater treatment systems, including complete backup systems such as emergency power supplies, to reduce the likelihood of abnormal discharge. Operating status of all of TSMC wastewater treatment systems are monitored 24 hours a day by shift personnel. If operating conditions diverge from the preset limits, a warning signal is sent and wastewater discharge is halted. Data gathered for monitoring system effectiveness have been designated an important tracking item to ensure effluent quality.

After the Houjin Creek pollution incident took place in the end of 2013,

TSMC reviewed water pollution control hardware and management systems of each fab to identify high risks which might cause a similar incident. The risks include the facility compliance status compared to permits, storm water ditch pollution prevention measures and emergency response procedures. All TSMC fabs took immediate actions to enhance hardware facilities and management systems, and also conducted audits to continue improvement and reduce the risk of pollution and legal violation.

■ TSMC Water Use, Wastewater Treatment and Discharge Diagram



Note: Overseas fabs
1. TSMC (China): On-site treated water discharges to Industrial District Wastewater Treatment Plant (IDWWPT). Discharge destination of IDWWPT treated water is Youdun Harbor.
2. US WaferTech: On-site treated water discharges to the City of Camas Publically Owned Treatment Works (POTW). Discharged destination of POTW treated water is Columbia River.

Developing New Technologies in Response to New Regulations

In addition to complying with SPA standards, TSMC continually works with industries and universities to improve discharge quality in areas such as COD (Chemical Oxygen Demand), TMAH (Tetra-methyl ammonium hydroxide) and NH_3-N (ammonia nitrogen) to reduce hazards to water bodies. Since 2013, TSMC set up TMAH and NH_3-N wastewater recycling and treatment systems to reduce hazardous substances in effluents and recycle resources in wastewater by controlling the flow of recycled materials from cradle to cradle to keep from secondary pollution.

Since 2014, the Science Park Administration added NH_3-N and TMAH standards for influent. Due to long term monitoring and treatment technology preparation, TSMC has completed sources reduction or treatment systems installation according to each fab's characteristics to ensure wastewater effluents comply with new standards.

In addition, TSMC continues to explore new wastewater treatment and chemical recycling technologies. For example, TSMC led the industry in performing a series of experiments to obtain the optimal processing technology for phosphorus acid wastewater recycled by external contractors and high-concentration Hydrogen Peroxide on-site reuse, which attests to our dedication to protect the environment.

All TSMC Fabs have set up gates in rainwater drainage ditch to prevent chemical leak to external environment

Major Wastewater Pollution Control Measures in 2014

Please refer to "Major Water Saving Measures in 2014" section ⊕ in this report for TSMC's water saving measures; our major wastewater quality improvement measures are as follows:

- Installed TMAH wastewater recycling system in advanced fabs and partial mature fabs to recycle TMAH to be used by other industries which also reduce NH_3-N in effluents.
- Installed NH_3-N wastewater treatment system in advanced fabs to reduce NH_3-N in wastewater. The by-product ammonia sulfate is recycled by recycling contractors.
- Reduced ammonia use in mature fabs to reduce NH_3-N in wastewater.
- Reduced COD (Chemical Oxygen Demand) in wastewater by using

Reverse Osmosis. The condensed liquid is treated by qualified waste treatment contractors.

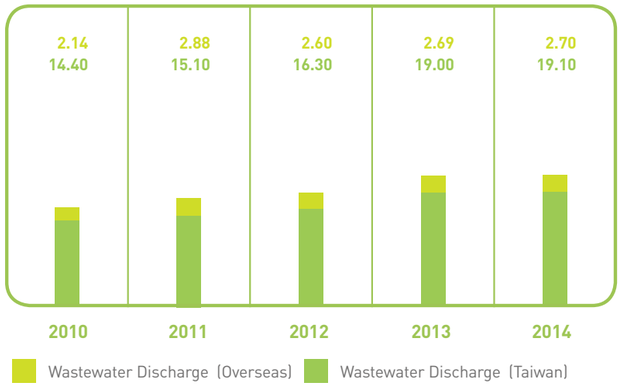
- Reuse high concentration acid and alkaline from ion-exchanger or Reverse Osmosis as wastewater neutralization chemicals so as to reduce conductivity of wastewater.
- Treat Chemical Mechanical Polishing process wastewater by using Ultra-filter to recycle solids and reduce its quantity in wastewater.

Wastewater Discharge Quantity

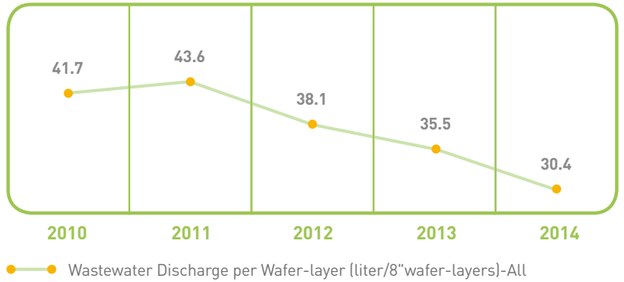
TSMC's wastewater quantity per 8-inch wafer equivalent per mask layer in 2014 decreased by 14.5% compared to 2013 from 35.5 liters to 30.4 liters.

TSMC Wastewater Discharge

Unit: Million Cubic Meter



TSMC Unit Wastewater Discharge



Note:

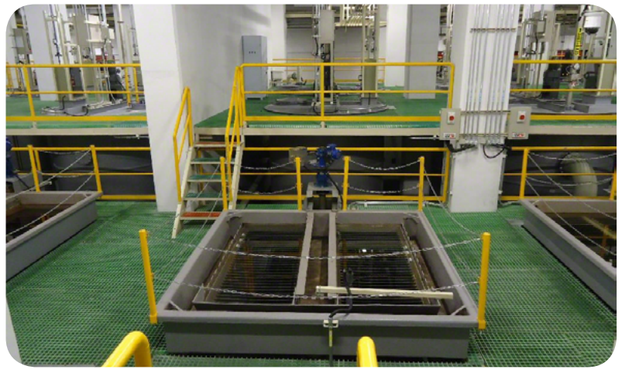
1. TSMC statistical data for wastewater discharge includes all fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, R&D, and wastewater consumed by non-production activities.
2. The statistical data for unit wastewater discharge density is for the wastewater discharge of wafer fabs in Taiwan and overseas. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

Wastewater Effluent Measurement Results

All TSMC fabs are equipped with continuous monitoring equipment to monitor and record changes in water quantity and quality, such as acidity, suspended solid, fluoride ion concentration and copper ion concentration for the fabs with copper process, in order to take appropriate responses when abnormal situations occur. We also conduct offsite sampling and analyze wastewater effluent quality at least four times a year, which provides a calibration reference for online analyzers, ensuring that TSMC complies with water quality standards.

In 2014, TSMC wastewater effluent quality was close to 2011 levels, indicating good stability in all fabs. The wastewater effluent quality data includes: pH was maintained between six to nine (SPA standard is five to nine), suspended solids were controlled from 5.18 to 93.6 mg/L (SPA standard is below 300), COD was controlled from 3.3 to 341 mg/L (SPA standard is below 500), Fluoride ion was controlled within 13 mg/L (SPA standard is below 15), and Copper ion was controlled within 2.7 mg/L (SPA standard is below 3).

In 2015, the Hsinchu Science Park Administration changed the limit for copper ion to 1 mg/L, which is equal to the Drinking Water Standard in Taiwan. TSMC's fabs in Hsinchu have enhanced equipment and treatment processes to comply with the new standard. In addition, the Taiwan Environmental Protection Agency approved the Environmental Impact Assessment (EIA) application for the Central Taiwan Science Park extension project. The EIA committed standard for copper ion in wastewater effluent is 0.8 mg/L, which is surpasses the Drinking Water Standard in Taiwan. TSMC fabs constructed in this Park will also comply with this standard.



TSMC Wastewater treatment system

5.4.3 Air Pollution Control

Effective Treatment Based on Waste Air Specification

TSMC's air pollution control strategy is to optimize process to reduce pollutants in air exhaust, and then to abate pollutants in air exhaust through high-efficiency equipment to comply with or surpass legal requirements. Air pollutant concentrations in TSMC's exhaust are far below the standards required by Taiwan's EPA, according to actual measurements performed over the years.

Wafer fabs emit three major types of exhaust: acid exhaust, base exhaust, and volatile organic compounds. Heat exhaust emitted by process equipment does not cause air pollution. Air pollution control systems depend on various categories and characteristics of pollutants. TSMC installs local scrubbers behind process tools in order to treat toxic, flammable, and PFC gases. First, high temperatures or other physical and chemical measures are used to significantly reduce the concentration of pollutants in tool exhaust. The gas is then inducted to central waste gas treatment equipment for endpoint treatment. Endpoint treatment includes zeolite-rotary-wheel absorbing equipment for volatile organic compounds (VOC) treatment and wet scrubber equipment for acid or base gases.

Stable Operation, Continuous Monitoring

The performance of all TSMC fabs, including overseas facilities, is fully compliant or exceeds the air pollutant emissions standards in the areas where they operate. TSMC has deployed high-performance air pollution control equipment with at least N+1 backup systems so that all pollution control equipment can continue waste gas control 24 hours a day, 365 days a year in case of equipment breakdown. Operational status of all TSMC air pollution control systems is monitored 24 hours a day by shift personnel. Data collected by system efficiency monitoring have been classified as an important tracking item in order to ensure air exhaust quality. In 2009, we added an electronic quarterly air pollution report system that can automatically confirm the accuracy of declarations.

To ensure normal equipment operations and reduce abnormal pollutant emissions, TSMC has installed backup systems, including power generation, to back up malfunctions of operation equipment. TSMC has also installed backup fuel supply systems for VOC pollution control equipment that will engage if the original fuel supply systems experience difficulties.

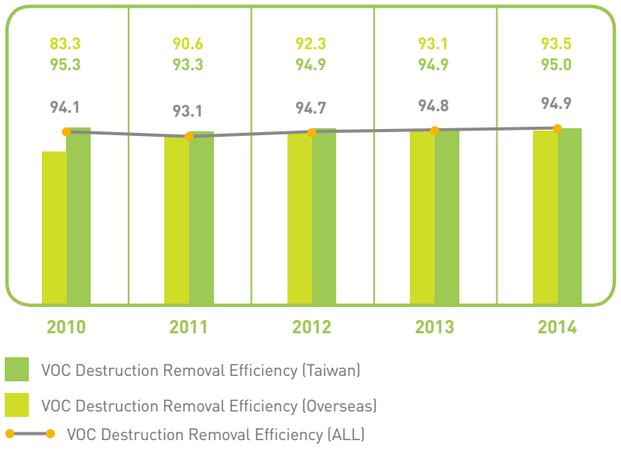
Air Emissions Record

In 2014, the average removal efficiency of VOC exhaust remained at a relatively high level of 95% in TSMC's Taiwan fabs and 93.5% in overseas fabs, well above the standard for local regulations.

TSMC's VOC volume per 8-inch wafer equivalent per mask layer in 2014 decreased by 2.1% compared to 2013 from 0.153 g to 0.150 g. In addition, based on the Taiwan EPA's formula for calculating SO_x and NO_x emissions, TSMC estimates that our NO_x emission was 41.29 tons and SO_x emission was 45.97 tons in 2014.

The issue of poor air quality caused by PM 2.5 (particulate matter of less than or equal to 2.5 um) has caused great concern in Taiwan recently. Although relatively little PM 2.5 is emitted or derived from the semiconductor manufacturing process, TSMC continues to pay attention and conduct self-assessments. Assessment results found that VOC incineration after absorption and concentration might emit very small quantities of PM 2.5, and is not a major source of air suspended particles compared to other industries. TSMC will continue monitoring PM 2.5 emission status and reduce its quantity as possible.

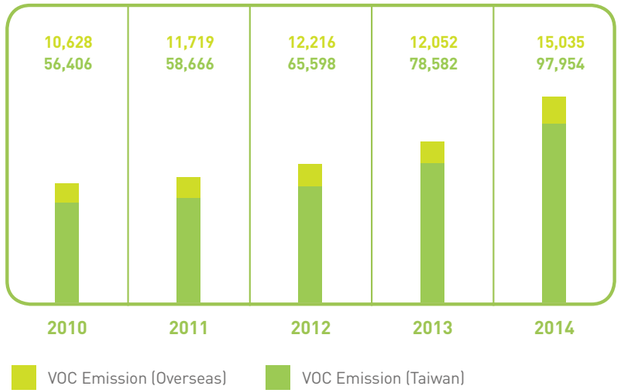
TSMC VOC Destruction Removal Efficiency Unit: %



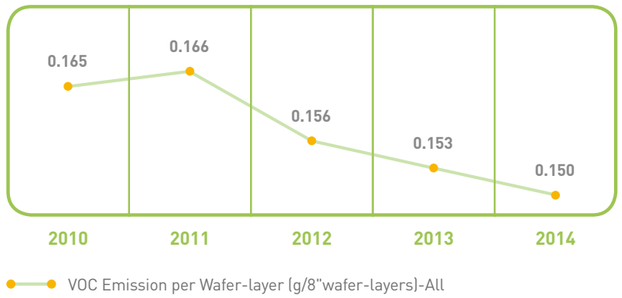
Note:
1. TSMC's annual VOC is the average of all fabs in Taiwan, as well as all overseas fabs, bumping and R&D related to manufacturing process.
2. The statistical data for VOC emission includes all fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, and R&D.
3. Prior to 2009, VOC emission density was defined by total VOC emission quantity divided by total wafer out. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

TSMC VOC Emission

Unit: Kg



TSMC Unit VOC Emission



Note:

1. The statistical data for VOC emission includes all mass production fabs in Taiwan, as well as all overseas fabs, packing and testing facilities, bumping, EBO, and R&D.
2. Prior to 2009, VOC emission density was defined by total VOC emission quantity divided by total wafer out. Beginning in 2009, this index was rationalized by introducing a layer index due to product complexity.

5.4.4 Waste Reduction and Resource Recycling

TSMC has transitioned from traditional waste cleaning and disposal to integrated resource management, and has a designated waste resources management unit to treat waste as valuable resources to be recycled as much as possible. In order to sustainably use our resources, the first priority of our waste management is reduction; the second is material recycling, followed by energy recovery, and finally disposal through incineration and landfill. TSMC carefully selects waste disposal and recycling contractors and performs annual audits of certification documents, and site operations. TSMC also adopts proactive actions to strengthen vendor auditing effectiveness. For example, all waste transportation contractors are requested to track their fleet through GPS in order to trace all cleanup transportation routes and abnormal stays. Approximately one third of contractors have complied as of the end of 2014. All contractors are expected to complete and join the system in 2015. In addition, all waste recycling and treatment vendors install CCTV in operation sites for review and auditing in tracing waste handling status. All these actions are to ensure legal and proper recycling and treatment of wastes.

TSMC has made great efforts in reducing raw materials usage with significant achievements in waste reduction and recycling over the past decade. Although the categories of waste are growing more complex, TSMC continues to develop new waste recycling technology with suppliers to raise its recycling rate and reduce waste disposed in landfills. TSMC's Taiwan sites continued to carry out reduction and recycling programs in 2014, and our waste recycling rate reached 93%, exceeding 90% for the sixth consecutive year, while our landfill rate was below 1% for the sixth consecutive year. Our overseas subsidiaries are also endeavoring to improve their waste recycling rates.

TSMC Waste Quantity and Treatment Status Statistic

Category	Scope	2010	2011	2012	2013	2014
General Waste (Ton/Year)	Taiwan Sites	24,688	25,523	33,158	42,180	61,026
	Overseas Sites	2,763	3,747	4,301	5,156	5,436
Hazardous Waste (Ton/Year)	Taiwan Sites	61,243	67,588	90,596	101,100	140,022
	Overseas Sites	841	1,122	1,866	1515	1,727
Waste Recycling Rate (%)	Taiwan Sites	91.88	91.37	93.42	92.41	93.06
	Overseas Sites	67.02	68.95	79.02	78.74	79.25
Waste Incineration Rate (%)	Taiwan Sites	7.46	8.25	6.15	7.37	6.79
	Overseas Sites	0.91	4.95	0.57	3.72	4.41
Waste Landfill Rate (%)	Taiwan Sites	0.66	0.38	0.43	0.22	0.15
	Overseas Sites	32.07	26.1	20.41	17.54	16.34

Note:

1. Hazardous wastes are defined by local governments.
2. Overseas sites include TSMC China and WaferTech.

Innovative 3R Waste Projects

In 2014, TSMC initiated several environmental programs which focused on raw chemical usage reduction, and reuse and recycling of used chemicals For example:

- Sulfuric Acid and Peroxide Usage Reduction: TSMC's process unit reduced usage of raw sulfuric acid and peroxide. This improvement

reduced waste produced at the same time. In 2014, a total of 5,760 tons of raw sulfuric acid and peroxide was saved, this also represents an equal weight or 5.9% reduction on waste sulfuric acid produced.

- Waste sulfuric acid on-site reuse: In TSMC, a waste sulfuric acid pretreatment system is being set up at all fabs to produce recycled sulfuric acid. This recycled acid is used on-site to react with ammonia waste to produce reusable ammonium sulfate. It is estimated that waste sulfuric acid will reduce 30,000 tons in 2015.
- Chemical Waste Recycling Technology Development: Work with supplier to recycle used developer chemical which can be re-used in other industrial processes to conserve natural resources and reduce ammonia waste. A total of 16,200 tons of developer chemical was recycled in 2014.

Computer Reuse and Recycling Campaign

TSMC fully supported ASUSTek Computer Inc.'s "Computer Reuse and Recycling Campaign", which has also received support from the Ministry of Economic Affairs. TSMC donated more than 58,128 used personal computers, notebook computers, and LCD monitors since 2007, making up one-third of the total amount received in this project to become the largest donor.

Our purpose in participating in this campaign is to promote the concept of material recycling. Through this recycling campaign, refurbished computers are donated to students in rural elementary and junior high schools and to disadvantaged minorities to narrow the digital divide, caring for society and protecting the environment at the same time.

5.4.5 Environmental Accounting

The purpose of TSMC's environmental accounting system is to identify and calculate environmental costs for internal management. At the same time, we can also evaluate the cost reduction or economic benefits

2014 Environmental Cost of TSMC Fabs in Taiwan

Unit: NT$ Thousands

Classification	Description	Investment	Expense
1. Direct Cost for Reducing Environmental Impact			
(1) Pollution Control	Fees for air pollution control, water pollution control, and others	7,435,572	3,427,331
(2) Resource Conservation	Costs for resource (e.g. water) conservation	1,993,937	103,898
(3) Waste Disposal and Recycling	Costs for waste treatment (including recycling, incineration and landfill)	0	698,703
2. Indirect Cost for Reducing Environmental Impact (Managerial Cost)	(1) Cost of training (2) Environmental management system and certification expenditures (3) Environmental measurement and monitoring fees (4) Environmental protection product costs (5) Environmental protection organization fees	273,800	209,085
3. Other Environment-related Costs	(1) Costs for decontamination and remediation (2) Environmental damage insurance and environmental taxes (3) Costs related to environmental settlement, compensations, penalties and lawsuits	0	0
Total		9,703,309	4,439,017

2014 Environmental Efficiency of TSMC Fabs in Taiwan

Unit: NT$ Thousands

Category	Description	Efficiency
1. Cost Saving of Environmental Protection Projects	Energy saving: completed 158 projects	375,660
	Water saving: completed 24 projects	50,666
	Waste reduction: completed 4 projects	75,200
	Material reduction: completed 164 projects	351,082
2. Real Income of Industrial Waste Recycling	Recycling of used chemicals, wafers, targets, batteries, lamps, packaging materials, paper cardboard, metals, plastics, and other wastes	361,957
Total		1,214,565

of environmental protection programs to promote economically efficient programs. With environmental costs expected to continue growing, environmental accounting can help us manage more effectively. In practice, TSMC's environmental accounting measures define the various environmental costs and set up independent environmental account codes, then provide these to all units for use in annual budgeting. This online system can output data for environmental cost statistics.

Our economic benefit evaluation calculates cost savings for reduction of energy, water or wastes as well as benefits from waste recycling according to our environmental protection programs.

The environmental benefits disclosed in this report include real income from projects such as waste recycling and savings from major environmental protection projects. In 2014, TSMC fabs completed 350 environmental protection projects, and these benefits, in addition to benefits from waste recycling, totaled more than NT$1,215 million.

5.4.6 Environmental Management in TSMC Subsidiaries

TSMC requires our manufacturing subsidiaries, including TSMC China, WaferTech and TSMC Solar to have the same environmental management measures as TSMC. Subsidiaries are required to be consistent with our environmental policy and work standards.

Our manufacturing subsidiaries have actively set up environmental management systems, and they conform with our practice of requiring facilities to obtain ISO 14001 certification within 18 months of mass production.

TSMC assists its non-semiconductor subsidiary TSMC Solar to assess risk for their specific wastewater, air emissions, wastes, and chemicals to ensure legal compliance. TSMC and its subsidiaries register various environmental performance indices in TSMC's e-platform TSM (Total ESH Management) regularly for monitoring and management to pursue continuous improvement.

5.5 Environmental Dimension Special Topics

5.5.1 Green Products

TSMC collaborates with its upstream material and equipment suppliers, design ecosystem partners and downstream assembly and testing service providers to reduce environmental impact. We reduce the resources and energy consumed for each unit of production and are able to provide more advanced, power efficient and ecologically sound products, such as lower-power-consumption chips for mobile devices, high efficiency LED driver for Flat Panel Display Backlighting and indoor/outdoor Solid State LED lighting, and "Energy Star" low standby AC-DC adaptors, etc. In addition to helping customers design low-power, high-performance products to reduce resource consumption over the product's life cycle, TSMC implements clean manufacturing practices that provide additional "green value" to our customers and our other stakeholders.

TSMC-manufactured ICs are used in a broad variety of applications covering various segments of the computer, communications, consumer, industrial and other electronics markets. Through TSMC's manufacturing technologies, customers' designs are realized and incorporated into peoples' lives. These chips make significant contributions to the progress of modern society. TSMC works hard to achieve profitable growth while providing products that add environmental and social value. We have listed below several examples of how TSMC-manufactured products significantly contribute to society and the environment.

Environmental Contribution by TSMC Foundry Services

1. Providing New Process Technology to Achieve Lower Power Consumption:

- The continuous development of TSMC's advanced semiconductor process technologies follows Moore's Law, which holds that process technology moves forward one generation every 24 months. In each new generation circuitry line widths shrink, making circuits smaller and lowering the energy and raw materials consumed per unit area. At the same time, the smaller IC die size consumes less power. TSMC's 28nm technology, for example, can accommodate approximately four times the number of electronic components as the 55nm technology. ICs made with 28nm technology in active or standby mode consume roughly one third the power of 55nm products, according to TSMC's internal test results. The Company continuously provides process simplification and new design methodology based upon its manufacturing excellence to help customers reduce design and process waste.
- TSMC leads the foundry segment in technology, having achieved volume production at the 28nm node. TSMC's 28nm processes include 28nm High Performance (28HP), 28nm High Performance Low Power (28HPL), 28nm Low Power (28LP), 28nm High Performance Mobile Computing (28HPM), and 28nm High Performance Compact Mobile Computing (28HPC). Customer 28nm production tape-outs are more than double the number of 40nm customer tape-outs. The TSMC 28nm process also has surpassed the previous generation's production ramp and product yield at the same point in time, due in part to closer and earlier collaboration with customers. TSMC will continue to encourage customer designs that result in the most advanced, energy-saving, and environmentally friendly products. TSMC quickly ramped its 28nm technology. The 28nm contribution to wafer revenue grew significantly from 1% in 2011 to 33% in 2014. This reflects the fact that TSMC's advanced manufacturing process technology helps the Company achieve both profitable growth and energy savings.

28nm Contribution to Total Wafer Revenue

Unit: %

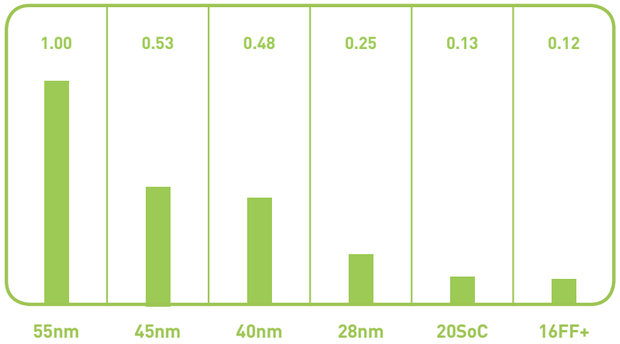
2010	2011	2012	2013	2014
-	1	12	30	33

- TSMC delivers performance-per-watt scaling in its 20nm SoC (20SoC) and 16nm FinFET Plus (16FF+) process technologies. With energy-efficient transistors and interconnects, the 20nm SoC process can reduce total power consumption of the 28nm process by one third, and by migrating from planar to FinFET technology, the 16nm FinFET Plus process can further reduce total power consumption to about 30% of 28nm technology. 20SoC technology entered the production stage with smooth ramping and stable yield performance. By introducing the advanced patterning technique, this process provides better density and power value for both performance-driven products and mobile computing applications migration. In addition, wafer revenue of 20nm SoC accounted for 9% of 2014 total wafer revenue. The 16nm FinFET Plus process entered risk production in 2014 and nearly 60 customer designs are scheduled for tape-out by the end of 2015.

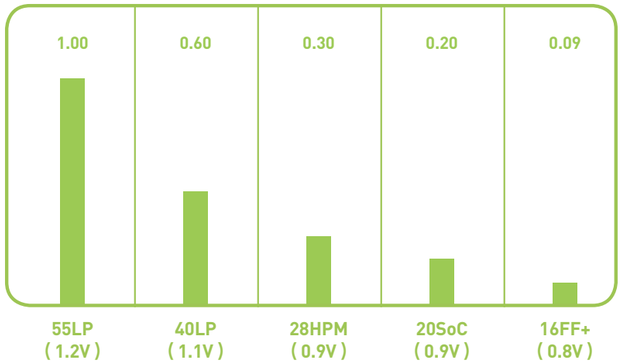
2. Manufacturing Power Management ICs with the Highest Efficiency:

- TSMC's leading manufacturing technology helps its customers design and manufacture green products. Power management ICs are the most notably green IC products. Power management ICs are the key components that regulate and supply power to all IC components. TSMC's analog power technology research and development team uses 6-inch, 8-inch and 12-inch wafer fabs to develop Bipolar-CMOS-DMOS (BCD) and Ultra-High Voltage (UHV) technology, producing industry-leading power management chips with more stable and efficient power supplies and lower energy consumption for broad-based applications in the consumer, communication, and computer markets. TSMC's BCD is the best fit technology for high efficiency LED driver for the applications of Flat Panel Display Backlighting and indoor/outdoor Solid State LED lighting. In addition, TSMC's UHV with 400V~800V options is the best fit technology for Green Product applications, such as "Energy Star" low standby AC-DC adaptors, Solid State LED lighting, high efficiency DC Brushless motors.
- TSMC also provides analog and power-friendly design platforms. Customers use these platforms to develop energy-saving products.
- Power management ICs generates material revenue to TSMC's industrial market segment. In 2014, TSMC's HV/Power technologies collectively shipped more than 1.8 million customer wafers. In total, the Power management ICs manufactured by TSMC for our customers accounted for more than one-third of global computer, communication and consumer (3C) systems.

Die Size Cross-Technology Comparison (Die size reduces as line width shrinks)



Total Power Consumption Cross-Technology Comparison (More power is saved as line width shrinks)



HV/Power Technologies Shipments

Unit: 8-inch Equivalent Wafer

2010	2011	2012	2013	2014
>700K	>800K	>1,000K	>1,300K	>1,800K

3. Green Manufacturing that Lowers Energy Consumption:

- TSMC develops manufacturing technologies that provide more advanced and efficient manufacturing services. Improvements reduce per-unit energy consumption, resource consumption and pollutant generation. They also lower energy consumption and reduce pollution during product use. To see the total energy savings benefits realized through TSMC's green manufacturing, please refer to, "Environmental Accounting".

Social Contribution by TSMC Foundry Services

1. Providing Mobile and Wireless Chips that Enhance Mobility and Convenience:

- The rapid growth of smartphones and tablets in recent years reflects strong demand for mobile devices. Mobile devices offer remarkable convenience, and TSMC contributes significant value to these devices. For example, new process technology helps chips provide faster computing speeds in a smaller die area, leading to smaller form factors for these electronic devices. In addition, SoC technology integrates more functions into one chip, reducing the total number of chips in electronic devices, which also leads to a smaller system form factor. Second, new process technology helps chips consume less energy. People can therefore use mobile devices for a longer period of time, increasing their convenience. And third, with more convenient wireless connectivity such as 3G/4G and WLAN/Bluetooth, people communicate more efficiently with each other, can "work anytime and anywhere," significantly improving the mobility of modern society.
- Mobile computing related products, such as Baseband, RF Transceiver, AP (Application Processors), WLAN (Wireless Local Area network), imaging sensors, and NFC (Near Field Communication), among others, represent 48% of TSMC wafer revenue in revenue in 2014. TSMC's growth in recent years was largely driven by the growing global demand for these mobile IC products.

Contribution of Mobile Computing Related Products to TSMC Wafer Revenue[Note]

Unit: %

2010	2011	2012	2013	2014
31	36	40	44	48

Note: Mobile computing related products were re-classified in 2014.

2. Enhancing Human Health and Safety with MEMS (Micro Electro Mechanical Systems):

- TSMC-manufactured ICs are widely used in medical treatment and health care applications. Through the Company's advanced manufacturing technology, more and more IC products are providing major contributions to modern medicine. Customers' MEMS products are used in a number of advanced medical treatments. MEMS are also widely used in preventative health care, such as early warning systems that limit the number of injuries to the elderly resulting from falls, systems that detect physiology changes, car safety systems and other applications that greatly enhance human health and safety.

TSMC Collaborates with Suppliers to Reduce Product Environmental Impact Footprints

TSMC's products take both quality and environmental impact into account. We believe that green products need to consider the entire product life cycle, including raw material mining, transportation, product manufacturing, use, and waste disposal to thoroughly evaluate environmental impact. The product carbon footprint, water footprint, or other environmental impact footprints are important indicators in the environmental performance of products.

Therefore, we require good hazardous substance management, pollution prevention, energy saving, waste reduction and other clean production measures in our own factories. We also require and assist suppliers to do so, and even require suppliers to require their suppliers to do so, in order to establish a green supply chain.

Standards Compliant with or Surpassing International Product Environmental Laws

Product Hazardous Substance Management

By practicing QC 080000, TSMC ensures that products comply with regulatory and customer requirements, including:

- **The EU Restriction of Hazardous Substance (RoHS):** Restriction of hazardous substances in electric products including Lead (←1,000ppm), Cd (←100ppm), Hg (←1,000ppm), Cr6+ (←1,000ppm), PBB (←1,000ppm) and PBDE (←1,000ppm). The new RoHS 2.0, 2011/65/EU in 2011 has not changed restricted substances and lead is exempted for the semiconductor bumping process. All TSMC

products are compliant with EU RoHS. The bumping process still requires lead due to technology constraints. TSMC continues to develop "lead-free" bumping to fulfill customers' needs.

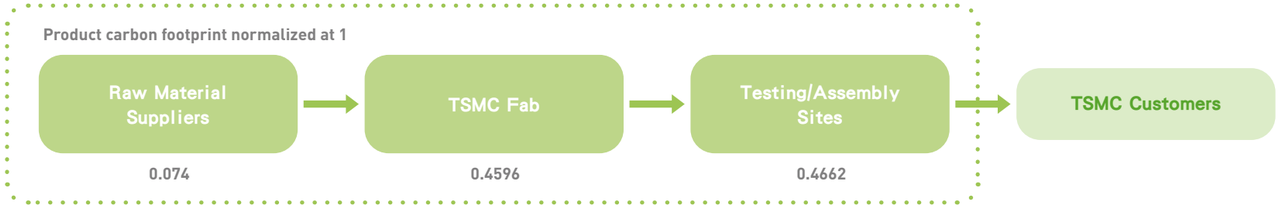
- **Halogen-free Electronic Products:** In general, our customers request the concentration of Bromine and Chlorine in products to be less than 900ppm each, and less than 1,500ppm in total. All TSMC products are in compliance.
- **Perfluorooctane Sulfonates (PFOS) Restriction Standards:** TSMC has completely phased out PFOS from its process since 2010.
- **EU REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) directive:** All TSMC products are compliant with the REACH dangerous chemicals and SVHC (Substance of Very High Concern) limits.
- **EU Waste Electrical and Electronic Equipment (WEEE) Directive:** This regulation requires the recycling of electronic final products. TSMC's chips are recycled along with electronic final products after use by consumers.

In addition to current global regulations and customer requirements, TSMC continues to monitor international regulation trends to prepare for response.

Leading Upstream and Downstream Partners to Complete a Supply Chain Product Carbon Footprint

TSMC continues to encourage and assist suppliers to set up greenhouse gas (GHG) inventory procedures. We collaborated with upstream and downstream partners to complete 12-inch wafer and packaged integrated circuit product carbon footprints, which passed third-party certification based on the British PAS2050 product carbon footprint standard in 2011. In 2011 and 2012, TSMC's 8-inch and 6-inch wafer passed PAS2050 carbon footprint certification respectively, and can fulfill customers' requirements. We continue to promote product carbon footprint standards and expect to complete certifications for all fabs in 2015.

Integrated Circuit Product Carbon Footprint Example - BGA Chip



BGA: ball grid array

Monitoring Semiconductor Product Water Footprint

There has been much global discussion of water risk management and product water footprints, and these issues have been included in surveys by the Dow Jones Sustainability Indexes and the Carbon Disclosure Project. TSMC has always viewed water as a precious resource, and has for many years required our own plants and those of our suppliers to conserve water. In addition to including a water footprint as well as other environmental impact footprints in the 2009 integrated circuits Type III Environmental Product Declaration, TSMC also includes water footprint calculation data in our supplier questionnaire. TSMC Fab 12 and Fab 3 collaborated with major suppliers and completed 12-inch and 8-inch wafer product water footprint and received external certification. The international standard for product water footprint ISO14046:2014 was published in 2014, and has been tracked by TSMC ever since its draft version. We will continue to establish product water footprint for all TSMC fabs and to receive ISO14046 verification in 2015.

Product Packing Materials Management and Reduction

TSMC uses recyclable plastic and paper as packing materials for shipping products. These packing materials comply with EU regulations requiring lead, cadmium, mercury and chromium (IV) concentration of less than 100ppm, and also contain no poly-vinylchloride (PVC).

We reuse packing materials as much as possible to control usage. TSMC recycles packing materials from products shipped to customers and testing and assembly facilities for reuse after cleaning. Packing materials from raw wafers are also reused in product shipping. Our wafer shipping boxes are mostly made from reused sources. These measures have reduced both packing material consumption and waste generation.

5.5.2 Enhance Internal and External Environmental Education

TSMC continues to raise employees' environmental awareness through educational programs, including new employee training, E-learning, family day, and the annual "Loving the Earth Begins with Me" program. "Loving the Earth Begins with Me" program, in addition to professional environmental education courses, makes use of designated environmental bulletin boards in each fab as well as promotional materials in elevators, restrooms, and employee publications to embed environmental concepts in employees' everyday work and life. "Green Love Earth," is intended to develop water, power and waste reduction into daily habits. These convey environmental ideas that are reflected in our employees' actions, and lead many departments to seek opportunities to conserve energy, save water, and reduce waste.

External promotional activities not only include green supply chain management, but also active collaboration with academia, industries and local governments in our operation sites around the world. We aim to use our influence as a corporation to protect the environment and to meet our corporate social responsibilities. In order to give employees easy access to up-to-date environmental knowledge, we maintain an internal environmental protection website which files related information and maintains links to global environmental protection-related websites.

TSMC Environmental Protection Promotion Posters

5.5.2.1 Enhance Internal Environmental Education Activities

Enhance Environmental Laws Awareness of Employees

TSMC provides a range of expert knowledge, from legal to environmental protection, environmental protection managers in all factories to conduct environmental educational programs. It includes practices about the recognition of laws for air, water, waste, toxics and others, and declaration procedures and skills for verification to implement the PDCA process in environmental protection.

Continuous Promotion of Internal ESH Competition

TSMC added an Environmental, Safety & Health (ESH) Award to its ongoing "Total Quality Excellence (TQE)" campaign to encourage employees to continuously improve ESH performance. The ESH award competition was also presented in the annual TQE Forum for sharing. There were a total of 557 ESH improvement cases selected in 2014, and 6 out of these 557 cases were selected for final competition in the Forum. The habits and methods of continuous ESH improvement are embedded in the daily tasks of employees in each facility through this ESH award competition and experience sharing.

5.5.2.2 Actively Participate in External Environmental Education Activities

"Eying the World" Program for Elementary Schools in Remote Areas of Hsinchu County

The "Endowing old things with new lives, eying the world" program by TSMC collected second-hand cameras from TSMC colleagues and

donated them to Yu-Feng elementary school and Shi-Lei elementary school in Hsinchu. By teaching photography two times a month and coordinating with the schools, it allowed children to see different views through cameras and experience the beauty of their hometown. In addition, by holding the "Hit it off" photo exhibition at TSMC, it spread the seeds of art with children in tribes and provided them with wonderful memories and a new artistic outlet through photography.

Environmental Education, Low Carbon and LOHAS Summer Camp in Hsinchu County

TSMC assisted the Hsinchu County government to plan the 2014 Low Carbon and LOHAS Summer Camp, it consisted of four diversified educational programs for students to learn the knowledge about low carbon life and to practice it in daily life through playing, which includes the first day of green life for students, environmental protection DIY, interactive games about low carbon and outdoor teaching. The summer camp was divided into five stages with 1,000 children participating. This program complemented the "New Good Food Movement," to substitute for the 8,800 kilogram carbon dioxide produced by the summer camp to achieve the target of "Carbon-Neutral."

Assistance for the Recognition of Environmental Education Facilities in Hsinchu County

TSMC continued to cooperate with the government of Hsinchu County with the application for EPA recognition of environmental education facilities in the "Zhudong Touqian River Ecological Park" from 2012 to 2013, which completed seven environmental education certifications and brought the communities, schools and public agencies in Hsinchu County the convenient and diversified teaching conditions of environmental education. By cooperating with the government of Hsinchu County the "Seeing Taiwan – Love at Touqian River – Teacher's Training Camp" in 2014, through four teaching and training processes, and explanation and practice of the "Zhudong Touqian River Ecological Park" teaching plan, it fostered 26 teachers in total to increase the educational resources and energy of facilities for environmental education of the Ecological Park of Touqian River to serve more people and students.

"Eying the World" and "Hit it off" photo exhibition
Low Carbon and LOHAS Summer Camp Learning
"Zhudong Touqian River Ecological Park" environmental education

Environmental and Ecological Education Activity of Ceng Lin Elementary School in Tainan City
TSMC Green Building environmental education for the principals and teachers from junior high and elementary schools in rural areas
TSMC employees participated in the environmental knowledge competition

Conducting "A Journey of Graduation, Thanksgiving and Love Passing" of Jin Shan Elementary School in Remote Areas in Hsinchu County

TSMC continued to cooperate with Jin Shan Elementary School in Remote Areas in Guanxi Township in Hsinchu County. In 2013, we hosted an "A Journey of Graduation, Thanksgiving and Love Passing" with concepts of environmental sustainability for 27 graduates. From school, Roman Highway, to Mawudu Forest, the distance was about 8 km, we offered activities like the lessons on local ecology, caring the elderly who lived alone in the community, and inviting children to get closer to their local native land. Enthusiastic parents prepared food, which allowed children to learn the niceties of being a good guest as well. Finally, we prepared the local food in season in Mawudu Forest to build a new feast of green happiness. We continued conducting "A journey of Graduation, Thanksgiving and Love Passing" for 19 graduates in 2014, which added a journey of music appreciation to expose children to new and different music.

Deepening Environmental Education for Saving Water

TSMC and South Region Water Resource Office, WRA, MOEA cooperated to examine the facilities for water and energy saving of Ceng Lin Elementary School to respond the "South Philosophy of Water" idea in practice. It allowed students to be acquainted with the ample and diversified environment and ecology of Zengwen Dam and to understand more about the dam which was responsible for water provision and flood protection. Children also became pioneers of environmental education for Zengwen Dam; they not only experienced the dam's importance as a water reservoir, but also their close connection with the water environment, which could build a sustainable environment for humans and all kinds of ecology.

Environmental Education about Green Architectures for Junior High School and Elementary School in Remote Areas

TSMC assisted four elementary schools in remote areas in Hsinchu County, Jin-Shan, Shi-Guang, Fu-Guangan and Jian-Shi, and 26 principals or teachers to conduct environmental education about green architectures. Its courses consisted of introduction to green ecological park and a guided tour of the ecological educational park. For teachers, it gradually promotes and develops the environmental sustained idea "Low Carbon, LOHAS and Green Earth," from top to bottom. Teachers also led children to complete the TSMC green ecological education course.

The National Competition for Environmental Protection Volunteers

TSMC assisted the Hsinchu County government to hold the sport competition of environmental protection volunteers. By combining competition and carnival, it helped environmental protection volunteers and people to learn about environmental protection and put it into effect. The games were held in Hsinchu County Stadium. Among the 22 teams and 2000 environmental protection volunteers in "The National Competition for Environmental Protection Volunteers," TSMC helped the Hsinchu County government to win third prize nationwide.

Love Sharing, Environmental Education for Pollution Control and Disaster Prevention

TSMC shared with public agencies and schools the culture of environmental protection, safety and hygiene of TSMC. TSMC took the lead to offer professional assistance and consultation by its practical experience of management. Through pollution protection, experience sharing for basic measurements in emergency and commanding for disaster relief, visiting and observation on site, practice planning and tutorship on site, it helped SMCs in the park to construct their self-management of environmental protection, safety and hygiene, reinforced disaster relieving measures and allowed students to understand and learn more about how firms implement public nuisance protection and disaster relief. It also helped to accomplished sharing for ISHA and other four companies, 19 people in total, two company tutors on site, annual practice for measurements in an emergency, 30 person-time observations and 43 person-time observations from the Institute of Occupational Medicine and Industrial Hygiene, National Taiwan University, and the Department of Safety Health and Environment Engineering, National United University.

5.5.2.3 Environmental Protection Promotion Activities in TSMC Subsidiaries

TSMC subsidiaries TSMC China Ltd. and WaferTech also continue to raise employees' environmental awareness, and maintain good relationships with local communities through environmental protection promotion activities, as described in the following.

At the beginning of the New Year in 2014,TSMC China together with a local volunteer association in Songjiang District, collected second-hand clothes for renovation or recycling. The total collected over three days was 1,450 pieces of clothing. The activity not only showed love to the less-fortunate people in designated communities but also recycled used clothes for environmental protection.

On September 2014, over 10 volunteers of TSMC China went to Songjiang Old City Area to promote the Car Free Day for two consecutive years, which seeks to raise citizen's environmental awareness. Nearly 300 citizens participated for more than 2 hours, and the participants were aware that riding bikes or taking buses were environmentally friendly for short trip.

TSMC's U.S. subsidiary WaferTech actively recycles, conserves energy and reduces waste. In 2014, WaferTech held its thirteenth annual Earthweek event, which seeks to raise employee's environmental awareness through recycling activities, displays and promoting alternative transportation. WaferTech employees recycled over 6,000 pounds of electronics during the Earthweek event.

TSMC China Used Clothes Donation Activity
TSMC China Car Free Day Activity

WaferTech employees and family members planted 500 trees to sustain community protected lands and painted tables in the local community park
WaferTech employees and their families helped clean their nearby lake

6 | Social Dimension






Summary

Employees are one of the most important assets of TSMC; the goal for the Company's human resources policies and practices is to enhance our company and employees' overall productivity and effectiveness. The Company is committed to providing quality jobs with good compensation, meaningful work, and a safe work environment for its employees; moreover, it is dedicated to fostering a fun work environment that encourages continuous learning and this enables the Company to recruit and retain the best talents suitable for its positions. The Company's efforts in fostering "a Great Place to Work" has been widely recognized and received many awards, including the grand prize of the Ministry of Labor's first "Work-Life Balance Award" in 2014, as well as being named "Most Admired Company in Taiwan" by CommonWealth Magazine for the 18th consecutive year.

Our trinity of strengths–technology leadership, manufacturing excellence, and customer trust–spring from our clear vision, strong core values, effective strategies and powerful execution. The lynchpin of our success is the ability to continuously attract and develop talent who recognize our vision and values, and work together for our sustainable growth.

Our core values are integrity, commitment, innovation and customer trust. Our actions are guided by these core values and our principles for human resources also stem from these values:

- Integrity is our fundamental belief. The first thing we consider when hiring is the candidate's character and qualifications, rather than his or her connections or access.
- We believe that all employees should be treated with dignity and respect. The Company is committed to upholding workers' rights and respects internationally proclaimed human rights, as outlined by the United Nations Universal Declaration on Human Rights and the International Labor Organization's fundamental conventions on core labor standards.
- We provide career opportunities that offer above-industry standard compensation because we are highly committed to our employees. At the same time, we hope our employees will commit themselves to our company and do their best to contribute to the success of our company.
- We encourage our employees to actively make valuable innovations because innovation is the wellspring of our growth.

Recruiting and retaining right people with shared vision and values set the cornerstone for policies and practices on recruiting, staffing, compensation and benefits, as well as learning and development. In 2014, the Company recruited over 3,200 managers, professionals, and administrative staff, as well as over 2,300 assistants and technicians. As of the end of 2014, the Company had 43,591 employees, among which 42.0% are female.

TSMC is committed to providing competitive compensation packages for attracting and retaining the best talent, in addition, we are dedicated to fostering a fun work environment that encourages continuous learning. In 2014, the turnover rate for all employees was 6.0%, while the average annual turnover rates for the past five years all fell within a healthy range of 5% to 10%.

TSMC is dedicated to maintaining constructive and harmonious employee relationships, we value two-way communication and are committed to keeping open and transparent communication channels between the management level, subordinates, and peers; this is our commitment to employees, and in return, our employees are highly committed and loyal towards our company. Following the goal of "50 working hours per week", our company encourages our employees to enhance their efficiency and effectiveness, enabling them to spend more time with their family. With a balanced lifestyle, our employees are able to sustain both their physical and mental health in addition to work itself.

TSMC works proactively to build a healthy work environment via health promotion activities, assistance programs, and multi-dimensional practices. Furthermore, TSMC sets zero accidents as its safety and health goal; to meet this goal, the Company adopts strict safety and health management procedures, maintains stringent standards for facility and hardware operations, and promotes continuous improvement programs.

As an active participant in society, TSMC combines our company's resources with our employees' compassion and wisdom to build a sustainable society, protect the environment, care for the disadvantaged, promote arts and culture, and narrow the urban/rural divide through the Employee Volunteer Society and the TSMC Education and Culture Foundation.

In 2014, the TSMC Education and Culture Foundation contributed over NT$64 million to its long-term projects. A highlight of the year was the grand opening of the Children Arts Center, in cooperation with the TSMC Foundation and the Taipei Fine Arts Museums. The space is the very first collaboration on children arts promotion between the Taipei Government and a private enterprise. The TSMC Foundation continues to hold the "TSMC Aesthetics Tour" that over the past 12 years has taken more than 80,000 children from remote townships to visit National Palace Museum, Taipei Fine Arts Museum and other fine arts sites. At the high school level, the TSMC Foundation emphasizes the need for a balanced education in both science and the humanities. The Foundation holds scientific and humanity activities with innovative and versatile campaigns for cultivating young peoples' potential of science and appreciation of the humanities. For the community, the Foundation has been organizing the arts festival in consecutive 12 years. The Arts Festival offers the community inhabitants the chance to participate the exquisite arts events for cultivating their arts appreciation.

Our Volunteer Program, under the leadership of Sophie Chang (Su-feng Chang), persists in the objective of, "long-term commitment to chosen service themes," and encourages our employees to participate in volunteer activities with joy and wisdom. Employees of our company and our affiliated companies, as well as their family members, are invited to participate in related activities under the Program. TSMC Volunteer Program is dedicated to promoting education and culture, providing aid for the underprivileged, advocating energy saving, and caring for the community, including TSMC Volunteer Docent Program, TSMC Books Reading Volunteer Program, TSMC Energy Saving Volunteer Program, TSMC Community Volunteer Program, TSMC Ecology Volunteer Program, and TSMC Fab/Division Volunteer Program. The program aims to provide a host of channels for the Company's most valuable asset, high-tech professional employees, to give to the society.

6.1 Right People with Shared Vision and Values

To attract, retain and develop the right people has always been the focus of our efforts in recruiting, staffing, compensation, and performance management, as well as our training and development. By "right people", we mean people who share our vision and values. "People with shared vision" means people aimed in the same direction as us, while "people with shared values" means people who do things based on the same principles as TSMC. Through a variety of human resources practices, our employees can bring all their potential into full play in the right position, which contributes to a win-win situation for both our company and employees.

6.1.1 Stable and Healthy Workforce

At the end of 2014, TSMC and its subsidiaries had 43,591 employees, including 4,385 managers, 18,552 professionals, 3,530 assistants, and 17,124 technicians.

■ **TSMC Workforce Structure**

Categories	Groups	Male		Female		Subtotal and Percentage by Groups	
		Number	Percentage of Group	Number	Percentage of Group	Number	Percentage of Total Employees
Employee Category	Managers	3,897	88.9%	488	11.1%	4,385	10.1%
	Professionals	15,291	82.4%	3,261	17.6%	18,552	42.6%
	Assistant Engineer/ Clerical	2,813	79.7%	717	20.3%	3,530	8.1%
	Technician	3,285	19.2%	13,839	80.8%	17,124	39.3%
Location	Taiwan	23,072	58.6%	16,309	41.4%	39,381	90.3%
	Asia[Note]	1,161	42.9%	1,544	57.1%	2,705	6.2%
	North America	1,014	69.9%	436	30.1%	1,450	3.3%
	Europe	39	70.9%	16	29.1%	55	0.1%
Age	16~20	39	17.6%	182	82.4%	221	0.5%
	21~30	8,721	57.7%	6,384	42.3%	15,105	34.7%
	31~40	11,900	57.4%	8,848	42.6%	20,748	47.6%
	41~50	3,892	61.1%	2,478	38.9%	6,370	14.6%
	51~60	657	62.6%	393	37.4%	1050	2.4%
	60+	77	79.4%	20	20.6%	97	0.2%

Note: Asia Region includes China, Japan and Korea.

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Females comprised 42.0% of all employees in 2014. In Taiwan, where most of our facilities are located, more men choose to major in semiconductor-related studies in universities and graduate schools compared with women. As a result, males comprised almost 83.7% of all managers and professionals in our company.

In 2014, two women executives were promoted to Vice President. General Counsel Ms. Sylvia Fang was promoted to Vice President of the Legal Organization, and Ms. Connie Ma, Director of Human Resources, was promoted to Vice President for Human Resources. As of the end of 2014, a total of 5 female VPs served on the TSMC management team, underlining the Company's efforts and practices in valuing employee performance without gender discrimination.

In terms of geographical distribution, over 90% of our employees are located in Taiwan. In addition, we have overseas subsidiaries in China, the United States, Europe, Japan, and Korea. Among these, China and the United States provide manufacturing, business and technical service, while Europe, Japan and Korea provide the business and technical support.

Taiwan's Labor Standards Act states that companies may not employ workers under the age of 15, and that children between the age of 15 and 16 are not permitted to perform heavy or hazardous work. In addition, child labor is also strictly forbidden under International Labor Organization (ILO) standards. Our company fully complies with the above mentioned laws and standards. We have never hired employees under 16 years of age since the Company's establishment and we will not do so in the future. In practice, all resumes received are thoroughly checked to confirm that the applicants are over the age of 16; in addition, identification documents of hired employees are checked to ensure that they meet the minimum age requirement. Demographically speaking, employees aged 20 to 40 comprised 82% of our total employees.

Categories	Groups	Male		Female		Subtotal and Percentage by Groups	
		Number	Percentage of Group	Number	Percentage of Group	Number	Percentage of Total Employees
Education	Ph.D.	1,701	92.4%	139	7.6%	1,840	4.2%
	Master's	13,485	81.6%	3,035	18.4%	16,520	37.9%
	Bachelor's	7,164	61.6%	4,458	38.4%	11,622	26.7%
	Other Higher Education	1,251	25.1%	3,732	74.9%	4,983	11.4%
	High School	1,685	19.5%	6,941	80.5%	8,626	19.8%
Employment Type	Regular	25,282	58.1%	18,267	41.9%	43,549	99.9%
	Temp	4	9.5%	38	90.5%	42	0.1%
Subtotal by Genders		25,286	58.0%	18,305	42.0%	-	-
Total		43,591					

In terms of educational background, over 70% of our managers and professionals hold masters degrees or above. In a knowledge-intensive field such as the semiconductor industry, the innovation of our employees contributes greatly to our leadership position.

Taiwan's Labor Standards Act states that no employer shall, by force, coercion, detention, or other illegal means, compel a worker to perform work; in addition, the fundamental convention of the ILO prohibits all forms of forced or compulsory labor. TSMC adheres firmly to local regulations and internationally-recognized protocols; we have never forced involuntary labor from and person with menace of any penalty.

Considering the vitality of our company as well as the external economic environment, we believe that a healthy turnover rate should be between 5% and 10%. The average annual turnover rates for the past five years are all within this range. In 2014, the turnover rate for all employees was 6.0%. By gender, the turnover rate for males was 5.5% and 6.6% for females. By age group, the turnover rate for ages under 30 was 10.4%, 4.0% for ages between 30 and 50, and 6.1% for those above 50.

Turnover Rate by Gender

Gender	2010	2011	2012	2013	2014
Male	7.4%	6.0%	5.2%	4.9%	5.5%
Female	9.0%	5.8%	6.3%	5.4%	6.6%
Total Turnover Rate	8.2%	5.9%	5.7%	5.3%	6.0%

Note: The total of the annual turnover rate is the sum of monthly turnover rates.

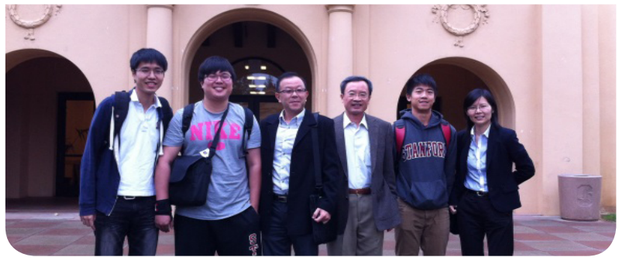
Turnover Rate by Age Group

Age Group	2010	2011	2012	2013	2014
Under 30	11.1%	8.5%	7.7%	8.4%	10.4%
30~50	5.8%	5.3%	4.1%	3.5%	4.0%
Above 50	4.7%	8.6%	8.2%	4.6%	6.1%
Total Turnover Rate	8.2%	5.9%	5.7%	5.3%	6.0%

6.1.2 Recruiting the Right People

The growth of TSMC relies on the continued services and contributions of its devoted employees; in order to strengthen the momentum of its growth, the Company is dedicated to recruiting skilled professionals for all positions available. TSMC is an equal employment opportunity employer, and its practices center on the principles of open and fair recruitment. The Company evaluates all candidates according to their qualification as related to the requirements of each position, rather than race, gender, age, religion, nationality, or political affiliation.

We hire talents not only from the local labor market but also actively recruit from countries with strong supplies of semiconductor talent, namely the United States, India, and Singapore; this adds to the diversity of our workforce. Apart from continual participation in "HiRecruit", an annual event organized by the Taiwan government for recruiting international talents, in 2014, we independently hosted 24 job fairs in top global universities for talent recruitment via face-to-face interaction between our executives and talented students from overseas.



One of the many campus career talks held in Carnegie Mellon University

One of the many campus career talks held in University of Stanford

TSMC uses a variety of recruiting activities and university programs, including Joint Development Programs, the University Shuttle Program, Summer Internships, Job Fairs, as well as a series of Fresh Graduate Career Symposiums for graduates-to-be. TSMC's continuous growth requires constant talent sourcing and recruitment activities to support its business. The Company recruited over 3,200 managers, professionals, and administrative staff, as well as over 2,300 assistants and technicians in 2014; demographics of the new recruits for the year are as follows:

Distribution of New Hires by Age and Location in 2014

Categories	Group	Male	Female
Age	Under 30	2,509	1,999
	31~50	641	370
	Above 50	14	4
Location	Taiwan	2,807	1,824
	Asia[Note]	299	534
	North America	56	14
	Europe	2	1
Total		3,164	2,373

Note: Asia Region includes China, Japan and Korea.

Campus Engagement and Cultivation

Students with technological expertise are highly valued in talent sourcing. As such, TSMC established a total of four university-level research centers in National Taiwan University, National Chiao Tung University, National Tsing Hua University, and National Cheng Kung University beginning in 2012. The mission of these centers is twofold: to develop top graduate students for future employment and encourage selected academics to consolidate different research domains under one umbrella for more effective synergy. Under this mission, TSMC provides hundreds of millions of NT dollars in seed money for leveraging funding from the National Science Council.

In 2014, the above-mentioned four centers sponsored more than 100 faculty and hundreds of students across the fields of Electronics, Material Engineering, Physics, Chemistry, Chemical Engineering and Mechanical Engineering.

In order to cultivate a young talent pipeline for recruitment both locally and around the world, TSMC holds a number of recruiting activities and university programs, including Joint Development Programs, the University Shuttle Program, Summer Internships, Job Fairs in Taiwan, U.S., Singapore and India, as well as a series of Fresh Graduate Career Symposiums for graduates-to-be.

An Innovative Platform for Early Engagement of Talent

Apart from the four university-level research centers listed above, in order to cultivate a young talent pipeline for recruitment, TSMC makes use of a number of recruiting activities and university programs; its proactive actions ensure continuous commitment to semiconductor R&D, which in turn supports TSMC in maintaining its competitive advantage globally. The missions of TSMC's campus engagement are as follows:

a. Inspiring Students to Aim High for Themselves

We endeavor to inspire young students to continually aim high for themselves. Related programs are as below:

Program	Achievement
Summer Internship	Each year, we open hundreds of summer internship jobs for domestic and overseas students. The internship program is meant to provide opportunities for students to apply what they have learned from their studies, to experience the industry environment, and to make early connections with our teams so these young students can be prepared for future careers and enhance their competitiveness
On-Site Visits	These visits give students from domestic and overseas university an early understanding of the semiconductor industry work environment and reinforce interaction between schools and TSMC
Career Talks in Campus	Our top executives and esteemed professionals share their aspirations and career experiences with young people, inspiring them to aim high and to devote themselves to research or engineering that will benefit global society

TSMC proactively attracted graduating class students at a campus recruitment event in NTU, Taiwan

Cross-function interns participated in a final competition that enhanced sharing of learning among all interns. In 2014, the competition took place in Fab 7 in Hsinchu

b. Long-Term Support for Technology Innovation

Through our renowned University Shuttle Program and University Joint Development Project (JDP) programs, we partnered with academia and research institutions to support advanced research and innovations in IC design and manufacturing. Related programs are as follows:

Program	Achievement
University Shuttle Program	This program provides free advanced (up to 28 μm) and/or mature silicon process technology to academic researchers. This makes it possible for them to test new chip designs without manufacturing costs and enables them to engineer their innovative research into applied results for the industry
Joint Development Project (JDP)	This program provides funding to university faculty members for nearly 100 research projects, totaling around NT$200 million every year. This program enables continuous innovative semiconductor research, and in turn has attracted more students to join these research labs for their advanced studies. About 80% of participating students have joined our company after graduation

Provide Diversified Job Opportunities for Disabled Persons

TSMC aims not only to be a leader in the semiconductor industry; we also hold ourselves to the highest standards in equitable hiring. We are committed to building a workplace where disabled people can make contributions to our company and benefit their future career.

In 2014, we proactively collaborated with 30 universities to create more diversified and high-quality job opportunities for disabled persons. In addition to existing job positions, we continue to integrate external resources to develop suitable jobs for disabled persons, including serving as Recruitment Service Representatives.

As of the end of 2014, we hired 399 disabled persons, exceeding the number required by Taiwan law.

6.1.3 Compensation and Rewarding People for Long-term Growth

Based on our belief that "employees are our most important asset" and our principle of "maintaining balance between the interests of employees and shareholders," we provide competitive compensation packages for attracting and retaining the best talent. Our performance has excelled and our shareholders have gained above-average returns. The total compensation of our employees is better than the average of our peer companies in the semiconductor industry and the majority of other Taiwanese companies as well.

Our total compensation includes base salary, cash bonus and profit sharing, which is based on individual expertise, job responsibility, performance, commitment, and our company's operational achievement. As a global company, we provide employees of overseas subsidiaries with a competitive localized salary plan in accordance with local regulations, industry practices and labor market status. At the same time, we design bonus programs as part of our compensation package based on the operational performance of our company and each overseas subsidiary to encourage overseas employees' continuous contribution in the future growth of our company.

We appropriately adjust employees' salaries annually, taking the results of global salary surveys, market salary scales, and economic indices into consideration, to maintain the competitiveness of our total compensation. Salary adjustment, cash bonus and profit sharing for our employees are connected to our financial, operational performance and future growth and they are reviewed by the Board of Directors' Compensation Committee before being put into practice. In addition to employees' monthly salary, the cash bonus is distributed quarterly, as we believe this provides a timely reward and balances our employees' cash flow, and the profit sharing is distributed in the following year to encourage our employees' continuous contribution.

Despite slow growth in the global economy these years, TSMC achieved record high operational performance and profit in 2014. In addition to salary increase for all employees in April, the total amount of cash bonus and profit sharing in 2014 is expected to exceed NT$20 billion, including a special bonus of NT$12,000 for non-management employees. The total compensation of a newly-graduated engineer with a Masters degree in our company would be equal to 28 months' salary, including 12 months' base salary, 2 months' year-end fixed bonus and around 1 4 months' of cash bonus and profit sharing, outperforming our industry peers.

Our total compensation is not differential by gender, religion, race, nationality or political affiliation. The ratio of annual total compensation between female and male employees in each region are listed as below table.

Region	Position	Female	Male
Taiwan	Manager	1	1.02
	Professional	1	1.03
	Assistant Engineer/Clerical	1	0.89
	Technician	1	0.85
China	Manager	1	1.10
	Professional	1	0.95
	Assistant Engineer/Clerical	1	1.02
	Technician	1	0.93
Japan	Manager	-	-
	Professional	1	1.30
North America	Manager	1	1.38
	Professional	1	1.30
Europe	Manager	1	0.65
	Professional	1	1.09

Note: No female manager in Japan.

6.1.4 The Engine of Employee Growth

The development of employees is an integral and critical factor for the growth of a company; employees' learning and development should embody the principles of "systematic, disciplined and planned." TSMC is committed to cultivating a continuous and diverse learning environment, and has established the "TSMC Employee Training and Education Procedure" to ensure the Company's and individuals' development objectives can be achieved through the integration of internal and external training resources.

Comprehensive Performance Management and Development

Our performance management and development system aims to fully develop employees to their maximum potential. It provides an environment for employee development, and facilitates ongoing engagement and communication between supervisors and employees. The five principles of our performance management are:

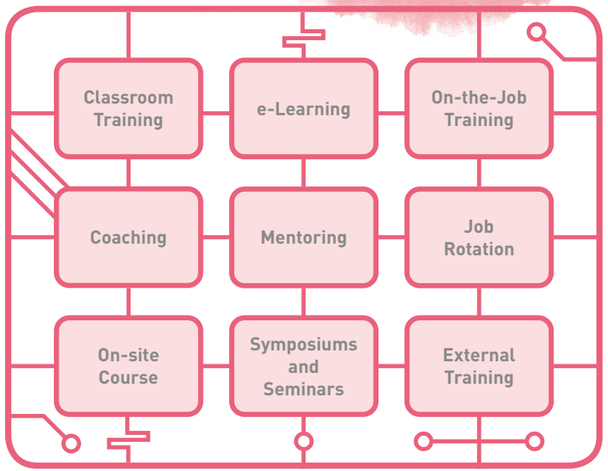
- Personal accountability for individual performance
- Partnership and cooperation between supervisors and employees
- Ongoing engagement and communication
- Equal importance given to performance appraisal and development
- Performance differentiation

Through goal-setting and execution by the organizations and the employee, as well as mid-year and year-end performance evaluations, we assess the status of goal achievement and set each employee's development focus.

Rich and Diverse Learning Resources

Based on the nature of the individual's job, work performance and career development path, the Company provides employees a comprehensive network of learning resources, including on-the-job training, classroom training, e-learning, coaching, mentoring, and job rotation. For each employee, a tailor-made Individual Development Plan (IDP) is provided. The following chart illustrates the variety of training approaches for our employees.

In 2014, we spent NT$82,908,641 on the learning and development of our employees. We provided 884,174 hours of training and the number of attendees totaled 536,493; on average, an employee attended over 19 hours of training in 2014.



	2010	2011	2012	2013	2014
(A) Headcount as of 12/31	33,232	33,669	37,149	39,794	43,591
(B) Training Hours[Note]	968,457	795,448	779,442	889,184	884,174
(C=B/A) Average Training Hours per Employee	29.14	23.63	20.98	22.34	19.37

Note:
1. Includes data for Taiwan and oversea subsidiaries.
2. Includes a mix of training methods, such as classroom training, e-learning, external training; but does not include the hours of mentoring, coaching, job rotations and others.

Our Diversified Classroom Training and Development Programs Can Be Categorized as Below

Program	Description
New Employee Orientation	• Consists of classroom learning and job orientation, which delivers our core values and shapes simulated scenarios of our working environment • Managers and our well-established Buddy System are actively engaged in the assimilation process. By the end of 2014, we cultivated 7,826 buddies to assist newcomers in quickly adapting to our environment and culture
General Training	• Required by government regulations and company policies • Includes personal effectiveness training, industry-specific safety, workplace health and safety, quality, fab emergency response, and language training
Professional/ Functional Training	• Required by various functions within our company • Includes equipment engineering, process engineering, accounting, legal, and information technology, among others
Management Training	• Designed to cultivate management capabilities and responsibilities to meet the development needs of managers at all levels • Includes New Manager Program, Experienced Manager Program, Senior Manager Program as well as other optional courses
Direct Labor (DL) Training	• Enables production line employees acquire the knowledge, skills, and attitudes needed to pass certifications to perform their job well • Includes DL Skill Training, Technician "Train-the-Trainer" Training, and Manufacturing Leader Training
Tailor-made Training	• Tailor-made courses to meet the needs of employees according to business requirements

Our e-learning system offered 2,236 courses, covering Engineering and Technical courses, Functional and Professional courses, management courses, and others. In 2014, e-learning training hours comprised 31% of total training hours.

Apart from internal training courses, our employees are also subsidized when taking external short-term courses, credit courses and degrees. In 2014, a total of 1,655 employees took short-term courses; totaling up to 24,056 training hours. Moreover, 343 employees took credit courses and degrees with the accumulation of 92,864 training hours. Finally, 773 employees took language courses in English, Chinese and Japanese for 18,689 training hours. The training hours for external training comprised 16% of total training hours.

Employees fortified their learning effectiveness via case study and group discussion

Award ceremonies were held to express our appreciation for the contribution of our internal instructors

Technology forums were held to provide our employees with more diversified knowledge of the semiconductor and technology industry

A Cradle for TSMC Teachers—the Internal Instructor Program

To facilitate knowledge sharing and leverage internal know-how, we cultivate internal instructors through a well-established internal instructor development system. Our company has shown our appreciation for internal instructors through the TSMC Excellent Instructor Award and a series of related activities to enhance our learning culture

In 2014, 116 internal instructors completed their required training, which contributed a total of 954 qualified internal instructors by the end of 2014.

Pursuing Better Learning Effectiveness

To ensure training quality, we evaluate training effectiveness via questionnaires and pre- and post-course assessment, and the results become the basis for future enhancements. When training programs fail to meet their objectives, they are carefully reviewed and corrective actions are taken immediately. In 2014, the average evaluation score for all courses reached almost 92 out of a possible 100, underscoring employees' satisfaction with these courses. The percentage of training programs failing to meet the objectives was also kept under a reasonable 2%.

6.2 Encouraging a Balanced Life

Following the goal of "50 working hours per week", our company continues to streamline the working process to enhance the efficiency and effectiveness of our employees, enabling them to spend more time with their family. Our Chairman Morris Chang encourages our employees to hold a balanced and healthy lifestyle, which includes family and social life, regular exercise, as well as personal hobbies and interests, in addition to work itself. With a balanced lifestyle, our employees are able to sustain both their physical and mental health.

To ensure a balanced life for our employees, our company provides a variety of social and cultural activities as well as services and benefits to promote employee productivity, morale, and healthy family life.

6.2.1 Expanding Interpersonal Relationships

We consider each of our employees as an individual as well as a part of a social network. Our employees obtain support from their work environment, which acts as a positive influence. Our company encourages our employees to cultivate their interests after work, and gain opportunities to develop interpersonal relationships with one another. The willingness of our employees to take part in club activities has increased; in 2014, a total of 16,085 employees have attended activities hosted by our 72 clubs, such as running, cycling, extreme sports, dance, aikido, calligraphy, cooking, Chinese music, and so on, translating to a 29% year-on-year growth.

Family is also part of our interpersonal network. We hold many regular parent-child activities and encourage our employees to participate. Employees can balance their family life and expand their social networks through these activities. In 2014, more than 36,000 employees and family members attended and enjoyed these activities.

TSMC employees enjoy a colorful life by taking part in clubs

Ballroom Dance Club Basketball Club

Employees and their families were encouraged to spend quality time and have fun together at TSMC Family Day

6.2.2 Encouraging Appreciation for the Arts

We hold arts and culture events in our company, and encourage employees to attend them. In 2014, we held 4 concerts, 18 speeches, 36 plays for children, and 146 movie screenings. In addition to enjoying performances by popular artists, employees also enjoyed speeches on diverse topics such as current events, relationships, legal matters in everyday life, and inspirational stories.

In addition, our galleries display art works regularly. They not only provide a beautiful and relaxing work environment, but also reinforce employees' appreciation for the world of art. In 2014, more than 2,000 works of art were displayed.

6.2.3 Convenient and High-Quality Employee Services

Dining Service

Our cafeterias provide a great diversity of dining options and comfortable environments. The food court in our cafeterias provide Taiwanese, Southeast Asian, and Japanese cuisine, as well as others. We also provide healthy vegetarian and vegan options. In response to our carbon reduction policy, we initiated the "Good Food Campaign" to inform employees about balanced nutrition; the achievements of the campaign are as follows:

- The "Food Waste Reduction" program enabled our cafeterias in Hsinchu, Taichung, and Tainan to eliminate carbon dioxide emissions by 20%, which equaled approximately 20,000 kilograms of CO_2, reaching the target of "Carbon Neutral".
- "Low Carbon Healthy Dining" was introduced to promote the consumption of seasonal food, as well as to continue educate employees about low-carbon eating habits. These encouraged employees to pay attention to their own health and in turn supports our goal of a healthy workplace environment.

In order to maintain and improve employee dining satisfaction, an electronic dining satisfaction survey system was introduced in 2009. With this system, we can easily understand employees' preferences and satisfaction levels and make timely enhancements on food quality and service based on the results. In 2014, the satisfaction rate was 96.6%, marking a high satisfaction rate of over 95% for the last five years.

Convenient Services

Our company provides services such as fitness centers, bookstores, coffee shops, 24- hour convenience stores, juice bars, dental clinic, and health centers on site to support our employees' daily needs. In addition, weekly on-site services include laundry, banking, telecommunications, insurance, household appliances and others.

Preschool Service

TSMC provides a healthy and safe environment for the preschool education of our employees' children. Our kindergartens were built with green construction materials and are fireproofed; in addition, there are no sharp angles in the interior designs to ensure students' safety. We also minimize the threat of influenza with separated air conditioning in every room. With our award-winning preschool service, we not only give our employees' children a great place to learn, but also help employees to be better and happier parents.

Transportation Service

Shuttle services across fabs are available to provide employees with safe and effective transport. This service also reduces the necessity for employees to drive on their own. In addition, to save energy and reduce carbon emissions, TSMC was the first company in Taiwan to adopt electric cars to replace company vehicles beginning in 2012; moving a step forward in 2014, we have introduced electric shuttle buses as part of our continuous efforts in reducing carbon emission to make the world a greener place.

Accommodation Service

Accommodation service is provided for employees who are on business trips between different sites and for employees who live far from our company in consideration of their safety and convenience. In addition to providing a comfortable living environment, the "Dormitory Caring System" was established to ensure safe access to dormitories and to respond to potential emergencies.

Promoting correct dietary concepts and health awareness

Convenience Store: TSMC employees enjoy a variety of conveniences at work environment

Electric cars were adopted to replace inter-fab shuttles and company vehicles

TSMC kindergartens provide a healthy and safe environment that emphasizes happy learning

6.2.4 Benefits – Safeguarding Employees' Rights

Employee wages and benefits mainly are salaries, cash bonus, profit sharing and pension expenses. TSMC recognized employee wages and benefits of NT$81,415,421 thousand in 2014.

A Comprehensive Insurance Plan

Our employees are insured by Labor and National Health Insurance and are eligible for their statutory benefits. In addition to the statutory Labor Insurance and National Health Insurance, we provide comprehensive insurance plans to employees. Each employee is covered by our group insurance plans from the first day they come on board. Coverage includes life insurance, accident insurance, hospital insurance, cancer insurance, and business travel insurance. The coverage will be extended to the employees in leave of absence on the purpose of military service, serious illness or injury, and raising children. Employees also have the flexibility to participate in self-pay insurance plans for their family with lower prices to obtain better protection.

Pension Plan

Our employee pension plan is set in accordance with the Taiwan Labor Standards Act and Labor Pension Act. With our company's sound financial system, we ensure employees a solid contribution and regular pension payments. In addition to statutory contributions, we also invite professional accountants and consultants to conduct precise calculations of our company's pension fund, so as to assure sufficient funding for employee pension payments in the future:

a. Pension Contribution under Labor Standards Act

TSMC provides a defined benefits plan based on an employee's length of service and average monthly salary for the six-month period prior to retirement under the Labor Standards Law. TSMC contributes an amount equal to 2% of salaries paid each month to their respective pension funds, which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee's name in the Bank of Taiwan. Amount of fair value of plan assets was NT$3,697,501 thousand as of December 31, 2014. Accordingly, TSMC recognized expenses of NT$286,702 thousand for the years ended December 31, 2014. Insufficient funding was included in accrued pension cost of balance sheet and amounted to NT$7,303,978 thousand as of December 31, 2014.

b. Pension Contribution under Labor Pension Act

TSMC provides a defined contribution plan under the Labor Pension Act (the "Act"). Pursuant to the Act, TSMC makes monthly contributions equal to 6% of each employee's monthly salary to employees' pension accounts. Furthermore, TSMC's overseas subsidiaries also make monthly contributions at certain percentages of the basic salary of their employees. Accordingly, TSMC recognized expenses of NT$1,743,626 thousand for the years ended December 31, 2014.

Flexible Leave Programs

Our company provides flexible leave programs which exceed the requirements of Taiwan's Labor Standards Act. Our employees are eligible for annual leave after completing three months of service. Furthermore, they are granted 120 hours fully-paid and 120 hours half-paid sick leave per year. Our company provides female employees with menstruation, maternity, prenatal examination leave programs, in addition, male employees are provided with paternity leave programs. In addition to affairs leave and homecare leave, granted based on the Labor Standards Acts, employees are entitled to 90 days of special personal leave with approval by authorized supervisors if they must attend to important personal affairs. Our employees can also apply for leaves of absence for reasons such as childcare, military service, and medical treatment for serious illness or injury. They can also apply to return to our company before the end date of his or her leave of absence.

Taking parental leave as an example, in 2014, 548 employees took parental leave, and the average return-to-work rate was 83.3% with a retention rate of 77.6%. Among the 67 employees who are not listed as employed at least 12 months after they returned to work from parental leave, 45 have applied for parental leave for a second time, illustrating their confidence in our company in protecting their legitimate right to return to work.

	Male	Female	Total
Number of employees that took parental leave in 2014	91	457	548
Number of employees that should return to work in 2014(A)	69	369	438
Number of employees that returned to work in 2014 (B)	59	306	365
Return to Work Rate (B/A)	85.5%	82.9%	83.3%
Number of employees that returned to work in 2013 (C)	33	267	300
Number of employees that returned to work in 2013 and are still employed at least 12 months in 2014 (D)	28	205	233
Retention Rate (D/C)	84.8%	76.7%	77.6%

Other Welfare Benefits

The TSMC Employee Welfare Committee provides other benefits, including:

- Financial assistance to help employees who encounter difficult circumstances
- Subsidies for marriage, childbirth, and funerals
- Cash gifts for birthdays and major festivals
- Travel subsidies
- Discounts provided by over 8,000 designated vendors
- Online platform for shopping and exchanging information

Benefits of Overseas Subsidiaries

The insurance plan, pension plan, leave programs and other welfare benefits for the employees of our overseas subsidiaries all comply with or exceed local regulations to ensure a secure and carefree life for our employees worldwide.

6.3 Employee Engagement

We are dedicated to maintaining constructive and harmonious employee relationships and creating a highly engaged work environment; this is our commitment to employees, and in return, our employees are highly committed and loyal towards our company. These positive factors all generate productivity and higher performance.

6.3.1 Reinforcing Employees' Sense of Belonging

Our employees share common vision and values, and thus can work toward the same goals. We hold "Sports Day" every year to reinforce employees' cohesion and the spirit of teamwork. Our employees interact and cooperate with one another through a variety of sports competitions. More than 33,000 of our employees and family members attended Sports Day in 2014.

Our employees showed the utmost cohesion and team spirit throughout TSMC Sports Day: Tug of war Relay race competition Torch relay

To cope with the different needs of our diverse employee groups, we offer a variety of caring programs. With more and more international talents joining our company, we have rolled out a customized communication and caring program that aims to reduce the stress of moving from a foreign country to Taiwan, to shorten the time needed in adjusting to a new environment, as well as to better align themselves with the TSMC way of working. In turn, these efforts encourage our overseas-hired employees to stay with us.

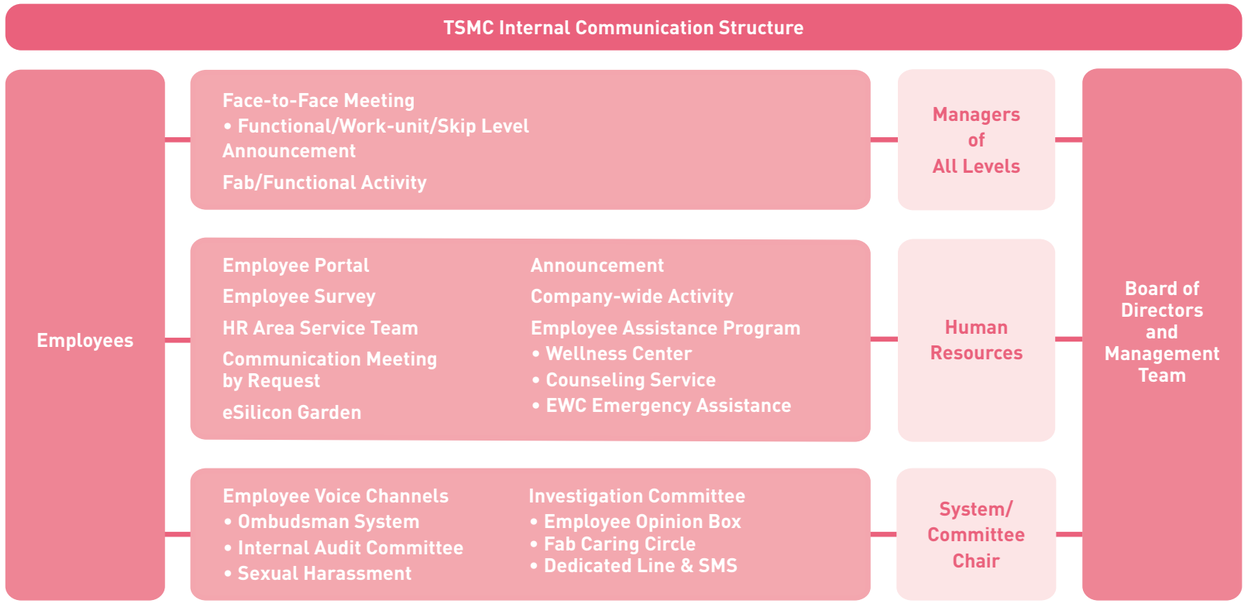
International Culture Day
South-East Festival Indian Festival Japan Festival

A dedicated team is in place to support our overseas-hired employees in applying for visas and other related documents. For those who need to buy or rent a home, we provide support in connecting them with English-speaking housing agents. We can also refer our overseas hires to English-speaking doctors so they will be able to get the best medical care available when needed.

Moreover, in order to strengthen the rapport and personal networks of our overseas-hired employees and their families, we have introduced for the first time in 2014 the "International Culture Day" campaign. This campaign allowed overseas-hired employees to plan and hold events relevant to the culture of their home country; in 2014, a total of 3 events were held as a series under this campaign, including the "Indian Festival", "Japan Festival" and "South-East Asia Festival". This series of events underlines our Companies' continuous efforts in appreciating cultural differences, boosting employees' morale and encouraging team synergy. Taiwanese employees, at the same time, were able to learn more about diverse cultures and in turn understand better in how to work with them smoothly and with higher effectiveness.

6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations

TSMC values two-way communication and is committed to keeping open and transparent communication channels between the management levels, subordinates, and peers. The comprehensive communication channels provided by our company are detailed in the following chart:



To ensure that employees' opinions and voices are heard, and their issues are addressed effectively, impartial submission mechanisms, including quarterly labor-management communication meetings, are in place to provide timely support. Our continuous efforts lie in reinforcing mutual and timely employee communication, based on multiple channels and platforms, which in turn fosters harmonious labor relations and creates a win-win situation for the Company and employees.

A host of two-way communication channels are provided to maintain the unobstructed flow of information between managers and employees, including:

- Regular communication meetings are held for the various levels of managers and employees.
- Periodic employee satisfaction surveys are conducted, with follow-up actions based on the survey findings.
- The corporate intranet, myTSMC: this website features "Chairman's Talks", corporate messages, Executive interviews, and other activities of interest to employees.
- eSilicon Garden: the website hosting TSMC's internal electronic publication is updated on a bi-weekly basis with inspirational content featuring outstanding teams and individuals, as well as major activities of the Company.
- Complaints regarding major management, financial, and auditing issues are handled by the following channels with a high level of confidentiality:
  - The independent Audit Committee
  - The Ombudsman system led by an appointed Vice President
- The Employee Opinion Box provides a channel for employees to express their suggestions or opinions regarding their work and the overall work environment.
- The Fab Caring Circle in each fab takes care of the issues related to employees' work and personal life; the system is dedicated mainly to direct labor (DL) of the Company.

In 2014, TSMC continued to collect and address employees concerns; a total of 62 employee opinions regarding the Company's HR policies and practices were issued via our Ombudsman system, and all of them were address and solved timely with appropriate measures.

With regards to labor unions, the Company respects employees' rights entitled by the law and does not impede their freedom of association. However, with the harmonious relationship between our management level and employees over the years, though employees possess the right to establish a labor union, no employees have issued a request to form one so far.

In addition, our company sets and promotes policies and measures to ensure gender equity, fostering a fair work environment for employees of both genders.

TSMC is governed by the law and we are committed to address employees concerns in a timely manner. As of the end of 2014, there have been no losses resulting from labor disputes.

6.3.3 Recognizing Employees' Dedication, Fostering an Encouraging Work Environment

TSMC sponsors various internal award programs to recognize employees' outstanding achievements, both as a team or on the individual level. With these award programs, TSMC aims to encourage employees' sustainable development that in turn adds to the Company's competitive advantage.

The award programs include:

- The TSMC Medal of Honor, presented exclusively by the Chairman, recognizes those who contribute to the Company's business performance significantly.
- The TSMC Academy recognizes outstanding TSMC scientists and engineers whose individual technical capabilities make significant contributions to the Company.
- The Outstanding Engineer Award for each fab and Total Quality Excellence Award recognizes employees' continuous efforts in creating value for the Company.
- The Service Award represents TSMC's appreciation toward senior employees' dedication and commitment to the Company.
- The Excellent Instructor Award praises the outstanding performance and contribution of the Company's internal instructors in training courses for employees.
- Function-wide awards dedicated to innovation, including Idea Forum, and TQE Awards, etc.

Apart from corporate-wide awards, in 2014, TSMC employees continued to be recognized through a host of prestigious external awards, including Outstanding Engineer Award, Outstanding Young Engineer Award, National Model Worker Award, and National Industrial Innovation Award.

6.4 Employees' Physical and Mental Well-being

Productivity underscores the balance between our employees' work and life. To maintain or reinforce employee productivity, physical and mental well-being is essential. Our company works proactively to build a healthy work environment via health promotion activities, assistance programs, and multi-dimensional practices.

6.4.1 A Multi-Dimensional Caring System – Safeguarding Employees' Health

TSMC Wellness centers at each fab provide 24-hour services and are staffed by professional doctors and nurses. The number of medical staff at our Wellness centers exceed regulatory requirements, supporting the Company's multi-dimensional caring program and improving employees' health more effectively.

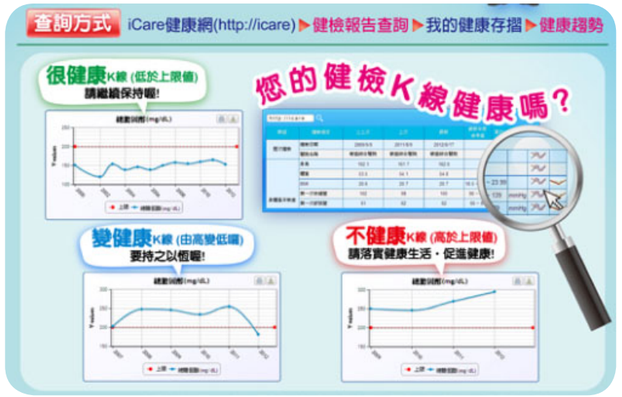
We offer on-site health examinations including general and special task to all employees each year. Special task includes employees, who were exposed to noise, ionizing radiation, dust particles, arsenic, chromate acid and salts, n-hexane, N, N-Dimethyl formamide, manganese and related compounds, were identified by site ISEP. The completion rate of special health examination was 100% in 2014.

The item and frequency of general task were more than regulation required. We offer AFP, LDL-C and Uric Acid which were recommended by on site service physician to improve employees' health.

Wellness Information System filed more than 25 years of health exam result that can assist individual employee understanding the trend of health status. , After annual health examination, professional doctors and nurses will individually follow up employees who were identified as moderate or severe abnormalities to help them early detect health problems and accept treatment, as well as conducting healthy lifestyle to improve personal health.

Number of Annual Health Examination for on-job Employees

2010	2011	2012	2013	2014
18,358	26,570	26,166	28,830	32,639



Health information systems provide exam results year-over-year for employee to understand their health status trends

Every citizen in Taiwan receives medical coverage through National Health Insurance. Beyond this, we analyze exam results every year as an important reference for health promotion activities. We also defined high-risk groups for cerebral and cardiovascular diseases by analyzing Framingham risk scores from health exam results, working hours, and workload. There are 274 employees in this high-risk group and the Company will arrange consultations with doctors or health instruction from nurses. Other hazards, such as ergonomics, long-term night shift workers, female laborers who are pregnant or still within their first postpartum year will accept individual follow up after health assessment. Furthermore, we actively follow up and conduct related promotions based on the examination results for our overseas employees as well.

	2011	2012	2013	2014
Overweight (BMI ≥24)	39.80%	39.60%	40.39%	40.96%
Total cholesterol Too High	30.60%	28%	32.30%	32.10%
High Density Lipo-protein Too Low	48.90%	26.60%	12.69%	27.47%

More than 10,000 participants have joined health promotion activities, including cancer prevention programs, acupressure massage service, flu vaccination and lectures on physical and mental health. These activities are very important for us.

We arrange emergency response training courses on an annual basis to handle any major factory accidents to protect employees' lives and health.

Number of Emergency Medical Team Members Trained

2010	2011	2012	2013	2014
3,524	3,012	4,217	4,058	4,453

We set up medical and dental clinics for employees to seek for medical support.

Medical Clinic Visitors

2010	2011	2012	2013	2014
3,762	2,739	3,729	3,528	6,219

Note: Number of 2014 includes T Site clinic.

Dental Clinic Visitors

2010	2011	2012	2013	2014
2,975	2,643	4,325	4,463	4,705

6.4.2 Promoting a Healthy Lifestyle

Continuing the theme of "Infuse Lohas into Your Life", which was first introduced in 2012, we extended the campaign for the third year in a row in 2014. The campaigned kicked off with the "S-curve Challenge" and it continued to encourage employees to exercise regularly with our "Walk around Taiwan" activity. Furthermore, the "Heart Rate Variability" activity helps employees understand their stress levels and learn relaxation tips. All in all, 3,223 participants joined related activities.

■ Result of Weight Deduction

Unit: Kg

2012	2013	2014
969	1,977	2,300

"Health Age" is our key index for evaluating health service performance.

Our analysis showed that, in 2014, the average health age for our employees is 2.9 years younger than their real age in average; this illustrates positive progress of our health promotion activities.

■ Health Age

	Real Age	Health Age	Difference
2011	32.0	29.4	-2.5
2012	33.7	31.1	-2.6
2013	34.1	31.9	-2.1
2014	35.1	32.1	-2.9

6.4.3 Mental Health Program – Improving Physical and Mental Balance

Our company has cooperated with the Hsinchu Lifeline for a long time, and we work together to provide professional consultations on issues of family, relationship, marriage, legal and financial matters. The usage trend for these services in recent years indicates that we have created an atmosphere where our employees are willing to ask for help when they need it, and care for the people around them. Otherwise, we also set a team, a counseling psychologist and guidelines for employee assistance in workplace.

■ Usage of Consultation Services

2010	2011	2012	2013	2014
484	858	630	898	1,119

"Pressure adjustment" is very important in modern society. We have collected employees stress perception via a questionnaire in our annual health examination since 2012. After analysis, we identify moderate and severe groups to arrange interviews with a counseling psychologist or refer them to other institutions by individual. These measures are expected to enhance employees' physical and mental balance and capability to adapt to pressure.

We launched the "Touching Hearts with Happiness" activity with total 4,299 participants to enhance employee's mental strength. It was a series of activities with a feature talk about "Turning Life Around" delivered by Dr. Chou-Yen Hsu, the "Ripples of Happiness" activity, and lecture classes on positive thinking to enhance employees' psychological attributes.

Our continuous efforts in enhancing the health of our employees with programs such as the "Weight Control Program" were recognized country-wide, earning awards from the Health Promotion Administration of the Ministry of Health and Welfare in 2014.

Group photo with Dr. Chou-Yen Hsu

6.5 Safety and Health

One of TSMC Chairman Dr. Morris Chang's ten principles of corporate social responsibility is to not only provide good job opportunities, but also to provide good remuneration and work environments. TSMC revised its safety and health policy in 2010 and set zero accidents as a new safety and health goal. To meet this goal, TSMC adopts strict safety and health management procedures, maintains stringent standards for facility and hardware operations, and promotes continuous improvement programs. Based on this principle, TSMC seeks to improve the safety and health management performance of the semiconductor industry and supply chain through active social engagement.

Selection of Material Safety and Health Topics

TSMC has a long record of assisting the government in establishing regulations and promoting health and safety projects, and pays close attention to the views of academia, media, customers, and employees concerning occupational safety and health to understand the topics of greatest concern our stakeholders. We have concluded that the most material occupational safety and health topics are occupational safety and health management, emergency response, and corporate contagious disease prevention. TSMC has lengthy experience in addressing these issues. Workplace stress and employee health have recently emerged as new concerns for the government, society, employers, and employees, and they require further attention.

6.5.1 Response to the Newly-amended R.O.C. "Occupational Safety & Health Act"

Taiwan's "Occupational Safety and Health Act" came into effect on July 3, 2014 aiming to improve occupational safety and health standards and to further protect workers' health and safety. Around 60 statutes under the Act has also been amended in 2014. As a corporate leader in Taiwan, TSMC will not only adopt the new standards of the law but also assist in the amendment of related statutes at the invitation of the MOL.

6.5.2 Safety and Health Management

TSMC believes that good safety and health management is an important part of the Company's commitment to take care of employees and their families, and a way of contributing to the society and the community. In practice, TSMC's safety and health management is based on the framework of the OHSAS 18001 management system. It uses information technology to continually improve our goals of preventing accidents, enhancing employee safety and health, and protecting company assets. All TSMC's fabs have passed the 2007 version of OHSAS 18001 certification, and all the fabs in Taiwan are also passed the certification by the Taiwan Occupational Safety and Health Management System (TOSHMS).

Currently, TSMC's safety and health management operations can be divided into several dimensions as below:

Physical Safety and Health Management

The effectiveness of a facility's physical safety and health performance is largely determined in the design phase. TSMC follows local regulations, international codes, and internal standards when planning, designing, and building new facilities or rebuilding existing facilities for production, IT, general services, or other purposes. A designated team takes responsibility for safety and health management using the procedures below:

- **New Tool and Chemical ESH Management Procedure**

  TSMC's New Tool and Chemical Committee (NTCC) ensures that all new tool designs meet international codes such as SEMI-S2 as well as local regulations and TSMC standards. For new chemical review, TSMC proactively collaborates with chemical suppliers to identify new chemical hazards, assess ESH risks and define control rules. To reduce risks before operation, the NTCC not only reviews tool safety but also evaluates related safety issues of location, accessory equipment, safety interlock, ventilation, local scrubber, facility system connections and personal protection equipments.

- **Safety Management of Change (SMOC)**

  All TSMC's new fab designs, as well as changes in design or operation procedure in existing TSMC fabs that could alter safety or fire prevention conditions, are required to follow a Safety Management of Change (SMOC) procedure. SMOC cases undergo strict review by the facilities, equipment, ISEP, and ESHP departments before implementation.

- **New Equipment Safety Sign-off Procedure**

  All the production-related tools and new facility systems must follow a three-phase safety sign-off procedure before operation.

  Phase 1: The tool sponsor must confirm interfaces between facility systems and the new tool are under safe conditions before turning on non-HPM (Hazardous Production Materials) related utilities.

  Phase 2: The tool sponsor must verify hazardous gases and chemical supply systems, fire protection, toxic gas monitoring, tool safety interlocks, laser and radiation protection, the tool's local gas or chemical delivery system, and exhaust abatement before turning on the tool.

  Phase 3: The tool sponsor must remedy any shortcomings found in phase 1 and phase 2, execute IR scans for electrical utilities, and put all safety requirements into the new tool's regular maintenance procedures.

- **Used Tool Safety Control**

  In addition to controls on new tool safety, TSMC has established a procedure for second-hand tool safety management. All the used tools purchased by TSMC are required to go through this safety control procedure, which uses tool configuration inspection data and a safety interlock verification checklist to confirm that tool settings and safety interlocks are functioning correctly. After these basic

checks, the tool must also go through the signoff procedures of tool installation safety to ensure it is safe for use after release.

TSMC also established a new communication platform to ensure the Operation Organization's experience in using new plants can be applied to future facility designs. The New Fab Design Department invited colleagues from the Operation Organization to make recommendations for improving future designs of new plants as continuous improvement goals.

Operation Safety and Health Control

In TSMC's daily operations, the Company not only prevents accidents through strict controls on high-risk work, contractor management, chemical safety controls, and routine audits, but also maintains emergency response plans and holds regular drills to minimize the impact of potential accidents on the environment, society, employees and property.

- **High-Risk Work Control**

  TSMC's high-risk work management procedure classifies any work that may cause serious injuries, casualties or major property damage as level-1 high-risk operations and assigns such work for priority management. Please refer to "4.2.2 Supplier Management-Managing Contractors' ESH" for details.

- **High-Risk Area Control**

  TSMC has defined fab high-risk areas and developed related management procedures to prevent accidents.

Safety and Health Committee

TSMC has set up corporate-level and site-level safety and health committees, which meet regularly to discuss ESH-related matters. Labor representatives were chosen by employees in accordance with the law and they provide a forum for managers and employees to discuss safety issues face-to-face. In response to the increasing scale of new fabs, TSMC has also set up departmental-level safety and health committees chaired by department managers to discuss safety and health-related matters within the department each month to implement safety and health management.

■ TSMC Proportion of labor representatives in the Safety and Health Committee in 2014

Site	Taiwan sites	TSMC (China)	WaferTech in the US
Number of Labor Representatives	16	3	28
Total Number of Committee Members	40	44	31
Percentage[Note]	40%	7%	90%

Note: Number of Labor Representatives/Total Number of Committee Members × 100%

Sharing TSMC's Safety and Health Management Experience

TSMC's ESH team dedicates itself to minimizing risks to TSMC, and shares its rich management experience with the semiconductor industry, suppliers and society.

Supply Chain: TSMC reduces accidents and improves contractor ESH management through audit and assistance programs. Our close cooperation with companies in our supply chain over the past several years has begun to yield results as some suppliers have started to embed ESH management models into their own systems, providing additional protection to laborers.

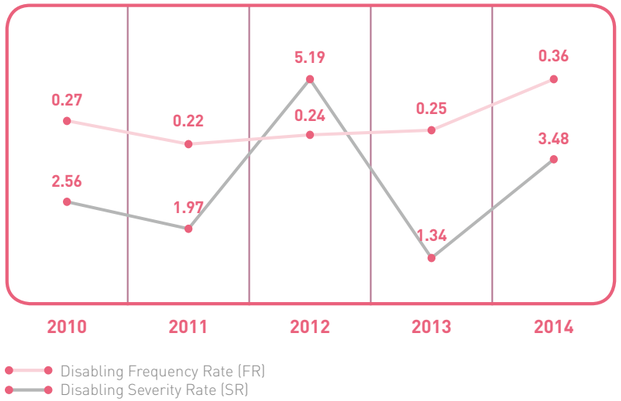
High-tech Industries: TSMC believes safety and health are universal values in society. TSMC openly shares its safety and health experience through the Safety and Health Committee of the Allied Association for Science Park Industries.

Disabling Injuries Statistics

TSMC uses the Disabling Frequency Rate (FR)/Disabling Injury Rate (IR), Disabling Severity Rate (SR)/Lost Day Rate(LDR), and Absentee Rate(AR)[Note] defined by Taiwan's MOL (Ministry of Labor) and GRI (Global Reporting Initiative) G4 to evaluate the effectiveness of the Company's occupational health and safety programs.

There were 27 cases of disabling injuries among TSMC employees in 2014. The IR and LDR of TSMC's fabs in Taiwan were 0.36 (men: 0.20, women: 0.55) and 3.48 (men: 3.74, women: 3.15) respectively in 2014.There were no occupational disease case and fatalities; the most common type of disabling injury was slipping (41%) followed by improper movements (19%).

Occupational Injury and Illness Statistics of TSMC Fabs in Taiwan



Injury Rate (IR) of TSMC Fabs by Gender and Region in 2014

	Taiwan Sites	TSMC (China)	WaferTech in the US
Male	0.045	0.592	1.062
Female	0.123	0.097	1.715
All	0.076	0.309	1.285

Lost Day Rate (LDR) of TSMC Fabs in Taiwan by Gender and Region in 2014

	Taiwan Sites	TSMC (China)	WaferTech in the US
Male	0.75	10.38	4.25
Female	0.63	6.00	30.86
All	0.70	7.71	12.06

Absentee Rate (AR) of TSMC Fabs in Taiwan by Gender and Region in 2014

	Taiwan Sites	TSMC (China)	WaferTech in the US
Male	6.39	91.72	50.97
Female	5.99	57.98	370.37
All	6.19	73.93	144.74

Note: The formula of computations were as below:
1. Injury Rate(IR)= Total # of injuries×200,000/Total hours worked; Disabling Frequency Rate(FR)=Total # of injuries×1,000,000/Total hours worked.
2. Lost Day Rate (LDR)= Total # of lost days X2000,000/Total hours worked; Disabling Severity Rate(SR)=Total # of lost days×1,000,000/Total hours worked.
3. Absentee Rate(AR)=Total # of missed (absentee) days over the period×200,000/Total # of workforce days worked for same period.

TSMC endeavors to maintain a safety culture that ensures a safe and healthy workplace. The causes of all occupational injuries are analyzed and improvement programs are implemented based on the data. Our program further requires us to regularly collect and analyze data on the types of high-frequency occupational injuries and departments with higher incident rates. These reviews focus as a first priority on incidents that are relatively serious, affect multiple departments, or happen more frequently.

6.5.3 Emergency Response–Reducing the Impact of Accidents

The first priority of TSMC's disaster response policy is to ensure the safety of personnel and neighboring residents, followed by avoiding pollution of the environment, and finally to reduce property losses and maintain normal production. We believe that when natural disasters or accidents occur, proper treatment in the incipient stage of the event both minimizes the probability of personnel injury and environmental pollution, and also significantly reduces losses and lowers the difficulty of resuming production. As a result, TSMC pays considerable attention to emergency response. From emergency equipment setup and creation of emergency procedures to training, drills, and other preparations, TSMC follows the process of "planning, implementation, evaluation and improvement".

In 2014, to ensure the quality of annual emergency response drills, TSMC drew on past experience to develop a standard exercise to serve as a reference for units with different equipment and facilities to hold drills for earthquakes, fires, gas leaks, chemical spills, power dips, and other accidents. These standard exercises help each facility put key response procedures in place. In particular, the Company enhanced unannounced drills for fabs to check employees' emergency response

skills and familiarity with procedures. The Company also completed a business continuity drill and training program, effectively reducing the impact that accidents may have on operations.

Fab2 annual emergency response evacuation drill in 2014

Permanent Emergency Response Center, Hardware Standardization

All TSMC's fabs maintain an emergency response center, or ERC, and two full-time ERC staff are on duty around the clock. If any accident or abnormal event occurs, ERC staff on duty will be informed immediately through monitoring systems. An emergency response team will be promptly and effectively assembled by staff on duty to handle the event. The following systems are equipped at each ERC:

- **Rescue procedures and information:** includes plant layout, tool maps, and emergency response flowcharts;
- **Fire, Safety, and Monitoring Systems:** includes fire and gas monitoring systems, emergency ventilation systems, CCTV systems, gas and chemicals shutdown emergency off (EMO), and paging systems;
- **Emergency response equipment:** includes various types of protective clothing, personal protective equipment, self-contained breathing apparatus, portable detectors, and leak handling equipment. In addition, each factory has designated a second ERC outside of the fab equipped with appropriate emergency response equipment to continue emergency response if the ERC is affected by disasters, and to facilitate the rapid establishment of a command post. Monitoring systems in the first ERC can be accessed through wireless networks while ERC on-duty staff evacuate to the second ERC.

Standardization of Emergency Response Procedure and Enhancement of Personnel Training

TSMC has designated emergency response organizations to handle procedures and business continuity plans for a variety of unexpected situations such as earthquakes, fires, chemical spills, toxic gas leaks, natural disasters and sudden interruption of utilities. Each fab also designates emergency response commanders and team duty officers each day to deal with unexpected situations at any time.

Emergency response team members are trained in communications, disaster relief operation, factory systems, on-site control, rescue, and logistic support. Types of training are as follows:

- **ERT training:** Includes basic and advanced ERT training, and incident commander training;
- **Fire-fighting training:** Professional fire fighting skill training at the Hsinchu Fire Bureau training base;
- **Annual full evacuation drill:** Chiefly focused on responding to an earthquake of magnitude 5 or higher;
- **Quarterly ERT drill:** A quarterly drill is requested for each production-related department to build familiarity with emergency response skills, equipment and factory surroundings.

Collaboration with Public Emergency Response Resources and Drills with Contractors

Each TSMC factory conducts annual emergency response and evacuation drills for different situations to train TSMC employees as well as contractors and vendors. TSMC invites the regional fire brigade to join the drill or asks experts to serve as advisors according to the size and type of drill. Both employees and contractors participate in drills to enhance collaboration in real accidents and rapidly establish control over the disaster. These measures are compliant with international occupational health and safety management systems, which state that the organization's safety activities should be extended to employees, contractors and nearby stakeholders. Areas and situations covered by drills include clean room, facility, mechanical rooms, lab, kitchen, dormitory and shuttle bus.

TSMC's U.S. subsidiary, WaferTech, upgraded the ERC notification and emergency procedures to improve consistency in their 24-hour response activities. Both ERC and ERT conduct monthly joint training and drills to foster greater awareness of each employee's

responsibilities, improve communications and reinforce teamwork. Staff attend local emergency planning committee meetings with public and other company emergency responders to establish good response communications in the community and build the framework for improving local response for any major events. Additionally, WaferTech has conducted training for preparation for a major earthquake, including evacuation, ERT response, mass casualty drills and building evaluations.

6.5.4 Moving Beyond Traditional Occupational Health Practices to Promote Physical and Mental Health

New Occupational Health Management Programs in the Semiconductor Industry

- **Stress-Resilient Traits Assessment Program**

  Job stress and worker health have recently emerged as new concerns for the government, society, employers, and employees, requiring further attention and occupational health efforts. TSMC has prioritized workers' stress as one of the Company's major occupational health subjects. Since 2011, TSMC has also collaborated with academics on a long term project to enhance research in this area. The short- to mid- term (2011 to 2015) plans for this project are to understand stress-resilient traits and make use of the existing Employee Assistance Program (EAP) to assist specific cases. The mid- to long- term (2016 to 2020) plans emphasize promotion of mental health to all employees to improve their physical and mental wellness. See Chapter 6.4.3 for more on our EAP services.

- **Building Workers' Resilience and Ability to Cope with Stress**

  Employees' mental health problems may have an impact on their performance, their physical health, and the safety of other employees. Workers who are physically and mentally healthier can have better work performance and contribute to the Company's success. TSMC provides free individual counseling services and holds workshops and lectures regarding workplace mental health issues to improve employee health and wellbeing. See Chapter 6.4.3 for more on our mental health promotion activities.

- **Building Ergonomic Evaluation, Improvement and Management Procedures**

  TSMC provides ergonomic training courses for employees to establish correct awareness. TSMC conducts ergonomic evaluation and intervention for manual handling workers at warehouse and equipment preventive maintenance workers, including providing vacuum suction tool, fork lift trucks, pallet truck, trolley and hydraulic jack, and also conducting job rotation, task adjustment and posture education. To manage ergonomic risks effectively and prevent work-related musculoskeletal diseases caused by ergonomic factors, TSMC encourages employees to conduct ergonomic interventions. TSMC also establishes questionnaires to survey the musculoskeletal discomforts, and collaborates with occupational medicine specialists to find the causes of the discomforts. So far in 2014, a total of more than 60 ergonomic interventions have been implemented.
  In the U.S., WaferTech continues to focus on employee engagement and safety with the implementation of permanent ergonomic solutions. In the cleanrooms, WaferTech has given new, high- quality shoes to each employee, helping reduce the number of shoe-related injury reports by over 75%. Rack heights have been optimized to reduce ergonomic stress. Meanwhile, WaferTech has installed permanent stairs and work platforms to elevate maintenance location, reducing the risk of falling and eliminating an overhead reach for filter removals. Heavy vacuum pumps are moved with powered moving equipment now, instead of been pushed manually.

- **Reducing Ergonomic Risk in Clean Rooms**

  TSMC requires that all new tools meet SEMI-S8 requirements and that appropriate supplementary control measures be taken to reduce ergonomic risk. As the semiconductor industry transitioned to 300mm (12-inch) wafers from 200mm (8-inch) wafers, TSMC's initiative to automate 300mm front-opening unified pod (FOUP) transportation improved productivity and also prevented accumulative damage caused by long-term manual handling of 300mm FOUPs.

Corporate New Contagious Disease Prevention Program

- **Caring for Employees' Physical and Mental Health Is a Corporate Responsibility**

  TSMC believes that taking care of employees' physical and mental health is fundamental to maintaining normal business operations and also part of a corporation's social responsibility. To address emerging infectious diseases that may pose a threat to the workplace, TSMC has a dedicated corporate ESH organization which constantly monitors emerging infectious diseases around the world, assesses any potential

impact on the workplace, and provides a strategic response plan. New influenza has become an extremely important issue in recent years, and TSMC not only protects the health of employees, but also encourages them to apply their prevention knowledge at home so they can enjoy peace of mind at work.

- **TSMC Novel Influenza Response & Prevention Plan**

The "TSMC Novel Influenza Response & Prevention Plan" is based on our past experience with epidemics such as SARS in 2003 and H1N1 new influenza in 2009. This plan also integrates prevention plans by the World Health Organization, the U.S. Centers for Disease Control, the Taiwan Center for Disease Control's "Novel Influenza Combat Plan", Singapore's "Influenza Pandemic Preparedness and Response Plan", as well as consultations with domestic epidemiological experts and distinguished medical doctors.

If a major outbreak of novel influenza occurs, TSMC's Senior VP of Materials Management and Risk Management will convene a disease prevention committee to hold regular response and prevention meetings. The committee will monitor global epidemiological developments and coordinate preparations. If Novel Influenza cases occur in Taiwan, TSMC will initiate a new set of procedures in accordance with the stage of the epidemic to abate its impacts on employees and operations.

The disease prevention committee monitors global epidemic status, employee disease prevention education, stockpiling of disease prevention materials, kitchen disease prevention management, leave and travel management, case management, notification and medical assistance, procedures for mask wearing and hand washing, supplier/contractor and visitor prevention control, body temperature measurement procedures, work-at-home plans, routine disinfection of the work environment, reduced meeting frequency, medical waste treatment, and other preventive measures.

- **Collaboration with Subsidiaries and Suppliers on Novel Influenza Prevention**

To reduce the impact of H1N1 on overseas subsidiaries such as TSMC China, WaferTech, and TSMC North America, TSMC also convened overseas coordinators to immediately initiate prevention procedures and announce appropriate responses based on changes in the pandemic. In addition, TSMC requires that suppliers set disease prevention policies and establish contingency plans for major labor shortages during the peak period of the pandemic.

- **Continuous Monitoring of Seasonal Influenza Threat**

Seasonal influenza (such as H1N1, H3N2, type A or type B flu) or other infectious diseases (e.g. tuberculosis, typhoid fever) may become a highly contagious risk and affect employees. TSMC will continue to control a variety of infectious diseases workplace risks, learn from its experience, avoid over- or under-reaction, and maintain a constant level of epidemic prevention. TSMC uses various methods to enhance the knowledge of individual employees on epidemic prevention, and encourages employees to use this information to protect the health of their families.

Promoting Workers' Health

- **Special Health Examinations**

TSMC offers regular health examinations for employees and special health examinations for those managing tasks such as ionizing radiation, operations, with average daily sound pressure level above 85 decibels for 8 working hours, or solvent operations. Workers with higher risk of adverse health outcomes are subject to grade 1 or 2 health control by the TSMC Wellness Center. TSMC provides health examination records and workplace hazard monitoring information to occupational physicians for causal assessment. In 2014, health examinations found no reports of abnormal findings caused by occupational exposure. (See Chapter 6.4.1 for more information on TSMC's health care system).

Contractor Health Self Evaluation and Management

To mitigate safety risk resulting from sudden onset of illness, TSMC launched the Contractor Health Self Evaluation and Management Program at Fab12B in 2014. Contractors performing high risk works, such as working at height and at cleanroom ceiling, are required to check workers' health status fitting these high risk tasks. Those who are determined to have chronic illness and self-reported symptoms must visit the doctors for physical evaluation and treatment to reduce workplace health and safety risk. A total of 120 contractors completed their health self-evaluation and 2.9% of them need to adjust their works. All these contractors at high risk completed the task adjustment in 2014. This program will be adopted by all TSMC's fabs in 2015 for a more comprehensive contractor health management.

Kick-off meeting with contractors' representatives from Fab12B for the Contractor Health Self Evaluation and Management

TSMC Fab12B ISEP awarded contractors who demonstrated good self-evaluation and health management

6.5.5 Strengthening Industry-University Partnership in Improving Workers' Health

TSMC and National Taiwan University Collaborate to Advance Occupational Health Management

Beginning in 2012, TSMC strengthened its cooperation with academia to enhance occupational health management. TSMC and the National Taiwan University (NTU) College of Public Health signed a memorandum of understanding (MOU) to collaborate on occupational health enhancement. This MOU marks an important step in long-term industry-university cooperation in the field of occupational health.

Under this MOU, TSMC collaborates with NTU to develop occupational management tools tailored for TSMC, including the promotion of personnel stress management programs and epidemiological analysis to identify high risk group for early protection and health promotion.

TSMC and NTU College of Public Health Hold Fourth Labor Health Forum

In 2011, TSMC and the NTU College of Public Health set up the Labor Health Forum where the business community can discuss occupational health issues. The forum has become a major annual event in this field for enterprises in Taiwan. In 2014, TSMC collaborated with NTU again to hold the fourth Labor Health Forum. The theme of the 2014 forum is "Integration of Occupational Safety and Health Act and industry practices" in response to the new Occupational Safety and Health Act, which became effective on July 3, 2014. This legislation introduces new requirements in corporate occupational health risk management and strengthens corporate responsibility to protect the physical and mental health of employees.

TSMC also invited China Steel Corp., CPC Corp., Innolux Corp., the Taiwan Environmental and Occupational Medicine Association and the Taiwan Association of Occupational Health Nurses to be co-sponsors of the event. Industries, universities, and government discussed how to collaborate and assist industries to adopt the most up-to-date knowledge and methods in occupational health, and fulfill enforcement of the new Occupational Health and Safety Act.

TSMC believes that employees are a company's most important asset, and promoting the physical and mental health of workers as well as creating a happy workforce is a company's responsibility. TSMC has worked for a long period of time to build a friendly workplace, protect its employees' safety and health, promote gender equality, and raise worker effectiveness. At the same time, TSMC's employees have also shown their dedication to the Company and boosted TSMC's competitiveness by doing so. This mutual support truly exemplifies TSMC's core value of "commitment". By creating an opportunity, such as Labor Health Forum, for experience sharing and dialogue between industry, government, and scholars, TSMC aims to improve its health management and provide a healthier working environmental for all workers.

Around 300 managers, experts, scholars, and professionals from government agencies, universities, and business attended the Fourth Forum on Workers' Health

6.6 Social Participation

6.6.1 TSMC Education and Culture Foundation

The TSMC Education and Culture Foundation (TSMC Foundation) is led by TSMC Vice Chairman F.C. Tseng, who serves as the Foundation's Chairman. Established in 1998 to coordinate the Company's financial sponsorship as part of its efforts in corporate social responsibility, The Foundation devotes its resources towards education, promotion of art and cultural events, community building, and the employee Volunteer Society.

In 2014, the TSMC Foundation contributed NT$64 million to its long-term projects. A highlight of the year was the grand opening of the Children Arts Center, in cooperation with the TSMC Foundation and the Taipei Fine Arts Museums. The space is the very first collaboration in children's arts promotion between the Taipei City Government and private enterprise.

The TSMC Foundation devotes resources in various scientific educational projects, which includes continual support of the Center for the Advancement of Science Education (CASE) at Taiwan University to sponsor the "TSMC Cup –Scientific Story Telling Competition." This year competition topics included Taiwan social issues first time. The completion not only inspires high school students' interest in science and strengthens their communication ability; it also encourages young people to care for the community and society.

The TSMC Foundation supports the TSMC Volunteer Society, organizing employees to help victims of disasters, such as the Kaohsiung Gas Explosion, and the underprivileged in their communities.

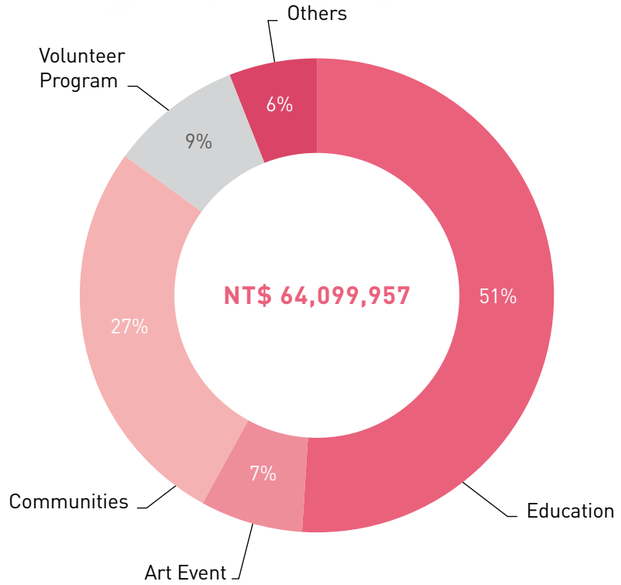
Issues of Concern for the TSMC Foundation and Our Four Commitments

TSM C is dedicated to being a leading Taiwan corporate citizen and is an active sponsor of education and cultural activities. To maximize the impact of our contributions, TSMC established the TSMC Education and Culture Foundation (the TSMC Foundation) in 1998. Currently, F. C. Tseng, TSMC Vice Chairman, serves as the Chairman of the Foundation, which pioneered various projects to provide our resources to society.

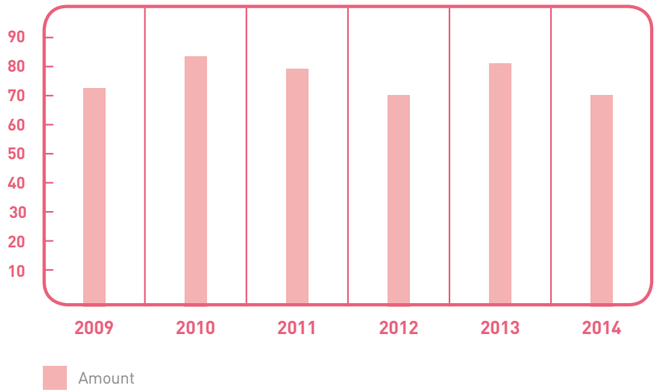
The TSMC Foundation's main concern is education, as we believe education is the most basic and important foundation for a nation. Nurturing talent requires cultivation of both professional knowledge and knowledge of arts and humanities. Therefore the TSMC Foundation fulfills its long-term commitment to education and culture through four main focal points: Developing Talent, Promotion of Arts and Literature, Community Building, and the Volunteer Program.

The TSMC Foundation also established a website to offer the public online lectures, information on activities, and details of the Foundation's projects.

Sponsorship by the TSMC Foundation in 2014



■ **Sponsorship by TSMC Foundation 2009~2014** Unit: NT$ Million



a. Commitment to Education

Education is the most important priority for the progress of a nation. The TSMC Foundation tailors its various programs to target a whole range of education needs at different age levels. As a leader of Taiwan's knowledge-based industry, TSMC regards cultivating talented people for society as a core responsibility. Thus, the TSMC Foundation tailors various programs to target a whole range of education needs at different age levels.

The Primary-School Level — Narrowing the Gap in Educational Resources between Rural and Urban Areas and Promoting Arts Appreciation

As society changes rapidly, the gap between rural and urban areas in educational resources is growing wider. The TSMC Foundation continues to invest resources in various education programs. By sponsoring the "Hope Reading Program" donating books to the schools in remote townships, supporting the Boyo Foundation providing after school assistance for underprivileged elementary and middle school children, and holding the "TSMC Aesthetic Tour" and "TSMC Science Tour" taking children to the art museums and science museums, the Foundation hopes to narrow the gap and ensure that our children all have an equal chance to be well-educated.

- **TSMC Aesthetic Tour, TSMC Science Tour, and TSMC Children's Art Education Center**

  The TSMC Foundation has always placed equal emphasis on inspiring children's interest in arts and in science. The Foundation launched the TSMC Aesthetic Tour in 2002, and the TSMC Science Tour in 2010.

  To bridge the urban-rural gap, the "TSMC Aesthetic Tour" and "TSMC Science Tour" take children from remote townships to visit the National Palace Museum, Taipei Fine Arts Museum, National Taiwan Science Education Center, National Museum of Natural Science, and National Science and Technology Museum. Over the last 11 years, more than 91,000 students from remote townships have participated in these tours to cultivate their appreciation of art and experience the fascination of science.

The Foundation's long-term contribution to promoting arts has been recognized by the Taipei Fine Arts Museum (TFAM). In 2009, the TFAM invited the TSMC Foundation collaborate in the construction of "the Children's Art Center." Following six years of dedicated efforts by its architects, the center was inaugurated on Children's Day in 2014. Located in the basement of the Taipei Fine Arts Museum, the Children's Art Education Center is a learning space dedicated to kids 4 to 12 years old and their families. This "museum within a museum" occupies 2,000 square meters of space, and offers an integrated, comprehensive range of services, including a gallery, an Interactive Area, studios, and an outdoor plaza. The opening exhibition, "The Gift," and the following exhibition "Get Rhythm with Paul Klee" have received overwhelmingly positive responses. Since its opening, the Center has had over 158,000 visitors. The Children's Art Education Center will operate in the name of the TSMC Education and Culture Foundation and Taipei Fine Arts Museum for a period of five years, bearing witness to our collaborative achievements, and conveying the Center's intention to harness the energies of many areas of Taiwan to further the goal of art education.

Get Rhythm with Paul Klee Interactive Exhibit and Workshop Series

In addition to building the Children's Art Education Center, the TSMC Foundation sponsored TFAM to hold the interactive exhibit and workshop series "Get Rhythm with Paul Klee." This exhibit is collaboration between TFAM and the Kindermuseum Creaviva at the Zentrum Paul Klee in Bern, Switzerland. Through hands-on involvement in a series of interactive installations, young visitors will explore the creative elements in the art of Paul Klee, one of the greatest artists of the 20th century, and use their imaginations to their hearts' content.

Born in Switzerland in 1879, the German artist Paul Klee was not only a great painter, but a poet and musician too. His art revealed extreme sensitivity to the expression of colors. With his brush he produced a uniquely childlike form of expression. His lifetime of artworks has inspired countless artists, profoundly influencing art from the 20th century to today. This series of interactive exhibits and workshops takes the painting elements of Paul Klee, including lines, colors, music, rhythm and symbols, and presents the creative themes, materials and techniques that often appear in Klee's art. Through play installations with a high degree of participation, visitors 4 to 15 years old can personally experience the artist's way of thinking and creative process. By walking in the footsteps of Paul Klee, we invite you to feel the musical nature of painting.

The High School Level — Nurturing Science and Humanities

At the high school level, the TSMC Foundation emphasizes the need for a balanced education in both science and the humanities. The Foundation holds scientific contests, science talent camps, and activities in the humanities with innovative and versatile campaigns for cultivating young peoples' potential in science and appreciation of the humanities.

- **TSMC Cup Scientific Story Telling Competition**

Reading is critical for studying study science, and writing as well as oral presentation are essential skills for scientific intellectuals. To achieve those educational ideals, the TSMC Foundation sponsored the Center for Advanced Science Education at National Taiwan University to hold the TSMC Cup Scientific Story Telling Competition, the first competition in scientific story telling by incorporating 4 major skills of listening, speaking, reading and writing into one innovative contest.

The TSMC Cup Scientific Story Telling Competition is targeted at young people aged 15 to 18 nationwide to inspire their interest in science and to train them to deliver short talks on scientific concepts and knowledge. With the support of the TSMC Foundation, the contest has expanded to various local areas, combined with training workshops, with professional personnel and scholars directly instructing contest participants, giving this competition greater educational depth.

This year the topic of the competition was focused on "Food" to echo Taiwan's recent food safety issues. Through the different stages of the Competition, including reading professional literature regarding food and agriculture development, writing essays on their reading, and delivering a short scientific talk, contestants from senior high schools both build their capacity for logical thinking, argumentation, and presentation skills, and also learn about topics of concern in society.

• Scientific Talent Camps

To nurture talented young scientists, the Foundation continued to sponsor the Wu Chien-Shiung Science Camp, the Wu Ta-Yu Science Camp, and the Madame Curie Chemistry Camp. These camps provide talented students with the opportunity to hold discussions with world-class scientists with the goal of inspiring students and helping them realize their potential.

2014 was the seventeenth anniversary of the Wu Chien-Shiung Science Camp. In this year the camp invited two Nobel Prize winners, Prof. Yuan Tseh Lee and Prof. Ada Yonath, along with two members of the National Academy Science, Prof. Xiang Zhang and Prof. Louise T. Chow. Four world-class scientists in the fields of chemistry, biology, astronomy and physics spoke to 125 gifted youths from all countries in Asia and 38 science teachers for one week.

The central theme of the 13th Wu Ta-you Science Camp's this year was "Extreme Science: Exploring Unknown Environments". Five distinguished scholars in physics were invited as master speakers, including Prof. Ho-Kwang Mao (Senior Staff Scientist, Geophysical Laboratory, Carnegie Institution of Washington) , Prof. Maw-Kuen Wu (Academician, Academia Sinica), Prof. Shih-Chang Lee (Academician, Academia Sinica), Prof. Cheng Chin (Professor, University of Chicago), and Prof. Chi-Chang Kao (Professor and Director, SLAC National Accelerator Laboratory, USA). In addition, eight professors from domestic universities also attended the camp to share their research experience and to give an introduction to the current status of extreme science research in Taiwan. The program included a keynote speech, several master lectures and discussion sessions, introductions to domestic research activities, brain storming, introduction to frontier topics, and a talent show.

A total of 89 senior undergraduate or 1st year graduate students from Taiwan, Hong Kong and Mainland China attended this camp. In addition, four high school teachers also participated. We hope these activities will give these students and teachers an invaluable opportunity to get in contact with distinguished masters as well as the chance to interact with each other.

This year the Foundation continued to sponsor the Madame Curie Chemistry Camp. A total of 120 students and 30 science teachers from senior and junior high schools gathered to listen to speeches by top-notch experts to inspire their interest in chemistry.

• Raising the Level of High School Physics Experiments

Since 2010, the TSMC Foundation has sponsored the Wu Chien-Shiung Foundation in collaboration with the Ministry of Education to carry on the project "Raising the Level of High School Physics Experiments."

"Raising the Level of High School Physics Experiments" is comprised of two major parts. The first is to establish a full series of high school physics experimental kits, which are licensed copies based on training materials for the International Physics Olympiad. These experimental kits serve as an important database for high school physics education. The second part is to hold a camp for science teachers. With the assistance of the Ministry of Education, we recruit science teachers to participate in the science camp during summer and winter vacations. One week's training offers science teachers a chance to enhance their teaching skills and experimental abilities. As of the end of 2014, the program has provided professional development for 350 science teachers from 139 schools.

• TSMC Literature Award and Youth Calligraphy Competition

In addition to cultivating science talents, the Foundation also holds activities in arts and literature for Taiwan's youth. Among our cultural activities, the "TSMC Youth Literature Award" has been the most influential in Taiwan society. Since the award was instituted in 2004, 2,567 novels, 2,740 poems, and 257 book reviews (only in the first year of the competition) were entered in this competition. The submitted works have become more sophisticated and diverse each year. Numerous former winners continue to gain prizes in other competitions and submit new works to newspapers and magazines.

The art of calligraphy is a distinguished legacy of Chinese culture. To preserve this art in the modern era of technology, the TSMC Foundation encourages young people to learn calligraphy and continue this artistic tradition. In addition to the contest, the Foundation also organized various campaigns to cultivate student and public appreciation of calligraphy. This year the Foundation invited students to experience the art of carving. The Foundation also continued to bring educational resources in calligraphy to campuses, holding three workshops to showcase the history and modern application of this traditional art. The TSMC Foundation hopes to encourage younger generations to appreciate traditional Chinese art through calligraphy.

College Level — Supporting the Underprivileged

At the college level, in addition to endowing chair professorships to enhance academic research at Taiwan universities, the TSMC Foundation for the first time sponsored the "Rising Sun Plan" of National Tsing Hua University. To address the unbalanced allocation of educational resources caused by the gap between rich and poor communities, this plan provides underprivileged students a chance to enter the top-notch university with lower grade limits and scholarships.

b. Promotion Arts and Chinese Classics

The TSMC Education and Culture Foundation is devoted to the promotion of arts and culture. Over the years, the Foundation has pioneered several innovative approaches and received positive feedback from the public, prompting many companies to join our efforts.

Continuing to promote Chinese Classics and philosophies, this year Professor Hsin Yih-yun introduced Mo-tzu's philosophy of universal love to radio audiences following his discussions of The Analects by Confucius and The Writings of Chuang-tzu.

- **The Chinese Classic Broadcasting Program "Mo-tzu in Hsin's View"**

  The TSMC Foundation has a long-term commitment to promoting Chinese traditional classics. By presenting lectures, producing broadcasting programs and publishing audio books, the Foundation revives the classics, enabling audiences to easily understand traditional Chinese philosophy and wisdom. Among these projects, the broadcasting programs produced by Professor Hsin Yih-yun, are extremely popular and have gained much attention from Chinese audiences all over the world. Following The Analects by Confucius and The Writings of Chuang-tzu, this year Professor Hsin introduced Mo-tzu, whose thought was as important as Confucius' during the Chinese Spring and Autumn Period. Through his rich knowledge and vivid examples, Professor Hsin delivered Mo-tzu's philosophy of promoting diligence, thrift, and universal love to the public. TSMC's six-year consecutive support of the broadcasting program shows the Company's commitment and endeavors toward promoting classical Chinese philosophy.

TSMC Lectures on the Humanities

The TSMC Foundation supports lectures in arts and literature in innovative ways. By inviting leading scholars to hold lectures in unique settings, the Foundation hopes to draw the audience's attention to the classics in an interactive and interesting way. Furthermore, this year the Foundation recorded the classes and has offered them for viewing on its website.

- **Literary Lectures and the Taipei Story House Literature Salon**

  The Foundation also held innovative lectures in unique settings to narrow the gap between the audience and the speakers and let the audience feel the appeal of the Classics. The Essays and Criticism (Shi Shuo Hsin Yu) Lectures delivered by Professor Hsin were conducted in the form of tea banquets to let participants feel the atmosphere of the oriental salon. The Foundation also invited Professor Li Hon-chi, Emeritus Professor of New York University, to give the audience a taste of the Renaissance Era in a coffee shop.

  The Foundation also continued to sponsor the Taipei Story House's Literature Salon. Through regular book readings by authors, the spirit of the humanities has been instilled in the physical structure of this heritage site. These events allow artists and writers to come together in old homes filled with history. They have also given the edifice itself a new lease on life.

c. Community Building through Arts

The Foundation has long played the role of spreading the seeds of fine art to the community through ongoing arts events. At TSMC's site communities in Hsinchu, Taichung and Tainan, the Foundation annually organizes the "Hsinchu Arts Festival" to present a broad spectrum of performances for the residents.

The opening concert of the 2014 Hsinchu Arts Festival was a piano recital by Sir András Schiff, one of the most important pianists in the world, who chose Hsinchu City for his Taiwan debut and whose recital drew attention from classical music lovers across Taiwan. The Festival, with the permission of Sir András Schiff, arranged and recorded a master class for music students.

After introducing Peking Operas, Kun Operas, Bangzi Operas, Nankuan, and Liyuan Operas, the Festival invited Tang Mei-yun Taiwanese Opera Company for the first time to present the New Taiwanese Opera "Ballad of the Swallow." Different from the traditional stories of Chinese Three Kingdom Era, the "Ballad of the Swallow" is filled with literary depth as well as careful and vivid sketches of characters 'mental profiles. Enjoying this marvelous Taiwanese opera, Hsinchu and Tainan audience were taken back to the ancient Three Kingdoms Era. For families, the Festival invited the renowned puppet company, O Puppet, to present "The Happy Prince." The Happy Prince", based on the famous work of the same title by Oscar Wilde, used a sophisticated turning stage and delicate and poetic puppeteering skills to tell a warm and touching story to the audience. For literature devotees, the Foundation invited three editors and writers, Chen Wan-I, Lu Han-sei, and Lee Jui-teng, to arrange literature tours, which guided the participants to discover the literary sides of our home towns. The Festival arranged over 30 activities over its three months—from concerts, traditional operas and lectures, to family-oriented activities, presenting a fascinating spiritual feast for Hsinchu, Taichung and Tainan.

6.6.2 TSMC Volunteer Program

Long-term Commitment to Chosen Service Themes

TSMC values corporate citizenship, and our Volunteer Program, under the leadership of Sophie Chang (Su-feng Chang), persists in the objective of "long-term commitment to chosen service themes," and encourages our employees to participate in volunteer activities with joy and wisdom. Through volunteer activities, we hope to lead the way for our employees to strike a fulfilling balance between their work and life.

The TSMC Volunteer Program coordinates many forms of volunteer services. Employees of our company and our affiliated companies, as well as their family members, are invited to participate in related activities under the Program, including the TSMC Volunteer Docent Program, TSMC Books Reading Volunteer Program, TSMC Energy Saving Volunteer Program, TSMC Community Volunteer Program, TSMC Ecology Volunteer Program, and TSMC Fab/Division Volunteer Program.

- The TSMC Volunteer Docent Program recruits employee volunteers to serve as docents on weekends and holidays at the "World of Semiconductors" exhibition hall in the National Museum of Natural Science, Taichung. They introduce semiconductor science and technology to museum visitors in a way that is easy to understand. As of 12/31/2014, a total of 5,660 volunteers have taken part in this program, accumulating more than 60,219 hours.
- TSMC Book Reading Volunteers read stories to students in remote elementary schools in Hsinchu, Taichung and Tainan. Stories and books are supplements for limited educational resources in these rural areas, expanding the children's minds, ideas, and thoughts. Since 2004, the program has recruited 2,444 volunteers, accumulating a total of over 39,045 hours of reading to more than 14,435 students.
- TSMC Energy Saving Volunteers are formed by employees with expertise in energy conservation, which they use to help assess

energy-saving solutions for schools and provide suggestions on possible improvements. Their services cover schools in Hsinchu, Taichung, Tainan and Penghu. In 2014, the volunteers also supported a large-scale teaching hospital, National Cheng Kung University Hospital, for the first time, by providing suggestions on electrical safety and energy saving. At present, the team consists of 52 energy saving experts who strive to preserve the limited energy that the earth has to offer.

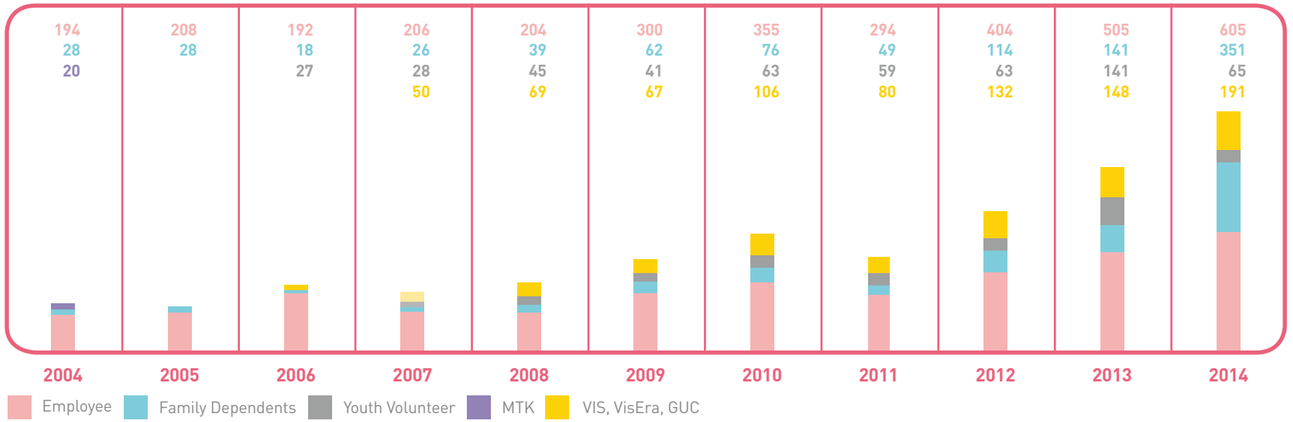
- TSMC Community Volunteers regularly visit the elderly at the Hsinchu Veterans Home and the children at the St. Teresa Children's Center. This program has recruited more than 1,494 volunteers, accumulating a total of over 16,760 service hours.
- TSMC Ecology Volunteers serve the Taichung Fab 15 Ecology Park, Tainan Jacana Ecology Education Park, and the Hsinchu Fab 12B Ecology Park. They invite students from remote schools to take ecological tours and educate them about indigenous Taiwan plant and animal species. In 2014, a total of 472 volunteers have donated their time to the cause of environmental protection.
- TSMC Fab/Division Volunteers are devoted to causes such as environment protection, promotion of energy consumption reduction, caring of the disadvantaged, promotion of education, help for farmers and workers, and charitable donation on the Fab/Division level.

6.6.2.1 TSMC Volunteer Docent Program: Promoting Science Education

Volunteers from the Docent Program provide services for "The World of Semiconductors" exhibition at the Taichung Museum of Science. They lead visitors on tours of the exhibition. With their lively introductions, visitors can better understand the significance of semiconductors and how they have help build the world in which we live in. The docents' enthusiasm and professionalism have been highly praised by visitors; the group has continuously been recognized as an "Outstanding Volunteer Team" by the National Museum of Science.

In addition, our Volunteer Program invited the Hope Workshop, which is affiliated with the Taichung Private Soundhome Integrated Intelligence Development Center, to launch the "Happy Life Pass Card" for "The World of Semiconductors" exhibition. This project is expected to provide jobs for the hearing impaired and give them a chance to start an independent life.

TSMC Volunteer Docent Program Accomplishments Total volunteers: 5,660 Total service hours: over 60,219 hours



Note: In 2004, Mediatek Inc. was invited to join the TSMC Docent Program after donating a facility for exhibitions. Twenty Mediatek volunteers joined the program in 2004.

6.6.2.2 TSMC Books Reading Volunteer Program: Spreading Seeds of Knowledge

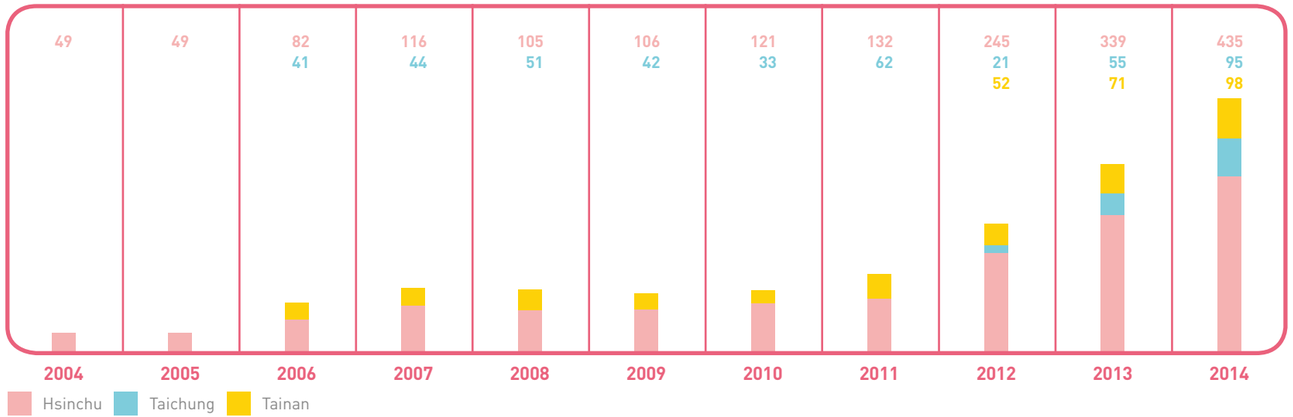
The TSMC book reading volunteer program is made up of employees and their families. In alliance with the CommonWealth Group, volunteers read books sponsored by the Hope Reading Program to students of elementary schools and encourage them to make the most of the learning resources available.

Besides reading stories in both Chinese and English, volunteers engage students in other interactive activities to stimulate the students' interest in reading. For example, the volunteers prepare plays for special holidays to combine reading with everyday life, so that the children will see reading as part of their life.

The volunteers' selfless work is greatly appreciated by the schools and the children. Since the establishment of our Book Reading Volunteer Program ten years ago, TSMC Volunteer Program has strived to improve the book reading service in remote areas and build a habit of reading. In 2014, we have hired disabled people as "Community Service Representatives" to organize the libraries of the schools we serve, assist with book lending services, and make learning worksheets for children. This practice not only provides employment opportunities for the disabled, but also develops reading habit for the students when there is no story-telling service.

As of 2014, we have provided services to 8 remote schools.

TSMC Book Reading Volunteer Program Accomplishments Total volunteers: 2,444 Total reading hours: over 39,045 Students served: over 14,435



Volunteers serve as docents at the "World of Semiconductors" exhibition hall in the National Museum of Natural Science, Taichung

Book reading activities in Lu-Fong elementary school

6.6.2.3 TSMC Energy Saving Volunteer Program: Loving and Preserving the Earth

TSMC recruited employees with expertise in energy conservation to start the Energy-Saving Volunteer Program, and has provided schools in the Hsinchu, Taichung, and Tainan areas with professional consulting services. Through inspection and communication, the team helps to develop energy-saving plans for schools to improve energy efficiency.

As of 2014, TSMC Energy Saving Volunteer Program has devoted more than 1,000 hours in serving schools in Hsinchu, Taichung ,Tainan, and Penghu in need of energy conservation. Acting with the ideas of "love the Earth with environmental protection, take care of Taiwan with energy conservation", the energy saving volunteers also traveled to the Penghu University of Science and Technology, which is located on an island lacking many natural resources. Highly affirmed by the school for their great attitude, excellent performance and professional abilities, the energy saving volunteers will continue to contribute to the society by directly serving schools. 2014 also marked the first time the volunteers supported a large-scaled teaching hospital, the National Cheng Kung University Hospital, by providing suggestions on electrical safety and energy saving.

The energy-saving program helps to develop energy-saving plans for schools

6.6.2.4 TSMC Community Volunteer Program: Caring for the Disadvantaged

TSMC Community Volunteers focus on serving the elderly of the Hsinchu Veterans Home and the children of the St. Teresa Children Center, and hold regular activities to closely connect the elderly veterans, children and volunteers. So far, a total of more than 1,913 volunteers have participated, and they have served more than 18,976 hours.

Volunteers at Hsinchu Veterans Home: Volunteers visit the elderly at the Hsinchu Veterans Home regularly with two separate themes:

- **Glee Club:** The volunteers design activities that do not require much action for the elderly with disabilities in the health care center of the Veterans Home. They sang for the elder veterans, interacted with them through games, or invited them to sing karaoke together and let the joy spread through cheerful melodies.
- **Art Workshop:** In the art workshops, the volunteers and the elderly participate in interesting art projects such as rock painting. In 2014, volunteers held an art workshop to teach participants how to handcraft photo albums. Seniors both enjoyed the experience of creating art and also grew closer with our volunteers while working on the projects and chatting.

Volunteers at St. Teresa Children Center: Volunteers visit the Children Center and give the children timely care and companionship. They participate in activities including:

- **One-on-one Care:** On the monthly "St. Teresa's Family Day," volunteers spend the weekend with children. Sometimes they go on a weekend tour, while other times they stay at the Children Center and study together.
- **Health Education Seminars:** Our Volunteer Program specially cooperates with the National Taiwan University Hospital in planning interesting health education courses for the St. Teresa Children's Center. The entertaining courses provide the kids with more information about health, dental care and other health issues.

At one Holiday Volunteer activity held in July 2014, TSMC Community Volunteers invited the children they served through Book Reading Volunteer Programs in Hsinchu, Taichung, and Tainan to a day of fun-filled day of activities at the "Lihpao Land" theme park, spending a wonderful Saturday together. In 2014, there were 375 volunteers working closely with children and the elderly through regular activities.

2014 TSMC Community Volunteer Program Training Camp

Art Workshop Event at Hsinchu Veterans Home

6.6.2.5 TSMC Ecology Volunteer Program: Prompting Environmental Preservation

TSMC is devoted to the protection of our environment. We reserve land for ecological projects at every new fab, and apply multilevel ecological engineering methods which include planting native tree species and bird/butterfly-attracting plants, providing habitats and foraging places for animals. These are aimed at creating an environment and protecting the environment around the fab.

The TSMC Ecology Volunteer Program recruits employees who are highly interested in ecological environments to introduce rich eco-environment knowledge to children and adults from rural villages and neighboring areas. The ecology volunteers have contributed much effort to environmental protection. Our service locations are listed as follows:

- **Taichung Fab 15 Ecology Park Docent:** In 2014, 107 employees participated in this group, and we invited more than 150 students and teachers from five elementary schools to visit our ecology park in Taichung.
- **Hsinchu Fab 12B Ecology Park Docent:** With 181 employees joining the group, we invited more than 300 students and teachers from twelve elementary schools to visit our ecology park in Hsinchu.
- **Tainan Jacana Ecology Park Docent:** Our Volunteer Program recruited 184 employees and their family members to serve as volunteer docents at the Jacana ecology education park on weekends and holidays. In addition, we recruited disabled people who are interested in photography or talented in fine art as "Community Service Representatives" and stationed them in the Tainan Jacana Ecology Education Park to keep an image record of Jacana repopulation and create teaching tools for ecology.

Eco docents introduce rich eco environment and knowledge to children from neighboring schools

6.6.2.6 TSMC Fab/Division Volunteer Program

Employees have devoted their efforts to various welfare activities on the Fab/Division level for causes such as environment protection, promotion of energy conservation, caring for the disadvantaged, promotion of education, help for farmers and workers, and charitable donation.

- **Environment Protection**
  In 2014, besides making our manufacturing facilities' ecological surroundings a teaching material for environmental protection, we invited schools and disadvantaged groups to visit. The volunteers held a charity bazaar selling water chestnuts from the Guantian Jacana Park, and used the earnings to fix and replace telescopes in the park in order to improve the quality of the eco-tours. In Tainan, the volunteers helped reactivate the water purification plant on Monuments Mountain and held cultural and environmental tours, bringing a new life to the historical site.
- **Energy and Water Conservation**
  We organized interactive and interesting field trips for students from the schools near downstream of Zeng-wen Dam to promote water conservation. In addition, we held seminars on energy consumption and power reduction to share our knowledge, green building technology, and energy saving accomplishments. Through these efforts, we hope to protect our environment together with other corporations.
- **Caring for the Disadvantaged**
  Volunteers helped to repair and maintain the old houses of people in need, provided daily suppliers and necessities, and offered warm companionship. In 2014, the employees provided used cameras for children living in remote areas, led them to see the world in a different way through the camera lens. Volunteers also donated

school lunch fees to children in Kuskus tribe, and helped promote the culture of old ballads. They also supported the Hui-Ming School for the Blind and an underprivileged baseball team. One project led students from the St. Francis Xavier Home for Girls to learn skills, and developed their interests in handicrafts and baking. Employees of the Company are dedicated to giving a hand to helpless people for them to move toward a brighter future with dignity.

- **Promotion of Education**

  TSMC employees devoted their time to education; they have guided studying programs at Fu-Xing Elementary School in a remote area of Hsinchu County. Volunteering workers have also spread the seed of education further to Xi-Wei Elementary School. The volunteers donated books and collected second hand books in hope of inspiring the children's interest in reading. They also provided school work guidance to strengthen learning.

- **Help for Farmers and Workers**

  In 2014, TSMC volunteers helped low-income farmer's process water bamboo shoots and stringing oysters for sale, and collaborated with the Formosa Charity Group to build dorms and classrooms and orphanage. Volunteers also raised funds and resources to repair an abandoned elementary school, making the renovated space able to accommodate more people in need.

- **Charitable Donation**

  Charity bazaars and group purchases were held in fabs periodically and, in the belief that even a small donation will make a difference, the accumulated profits were donated to charities. For instance, employees purchased goods from charities as mid-autumn festival gifts, and the revenue was donated to the Hui-Ming School for the Blind. We also funded a shuttle bus for the Syin-Lu Social Welfare Foundation, providing disabled children better transportation.

Volunteers helped reactivate the water purification plant on Monuments Mountain and held cultural and environmental tours in Tainan

6.7 Social Dimension Special Topics

6.7.1 TSMC i-Charity

"TSMC i-Charity" is an interactive online platform launched in 2014 for employees to proactively take part in philanthropic activities and give back to the society. This website on our corporate intranet provides a channel for TSMC employees to propose charity projects, share results, and suggest new ideas in a timely manner.

The website was officially launched in January 2014, and became fully operational in March with a feature that enables employees to voluntarily participate in philanthropic events directly via the platform.

As of December, 2014, over NT$18 million in contributions were received from over 9,000 participating employees. The following table shows the detailed information:

Project Title	Participating Employees	Contribution Amount
Share Love and Support for the Underprivileged To Visit Taiwan Pavilion in Hsinchu (Time-Limited Project)	82	NT$ 44,800
Realize the Miracle of Cheng Te High School's Baseball Team	2,446	NT$ 2,941,888
Support the Recovery of Kaohsiung after Gas Explosion	6,664	NT$ 15,295,755

Note: The goal of the time-limited project was completed within an hour after its launch; the contributions were used to purchase tickets to the Taiwan Pavilion for the elderly at the Hsinchu Veterans Home and the children at the St. Teresa Children Center.

With this interactive platform, TSMC hopes to maintain its commitment to society, and encourages its employees to join efforts to care for and give back to society in every ways possible.

6.7.2 Kaohsiung Gas Explosion Reconstruction Project

On July 31, 2014, a gas explosion occurred in a densely populated neighborhood of the South Taiwan city of Kaohsiung, causing 300 casualties. Within one week of the incident, TSMC Volunteer Society President Ms. Sophie Chang led a team of managers with relevant skills to survey the disaster area and understand the extent of damage and the resources needed in order to advise TSMC on relief efforts. Following the visit, executives responsible for corporate social responsibility immediately held a meeting to discuss how TSMC could consolidate internal and external resources to directly join the reconstruction effort, in addition to making donations.

The meeting concluded that TSMC would extend its experience from the Typhoon Morakot Reconstruction Project and use donations from the Company and its employees to work with cooperating suppliers to station personnel in the disaster area to give residents a safe living environment amid the devastation. TSMC's aim was to allow residents to safely travel to and from the disaster area and avoid further accidents. The Company also helped residents repair their homes and storefronts to allow them to return home and resume normal life as soon as possible.

To provide emotional relief, TSMC worked with the Kaohsiung Department of Education to invite 108 schoolchildren to join TSMC's "Love, Hope, and Reconstruction" summer camp to allow children who witnessed the explosion to temporarily leave their fears behind. Sixty TSMC volunteers led the students from Kaohsiung north to Taipei and Hsinchu for a happy and fulfilling three-day journey.

Volunteers first led the children to visit the TSMC Foundation sponsored TSMC Children's Art Center at the Taipei Fine Arts Museum. Ms. Sophie Chang welcomed the children at the door with warm embraces, and in the days that followed the camp allowed the children to release their anxiety and build their confidence and courage through activities such as rock-climbing, mountaineering, and a visit to an amusement park.

- TSMC Volunteer Society President Ms. Sophie Chang, spouse of Chairman Dr. Morris Chang, arrived to survey the disaster site within one week of the explosion
- TSMC Construction Personnel survey the disaster area and discuss repairs with residents
- 108 Children from the disaster area travelled north to join TSMC's "Love, Hope, and Reconstruction" Summer Camp
- A TSMC volunteer works with a student at the Summer Camp to learn about confidence and courage

To draw more resources to the reconstruction project as well as share our experience with others in the industry, TSMC accepted offers from Foxconn Group and 20 member companies of Semiconductor Equipment and Materials International (SEMI) Taiwan to participate, magnifying the impact of the project.

In the 64 days following the reconstruction team's deployment to the disaster area on August 7, TSMC worked seamlessly with its supplier partners to complete 570 meters of sheet piling, 4,383 meters of temporary roads, 695 repairs on 365 homes, 4,732 meters of safety fences, and 5 temporary bridges. The team also cared for six seniors, and examined and repaired electrical equipment for 433 households.

To ensure smooth reconstruction progress, TSMC coordinated closely with the Kaohsiung Water Resources Bureau as well as the Maintenance Office and Construction Office of the Kaohsiung Public Works Bureau. We collaboratively decided that TSMC would be responsible for "above-ground construction" outside of the safety fences, such as paving roads and laying temporary bridges. The city government would be responsible for "underground construction" inside the safety fences such as underground pipes. Under this division of labor, each party had full trust in each other to carry out their responsibilities, with the interests of the residents as their first priority.

TSMC used its experience and professional knowledge from building semiconductor fabs, as well as its organizational ability, to conduct a thorough survey and set reconstruction goals in the shortest possible time. To effectively provide basic quality of life, to goal of our repairs was to make

victims' homes safely habitable, provide protection from the elements, and capable of operating a business. In terms of restoring traffic, we provided temporary walkways and safety measures to offer basic transportation in the disaster area.

After completing the initial "first aid" stage of reconstruction and handing the project to Kaohsiung City Government, TSMC held a celebration banquet for cooperating suppliers, donor companies, and the 462 residents who received help from TSMC. The banquet marks TSMC's sincere thanks for participating companies and engineers, as well as our blessings for the people of Kaohsiung. For the convenience of the residence, the banquet was held at the Kaohsiung San Sin High School of Commerce and Home Economics located in the disaster area, and 90 students from the Departments of Tourism and Food and Beverage Management to serve the 80 tables of the festive event.

At the conclusion of the project, we were honored with the thanks of the residents and acclaim from society. The cost of the project totaled NT$80 million, with funding from TSMC employees through the "TSMC i-Charity" platform, TSMC's corporate donations, and support from other companies. All uses for the funding and construction progress were available on a regularly updated website for open and transparent review.

■ Kaohsiung Gas Explosion Relief Project Budget Details

Unit: NT$

Items	Spending
Damaged House Repair	25,668,789
Steel Sheet Pile	4,783,880
Construction Fence	8,433,288
Temporary Road Construction	19,230,590
Construction Equipment	5,324,000
Site Office Rent and Miscellaneous Items	869,620
Site Cleaning and Miscellaneous Items	6,789,336
"Love, Hope, and Reconstruction" Summer Camp	1,301,714
Celebration Banquet	3,097,014
Subtotal	75,498,230
Total (5% tax included)	79,273,141

Lessons from the Reconstruction Team

- The first priorities of disaster relief are efficiency and empathy with the victims. Disaster responders must constantly keep in mind how to reduce the victims suffering in the shortest amount of time.
- Methods are important in disaster relief. Once our team surveyed residents for their willingness to accept repairs, they immediately selected several typical cases to serve as examples, and concentrated efforts to get results as soon as possible to persuade other residents to join. To win the trust of the residents, TSMC also arranged technicians to provide on-the-spot window repairs to build relationships with the residents. In addition, to help residents gain assistance from TSMC as soon as possible, the reconstruction team established an office in the disaster area. This not only helped the team manage their operations, it also made the team convenient for residents to locate, building trust and reducing their sense of helplessness.
- Discipline is critical to the success of a project. TSMC required all workers to carry out their duties and follow all worksite rules to win the respect of residents with their strict discipline.
- Disaster relief requires professionalism. TSMC's reconstruction team applied themselves to relief work with the same attitude they use to build fabs. Using home repair as an example, the responsible engineer first discusses items to repair and standards for completion with the homeowner, and then proceeds with surveying and drafting a sketch. The supporting contractor then responds with methods and time required for reconstruction within 24 hours, and completes the work within seven days. The project is closed only when the homeowner signs their consent. For financial management, TSMC stationed a certified accountant on site to conduct audits according to contractors' daily reports to verify the materials and labor hours used. Pricing negotiations are greatly simplified because the numbers are clear, and purchasing and payment process can be completed rapidly.
- Quality represents the value of disaster reconstruction. Only with high-quality engineering can a project leave a positive legacy. Managers should carefully evaluate not only materials, attention to detail, and quality of completed work, but also methods of construction.

Before and after photos of reconstruction of residences on KaiXuan Road and SanDuo Road

Before	After
	
	
	

KaiXuan Road

SanDuo Road




Arthur Chuang, Director of the 300mm Fabs Facility Division, thanks engineers from cooperating suppliers for their participation

The 80-table celebration banquet was held in the lecture hall of San Sin High School of Commerce and Hope Economics

TSMC Volunteer Society President Ms. Sophie Chang (middle) offers a bouquet of flowers to two TSMC engineers stationed at the reconstruction site to thank them for their work of nearly two months

TSMC Volunteer Society President Ms. Sophie Chang leads executives of Foxconn and SEMI members from Japan on a tour of reconstruction progress

WATCH VIDEO

TSMC combined internal and external resources to fully support the reconstruction from the Kaohsiung gas explosion.

7 | Appendix

■ TSMC CSR Performance Summary

Key Indicators		2010	2011	2012	2013	2014
Economic	Revenue (Billion NT$)	420	427	507	597	763
	Net Income (Billion NT$)	162	134	166	188	264
	Income Tax Expense (Billion NT$)	8	11	16	27	38
	R&D Expenditures (Billion NT$)	30	34	40	48	57
	Capital Expenditures (Billion NT$)	187	214	246	288	289
Environmental	Greenhouse Gas Emission (Tons CO_2 equivalent/8" Equivalent–Layer)	0.0096	0.00978	0.00937	0.00885	0.00862
	Greenhouse Gas Emission (Tons CO_2 equivalent)	3,748,333	3,996,631	4,606,119	5,222,778	6,356,130
	Scope 1	1,491,030	1,375,110	1,563,306	1,716,174	2,113,858
	Taiwan Sites	1,175,625	1,051,254	1,291,662	1,443,218	1,655,498
	Overseas Sites	315,405	323,856	271,644	272,956	458,360
	Scope 2	2,217,794	2,580,521	3,042,814	3,506,970	4,242,258
	Taiwan Sites	2,048,718	2,345,625	2,738,598	3,211,022	3,939,172
	Overseas Sites	208,586	275,898	304,216	295,948	303,086
	Energy Consumption (TJ – including electricity, nature gas and diesel)	16,161	18,374	21,019	23,773	28,701
	Direct Energy Consumption (TJ – including nature gas and diesel)	1,016	1,159	1,194	1,349	1,539
	Indirect Energy Consumption (TJ – electricity)	15,145	17,215	19,825	22,424	27,162
	Water Consumption (Million m^3)	24.8	27.5	29.2	33.2	38.2
	Taiwan Sites	22.3	24.3	25.8	29.7	34.9

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Key Indicators		2010	2011	2012	2013	2014
Environmental	Overseas Sites	2.5	3.2	3.4	3.5	3.3
	Process Water Recycling Rate (Taiwan Sites) (%)	82.9	84.6	86.5	86.8	87.6
	Process Water Saving (Taiwan Sites) (Million m^3)	34.2	37.7	53.4	52.7	56.2
	Waste Generated (Metric Tons)	89,535	97,980	129,921	149,951	208,211
	General Waste Generated (Metric Tons)	27,451	29,270	37,459	47,336	66,462
	Taiwan Sites	24,688	25,523	33,158	42,180	61,026
	Overseas Sites	2,763	3,747	4,301	5,156	5,436
	Hazardous Waste Generated (Metric Tons)	62,084	68,710	92,462	102,615	141,749
	Taiwan Sites	61,243	67,588	90,596	101,100	140,022
	Overseas Sites	841	1,122	1,866	1,515	1,727
	Waste Recycling Rate (%)	90.88	90.47	92.74	92.01	91.90
	Taiwan Sites	91.88	91.37	93.42	92.41	93.06
	Overseas Sites	67.02	68.95	79.02	78.74	79.25
Social	Numbers of Employee	33,232	33,669	37,149	40,483	43,591
	Employee Training Hours	968,457	795,448	779,442	889,184	884,174
	Safety - Injury Frequency Rate (Injury Number/Million Labor-hours) (Taiwan Sites)	0.27	0.22	0.24	0.25	0.36
	Safety - Injury Severity Rate (Lost Work Days/Million Labor-hours) (Taiwan Sites)	2.56	1.97	5.19	1.34	3.48
	Charity Donation (Million NT$)	190	152	76.4	95.2	99

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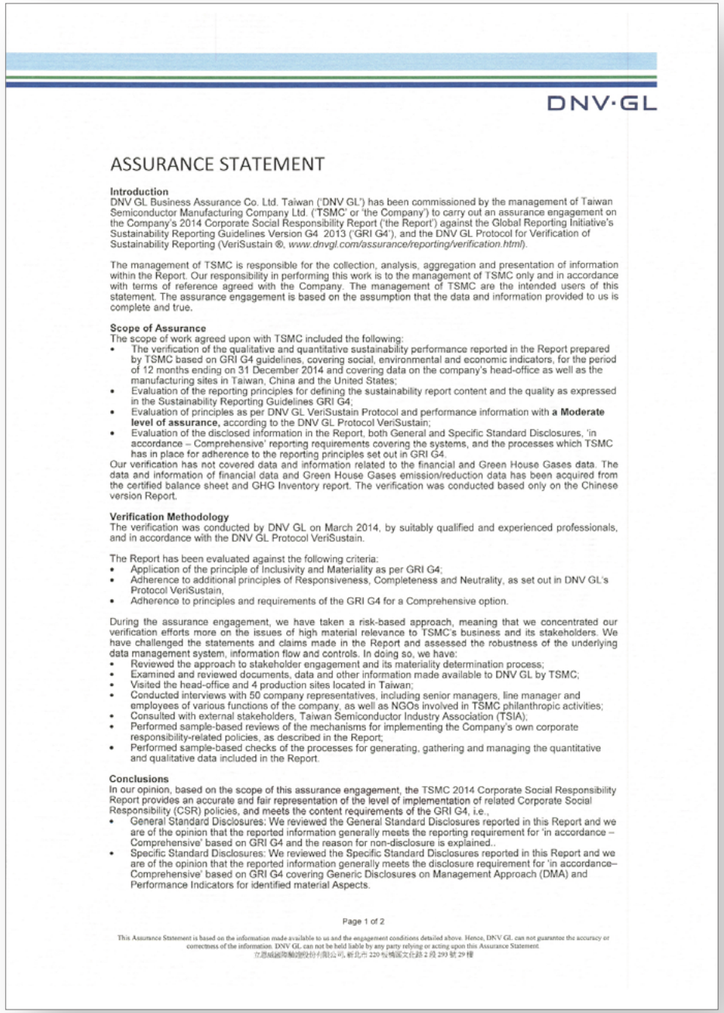


DNV·GL

ASSURANCE STATEMENT

Introduction
DNV GL Business Assurance Co. Ltd. Taiwan ('DNV GL') has been commissioned by the management of Taiwan Semiconductor Manufacturing Company Ltd. ('TSMC' or 'the Company') to carry out an assurance engagement on the Company's 2014 Corporate Social Responsibility Report ('the Report') against the Global Reporting Initiative's Sustainability Reporting Guidelines Version G4 2013 ('GRI G4'), and the DNV GL Protocol for Verification of Sustainability Reporting (VeriSustain ®, *www.dnvgl.com/assurance/reporting/verification.html*).

The management of TSMC is responsible for the collection, analysis, aggregation and presentation of information within the Report. Our responsibility in performing this work is to the management of TSMC only and in accordance with terms of reference agreed with the Company. The management of TSMC are the intended users of this statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true.

Scope of Assurance
The scope of work agreed upon with TSMC included the following:
- The verification of the qualitative and quantitative sustainability performance reported in the Report prepared by TSMC based on GRI G4 guidelines, covering social, environmental and economic indicators, for the period of 12 months ending on 31 December 2014 and covering data on the company's head-office as well as the manufacturing sites in Taiwan, China and the United States;
- Evaluation of the reporting principles for defining the sustainability report content and the quality as expressed in the Sustainability Reporting Guidelines GRI G4;
- Evaluation of principles as per DNV GL VeriSustain Protocol and performance information with **a Moderate level of assurance**, according to the DNV GL Protocol VeriSustain;
- Evaluation of the disclosed information in the Report, both General and Specific Standard Disclosures, 'in accordance – Comprehensive' reporting requirements covering the systems, and the processes which TSMC has in place for adherence to the reporting principles set out in GRI G4.

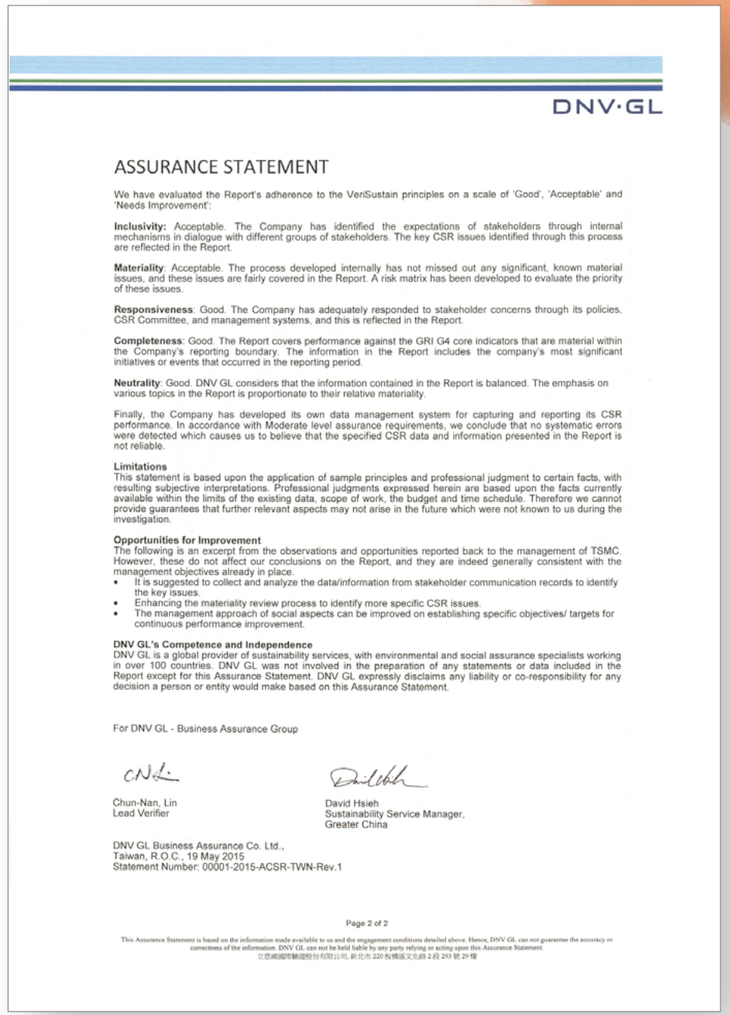
Our verification has not covered data and information related to the financial and Green House Gases data. The data and information of financial data and Green House Gases emission/reduction data has been acquired from the certified balance sheet and GHG Inventory report. The verification was conducted based only on the Chinese version Report.

Verification Methodology
The verification was conducted by DNV GL on March 2014, by suitably qualified and experienced professionals, and in accordance with the DNV GL Protocol VeriSustain.

The Report has been evaluated against the following criteria:
- Application of the principle of Inclusivity and Materiality as per GRI G4;
- Adherence to additional principles of Responsiveness, Completeness and Neutrality, as set out in DNV GL's Protocol VeriSustain;
- Adherence to principles and requirements of the GRI G4 for a Comprehensive option.

During the assurance engagement, we have taken a risk-based approach, meaning that we concentrated our verification efforts more on the issues of high material relevance to TSMC's business and its stakeholders. We have challenged the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls. In doing so, we have:
- Reviewed the approach to stakeholder engagement and its materiality determination process;
- Examined and reviewed documents, data and other information made available to DNV GL by TSMC;
- Visited the head-office and 4 production sites located in Taiwan;
- Conducted interviews with 50 company representatives, including senior managers, line manager and employees of various functions of the company, as well as NGOs involved in TSMC philanthropic activities;
- Consulted with external stakeholders, Taiwan Semiconductor Industry Association (TSIA);
- Performed sample-based reviews of the mechanisms for implementing the Company's own corporate responsibility-related policies, as described in the Report;
- Performed sample-based checks of the processes for generating, gathering and managing the quantitative and qualitative data included in the Report.

Conclusions
In our opinion, based on the scope of this assurance engagement, the TSMC 2014 Corporate Social Responsibility Report provides an accurate and fair representation of the level of implementation of related Corporate Social Responsibility (CSR) policies, and meets the content requirements of the GRI G4, i.e.,
- General Standard Disclosures: We reviewed the General Standard Disclosures reported in this Report and we are of the opinion that the reported information generally meets the reporting requirement for 'in accordance – Comprehensive' based on GRI G4 and the reason for non-disclosure is explained.
- Specific Standard Disclosures: We reviewed the Specific Standard Disclosures reported in this Report and we are of the opinion that the reported information generally meets the disclosure requirement for 'in accordance– Comprehensive' based on GRI G4 covering Generic Disclosures on Management Approach (DMA) and Performance Indicators for identified material Aspects.



DNV·GL

ASSURANCE STATEMENT

We have evaluated the Report's adherence to the VeriSustain principles on a scale of 'Good', 'Acceptable' and 'Needs Improvement':

Inclusivity: Acceptable. The Company has identified the expectations of stakeholders through internal mechanisms in dialogue with different groups of stakeholders. The key CSR issues identified through this process are reflected in the Report.

Materiality: Acceptable. The process developed internally has not missed out any significant, known material issues, and these issues are fairly covered in the Report. A risk matrix has been developed to evaluate the priority of these issues.

Responsiveness: Good. The Company has adequately responded to stakeholder concerns through its policies, CSR Committee, and management systems, and this is reflected in the Report.

Completeness: Good. The Report covers performance against the GRI G4 core indicators that are material within the Company's reporting boundary. The information in the Report includes the company's most significant initiatives or events that occurred in the reporting period.

Neutrality: Good. DNV GL considers that the information contained in the Report is balanced. The emphasis on various topics in the Report is proportionate to their relative materiality.

Finally, the Company has developed its own data management system for capturing and reporting its CSR performance. In accordance with Moderate level assurance requirements, we conclude that no systematic errors were detected which causes us to believe that the specified CSR data and information presented in the Report is not reliable.

Limitations
This statement is based upon the application of sample principles and professional judgment to certain facts, with resulting subjective interpretations. Professional judgments expressed herein are based upon the facts currently available within the limits of the existing data, scope of work, the budget and time schedule. Therefore we cannot provide guarantees that further relevant aspects may not arise in the future which were not known to us during the investigation.

Opportunities for Improvement
The following is an excerpt from the observations and opportunities reported back to the management of TSMC. However, these do not affect our conclusions on the Report, and they are indeed generally consistent with the management objectives already in place.
- It is suggested to collect and analyze the data/information from stakeholder communication records to identify the key issues.
- Enhancing the materiality review process to identify more specific CSR issues.
- The management approach of social aspects can be improved on establishing specific objectives/ targets for continuous performance improvement.

DNV GL's Competence and Independence
DNV GL is a global provider of sustainability services, with environmental and social assurance specialists working in over 100 countries. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement.

For DNV GL - Business Assurance Group

Chun-Nan, Lin
Lead Verifier

David Hsieh
Sustainability Service Manager,
Greater China

DNV GL Business Assurance Co. Ltd.,
Taiwan, R.O.C., 19 May 2015
Statement Number: 00001-2015-ACSR-TWN-Rev.1

■ GRI G4 Index Comparison Table

Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
STRATEGY AND ANALYSIS					
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	Overview; 1 Letter from the Chairman	3 13	NA	Y
G4-2	Provide a description of key impacts, risks, and opportunities.	1 Letter from the Chairman	13	NA	Y
ORGANIZATIONAL PROFILE					
G4-3	Report the name of the organization.	4.1 Company Profile	35	NA	Y
G4-4	Report the primary brands, products, and services.	4.1 Company Profile	35	NA	Y
G4-5	Report the location of the organization's headquarters.	4.1 Company Profile	35	NA	Y
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	4.1 Company Profile	35	NA	Y
G4-7	Report the nature of ownership and legal form.	4.1 Company Profile	35	NA	Y
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	4.1.2 Market/Business Summary	38	NA	Y
G4-9	Report the scale of the organization	4.1 Company Profile 4.1.5 Financial Highlights 6.1.1 Stable and Healthy Workforce	35 44 91	NA	Y
G4-10	Report the total number of employees by various categories.	6.1.1 Stable and Healthy Workforce	91	NA	Y
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	TSMC has no union, no employees covered by collective bargaining agreements.		NA	Y
G4-12	Describe the organization's supply chain.	4.2.2 Supplier Management	47	NA	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	There were no significant changes in 2014.		NA	Y
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	Overview	3	NA	Y
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	4.3 EICC Membership	56	NA	Y
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations	4.1.1 An Introduction to TSMC：Membership in Industry Associations	37	NA	Y
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES					
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents.	Overview Please refer to 2014 TSMC Annual Report: 8 Subsidiary Information and Other Special Notes.	3	NA	Y
G4-18	Explain the process for defining the report content and the Aspect Boundaries. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	2 Stakeholder Engagement	16	NA	Y
G4-19	List all the material Aspects identified in the process for defining report content.	2 Stakeholder Engagement	16	NA	Y
G4-20	For each material Aspect, report the Aspect Boundary within the organization, report any specific limitation regarding the Aspect Boundary within the organization	2 Stakeholder Engagement	16	NA	Y
G4-21	For each material Aspect, report the Aspect Boundary outside the organization, report any specific limitation regarding the Aspect Boundary outside the organization	2 Stakeholder Engagement	16	NA	Y
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	There is no restatements of information.		NA	Y
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Overview	3	NA	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
STAKEHOLDER ENGAGEMENT					
G4-24	Provide a list of stakeholder groups engaged by the organization.	2 Stakeholder Engagement	16	NA	Y
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	2 Stakeholder Engagement	16	NA	Y
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	2 Stakeholder Engagement	16	NA	Y
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	2 Stakeholder Engagement	16	NA	Y
REPORT PROFILE					
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	Overview	3	NA	Y
G4-29	Date of most recent previous report (if any).	Overview	3	NA	Y
G4-30	Reporting cycle (such as annual, biennial).	Overview	3	NA	Y
G4-31	Provide the contact point for questions regarding the report or its contents.	Contact Information	148	NA	Y
G4-32	Report the 'in accordance' option the organization has chosen, the GRI Content Index for the chosen option, the reference to the External Assurance Report, if the report has been externally assured.	Overview: Report Assurance	4	NA	Y
G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report.	Overview: Report Assurance	4	NA	Y
GOVERNANCE					
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	3.1.1.2 Board Responsibilities 3.1.4 Corporate Social Responsibility Committee	27 31	NA	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	3.1 Governance Structure 3.1.1.2 Board Responsibilities 3.1.4 Corporate Social Responsibility Committee	27 27 29	NA	Y
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	3.1 Governance Structure 3.1.1.2 Board Responsibilities 3.1.4 Corporate Social Responsibility Committee	27 27 29	NA	Y
G4-37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	2 Stakeholder Engagement 3.1.4 Corporate Social Responsibility Committee	16 29	NA	Y
G4-38	Report the composition of the highest governance body and its committees	3.1.1 Board of Directors	27	NA	Y
G4-39	Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	3.1.1.1 Board Structure	27	NA	Y
G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members.	3.1.1.3 Election of Directors	28	NA	Y
G4-41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders.	3.1.1.1 Board Structure 3.1.1.5 Avoiding Conflicts of Interests 3.1.2 Audit Committee Please refer to 2014 TSMC Annual Report: -2.4.1 Information Regarding Board Members -4.1.4 Major Shareholders -4.1.8 Related Party Relationship among Our 10 Largest Shareholders -5.3.5 Raw Materials and Supply Chain Risk Management-Suppliers Accounted for at Least 10% of Annual Consolidated Net Procurement -5.4 Customer Trust-Customers that Accounted for at Least 10% of Annual Consolidated Net Revenue -8.1 Subsidiaries Please refer to Consolidated Financial Statements for 2014: -Note 37-Additional Disclosures -Note 37-Additional Disclosures - Table 6 (Total purchases from or sales to related parties of at least NT$100 million or 20% of the paid-in capital)	21 28 28	NA	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-42	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	3.1.1.2 Board Responsibilities 3.1.4 Corporate Social Responsibility Committee	27 29	NA	Y
G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	Please refer to 2014 TSMC Annual Report: 3 Corporate Governance "Continuing Education/Training of Directors" and "Continuing Education/Training of Management" in 2014.	26	NA	Y
G4-44	Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment. Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.	3.1.2 Audit Committee 3.1.4 Corporate Social Responsibility Committee	28 29	NA	Y
G4-45	Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes. Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.	3.1.1.2 Board Responsibilities 3.1.2 Audit Committee 3.6 Risk Management	27 28 34	NA	Y
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	3.1.1.2 Board Responsibilities 3.1.2 Audit Committee 3.6 Risk Management	27 28 34	NA	Y
G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	3.1.1.2 Board Responsibilities 3.1.2 Audit Committee 3.6 Risk Management	27 28 34	NA	Y
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	This report is reviewed and approved by the Company's functional heads and Chairperson of the Corporate Social Responsibility Committee (Chief Financial Officer).		NA	Y
G4-49	Report the process for communicating critical concerns to the highest governance body.	3.1.4 Corporate Social Responsibility Committee	29	NA	Y
G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	Will be included in the regular report to the Board.		NA	Y

(continues on next page)

Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-51	Report the remuneration policies for the highest governance body and senior executives. Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.	3.1.1.4 Directors' and Executive Officers' Compensation Please refer to 2014 TSMC Annual Report: -2.4.2 Remuneration Paid to Directors -2.5.2 Compensation paid to CEO, President and Vice Presidents -2.5.3 Employee Profit Sharing Granted to Management Team -5.5 Employees-Section "5.5.4 Compensation" 6.1.3 Competitive Compensation Program to Reward People for Long-term Contribution	28 95	NA	Y
G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	6.1.3 Competitive Compensation Program to Reward People for Long-term Contribution	95	NA	Y
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	Directors' compensation and Management Team's profit sharing need to be approved by Annual Shareholders' Meeting, please refer to 2014 TSMC Annual Report: -2.4.2 Remuneration paid to Directors -2.5.2 Compensation paid to CEO, President and Vice Presidents -2.5.3 Employee Profit Sharing Granted to Management Team		NA	Y
G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	We do not publicly disclose this confidential information.	95	NA	N
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	We do not publicly disclose this confidential information.	95	NA	N
ETHICS AND INTEGRITY					
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	3.3 Code of Ethics and Business Conduct 3.4 Regulatory Compliance	30 31	NA	Y

(continues on next page)

Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	3.3 Code of Ethics and Business Conduct 3.4 Regulatory Compliance	30 31	NA	Y
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	3.4 Regulatory Compliance	31	NA	Y
CATEGORY: ECONOMIC					
• ASPECT: ECONOMIC PERFORMANCE					
G4-DMA	Generic Disclosures on Management Approach	2 Stakeholder Engagement	16	Y	Y
G4-EC1	Direct economic value generated and distributed	4.1.5 Financial Highlights 6.2.4 Benefits - Safeguarding Employees' Rights	44 100	Y	Y
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	5.2.1 TSMC's Climate Change Response Strategy	59	Y	Y
G4-EC3	Coverage of the organization's defined benefit plan obligations	6.2.4 Benefits - Safeguarding Employees' Rights	100	Y	Y
G4-EC4	Financial assistance received from government	4.1.5 Financial Highlights	44	Y	Y
• ASPECT: MARKET PRESENCE					
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	This is not a material aspect, and is not disclosed in this report.		N	N
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	6.1.1 Stable and Healthy Workforce	91	N	Y
• ASPECT: INDIRECT ECONOMIC IMPACTS					
G4-EC7	Development and impact of infrastructure investments and services supported	6.6 Social Participation	114	N	Y
G4-EC8	Significant indirect economic impacts, including the extent of impacts	4.2.2 Supplier Management 6.6 Social Participation	47 114	N	Y

(continues on next page)

Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
• ASPECT: PROCUREMENT PRACTICES					
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	4.2.2 Supplier Management	47	Y	Y
CATEGORY: ENVIRONMENTAL					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension	57	Y	Y
• ASPECT: MATERIALS					
G4-EN1	Materials used by weight or volume	5.4.1 Source Reduction – Raw Materials Usage Reduction	74	N	Y
G4-EN2	Percentage of materials used that are recycled input materials	TSMC doesn't use recycled process input materials.		N	Y
• ASPECT: ENERGY					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension 5.1 TSMC's mid to long term environmental protection goals achievement status 5.2.1 TSMC's Climate Change Response Strategy	57 58 59	Y	Y
G4-EN3	Energy consumption within the organization	5.2.2 Climate Change Mitigation: Energy Use Status	63	Y	Y
G4-EN4	Energy consumption outside of the organization	We don't have the data and will compile the data with 3 years.		Y	N
G4-EN5	Energy intensity	5.2.2 Climate Change Mitigation: Energy Intensity	63	Y	Y
G4-EN6	Reduction of energy consumption	5.2.2 Climate Change Mitigation: Energy Conservation Measures	63	Y	Y
G4-EN7	Reductions in energy requirements of products and services	5.5.1 Green Products	81	Y	Y
• ASPECT: WATER					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension 5.1 TSMC TSMC's mid to long term environmental protection goals achievement status 5.3 Water Resource Management	57 58 70	Y	Y

(continues on next page)

Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-EN8	Total water withdrawal by source	5.3 Water Resource Management: Total Water Usage	70	Y	Y
G4-EN9	Water sources significantly affected by withdrawal of water	Our operations are compliant with the Environmental Impact Assessment requirements of the Science Parks. There are no significant effects to water sources by withdrawal of water.		Y	Y
G4-EN10	Percentage and total volume of water recycled and reused	5.3 Water Resource Management: Total Water Usage	70	Y	Y
• ASPECT: BIODIVERSITY					
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	WaferTech in the US has 8 acres of enhanced wetlands in its site. Our fabs in Taiwan and China are compliant with the Environmental Impact Assessment of the Science Park, and no significant impacts to biodiversity.		N	Y
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	WaferTech in the US has successfully completed a 10-year wetlands mitigation project in 2007, where 29 acres of wetlands are in a permanent preservation area, including 8 acres of enhanced wetlands. Our fabs in Taiwan and China are compliant with the Environmental Impact Assessment of the Science Park, and no significant impacts to biodiversity.		N	Y
G4-EN13	Habitats protected or restored	WaferTech in the US has successfully completed a 10-year wetlands mitigation project in 2007, where 29 acres of wetlands are in a permanent preservation area, including 8 acres of enhanced wetlands. Our fabs in Taiwan and China are compliant with the Environmental Impact Assessment of the Science Park, and no significant impacts to biodiversity.		N	Y
G4-EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	There is no IUCN Red List species and national conservation list species with habitats in areas affected by TSMC's operation.		N	Y
• ASPECT: EMISSIONS					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension 5.1 TSMC TSMC's mid to long term environmental protection goals achievement status 5.2.1 TSMC's Climate Change Response Strategy	57 58 59	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	5.2.1 TSMC's Climate Change Response Strategy: Greenhouse Gas Inventory	59	Y	According to GHG emission report verified by the 3rd party
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	5.2.1 TSMC's Climate Change Response Strategy: Greenhouse Gas Inventory	59	Y	According to GHG emission report verified by the 3rd party
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	We don't have the data and will compile the data with 3 years.		Y	N
G4-EN18	Greenhouse gas (GHG) emissions intensity	5.2.1 TSMC's Climate Change Response Strategy: Greenhouse Gas Inventory	59	Y	Y
G4-EN19	Reduction of greenhouse gas (GHG) emissions	5.2.1 TSMC's Climate Change Response Strategy: Climate Change Opportunities 5.2.1 TSMC's Climate Change Response Strategy: Greenhouse Gas Inventory	59 59	Y	Y
G4-EN20	Emissions of ozone-depleting substances (ODS)	TSMC doesn't use Montreal Protocol Class I & II ODS.		Y	Y
G4-EN21	NO_x, SO_x, and other significant air emissions	5.4.3 Air Pollution Control: Air Emissions Record		Y	Y
• ASPECT: EFFLUENTS AND WASTE					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension 5.4 Pollution Prevention	57 74	Y	Y
G4-EN22	Total water discharge by quality and destination	5.4.2 Water Pollution Control	75	Y	Y
G4-EN23	Total weight of waste by type and disposal method	5.4.4 Waste Reduction and Resource Recycling	79	Y	Y
G4-EN24	Total number and volume of significant spills	5.4 Pollution Prevention	74	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	There were 7.299 tons of scrap mercury lamps exported to Japan for treatment from TSMC by legal contractors in 2014, which was compliant with related environmental laws.		Y	Y
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	TSMC's treated wastewater is discharged to the Science Park wastewater treatment plant, there is no significant environmental impact.		Y	Y
• ASPECT: PRODUCTS AND SERVICES					
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	5.5.1 Green Products	81	N	Y
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	5.5.1 Green Products	81	N	Y
• ASPECT: COMPLIANCE					
G4-DMA	Generic Disclosures on Management Approach	5 Environmental Dimension 5.4 Pollution Prevention	57 74	Y	Y
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	5.4 Pollution Prevention	74	Y	Y
• ASPECT: TRANSPORT					
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	This is not a material aspect, and is not disclosed in this report.		N	N
• ASPECT: OVERALL					
G4-EN31	Total environmental protection expenditures and investments by type	5.4.5 Environmental Accounting	80	N	Y
• ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	TSMC screens all new waste treatment contractors by using environmental criteria, and requires all new raw material suppliers to comply with TSMC's criteria for banned substances.		Y	Y
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	4.3 EICC Membership TSMC refers to EICC RA1 method to evaluate environmental impacts in the supply chain.	56	Y	Y
• ASPECT: ENVIRONMENTAL GRIEVANCE MECHANISMS					
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	There were two grievances about environmental impacts filed in 2014 and have been completed for improvement and communication.		N	Y
CATEGORY: SOCIAL					
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK					
• ASPECT: EMPLOYMENT					
G4-DMA	Generic Disclosures on Management Approach	6.1 Right People with Shared Vision and Values	91	Y	Y
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	6.1.2 Recruiting the Right People	93	Y	Y
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	6.2.4 Benefits - Safeguarding Employees' Rights	100	Y	Y
G4-LA3	Return to work and retention rates after parental leave, by gender	6.2.4 Benefits - Safeguarding Employees' Rights	100	Y	Y
• ASPECT: LABOR/MANAGEMENT RELATIONS					
G4-DMA	Generic Disclosures on Management Approach	6.3 Employee Engagement	101	Y	Y
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102	Y	Y
• ASPECT: OCCUPATIONAL HEALTH AND SAFETY					
G4-DMA	Generic Disclosures on Management Approach	6.5 Providing Safe and Healthy Work Environments	106	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	6.5 Providing Safe and Healthy Work Environments	106	Y	Y
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	6.5 Providing Safe and Healthy Work Environments: Disabling Injuries Statics	106	Y	Y
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	TSMC's critical health risk operations include noise, ion-radiation, lead, dimethylformamide, n-hexane, arsenic, manganese and its compounds, dust, chromic acid and its salts, nickel and its compounds, mercury and its inorganic compounds. Fab ISEPs report workers of related operations to accept specific annual health exam and categorized health management if necessary.		Y	Y
G4-LA8	Health and safety topics covered in formal agreements with trade unions	TSMC has no union and related agreements.		Y	Y
• ASPECT: TRAINING AND EDUCATION					
G4-DMA	Generic Disclosures on Management Approach	6.1.4 The Engine of Employee Growth	96	Y	Y
G4-LA9	Average hours of training per year per employee by gender, and by employee category	6.1.4 The Engine of Employee Growth	96	Y	Y
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	6.1.4 The Engine of Employee Growth	96	Y	Y
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	6.1.4 The Engine of Employee Growth	96	Y	Y
• ASPECT: DIVERSITY AND EQUAL OPPORTUNITY					
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	6.1.1 Stable and Healthy Workforce	91	N	Y
• ASPECT: EQUAL REMUNERATION FOR WOMEN AND MEN					
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	6.1.3 Compensation and Rewarding People for Long-term Growth	95	N	N

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
• ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	TSMC requires major suppliers to obtain OHSAS 18001 certification or other safety and health management certification. TSMC requires that contractors performing level-1 high-risk work must establish OHSAS 18001 safety and health management system.		Y	Y
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	4.3 EICC Membership TSMC refers to EICC RA1 method to evaluate labor practices impacts in the supply chain.	56	Y	Y
• ASPECT: LABOR PRACTICES GRIEVANCE MECHANISMS					
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102	N	Y
SUB-CATEGORY: HUMAN RIGHTS					
• ASPECT: INVESTMENT					
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	We don't have the related screening in investment agreements and contracts.		N	Y
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	6.1.4 The Engine of Employee Growth	96	N	Y
• ASPECT: NON-DISCRIMINATION					
G4-HR3	Total number of incidents of discrimination and corrective actions taken	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102	N	Y
• ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	They were no operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.		Y	Y
• ASPECT: CHILD LABOR					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	There were no operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.		Y	Y
• ASPECT: FORCED OR COMPULSORY LABOR					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	There were no operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.		Y	Y
• ASPECT: SECURITY PRACTICES					
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	This is not a material aspect, and is not disclosed in this report.		N	N
• ASPECT: INDIGENOUS RIGHTS					
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	This is not a material aspect, and is not disclosed in this report.		N	N
• ASPECT: ASSESSMENT					
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	This is not a material aspect, and is not disclosed in this report.		N	N
• ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	We don't have human rights screening criteria for new suppliers.		Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	4.3 EICC Membership TSMC refers to EICC RA1 method to evaluate human rights impacts in the supply chain.	56	Y	Y
• ASPECT: HUMAN RIGHTS GRIEVANCE MECHANISMS					
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102	N	Y
SUB-CATEGORY: SOCIETY					
• ASPECT: LOCAL COMMUNITIES					
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Our operations are compliant with the Environmental Impact Assessment requirements. There are no significant effects to local community and environment.		N	N
G4-SO2	Operations with significant actual and potential negative impacts on local communities	Our operations are compliant with the Environmental Impact Assessment requirements. There are no significant effects to local community and environment.		N	N
• ASPECT: ANTI-CORRUPTION					
G4-DMA	Generic Disclosures on Management Approach	3.4 Regulatory Compliance	31	Y	Y
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	TSMC assesses anti-corruption risk based on function rather than geographical regions. Our assessment approaches include the following: 1. A task force, including the Legal, Internal Auditing, and Procurement departments, is organized to perform an annual supplier survey to assess the ethical climate corporation-wide. 2. Internal Auditing interviews top management every year to collect/assess potential risks, including anti-corruption risks. 3. All divisions perform Control Self Assessment (CSA) annually to assess the effectiveness of risks and controls, including awareness and assessment of the business code of conduct. 4. The TSMC internal website provides links to an ombudsman system to investigate reported cases related to irregularities or corruption.		Y	Y
G4-SO4	Communication and training on anti-corruption policies and procedures	3.4 Regulatory Compliance	31	Y	Y
G4-SO5	Confirmed incidents of corruption and actions taken	3.4 Regulatory Compliance The Company had no incidents of corruption reported which were treated as plausible in 2014.	31	Y	Y

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
• ASPECT: PUBLIC POLICYW					
G4-SO6	Total value of political contributions by country and recipient/beneficiary	3.2 Political Contributions	29	N	Y
• ASPECT: ANTI-COMPETITIVE BEHAVIOR					
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	The Company had no legal actions pending or completed during the reporting period regarding anti-competitive behavior and violations of anti-trust and monopoly legislation.		N	Y
• ASPECT: COMPLIANCE					
G4-DMA	Generic Disclosures on Management Approach	3.4 Regulatory Compliance	31	Y	Y
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	3.4 Regulatory Compliance In 2014, the Company complied with the Taiwan Securities Trading Act, Company Law and relevant labor and environmental laws and regulations, no significant fines for non-compliance with laws and regulations. The Company was only fined for NT$12,000 for one isolated incident of an administrative error by the competent authority.	31	Y	Y
• ASPECT: SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY					
G4-DMA	Generic Disclosures on Management Approach	4.2.2 Supplier Management	47	Y	Y
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	We don't have impacts on society screening criteria for new suppliers.		Y	Y
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	4.3 EICC Membership TSMC refers to EICC RA1 method to evaluate society impacts in the supply chain.	56	Y	Y
• ASPECT: GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY					
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	There were 63 (one from external, 62 from internal) grievances about impacts on society filed, all have been resolved within report period.		N	Y
SUB-CATEGORY: PRODUCT RESPONSIBILITY					
• ASPECT: CUSTOMER HEALTH AND SAFETY					
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	TSMC is not an end-product manufacturer. This is not a material aspect, and is not disclosed in this report.		N	N

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Index	Description	Report Contents or Explanation	Page(s)	Material Aspect (Y/N)	3rd Party Verification (Y/N)
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	The Company had no incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.		N	Y
• ASPECT: PRODUCT AND SERVICE LABELING					
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	This is not a material aspect, and is not disclosed in this report.		N	N
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	The Company had no incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.		N	Y
G4-PR5	Results of surveys measuring customer satisfaction	4.2.1 Customer Service and Satisfaction	46	N	Y
• ASPECT: MARKETING COMMUNICATIONS					
G4-PR6	Sale of banned or disputed products	We don't have any sale of banned or disputed products in 2014.		N	Y
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	We don't have any incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes in 2014.		N	Y
• ASPECT: CUSTOMER PRIVACY					
G4-DMA	Generic Disclosures on Management Approach	4.2.1 Customer Service and Satisfaction	46	Y	Y
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	We don't have any substantiated complaints regarding breaches of customer privacy and losses of customer in 2014.		Y	Y
• ASPECT: COMPLIANCE					
G4-DMA	Generic Disclosures on Management Approach	3.4 Regulatory Compliance	31	Y	Y
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	We don't have any significant fines for non-compliance with laws and regulations concerning the provision and use of products and services in 2014.		Y	Y

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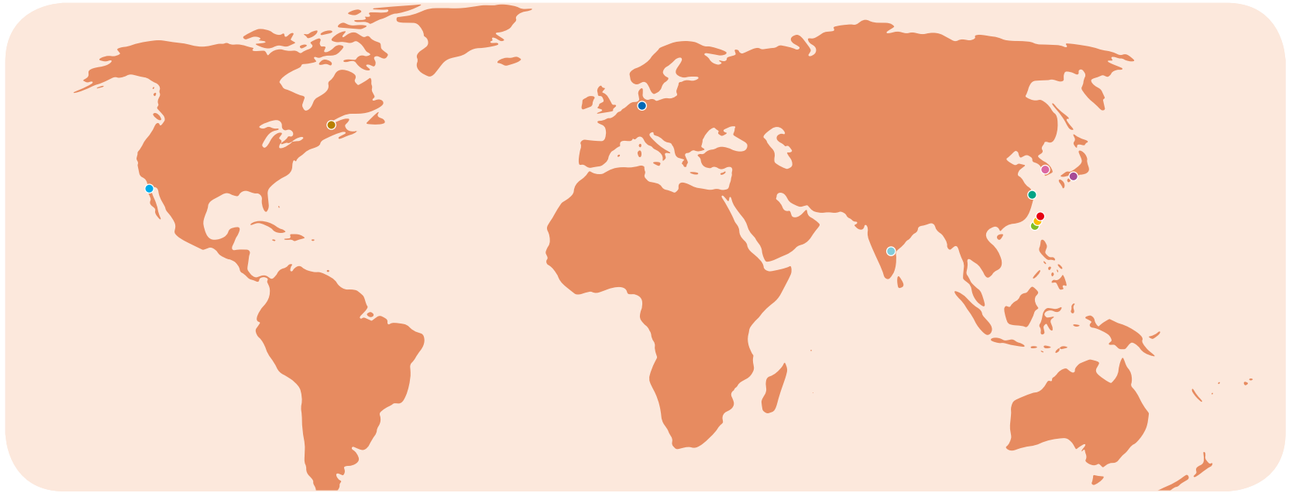
United Nation Global Compact Comparison Table

Category	10 Principles	Related CSR Report Section	Page(s)
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights;	4.3 EICC Membership 6 Social Dimension	56 89
	Make sure that they are not complicit in human rights abuses.	3.3 Code of Ethics and Business Conduct 4.3 EICC Membership	30 57
Labor	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102
	The elimination of all forms of forced and compulsory labor;	6.3.2 Open Communication Channels, Unobstructed Employee Participation, Harmonious Labor Relations	102
	The effective abolition of child labor; and	6.1.1 Stable and Healthy Workforce	91
	The elimination of discrimination in respect of employment and occupation.	3.4 Regulatory Compliance	31
Environment	Businesses should support a precautionary approach to environmental challenges;	5 Environmental Dimension	58
	Undertake initiatives to promote greater environmental responsibility; and	5 Environmental Dimension	58
	Encourage the development and diffusion of environmentally friendly technologies.	5.5.1 Green Products	81
Anti-Corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	3.3 Code of Ethics and Business Conduct	30

Contact Information



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