



2019 MSI CSR Report

MICRO-STAR INTERNATIONAL CO.,LTD.





About this report

Report Scope

Time: From 2018.01.01 to 2018.12.31

Scope: Financial data presented in this report reflects performance of the parent company and its subsidiaries. (about the scope detail please refer to 2018 annual report <https://tw.msi.com/about/investor>). For nonfinancial data, the boundary of this report covers Micro-Star INT'L Co., Ltd. (MSIT), MSI Computer (Shenzhen) Co., Ltd. (MSIS), and MSI Electronics (Kunshan) Co., Ltd.(MSIK)(The three facilities are referred to as "MSI Group or MSI").MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.Unless elsewhere specified, information will be disclosed in the report. There is no change from the 2017 Reporting scope.

Report Outline

MSI's CSR report addresses core indicators from the Global Reporting Initiative (GRI) GRI Standards guidelines-Core Options and the Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies. This report discloses our business activities, strategies and management performance addressing the most significant corporate social responsibility (CSR) issues. The reference table of GRI Standards has been attached as an appendix to this report.

Report Assurance

Internal review:

MSI focuses on the economic, environmental and social issues of CSR. We collected CSR issues of concern to our stakeholders through questionnaires, interviews, e-mails and annual supplier workshop. These issues are then evaluated by MSI's Corporate Sustainability

Office, which is responsible for overall planning, data collection, internal communication, and compiling/editing/verifying content for a CSR report. The completed CSR report is then forwarded to the CSR Report Team for final review and submitted to the Chairman for approval before publication.

External assurance:

The Report is in compliance with the core options in the GRI Standards guidelines, and an independent third party (BSI Pacific Limited, Taiwan Branch) has been engaged to provide assurance for moderate assurance level in AA1000AS-2008 Type 1.The independent assurance opinion statement has been attached as an appendix to this report.

Data verification:

The data relating to ISO of quality 、environment and power management 、financial and greenhouse gas emission standards have been verified by third parties.

Item		Verification / Certification
Financial Data		PwC Taiwan
The list is the MSIS verifications.	Quality management systems (ISO 9001) Environmental management international standards (ISO 14001) Greenhouse gas emissions (ISO 14064-1) Occupational safety management 90HSAS 18001 Hazardous substance process parties management system (IECQ/QC 080000)	Bureau Veritas Certification(BVC) Co., Ltd.
	The requirements of a quality management system for organizations in the automotive industry (IATF 16949) Telecommunications Quality Management System (TL 9000)	
	Energy management systems (ISO 50001)	Centre Testing International (CTI)
	Testing and calibration laboratories (ISO 17025)	China National Accreditation Service for Conformity (CNAS)
	Responsible Business Alliance (RBA)-Validated Audit Process (VAP)	Elevate limited

Date of Issuance

Since publishing our first CSR Report in 2008, to this date, MSI has continued to publish CSR Report on an annual basis. All of the past Reports are publicly available for viewing for all stakeholders around the world on the MSI website with both English and Traditional Chinese versions available.

CSR Report downloads	TWSE Code: 2377 http://mops.twse.com.tw/mops/web/t100sb11
	http://tw.msi.com/html/popup/csr_tw/index.html
Current issued version	June 2019
Last issued version	June 2018
Next issued version	Expected in June 2020

Contact information

Micro-Star INT'L CO., LTD.	
CSR Contacts	Corporate Sustainability Office
Address	No. 69, Lide St., Zhonghe District, New Taipei City 235, Taiwan (R.O.C.)
email	csr @ msi.com

Environmental Performance:

- The energy saving in 2018 decreased 6.41% compared to energy consumptions in base year (2007).
- The intensity of Greenhouse Gases emissions in 2018 decreased 4.74% compared to emissions in base year (2007).
- The recycled water usage in 2018 increased 37.58% compared to the last year.
- Issued the 9th edition of the Standard for Environmentally Friendly Products, and completed 10,890 parts approval, identified and managed 284 hazardous substances.

MSI Sustainability Performance Highlights in 2018



天下企業公民獎
Excellence in Corporate Social Responsibility

The Corporate Citizen Award of Commonwealth Magazine for the ten year in a row.



No.20 interbrand at the Best Taiwan Global Brands 2018 Awards.



MSI GAMING has the most queries at Google



Licensed Indexes:
MSCI Taiwan

The MSCI Taiwan Index



The ranked number 1 Gaming Laptop Brands 2018 by PC Magazine



- MSI was ranked top 6%-20% public companies list of The 5th Corporate Governance Evaluation held by Taiwan Stock Exchange (TWSE).
- Selected as TWSE CSR index :
Taiwan Corporate Governance 100 Index
The Taiwan HC100 Index
Taiwan RAFI EMP 99 Index

Giving Back to Society:

- The public welfare program completed 37 projects during the reporting period.
- The number of benefit students for education cares: A total of 12,717 students received education services.
- The number of benefit students for school lunch: A total of 6,911 students participated in the event.
- The number of corporate volunteers: The MSI employees attended by a total of 1,235 participants.



Letter from the Chairman and General Manager (CEO)

Message from the Chairman and General Manager (CEO)

Growing with Innovation-Creating Value Together

Looking back on 2018, MSI encountered tremendous challenges as the tensions from the China-U.S. trade war worsened and economic growth in the EU stagnated. The overall PC market has also exhibited saturation with slight overall declines. Fortunately, this has been offset by a growing demand for e-sports which remained strong while tournaments and live streaming platforms became even more common. Consequently, demand for mid-to-high-end PCs and peripherals increased. Since the second half of 2017, the demand for graphics cards driven by cryptocurrency has reversed rapidly, but it has caused the high-end graphics card market (which was originally caught in the cryptocurrency mining boom and was in short supply) to refocus on the normal e-sports market demand. MSI has long been cultivating its products for high-end e-sports, including developing gaming PCs and peripherals that meet players' high expectations. The Company has also responded to the needs of content creators by introducing high-end image processing solutions. Meanwhile, the Company made significant progress in other fields such as servers, industrial computers, auto electronics and AIoT-all of which have increased momentum for the Company's growth prospects in the future. The Company delivered record-high consolidated revenues and profits in 2018, and intends to continue these accomplishments in 2019 by enhancing R&D, manufacturing, and sales capacity. With the introduction of comprehensive e-sports products, combined with commercial and software solutions-we strive to create greater value for the Company, our customers, and shareholders.



Charles Chiang
MSI General Manager (CEO)

Joseph Hsu
MSI Chairman

Public Welfare Care-Common Good

MSI utilizes a pragmatic approach and has long been a dedicated promoter of social enterprises that provide lunch, education, donations, and aid for the underprivileged. By caring and engaging the local community, we hope to contribute positive change and create recurring positive feedback that realizes our 「Common Good」 vision. In 2018, under the premise of fairness, reasonableness, and equality, MSI launched a 「Diversified Teaching and Inclusive Learning」 program aimed at offering budget and equipment to support high-quality education. In addition to improving the quality of education in remote locations, the program is also aimed at inspiring creativity and helping students develop problem-solving skills, self-initiative, as well as

independent thinking. This program sponsored more than 100 schools and benefited more than 5,000 students during this reporting period.

Sharing the Concepts-Enhancing Business Development

MSI has been shifting its business focus towards e-sports in recent years. In addition to promoting the e-sports brand, MSI has also committed substantial resources and expertise into training e-sports talent through academia and industry cooperation with the goal of adding more e-sports talent to expand the ecosystem and build brand loyalty among new users on campuses. MSI has successfully assisted Nan Chiang Vocational High School, Chiao Kuang Senior High School, Chi-Ying Senior High School, Wan-Neng Senior Industrial and Commercial Vocational School and Shih Hsin Senior High School to establish e-sports classrooms, with Shih Hsin Senior High School being the only pilot e-sports institution recognized by the Department of Education. Through these efforts, we aim not only to help students develop hobbies free of discrimination, but also to improve the effectiveness and sustainability of the e-sports industry to share economic value and development benefits with the industry-government-academia.

Positive enterprising-Link up with the world

In 2018, MSI had another fruitful year in terms of its operating performance. While we strive to ensure continuity of our financial success, we also recognize the importance of adopting international practices including climate change guidelines, a code of conduct, GRI standard, and rules on issues that pertain specifically to electronics manufacturers such as conflict/high-risk minerals (e.g., Tungsten) and RBA (Responsible Business Alliance) initiatives. MSI has devoted long-term attention to these initiatives and has set goals to build competitive

advantage based on corporate social responsibilities. In the future, MSI will continue seeking business growth through its focus, innovation, and influence while at the same time supporting sustainability of the environment and society, thereby creating higher long-term value for our stakeholders.



TRUE GAMING



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1. Corporate Sustainability Development



1. Corporate Sustainability Development

1.1 MSI Corporate Social Responsibility Commitment

With the corporate vision of 「Innovation of Smart Technology、Fulfillment of Corporate Social Responsibility and Win-Win Growth」 MSI strives to build a sustainable business value and takes on the responsibilities and missions of social care, environmental protection, employee care, shareholder commitment, and customer trust. In the implementation of corporate social responsibility (CSR), the Company's Board of Directors has authorized the General Manager (CEO) to direct each specialized (semi-specialized) unit, and has set up a sustainable development office to implement partial corporate social responsibility related matters. This will incorporate corporate social responsibility into the corporate vision and business philosophy.

Corporate Social Responsibility Vision

「Sound Sustainable Governance、Environmental Sustainability and Socialty Common Good」 form the core of MSI's CSR vision; they are the motivation that drives the company towards seeking balance between business, society and the environment, further setting model example for the good corporate citizen.

Corporate Social Responsibility Mission

Bussiness Ethics



Guidence: MSI values integrity and corporate governance, and makes ongoing attempt to improve governance performance, protect stakeholders' interest and bring positive influence to the society.

Environmental Sustainability



Guidence: MSI is committed to mitigating the environmental impacts of its business activities through green production and supply chain management. The company has invested actively into improving energy consumption, waste reduction and chemical substance control in response to climate change risk.

Social Care





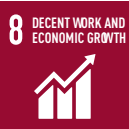



Guidence: MSI upholds the public welfare concept of 「Change progresses constantly、Service continues silently、Contribution accumulates and Dreams realize step by step」 and have been targeted to address

issues concerning education care, caring for the disadvantaged, giving back to the community and resource donations. Through financial aids, volunteer activities and donation of supplies, we contribute our efforts toward building an inclusive society.

1.2 Sustainable MSI blueprint

MSI realizes its corporate vision of sustainability by adopting green management, sustainable governance practices and environmental sustainability. Meanwhile, we combine UN Sustainable Development Goals (Sustainable Development Goals, SDGs) to continually evaluate and review issues that are relevant to MSI's operations. We has formulated 6 sustainability targets relevant to MSI, and all of which are disclosed in this report.






United Nations Sustainable Development Goals (SDGs) and implement the core concept

UN SDGs		ITEM	MSI Core Beliefs	Related Report Sections	Page
	Ensure healthy lives and promote well-being for all at all ages	3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	Minimize substances of negative environmental impact; prohibit/restrict use of hazardous chemicals and implement end-of-life product recycling for the benefit of the environment.	4.1 Product Sustainability 4.3 Hazardous Substances Management	46 51
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.	Assure the underprivileged and employees access to inclusive and fair education and vocational training; promote life-time learning and encourage contributions to sustainability.	3.1 Employee Policy 6.2 Sharing Good of Learning-Pluralistic Educational	28 70
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. 8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms. 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.	Achieve full and productive employment and decent work for all women and men, and equal pay for work of equal value; secure the prohibition and elimination of child labor and forced labor; protect labor rights and promote safe and secure working environments for all workers.	3.1 Employee Policy 3.2 Employee Profile 3.6 Occupational Safety and Health	28 32 40
	Make cities and human settlements inclusive, safe, resilient and sustainable	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.	Minimize damage to the environment; improve mankind's living environment in terms of inclusiveness, safety and sustainability, and pay special attention to air quality, pollution prevention and waste management.	5.5 Pollution Prevention	66
	Ensure sustainable consumption and production patterns	12.2 By 2030, achieve the sustainable management and efficient use of natural resources. 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Improve the ways natural resources are utilized to minimize environmental impacts of production and consumption activities. Reduce use of chemicals and minimize waste through preventive, reduction, recycling and reuse measures, and thereby mitigate negative impacts on health and the environment.	4.1 Product Sustainability 4.3 Hazardous Substances Management	46 51
	Take urgent action to combat climate change and its impacts	13.3 Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	Conduct identification mechanism of risks and opportunities on impacts of climate change in early alert stage to raise crisis awareness; adjust energy/resource efficiency throughout the organization and across product lines; enhance responsiveness of employees, operations and products.	5.2 Climate Change Management 5.3 Greenhouse Gas Management	61 62



MSI Sustainable Development Goals

As a global citizen, MSI recognizes the importance of fulfilling SDGs through the corporate's commercial activities in addition to government policies. For this reason, the Company took extra steps to review the implications of SDGs and made feasible adjustments to business plans and internal operations, and devised MSI's own sustainability goals to ensure MSI's sustainable operations continue to progress.

SDGs	Strategic Indicator	Development Goals	: SDGs action
 	Green management	Reduce use of hazardous substances; aim to increase the weight of halogen-free items in the bill of materials (BOM) to more than 85% for main products by 2030.	<ul style="list-style-type: none"> ■ Incorporate the use of halogen-free materials in products
	Environmental sustainability	Complete labeling and document disposal and recycling of all products and equipment. MSI has been able to maintain its recycling rate above 90% on a yearly basis, which exceeds EU WEEE's stage 3 requirements of 80%.	<ul style="list-style-type: none"> ■ Registration and reporting as an EU certified recycling firm ■ Product WEEE 3R report assessment
	Environmental sustainability	<p>Mitigation of global warming impacts, MSI aims to reduce GHG emission by 50% and energy consumption of main products by 20% before 2025.</p> <p>The external power supply increased the average efficiency of external power supply conversion from 88% to 89% compared to energy efficiency in 2015.</p>	<ul style="list-style-type: none"> ■ Targets have been set to reduce GHG emission by an average of 4% per year ■ Introduce eco-design product for lower energy consumption ■ Adopt the use of external power supplies with energy efficiency rated VI in products.
	Sustainable governance	<p>Responsible purchase of minerals - MSI supports the Conflict-Free Smelter Program and aims to source all Tantalum 、Gold 、Tin and Tungsten from smelters certified by Conflict Free Sourcing Initiative (CFSI) by 2025.</p> <p>Protection of labor rights and promotion of safe working environment - MSI aims to maintain injury frequency rate (FR) at 1.17, injury severity rate (SR) at 5 and achieve zero workplace hazard each year.</p>	<ul style="list-style-type: none"> ■ Perform supplier smelter survey on a yearly basis ■ Enforce workplace safety management and aim for zero accident and zero workplace hazard.
	Sustainable governance	<p>Remote Areas Care - MSI provided after-school assistance to 12,717 students in remote areas during the reporting period, and will continue investing resources to eliminate the resource and learning gaps between urban and suburban areas.</p> <p>MSI encourages employees to learn comprehensively, and aims to develop robust training programs and goals that not only support employees' requirements, but also provide them with the right motivation to learn. We hope to see employees' learning progress reflected in their work performance, and they can recognize MSI's core value and commit to serve within the organization over the next 3-5 years. Employees averaged 8.48 years of service in 2018.</p>	<ul style="list-style-type: none"> ■ Sponsor quality education by offering financial and equipment support. ■ Continually offer on-job training courses and overseas transfer opportunities to retain employees.

1.3 Stakeholder Identification and Issues

•Stakeholder Identification

Based on the responses gathered through online questionnaire and information consolidated by the Sustainability Development Office, the CSR Working Team conducted a series of discussions and assessments using the 「responsibility、influence、responsiveness and materiality」 principle and was able to identify 7 main stakeholder categories given MSI's industry characteristics and practical experience. These stakeholders are: investors/shareholders、customers、suppliers、employees、media、government agencies and non-profit organizations (NGOs). A new stakeholder category - NGO has been added to this year's report to facilitate more complete、timely、transparent and accurate exchange of information, opinions and interaction with report users.

•Materiality Issues

MSI pays constant attention to changes in corporate responsibilities and engages stakeholders in ongoing exchange of opinions. During the reporting period, a broad variety of communication channels, both regular and unscheduled, were utilized to respond to stakeholders' concerned issues. We will continue to investigate and respond to stakeholders' concerned issues, and disclose the progress and implications of our communication through corresponding chapters of this report.

Stakeholder Engagement-Communication Channels and Frequency

Stakeholder	Communication Channel	Frequency	Issues	Response	Engagement Results
Shareholder/ Investor	<ul style="list-style-type: none"> Shareholder meetings Investor conferences Annual report MSI website Market Observation Post System CSR report 	<ul style="list-style-type: none"> Annually Irregular Annually Irregular Irregular Annually 	<ul style="list-style-type: none"> Company vision and governance Business operation overview Business performance Risk Management 	<ul style="list-style-type: none"> The executive management team meets regularly every year Material information briefings Investor mail Investor service line 	<ul style="list-style-type: none"> MSI revenue in 2018 increased 11.38% compared to the last year. 2018 cash dividend of NT\$5 per common share The company engages investors regularly or as needed to convey its business performance and prospects. The company regularly to review the development of core industries and set warning indicators for conducting an operational strategy review.
Customer	<ul style="list-style-type: none"> Customer service website Customer satisfactory survey Internal contact person Service Center Social media 0800 Phone call service MSI CSR website 	<ul style="list-style-type: none"> Immediate Irregular Office hours Office hours Immediate Daily(specific time) Immediate 	<ul style="list-style-type: none"> Product liability and safety Customer service management Compliance Supply Chain Management 	<ul style="list-style-type: none"> Customer audit Supplier Conference Project meeting and consultation RBA Online Community activities Physical store activities Specific issue questionnaire 	<ul style="list-style-type: none"> Operation-related audit certification Supplier Conference (1 time) Irregular conference with communication RBA online information disclosure for customer query Community instant activities Physical store experience The questionnaire and issue reply.
Supplier	<ul style="list-style-type: none"> Green Product Management Supplier Conference Supplier questionnaire Onsite audit supplier/Supplier assessment 	<ul style="list-style-type: none"> Immediate Irregular Annually Annually 	<ul style="list-style-type: none"> Business operation overview Business performance Product liability and safety 	<ul style="list-style-type: none"> Supplier audit Supplier Conference Specific issue questionnaire Project meeting 	<ul style="list-style-type: none"> Onsite audit and communication Supplier Conference (1 time) Issue reply and information collection Project meeting with communication
Employee	<ul style="list-style-type: none"> Employee opinion box Employee EAP Mobile APP Enterprise information portal (EIP) Employee satisfactory survey 	<ul style="list-style-type: none"> Immediate Immediate Immediate Immediate Irregular 	<ul style="list-style-type: none"> Business performance Employee Benefits Employee Development Occupational safety 	<ul style="list-style-type: none"> EAP hotline and mail ESH committee LOB/BU internal meeting Internal mail Employee satisfactory Survey 	<ul style="list-style-type: none"> Feel free to give the opinion and make strategic adjustments and response To review the safety of employees' work environment To study employee activity satisfaction survey and develop employee requirements



Media	<ul style="list-style-type: none"> ■ Press conference ■ Press release 	<ul style="list-style-type: none"> ■ Irregular ■ Irregular 	Business operation overview Business performance Compliance	<ul style="list-style-type: none"> ■ Media interviews ■ Press releases ■ Spokesperson public relations hotline and mail 	<ul style="list-style-type: none"> ■ Media interviews 、 inquiries and press releases
Government	<ul style="list-style-type: none"> ■ Government regulation requirements ■ CSR report ■ Market Observation Post System ■ MSI investor information website 	<ul style="list-style-type: none"> ■ Immediate ■ Annually ■ Annually ■ Immediate 	Corporate governance Compliance Labor rights	<ul style="list-style-type: none"> ■ Regular press releases to publish monthly revenues ■ Questionnaire and interview 	<ul style="list-style-type: none"> ■ The company works with government agencies regularly and as needed in implementing and coordinating related programs. ■ Press releases. ■ The company plays an active role in trade associations to facilitate frequent interaction among members of the industry. ■ The company communicates via email 、 telephones and Market Observation Post System(MOPS).
Non-Profit Organization	<ul style="list-style-type: none"> ■ Stakeholder questionnaire ■ CSR report ■ Market Observation Post System ■ MSI investor information website 	<ul style="list-style-type: none"> ■ Annually ■ Annually ■ Annually ■ Immediate 	Corporate governance Environmental management Compliance Labor rights	<ul style="list-style-type: none"> ■ Questionnaire and interview ■ Project meeting ■ Relations with Associations ■ Project collaboration 	<ul style="list-style-type: none"> ■ By applying for government subsidies or earmarked grants, the company forms academia-industry partnerships in specific fields with research institutions. ■ The company plays an active role in trade associations to facilitate frequent interaction among members of the industry. ■ The company communicates via email 、 telephones and social media.

1.4 Identification of sustainability development Issues

Sustainability development issues analysis

MSI fulfills corporate social responsibilities under the principles of enhanced information disclosure, sustainable governance 、 environmental sustainability and maintenance of public welfare. Being able to narrow down potential issues and devise strategies that MSI has both the capacity and resources to implement helps align MSI and stakeholders to common sustainability goals.

Identification of sustainability development Issues analysis procedure

•Identification of issues

In addition to following sustainability guidelines (such as GRI 、 ISO 14000 series, RBA, etc.), investment benchmarks (such as CDP 、 DJSI etc.) and world-recognized initiatives (such as SDGs 、 TCFD, etc.), MSI also attempts to identify stakeholders' concerned issues through business/operational feedback, customers' requests and issues highlighted by the management. To ensure the materiality 、 completeness 、 objectivity and inclusivity of our material topics, we also took into consideration the materiality issues matrix of the previous report, the material topics identified by peers and GRI indicators when forming our list of concerned issues. In the end, 21 sustainability issues were selected to define the scope of material topics.

•Analyze and sequence issues

MSI sustainability development issues are based on the statistics of the collection by the CSR office. We base on the four impact factors of 「responsibility 、 influence 、 responsiveness and materiality」 then, we calculated the points of each issue of interest in terms of the degree of impact (responsiveness and influence) on MSI and the degree of stakeholders' concerns (responsiveness and importance) , and 21 materiality issues have been identified, and used to determine the priority of disclosures made in this CSR report.

•Validation of issues

To ensure the materiality, completeness, objectivity and inclusivity of MSI's sustainability issues, the Sustainability Development Office was assigned to review preliminary outcomes of MSI's sustainability issues matrix, whereas the CSR Working Team and department managers were invited to discuss and finalize the matrix after taking into account factors such as the sustainability plan, GRI requirements, operational prospects and available

controls. Based on the results of the quantitative assessment, we divided the 21 issues above into material topics, other concerned issues and non-material topics, which formed the structure of this report and provided the basis of our response to stakeholders.

The 21 issues were divided into 8 material issues and 13 other concerned issues. Every material topic and other concerned issue was associated with one or several GRI indicators (please refer to Appendix 1). Other sustainability issues not identified above will still be addressed and disclosed throughout this report to satisfy the needs of specific stakeholders.

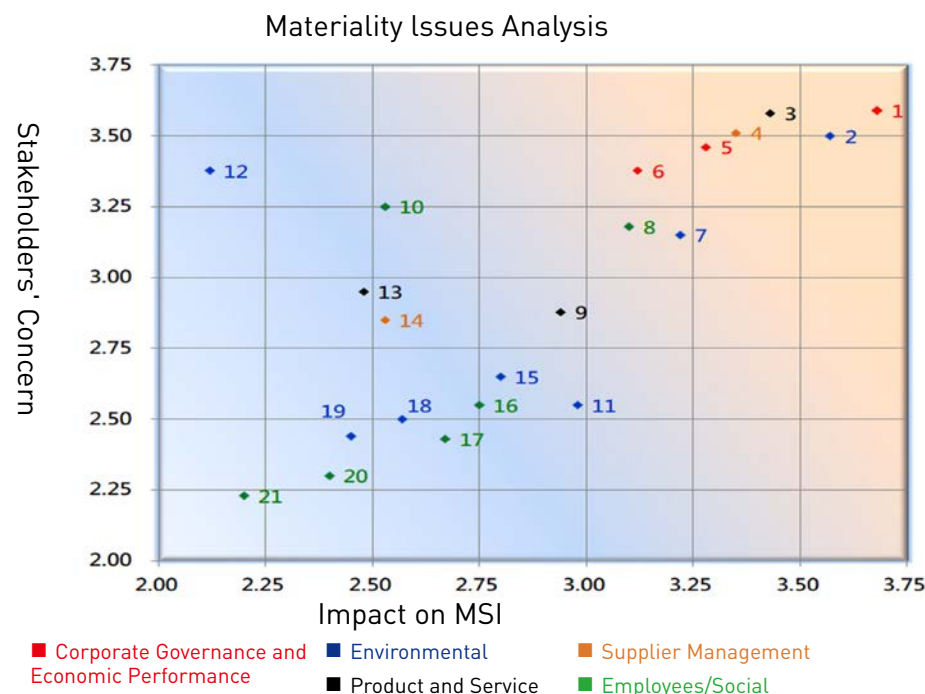
•Review of issues

MSI takes CSR report preparation as an opportunity to review its sustainability progress and efforts, and uses it as a means to communicate and respond to stakeholders' concerned issues. In doing so, we hope to satisfy stakeholders' expectations and attention to our business. We will re-examine the sustainability issues matrix in every reporting period thereafter and plan and adjust our communication with stakeholders accordingly.

The material topics list of MSI sustainability development issues.

Stakeholders	Investors/Shareholders	Customers	Suppliers	Employees	Media	Government authorities	Non-Profit Organizations
GRI Material Topics	201、205	205、305、307、414、416	205、414、416	201、401	201、307	305、307、416	205、305、307、416
Related Report Sections	2.2 Financial Performance 2.5 Business Ethics-Business ethics risk assessment	2.5 Business Ethics-Business ethics risk assessment 5.3 Greenhouse Gas Management 2.6 Legal Compliance 4.2 Product Responsibility 4.4 Supplier Management-Supplier Selection and Responsible Sourcing	2.5 Business Ethics-Business ethics risk assessment 4.2 Product Responsibility 4.4 Supplier Management-Supplier Selection and Responsible Sourcing	2.2 Financial Performance 3.2 Employee Profile	2.2 Financial Performance 2.6 Legal Compliance	2.6 Legal Compliance 4.2 Product Responsibility 5.3 Greenhouse Gas Management	2.5 Business Ethics-Business ethics risk assessment 2.6 Legal Compliance 4.2 Product Responsibility 5.3 Greenhouse Gas Management
Other non-material issues (The matrix numbers of section 1.5)	13	4、9、12、13、14	4、14、16	10、16、17、20、21	13	11、13、17	9、12、15、16、17、18、19
SDGs Target	SDG4	SDG3、11、13	SDG3、11、12	SDG4、8	SDG8	SDG3、13	SDG3、11、13

1.5 The Scope and Boundary of Material Topics in the Report





MSI analysis of material issues note

MSI analysis of material issues note			Material issues		
Category	Sustainability development issues	Issues No.	GRI Standard	Disclosure	
Corporate governance and economic performance	Corporate operating performance	1	Economic Performance(201)	201-1	Direct economic value generated and distributed
	Business ethics	5	Anti-corruption(205)	205-1	Operations assessed for risks related to corruption
	Compliance	6	Environmental Compliance(307)	307-1	Non-compliance with environmental laws and regulations
Product and Service	Product safety	3	Customer Health and Safety(416)	416-1	Assessment of the health and safety impacts of product and service categories
	Service Management	13	Customer Privacy(418)	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data
	Product energy saving	9	Energy(302)	302-5	Reductions in energy requirements of products and services
Environmental	GHG management	2	Emissions(305)	305-1	Direct (Scope 1) GHG emissions
				305-2	Energy indirect (Scope 2) GHG emissions
	Energy reduction	7	Energy(302)	302-4	Reduction of energy consumption
	Pollution prevention	11	Effluents and Waste(306)	306-2	Waste by type and disposal method
	Water management	12	Water and Effluents(303)	303-3	Water withdrawal
	Energy using	15	Energy(302)	302-1	Energy consumption within the organization
	Energy intensity	18		302-3	Energy intensity
Employees/ Social	GHG efficiency	19	Emissions(305)	305-4	GHG emissions intensity
	Employment relations	8	Employment(401)	401-3	Parental leave
	Cultivation of Talent	10	Training and Education(404)	404-1	Average hours of training per year per employee
	Occupational Health and Safety	16	Occupational Health and Safety(403)	403-5	Worker training on occupational health and safety
	Human rights management	17	Non-discrimination(406)	406-1	Incidents of discrimination and corrective actions taken
	KPI(Key Performance Indicators) assessment	20	Training and Education(404)	404-3	Percentage of employees receiving regular performance and career development reviews
Supplier Environmental Management	Employee rights	21	Employment(401)	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees
	Supplier labor rights	4	Supplier Social Assessment(414)	414-1	New suppliers that were screened using social criteria
	Supplier management	14	Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria



msi[®]

2. Corporate Governance



2. Corporate Governance

Core Values and Visions

Core value forms a significant part of MSI's DNA and is the soul that defines us. It has decisive influence on our R&D efforts, vision and product positioning. With a different core value and DNA, we will without a doubt produce completely different products.



Corporate Governance Commitments

MSI manages its businesses in the integrity, transparency and accountability. The Company has founded its internal policies upon the basis of integrity, and developed robust corporate governance and risk management mechanism to ensure the sustainability of its businesses. Meanwhile, corporate governance measures are constantly being improved upon for stakeholders' best interest.

•During the reporting period, the corporate governance management approach as below list:

Purpose	To disclose economic performance that MSI has delivered to stakeholders.
Policies	Corporate Governance Best Practice Principles 、Ethical Corporate Management Best Practice Principles 、Codes of Ethical Conduct
Management	Through corporate governance unit has been assigned to devise operating strategies, implement goals, control costs and maximize economic benefit for employees and shareholders.
Responsibilities	MSI Corporate Governance Organization
Resources	Please refer to 2018 Annual Report-MSI and Subsidiaries Consolidated Statements of Comprehensive Income

Goals and Targets	Ranked as top 6%~20% of public companies list in the Corporate Governance Evaluation by TWSE.
Assessment Mechanism	The Corporate Governance Evaluation held by Taiwan Stock Exchange (TWSE)
Assessment Result	<ul style="list-style-type: none"> ■ MSI was ranked top 6%-20% public companies list of The 5th Corporate Governance Evaluation held by Taiwan Stock Exchange (TWSE). ■ Please refer to 2.2 Financial Performance
Communication/ Grievance Mechanisms	Email: 080419861@msi.com

2.1 Company Overview

MSI was founded in 1986 as a motherboard and graphic card manufacturer. Over the years, the Company has diversified into consumer electronics and commercial solutions through proprietary brand and as an OEM offering distinguished R&D and production service. The IT industry underwent drastic changes in 2010, but we remained persistent to our professionalism and sustainability focus, and adapted to the changes by shifting focus towards e-sports. We began with the introduction of gaming laptops and emerged as the world's leading brand of gaming laptops in 2014 that continues to dominate to this date.

Company Name	Micro-Star INT'L CO., LTD.	
Date of Establishment	1986/8/4	
Stock Code	2377	
Industrial Classification	Computer Manufacturing	
Headquarters	No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)	
Market Area	Global	
Capital (NTD)	8,448,561,990	
Chairman	Hsu,Hsiang	
General Manager (CEO)	Chiang,Sheng-Chang	
Employee	Taiwan	2,370
	China	The China area does not provide information on the number of employees due to the confidentiality of the customer contract.



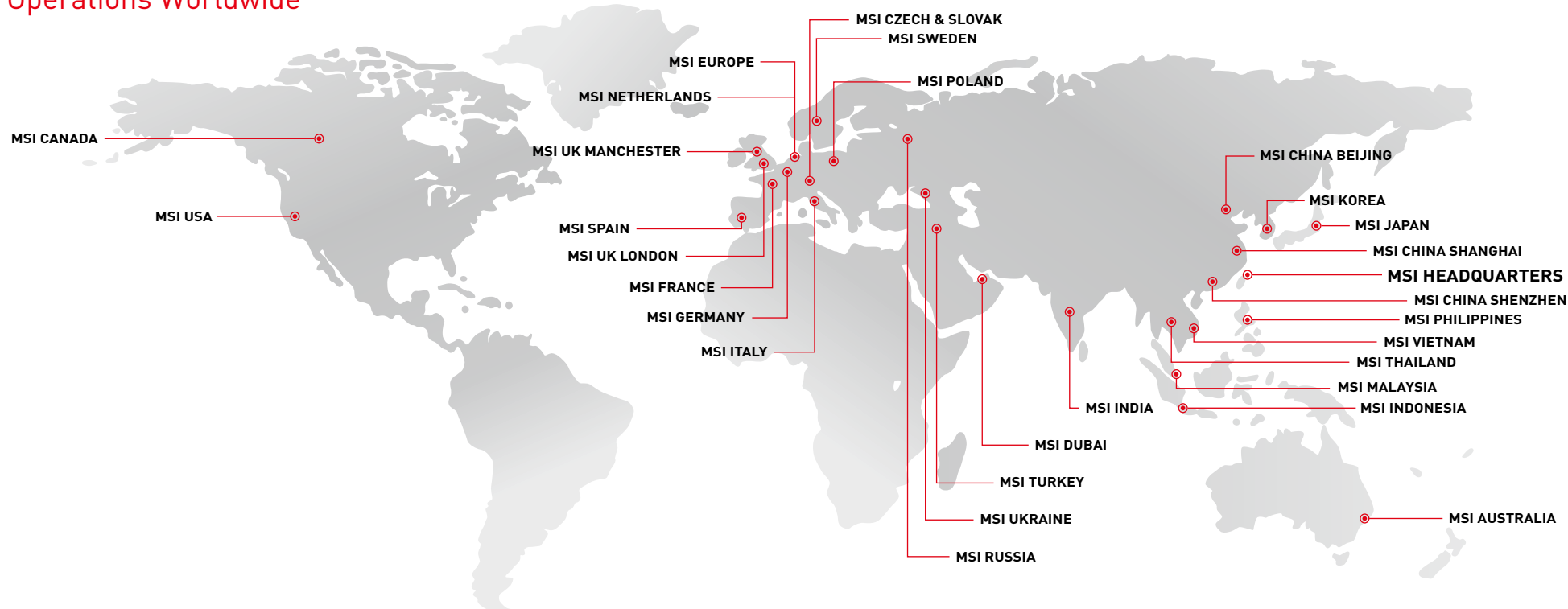
(Comprehensive Product Lines)

List of Major Shareholders

The based statistics is according to 2019.04.16 to stop the transfer date of the shareholders' register.

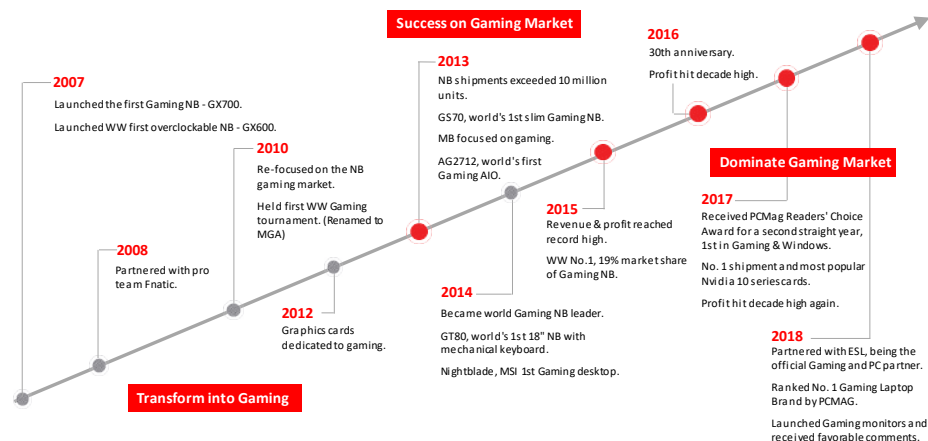
Top 10 shareholders	Number of shares hold	Shareholding %
Hsu,Hsiang	51,983,151	6.15%
Fubon Life Insurance Co., Ltd.	32,599,000	3.86%
Cathay Life Insurance entrusted HSBC Global Asset Management Limited Account	27,631,000	3.27%
Lin,Wen-Tung	25,672,499	3.04%
Huang,Chin-Ching	20,937,377	2.48%
Nan Shan Life Insurance Co., Ltd.	19,125,000	2.26%
Lu,Chi-Long	18,650,835	2.21%
Yu,Hsien-Neng	17,892,824	2.12%
Investec Global Strategy Fund-Asian Equity Fund	16,329,000	1.93%
Hsu,Fen-Lan	13,408,517	1.59%

Operations Worldwide



Being the world's leading e-sport brand, MSI is relentless in its pursuit for innovation. By managing a professional brand, we interact with real players and design gaming products that meet their needs, which is the main reason that makes MSI the most trusted brand in e-sports. We invest countless hours and substantial resources into supporting talented gamers who have the ambition to excel in e-sports, while at the same time incorporate their knowledge and skills into our products. We take pride in researching, designing and manufacturing our products entirely in-house, and consider it to be the best way to incorporate MSI's infinite creativity and design concepts into the products. By involving experts from different fields, we pour the ultimate gaming soul into our designs and make each product a perfect collection of intellectual minds.

MSI Gaming Milestones



We sponsored more than 20 professional gaming teams worldwide. We've created numerous opportunities for amateur and professional gamers to prove their worth in online and offline events. These professional gamers also give suggestions of what are important to them. These are valuable insight for MSI to be innovative and to create better products for gamers.



MSI considers its success to be attributable to a robust sales network. Working with distribution partners from all over the world provides MSI with quick control over pre-sale, business expansion, technical support and after-sale service in every market it operates. This makes the world better understand MSI, and enables consumers to find the information and the most suitable products they need in the shortest time.



•2018 Worldwide Awards

MSI continues investing in innovative R&D. The outstanding performance of the products has convinced countless media around the world to give positive reviews. Through the recognition of these awards, we are able to effectively promote our brand awareness, enabling us to market our products globally through diversified and integrated approaches to publicity, event marketing, experiencing marketing, and exhibition marketing, and digital marketing.



2018 CES Innovation Awards-Best of Innovation



2018 Taiwan Excellence Awards



2018 iF Design Award



2018 COMPUTEX d&i awards



2018 COMPUTEX Best Choice Award



The ranked number 1 Gaming Laptop Brands 2018 by PC Magazine

2.2 Financial Performance

MSI places great emphasis on building competitive advantage within its main area of expertise. Since it made the transition into e-sports, the Company has re-allocated resources to the growing niche and executed plans at greater intensity that resulted in actual improvements in terms of profit performance and financial position. Through well-defined business targets, investors/shareholders are given a better understanding of MSI's prospects and values, and our performance in recent years is evident of our ability to deliver strong return on equity as a sustainable business. Through continuous improvement in financial performance, MSI has been able to strengthen financial position and generate better financial results and values to the benefit of its stakeholders including investors.

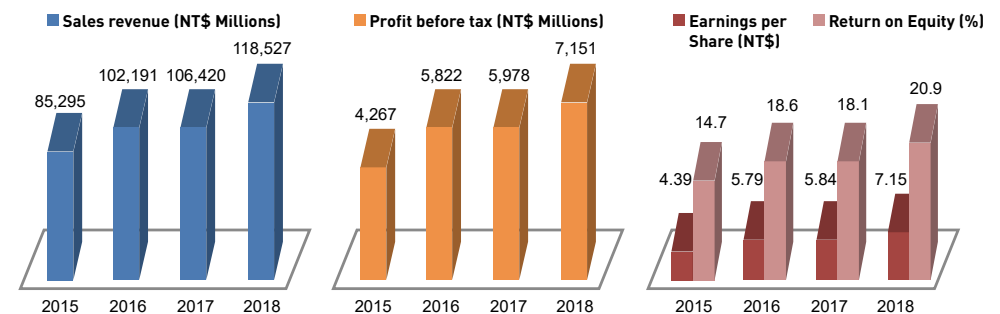
Financial Performance

「Competitive gaming product design」, 「Player communication and satisfy player needs」, 「Support for e-sports culture and increase the market share of e-sports」 and 「Ongoing improvement of profit and investment yield」 are the four main strategies that MSI has adopted to build business values over the long term.

The following information is in accordance with Financial Reporting International Financial Reporting Standards (IFRS) summary and verified by the accountant. The data sources for the financial statements each year, details of the information available through the following channels:

Market Observation Post System <http://mops.twse.com.tw> (Company Code: 2377)

MSI Investor Information: <https://www.msi.com/about/investor/>



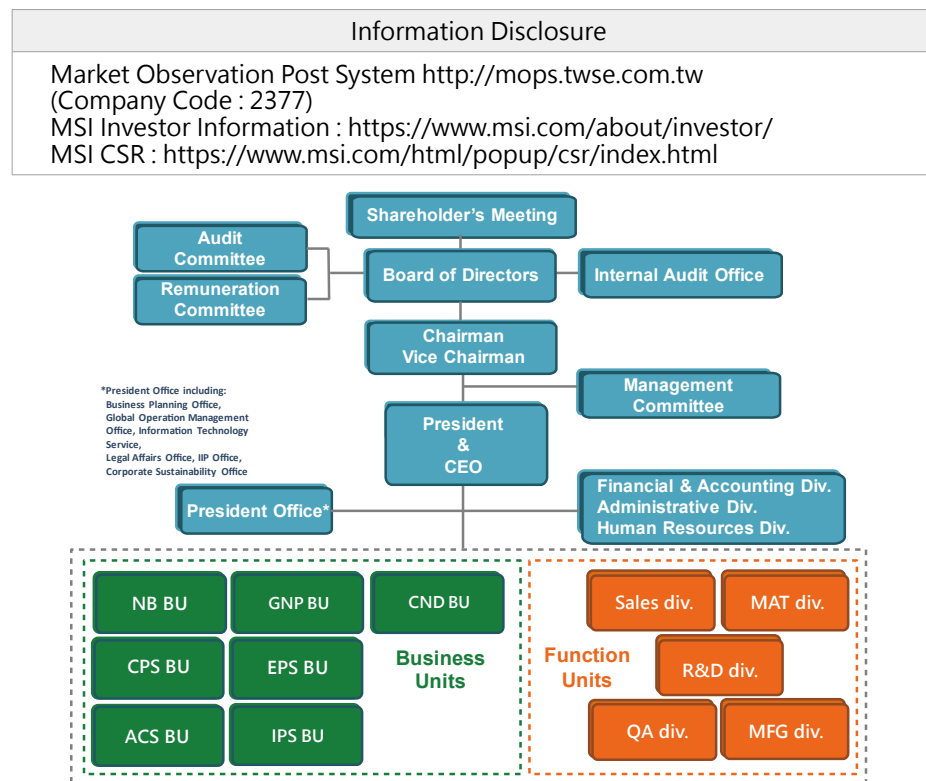


2.3 Governance Structure

MSI values business integrity and sound corporate governance, and considers prudent and transparent Board of Director to be the foundation of sound corporate governance. Functional committees including the Audit Committee and the Remuneration Committee have been empowered by the Board of Directors to assist the Board in various duties. The committees report work progress to the Board of Directors on a regular basis. The Board of Directors is also involved in the routine supervision of corporate social responsibility affairs.

Corporate Governance Organization Structure

The following information on corporate governance, including organizational structure, relevant education and experience of corporate governance members, as well as concurrent positions in other companies, board of directors, training and education on corporate governance, and functional committee operations, have been published in the annual report this year; relevant corporate governance information is available in the following channels:



The Board of Directors

The Board of Directors serves as the ultimate governance body and decision-making unit within MSI. Board members are elected from persons with adequate capacity during shareholder meetings; the eligibility of relevant personnel is subject to the Company Act and relevant laws. The Board of Directors currently comprises 11 directors, including 3 independent directors; all members of the Board are male. The Board comprises members with diverse background and experience; collectively, they are capable of operational decision-making 、 business administration 、 crisis management, and possess the proper industry knowledge 、 global vision 、 leadership and finance/accounting/legal skills needed to enforce corporate governance. Joseph Hsu currently serves as Chairman whereas Jeans Huang serves as Vice Chairman of the Board. The Board and its members perform duties in the utmost discretion, discipline and accountability. The Company has a set of 「Rules of Procedure for Board of Directors Meeting」 in place that requires directors to disassociate from decisions that present a conflict between their interests and interests of the Company when dealing with corporate business, and that material decisions are subject to approval at a shareholder meeting.

The Board of Directors meets at least once a quarter in accordance with the Company's 「Rules and Procedure of Board of Directors Meeting」. The Board of Directors held eight meetings during the reporting period. The Board of Directors held eight meetings during the reporting period, the director's average attendance rate is 90.63%, and the independent director's average attendance rate is 100%.

Audit Committee

MSI's audit committee is consisted of 3 independent directors, whose responsibilities are to assist the Board of Directors in decisions involving finance, auditing, accounting and material asset transactions, while making sure that MSI's operations comply with legal requirements. The Audit Committee meets at least once a quarter in accordance with the Company's 「Audit Committee Organizational Rules」. The Audit Committee held four meetings during the reporting period; the members' average attendance rate is 100%.

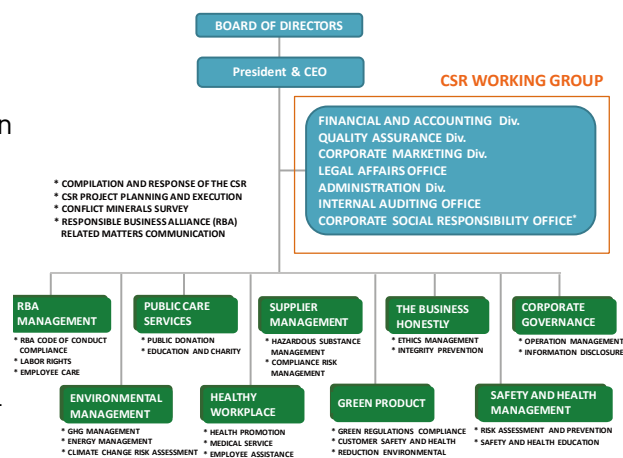
Compensation Committee

MSI assembled its Remuneration Committee in 2011 as a means to enhance corporate governance and improve directors' and managers' compensation system. The Committee has been authorized by the Board of Directors to assist the Board with the review of the Company's overall compensation policies and plans, thereby ensuring that compensations are reasonable and adequate for retaining talents. MSI's Remuneration Committee is consisted of 3 independent directors, whose responsibilities are to reduce risks of conflicting interest within the Company by exercising the duty of care of a prudent manager in the utmost professionalism and independence.

The Compensation Committee meets at least twice a year in accordance with the Company's 「Compensation Committee Organizational Rules」. The Compensation Committee held four meetings during the reporting period, the members' average attendance rate is 100%.

Corporate Sustainability Office

As part of MSI's ongoing efforts toward sustainable business and corporate social responsibilities, the Board of Directors



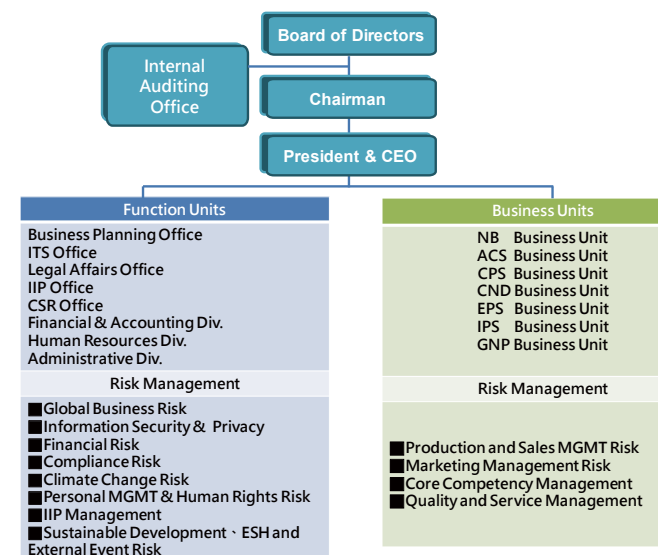
has authorized the General Manager (CEO) to coordinate internal departments for the establishment and review of stakeholder policies, and assembled a Sustainability Development Office that specializes in CSR-related matters and makes relevant disclosures to the Board and to external parties at least once a year.

2.4 Risk Management

With pragmatic approaches, MSI understands the significance of risk assessment. To achieve sustainable development and minimize the potential impacts and damages caused by uncertainties, we set up the 「Procedures for Operation and Management Planning」, aiming to minimize the potential risks, bolsters the capability for effective management of the key sustainability risks and create the best conditions for business and other opportunities.

Risk Management Organizational Structure

MSI has developed systematic risk management practices based on existing organization and internal control. In addition to cost benefits, these risk management practices have also been integrated with existing management systems to support business strategies and responses, and reduce potential risks of crisis.

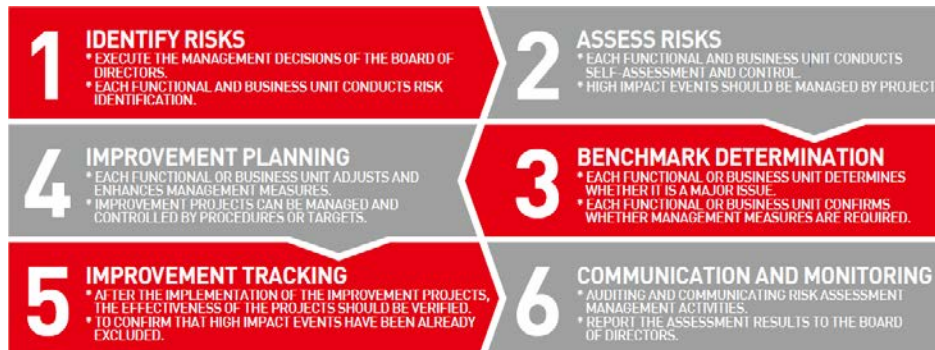




Risk Management Life Cycle

MSI adopts the PDCA (Plan-Do-Check-Act) cycle for risk management. This approach enables the Company to mitigate, transfer, avoid or even assume risks of various categories in a controlled manner, and make ongoing improvements to actions and responses.

•The Risk Management Continuous Improvement Procedure



During the reporting period, a series of analyses were performed to identify risk factors that are likely to affect business operations. We then applied controls and adjusted procedures at different levels of authority to mitigate such risks. Targets and parameters have been set up in management systems to serve as risk monitor, which enables us to reduce chances of risk event or even turn them into opportunities. Overall, MSI encountered no major risk event that may potentially affect business operations during the reporting period, meaning that current risk management practices are effective in monitoring risks.

•Material risk issues during the reporting period

Risk Identification	Goals and Targets	Management Measures	Progress
Financial Risk	Maintain effective management of market, credit, liquidity and cash flow risk.	Please refer to 2018 annual report Annex 12 - Risk Management Policy and Risk Issues assessment.	No significant management risk was discovered under strengthen financial management.
Business Ethics and Anti-Corruption	Establish grievance channels for ethics-related issues; sign integrity commitments; eliminate fraud in procurement.	<ul style="list-style-type: none"> Implemented 「Ethical Code of Conduct」, 「Working Rules」 and 「Corporate Social Responsibility Code」 Organized awareness promotion and training Implemented grievance channels 	No complaint of ethics or integrity violation was received during the reporting period.

Supplier Management	Improve supply chain response; enhance occupational safety and health; enforce information security and customer privacy management.	<ul style="list-style-type: none"> Steps were taken to ensure that no material was sourced from the Smelter or Refiner (SOR) list published by CFSI across all product lines and the entire supply chain Amended "New Supplier Evaluation Policy" Communicated with suppliers (through supplier conference) 	No significant management risk was discovered under supply chain management practices.
Climate Change Risk	<ul style="list-style-type: none"> Establish emergency reporting system for natural disasters, so that situation and recovery can be updated in a timely manner in the event of disaster. Implement contingent measures such as backup production and inventory reserve to mitigate operational impact in the event of natural disaster. 	<ul style="list-style-type: none"> Applied energy/resource usage survey and control Made adjustments and energy optimizations to common equipment Introduced advance green production technology 	<ul style="list-style-type: none"> No significant management risk was discovered under sound early warning system. Energy-intensive equipment have been adjusted according to plan, and were able to achieve 8.71 % energy saving compared to the previous reporting year.
Legal Compliance	Ensure compliance with laws and economic, social and environmental management requirements.	<ul style="list-style-type: none"> Policies have been implemented to ensure compliance with laws and economic, social and environmental management requirements. Compliance with occupational safety and health laws is being reviewed regularly. Product liability and safety management practices have been implemented 	There had been no non-monetary penalty imposed during the reporting period for violation of law.
Employee Management	Establish and enforce management guidelines based on international initiatives on labor and human rights (such as RBA, OECD Guidelines for Multinational Enterprises etc.), and ensure full compliance with local laws where production sites are located.	<ul style="list-style-type: none"> Labor capacity survey and performance evaluation are being performed regularly. Employees have been subjected to regular training and career planning. Favorable compensation and welfare packages have been provided for employees. 	The Company has complied with labor and human rights laws, and exhibited no improper management or violation of labor regulation during the reporting period.

Please refer to the 2018 annual report or corresponding chapters of this report for more detailed explanation about the above risk management measures.

Business Continuity Plan

Since 2008, MSI introduced the Continuous Operations Plan(BCP) to our internal system and established a crisis management panel, along with an internal reporting mechanism. We implement unscheduled drills for continuous operations, simulating different situations based on current events and issues that pose significant risks to the company. Each drill is documented and reviewed after the event and crisis-handling procedures and internal/external communication channels are established based on the results. Through the system and mechanisms, we expect to minimize the impact to business

operations during emergencies and contain risks, such as company downtime, shipping delays and staff casualties, within a manageable scale. The result of each drill is documented and published on our internal website EIP so that we can utilize this data during subsequent emergencies. To ensure the sustainable management of the Company, MSI implements and establishes business continuity operational management to make sure that the Company can resume operations quickly when disasters or impacts occur, which include the following:

- Protect the Company's reputation and investors' rights and interests.
- Reduce unexpected information and communication disruptions to ensure normal operations.
- Create a good workplace environment and reduce the chances of environmental and operational hazards.
- Establish rapid response to industrial supply chain management and increase market competitiveness.

2.5 Business Ethics

MSI adheres to the national laws and ethics of the location where each plant is located to engage in operational activities; we prohibit the direct or indirect provision, commitment, demand, or acceptance of any undue benefits and interests, or any acts involving breach of integrity, illegality or violation of obligations in the course of doing business to obtain or maintain benefits. MSI will continue to abide by the operational philosophies of honesty, transparency and responsibility, base policies on the principle of good faith and establish good corporate governance and risk control and management mechanism, so as to create an operational environment for sustainable development.

Ethical Commitment

MSI upholds integrity and people-oriented values. The Company has ethics and behavioral codes in place and is committed to complying with laws and moral principles, protecting corporate assets, interests and reputation, earning the trust of stakeholders, and improving sustainable practices.

•During the reporting period, the ethical commitment management approach as below list:

Purpose	To assess corruption risk within MSI, respond to stakeholders' concerned issues, and support implementation of anti-corruption policies and procedures
Policies	Codes of Ethical Conduct 、Corporate Governance Best Practice Principles 、Ethical Corporate Management Best Practice Principles 、Corporate Social Responsibility Best Practice Principles
Management	Internal policies such as Ethical Code of Conduct 、Corporate Governance Management Procedures 、Integrity Management Code and Corporate Social Responsibility Code have been implemented to ensure that MSI employees are able to adhere to the highest ethical standards in business dealings and that stakeholders are made more aware of our ethics requirements. Together, they outline the scope of ethics and responsibilities that employees are bound to obey, and convey our corporate culture of integrity.
Responsibilities	Internal Auditing Office 、Legal Affairs Office
Resources	A total of 568 suppliers have signed the integrity commitment during the reporting period.
Goals and Targets	<ul style="list-style-type: none"> ■ Promote integrity statement of MSI Group ■ Conduct audit of the internal control system ■ Ensure protection of customers' privacy
Assessment Mechanism	Corporate Governance Evaluation, integrity statement, and signing of integrity commitment for procurement contracts.
Assessment Result	<ul style="list-style-type: none"> ■ Suppliers are educated on the issue of integrity once a year. A total of 636 suppliers (100%) have completed the education during the reporting period. ■ Internal audit was performed on all operating locations of MSI and subsidiaries, and no significant corruption risk was found. Please refer to the Declaration of Internal Control System attached as part of the 2018 annual report-Management's Reports on Internal Control for more details. ■ No stakeholder has raised complaint regarding violation of privacy 、and please refer to 2.6 Legal Compliance
Communication/ Grievance Mechanisms	Please refer to 2.5 Business Ethics-Reporting Mechanisms.

Code of Conduct

MSI complying with 「Ethical Corporate Management Best Practice Principles」 、 「Codes of Ethical Conduct」 、 「MSI Rules of Work」 and RBA-Code of Conduct. The content includes employee relations, gift hospitality, client privacy, intellectual property rights, discrimination/ bribery behavior, information security etc., strictly abide by the principle of avoidance of interests and anti-corruption.

•Responsible Business Alliance (RBA) Audit Management

Corporate sustainability is a long-term process, one that MSI has devoted to with the introduction of EICC in 2008 followed by the announcement of



「Corporate Social Requirements」 in 2009, implementation of supplier Second-party EICC audit in 2010, and adoption of RBA Validated Audit Program (VAP) for MSIS since 2015. We continue to disseminate and communicate relevant information on labor, ethics, and environmental safety to employees, suppliers, and clients. Corporate governance is based on business integrity with people at the center. Any forms of misconduct, improper interests, and inhumane treatment are prohibited.

MSI's Responsible Business Alliance Development Milestone

Goals and Targets	Management Measures	Progress	Future Goals
The electronic industry and its supply chain shall ensure that the work environment is safe, the workers are respected and dignified, and business operations are compliant with environmental protection rules and moral code	RBA VAP Audit	2008: MSI adoption of the Electronic Industry Citizenship Coalition (EICC) Code of Conduct 2009: Establish 「Corporate Social Requirements」 2010: Supplier EICC on-site audit 2015: MSIS 1st. EICC VAP Audit (V5.1) 2017: MSIS EICC VAP Audit (V5.1.1)	2019: MSIS RBA VAP Audit (V6.0.1)- (Estimated complete date: 2019.10)

Employee Training

In addition to offering training courses for new recruits, we also promote awareness on ethics and integrity using our EIP website, contracts and business documents. Furthermore, e-newsletters are distributed to employees from time to time to explain ongoing issues and clarify doubts. The above measures apply to the entirety of MSI Group and are intended to draw employees' attention to proper ethics and the zero-tolerance policy.

Supplier Management

Competition is beneficial to business, but as multinational trade evolves, competition for profit margin has given rise to new forms of merger, receivership and market manipulation/segregation that are being considered as inappropriate conducts. For this reason, new behavioral

codes and legal actions are being undertaken worldwide against monopolistic conducts and unethical behaviors, and in doing so maintain the integrity of the business world. MSI has responded to the initiative through actions, exerting influence over suppliers to uphold common ethics and integrity. We use a multitude of channels (e.g. supplier conference) to promote suppliers' awareness towards MSI's integrity policy, and has compiled a list of 「Corporate Social Requirements」 to align suppliers' practices with MSI's expectations. During the reporting period, MSI continued to promote awareness among suppliers using the online platform (GPM) and by having them sign letters of commitment that convey MSI's resolve in upholding business ethics.

Supplier promotion focus:

- Suppliers are expected to act in MSI's best interest, and avoid potential conflict of interest.
- Unreasonable contracting, collective bargaining and conspiracy among suppliers are prohibited.
- Suppliers must have whistleblower systems in place and protect informants against retaliation.
- Suppliers are expected to take initiative in reporting unethical and dishonest conducts.

Business ethics risk assessment

Targeting on the risk of corruption, MSI conducted an assessment based on operations of different natures. The assessment approaches are further described below:

1. The offices of internal audit and legal affairs oversee signing of the business integrity declaration and business integrity pledge during contract signing to ensure that all MSI employees and suppliers conduct businesses with ethical practices.
2. The management is required to perform control self-assessment (CSA) and supervise internal audits on MSI and subsidiaries according to the company's internal control system. The progress of which is disclosed in annual reports, please refer to 2018 annual report P.39.
3. A complaint mechanism for business integrity related practices is set up for checking and control of possible risks of corruption.

Based on the information in the business integrity declaration and business integrity pledge in the procurement contract, results of CSA, and reports from the business integrity compliance, MSI's risks of corruption is well under control. No significant risk was found during the reporting period.

Reporting Mechanisms

MSI provides a wide range of channels for misconduct report, and any informant who makes report or participates in investigation out of good faith will be protected from retaliation. By encouraging misconduct report and protecting informants, MSI seeks to eliminate illegal conducts within the organization. Judging by the results of the integrity statement, the integrity commitment clause contained in procurement contracts, the CSA and ethics complaint channels, MSI is deemed to have maintained appropriate control over integrity risks during the reporting period. No significant risk was discovered and no integrity-related complaint was received from any channel.

Reporting Mechanisms	Hotline	MSIT: 02-2227-1606 MSIS: 0755-28101899 Ext:8802 or 0755-27637600 MSIK: 18361990252 or 0512-57718888 Ext:1001 or 61001
	E-mail	MSIT: audit@msi.com MSIS: jubao@msi.com MSIK: lianzheng@msi.com
	Mail Box	MSIT: No. 69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.) / Micro-Star INT'L Co.-Internal Audit Office MSIS: Longma Information Technology Insudtrial Park, Tangtou Village, Shiyao Town, Baoan District, Shenzhen City, Guangdong Province, P.R.China / MSI Computer (Shenzhen) Co., Ltd. / Internal Audit Office MSIK: No.88, Qianjin East Road, Kunshan City, Suzhou, Jiangsu Province, P.R.China / MSI Electronics (Kunshan) Co., Ltd. / Internal Audit Office.

2.6 Legal Compliance

MSI operates and services customers worldwide. To ensure that we meet full compliance with local laws and regulations, we pay close attention to the latest updates of policies and legislation that are likely to affect the Company's business and financial operations. The latest information obtained regarding regulations is communicated with the relevant

department in the first instance to ensure timely update of the Company's operations. We have also set up procedures and guidelines based on the relevant requirements provided in various laws and regulations. Our relevant actions include but are not limited to fair trade, environmental protection, compilation of financial reports, internal control, insider trading, employee conduct, anti-harassment, anti-discrimination anti-corruption, personal information protection, document management, ethical practice, intellectual property rights, information security, and management of conflict minerals. The above-mentioned management policies are extremely important for the management of MSI business ethics and compliance requirements. In addition to meeting basic operational requirements, all employees shall be informed of relevant business laws and regulations to make correct ethical judgments and operational decisions.

MSI adheres to ethical business practices and corporate social responsibilities. Therefore, we pledge our best efforts to achieve sustainability.

Category	Compliance Indicator	Corporate Social Responsibility Progress
Social	Anti-corruption	MSI did not commit any improper dealings that are against our commitment for ethical practices or jeopardize the company's interests.
	Anti-competitive behavior	MSI's business activities did not involve inappropriate business activities such as anti-competitive practice, anti-trust, or monopolizing practices.
	Compliance	No substantial fines or non-economic sanctions were imposed on MSI for violation of regulations.
	Supplier Assessment for Impacts on Society	MSI did not have any workplace hazards or sustained any economic losses as a result of contractor or supplier's breach of operating procedures.
	Grievance Mechanisms for Impacts on Society	There were no stakeholder complaints about unfavorable social impacts.
Human Rights	Non-discrimination	No incidents of discrimination, human rights violations, forced labor and sexual harassment were reported.
	Forced or Compulsory Labor	
	Human Rights Grievance Mechanisms	
	Child Labor	No operational base or supplier was found to have been involved in serious child labor disputes.



Environmental	Effluents and Waste	MSI did not transport any wastes derived from business activities across borders. It was also not reported for serious incidents of hazardous substance leakage nor had fines imposed for violation of environmental protection laws. The test results of all MSI operation sites fully complied with local regulations. No incidents of serious leakage were reported and no impact to the local environment and wildlife habitats related to MSI's operations was found.
	Compliance	No substantial fines or non-monetary punishments were imposed on MSI for violation of environmental-protection laws.
	Total number and volume of significant spills	No instance of serious leakage of the chemicals used in MSI's business activities was reported.
	Environmental Grievance Mechanisms	No complaint relating to environmental impact was lodged through the stakeholder complaint mechanism.
	Product Health and Safety	MSI laptop model No. GE60/70 was found to have been manufactured using defective battery cells supplied by SANYO ENERGY (SUZHOU) Co., Ltd. In 2013-2014, which presented risk of short circuit and spontaneous combustion. With regards to the particular batch of laptops affected by defective batteries, we have initiated a callback, issued public statements and offered battery replacement service free of charge in conformity with legal requirements. No complaint or claim was made against the affected laptops and no injury had occurred as a result during the reporting period, hence no fine was imposed. Except for the above case, MSI's products and services did not violate health or safety regulation of any country.
Product Responsibility	Product and Service Labeling	MSI did not violate any laws concerning product and service labeling.
	Marketing Communications	MSI did not violate any laws concerning advertisement, promotion, or sponsorship for selling and marketing of products. MSI did not produce any prohibited or controversial product. None of its products was banned from sale in specific markets.
	Customer Privacy	MSI did not receive complaints regarding violation of client's privacy right and/or loss of clients' information.
	Compliance	MSI was not fined in substantial scale as a result of violation of laws relating to products, services and/or product usage.

2.7 Relations with Associations

Through industry associations and external organizations, MSI not only engages supply chain partners in ongoing exchange of opinions, but also coordinates with them to fulfill corporate social responsibilities to the expectation of external stakeholders. The following is a list of associations that MSI is a member of. In each of the following associations, MSI undertakes appropriate duties and contributes its expertise to facilitate growth of the entire industry.

Association	Manufacturer	Title
Taiwan Automation Intelligence and Robotics Association (TAIROA)	MSIT	Member
North Electronic Human Resource Association (NeHR)		
Taipei Computer Association (TCA)		
Taiwan Stock Affairs Association (TWSAA)		
Taiwan Printed Circuit Association (TPCA)		
Corporate Green Competitiveness Alliance (CGCA)	MSIS	
Shenzhen Integrity Alliance Association		
Taiwan Merchant Association Shenzhen (TMAS) of Shihyan Association		
Shenzhen Hi-Tech Industry Association	MSIK	Member
Kunshan HumanN Resource Association (KSHRA)		
Taiwan Compatriot Investment Enterprises Association of Kunshan (KSTBA)		
Kunshan Economic and Technological Development Zone Association of Work Safety and Environmental Protection (KETDAWSEP)		



msi[®]

3. Employee Value



3. Employee Value

Talents are closely related to MSI's future development. We attach great importance to the training and future development of our employees. We will continue promoting the cultivation of quality talents and key technology management.

The 「Regulations for Education and Training Management」 has been established for employee s' further studies and training, based on which funds are budgeted and courses are planned according to the requirements of the relevant units every year to conduct subject-based training and differentiated talent management. The purpose is to enhance employees' professional development and self-growth, so as to achieve business sustainable management and development. For the details of MSI education and training courses and expenditures, please refer to the Labor-management Relations Chapter of the MSI annual report during the reporting period.



The selected as Cheers magazine's Top 100 Most Attractive Employers in 2018.

Item / Year	2016	2017	2018
Remuneration and Bonuses (In Millions of New Taiwan Dollars)	1,359.30	1,363.05	1,363.45
The Employee Benefits Costs (In Millions of New Taiwan Dollars)	6,973.03	6,752.46	7,053.81
Education and Training Expenditure (NT\$)	1,736,430	1,892,230	5,857,284
The Employee Welfare Committee (EWC) Funds (NT\$)	54,275,919	51,008,421	59,040,003

3.1 Employee Policy

MSI considers employees to be the most important partner towards becoming a sustainable business, for they are the key drivers behind the Company's growth. This is why it is part of MSI's mission to involve employees in its core value and sustainability vision.

•During the reporting period, the employee management policy approach as below list:

Purpose	To provide employees with assurance regarding recruitment 、 employment terms 、 work rights and work environment, and thereby maintain sound labor-management relations.
Policies	MSI Rules of Work 、 Corporate Social Responsibility Best Practice Principles 、 Corporate Governance Best Practice Principles 、 Regulations Governing Establishment of Internal Control Systems by Public Companies
Management	MSI has implemented all of its employee rights protection systems in compliance with legal requirements. Through regular performance evaluation, MSI keeps track of employees' current state and offers necessary assistance to support their interests. Furthermore, we utilize a number of communication channels including e-mails and labor-management meetings to maintain a harmonious and mutually beneficial working relation.
Responsibilities	Human Resources
Resources	Please refer to 3.1 Employee Policy-Employee Development Policy
Goals and Targets	Please refer to 3.1 Employee Policy-Employee Development Policy
Assessment Mechanism	The Corporate Governance Evaluation held by Taiwan Stock Exchange (TWSE) 、 Labor Contract
Assessment Result	Please refer to 3.1 Employee Policy-Employee Development Policy
Communication/ Grievance Mechanisms	Please refer to 3.4 Employee Relations-Effective Communication

Employee Care Strategy

- Maintain a competent and stable workforce
- Provide incentive compensations and a comprehensive welfare system
- Offer comprehensive career planning
- Create a friendly and joyful work environment

Employee Development Policy

MSI follows principles of sound governance, respects basic human rights

and is dedicated to providing a fair, integrity, safe and healthy workplace. Considering that employees are the most important members to corporate management, we treat them with the ultimate respect, provide open communication channels and create an environment where they can develop competitiveness, innovation and growth. With an active growth policy in place, we hope to see every employee accomplish excellence and find their places within the MSI family.

2018 MSI Employee Policy Goals		Progress	2020 Goals
Retention rate of key talents (%)	95	95.5	97
Inspection rate of Annual Health Examination (%)*	90.00	89.08	90.00
Development of leadership skills for key talents	Introduction of Managerial Assessment of Proficiency (MAP) and coaching assessment, and participation of coaching courses (No. of attendees)	246	To expand the scope of MAP and offer subsequent skill development courses

* Inspection rate of Annual Health Examination: refers to the percentage of employees having participated in health checkup during the year; this percentage may vary due to employees' resignation 、attendance 、absence and rotation.

•Human Resource Management

Maintaining 「healthy of human resource」 has been an important goal for the Company, one that we have planned and adjusted strategically based on changes in the operating environment. Based on thorough analysis, MSI predicts human resource demands and supplies at various stages of growth to ensure that the organization has manpower of 「timely」 、 「location」 、 「appropriate」 and 「applicable」 to support its sustainability goals.

•Diversified Talent Development

MSI continues to inspire employees to 「pursue dreams 、 self-actualized」 as part of its talent development program. The Company

implements a diversified career development system and allows employees to rotate, transfer, undergo training and involve in projects as needed to develop skills or realize their dream careers. Meanwhile, the Company offers attractive compensation and benefits to compete for top talents in the market.

Course Category	Content	Goals
Brand Core	General knowledge and guidance for new recruits	To give new recruits a basic understanding of the internal systems and work environment, and thereby improve work relationships to let the work become easier.
	Intellectual property rights	To introduce employees to patent and non-patent document search, how patents are relevant to innovations within the industry, and how businesses may improve competitiveness with R&D capacity.
	Core value and brand story	To convey the company's core value 、 vision 、 visual guidelines and corporate image.
MSI University	Leadership Institute	This is a complete set of courses on the leadership and management skills needed to become a supervisor.
	Business Marketing Institute	This series of courses include semi-annually skill development activities aimed at reinforcing the sales and management skills of overseas managers.
	R&D Institute	This series of courses focuses on helping our employees develop new visions and new thinking for innovative R&D, with the aim to reinforce abilities in innovative development and perspectives on new industrial trends.
	Technology Institute	Technical skills courses are designed to enable continuous development of manufacturing technology and mapping out of future directions.
Project Training	Workplace communication	To learn how effective communication can be used to resolve obstacles, improve interpersonal relationships, enhance teamwork and improve work performance.
	Crisis and opportunities	To learn new market obstacles of the electronics industry, and turn crisis into business operation opportunities.
	Constructive stress	To help employees to know the work stress, pressure source and managing work stress, and accordingly to improve work performance and mood.



•Friendly and Healthy Workplace

To implement the core value of MSI and the vision of sustainable development, and maintain high-quality growth, MSI is committed to complying with the local statutory labor standards of each factory and international standards, including but not limited to prohibiting forced labor, prohibiting the employment of child labor, privacy, improper dismissal/recruitment, and discrimination; relevant regulations have been set to protect employees' rights and interests, promote employees' physical and mental health, and enable employees to demonstrate their skills, grow together with the Company, as well as be a happy MSI employee.

Human Rights Policy	Description
Non-Discrimination	Employees shall not discriminate or harass others while at work. In addition, race, gender, age, marital status, political affiliation, or religious belief shall not be used as a basis for determining employee hiring, review, or promotion.
No Child Labor	Child labor will not be tolerated. All hiring will meet applicable minimum age laws and regulations.
Employee Communication	Employer and worker meetings and suggestion boxes are setup to clearly and effectively resolve any labor issues. Employees are free to decide whether to enter into collective bargaining agreements or exercise other rights granted by law. MSI will not prohibit or interfere with employee rights of freedom of association or to engage in collective bargaining.
Healthy Work Environment	Through mutual understanding and respect, MSI provides a healthy and safe work environment for its employees.
Working Hours	To foster work life balance, MSI provides benefits above and beyond legally mandated standards through paid leaves and reduced work hours to ensure employees have more personal time.
Reasonable Compensation	MSI provides compensation and benefits that meet or exceed applicable laws and regulations.
No Forced Labor	MSI ensures that employees are not forced or coerced to provide involuntary labor in all aspects of MSI's business operation.
Career Development	MSI provides diverse and varied channels, subsidies, and resources to encourage employee career development.

MSI advocates that different genders should be treated equally in the economy, society, and the workplace and opposes gender discrimination to ensure that employees are treated equally in the workplace, practicing gender equality on the ground. Therefore, we have established the Gender Equality Committee, relevant management measures, and sexual harassment prevention and control channels, including an exclusive mailbox and telephone line, to provide communication channels for employees when their legal rights and interests are violated. There were no violations of discrimination, human rights, forced labor and sexual harassment during the reporting period.

•Sexual Harassment Prevention

We have established the Gender Equality Committee, relevant management measures, and sexual harassment prevention and control channels, including an exclusive mailbox and telephone line, to provide communication channels for employees when their legal rights and interests are violated.

MSIT	Hotline : Internal Extension No.1333 e-MAIL : 113@msi.com.tw The sexual harassment prevention web : Internal EIP website-Employee Relations
MSIS	Hotline : Internal Extension No.8858 e-MAIL : carrieliu@msi.com
MSIK	Corporate Mobile APP

•Excellent Salary and Welfare system

Knowledge is the foundation to MSI's sustainable development. We value every employee as well as their growth within the organization, and offer differentiated compensations based on employees' expertise 、 education 、 experience and job duties. In addition, the salary structure never discriminated by job grade 、 gender 、 marital status 、 religion or political association. All salaries and bonuses offered are higher than the local minimum wage and compensation for employees has been set at reasonable and competitive levels depending on local market conditions. They provide employees with the incentive to perform their best and contribute to the Company's growth.

Rights Promotion

MSI has established multiple service and manufacturing locations throughout the world. While we plan out our global business layout, we also openly recruit appropriate talents under a fair and transparent basis. Through having local employees from different regions and minority groups joining us, MSI has become a diversified business better equipped to offer the most immediate services. To ensure protection of employees' rights, MSI has adopted the principle to comply with laws at the minimum, and set up the relevant management system.

•Benefit Practices

MSI offers fair salary structure, and regularly review and flexible designed rewards system for various job roles , and implemented to improve performance on a corporate operations 、 team and individual level.

Salary and Insurance	Salary (including supervisory differential pay 、 job allowance 、 Meals subsidy)
	Employees are rewarded(including the annual bonus 、 performance bonus and profit sharing etc.) according to performance.
	Labor & health insurance 、 the employee retirement reserve funds
	Free Group Insurance(including medical insurance 、 cancer insurance 、 accidental death insurance and life insurance)

•Fair Performance Assessment

MSI conducts employee performance evaluation twice a year, and conducts core competence evaluation based on the organizational goals set by each unit. To achieve fair performance evaluations, each employee is evaluated by at least two supervisors, including an interview with the direct supervisor to assist MSI in promoting labor-management communication.

2018 Gender and age distribution by region

Staff positions \ Manufacture \ Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Executive	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%
Mid-level executives	88.70%	97.79%	100.00%	100.00%	99.0%	100%
Supervisor	100.00%	100.00%	100.00%	100.00%	100%	97.30%
General staff	93.89%	94.25%	100.00%	100.00%	74.36%	82.07%

Note:

1. The total number of employees of year-end performance evaluation based in 2017. (Former employees and Taiwanese Staff are not included)
2. Executive: including Assistant Vice President or above.
3. Mid-level executives: Section Manager or above
4. General staff: General administrative clerk (including Technician, DL(Direct Labor) 、 IDL(Indirect Labor), Contract employees, Interns)
5. There were no female senior executives at MSIS.
6. Performance evaluation did not reach 100% at any MSI plants due to absence of employees on unpaid leave, newly recruited employees leaving before the end of the third month, and employees on personal and sick leave over 30 days.

•Flexible Working Hours

MSI makes humane work hour arrangements and offers a leave system that is more favorable than what the laws require. These systems are intended to help employees achieve balance between work 、 health and family life.

Leave Policies	Flexible work hours for office operations (office hours begin 8:30~09:00 and end 17:30~18:00)
	Four days flexible paid leaves are offered.
	Every Friday, with 7.5 hours of work, employees can get off work half an hour earlier. For the business day before a 3-day (or more) holiday, employees can get off work 1 hour earlier after 7 hours of work.



•Labor Retirement

MSI makes contributions to employees' pension funds according to local regulations, regardless of where it operates in the world.

Retirement System	Taiwan: The employee pension benefit plans are constituted precisely and apply to the length of service for all formal employees before the implementation of Labor Pension Act in July 1, in 2005. The plans are also applied to the seniority of those who choose to fall under the Labor Standards Act after the implementation of Labor Pension Act. In the name of Supervisory Committee of Business Entities Labor Retirement Reserve, retirement accounts are opened in Bank of Taiwan.
	China: In accordance with the old-age insurance system in the P.R.C., the MSIS and MSIK allocate pension premium for local workers based on a certain proportions of their payroll every month. The pensions of all staff would be made overall arrangements by the government.

•Welfare Allowances

MSI has an 「Employee Welfare Committee」 in place and offers most comprehensive welfare system for employees' life, promote the healthy development of employee both physically and mentally, and maintain harmonic labor-management relations.

Welfare Allowances	The Employee health screening offers for free.
	In addition to subsidizing club activities, MSI also offers individual cash subsidies for various occasions including festivals 、 birthday 、 trip 、 childbirth 、 wedding and funeral.
	The external professional training is fully subsidized.

•Health Care

MSI provides most comprehensive employees care to ensure physical and mental health.

Health Care	we have set up an employee clinic staffed with a physician from a medical center to provide health consultation and medical services.
	We have also implemented a series of tasks for prevention of occupational health hazards, first aid training, health education, health promotion, epidemic prevention, and other health management related subjects.
	All the complexes are equipped with dormitories, mobile and motorcycle parking lots, employee cafeterias, multimedia TV, microwave oven, rice steamers, coffee bar etc.
	Taipei HQ offer of free massage service.

•Workplace Safety

Implement workplace safety management and provide a safe working environment for employees.

Working Environment	MSI has an Environmental Safety and Health Committee and meetings are held at least once every quarter to implementation of workers' safety and health.
	Air conditioners, cooling towers and drinking fountains are being serviced and cleaned regularly to maintain office air quality and employee health.
	The office building implementation entrance guard control, and set up central monitoring system is controlled by security personnel monitoring 24 hours a day.
	Established the Automated external defibrillators (AEDs) for more people to respond to a medical emergency where defibrillation is required. CPR and first-aid knowledge is promoted among employees irregularly.
	MSI holds fire drills every six months, and performs 「Fire Safety Equipment Checks」 once a year to enhance employees' fire safety awareness.
	Establishment of fire prevents manager and oversee fire safety education within the organization.

3.2 Employee Profile

Employee Structure

2018 Gender and age distribution by region

Age\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Number of Employees	1,489	881	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Age 30 and under	14.5%	19.0%	56.52%	67.00%	72.8%	66.0%
Age 30-50	79.2%	76.1%	43.09%	32.61%	26.2%	34.0%
Over 50	6.3%	5.0%	0.39%	0.39%	1.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: There were no over 50 years old employees at MSIS.

2018 Gender and education distribution by region

Education\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Number of Employees	1,489	881	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Masters & above	24.58%	18.16%	0.31%	0.18%	0.43%	0.00%
Bachelor	72.40%	75.60%	29.04%	15.46%	16.13%	17.59%
Others	3.02%	6.24%	70.65%	84.36%	83.44%	82.41%

2018 Employee grade distribution

Grade\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Number of Employees	1,489	881	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Executive	4.90%	1.36%	0.55%	0.73%	0.50%	0.00%
Mid-level executives	23.77%	15.44%	4.45%	2.33%	7.18%	4.70%
Supervisor	0.13%	0.23%	8.98%	7.53%	3.77%	3.78%
General staff	71.20%	82.97%	86.03%	89.41%	88.56%	91.51%

Note:

1. Executive: including Assistant Vice President or above.
2. Mid-level executives: Section Manager or above
3. General staff: General administrative clerk (including Technician, DL, IDL, Contract employees, Interns)
4. There were no female senior executives at MSIS. °

Employment

MSI offering competitive salary, benefits and employment terms, and also has robust on-job training in place to support employees' career development. Moreover, we strive to maintain an open and fair working environment where new employees may quickly adapt to the environment and the duties assigned to them. The immediate supervisor and members of the Human Resource Division also make communication and visits to minimize chances of resignation due to unfamiliarity with the workplace irregularly. All resigned employees were followed up with calls from HR staff or questionnaire to investigate the cause of departure and increase the retention ratio of good talents. As for compensations and incentives, we conduct regular performance assessments and decide them based on employees' individual education, experience, knowledge seniority and performance. All operation sites offer starting salaries for new employees that are more favorable than the local basic salary. The starting salary does not differ for employees' differences such as gender 、 marital status 、 religion or political association.



2018 Gender salary differences by job nature

Item\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Minimum salary ratio	1.18	1.18	1.02	1.02	1.16	1.16

Note: Only for full-time (direct labor) employees.

2018 MSI General Staff Salary Information

Item\Location\Gender	MSIT	MSIS	MSIK
General staff count (A)	2,104	Not applicable.	
Sum of full-time salary in the reporting period (NT\$ Thousands)(B)	2,889,689		
Average earnings in the reporting period (NT\$ Thousands)(C=B/A)	1,373		
Median earnings in the reporting period (NT\$ Thousands)	Not applicable.		

1. General staff count: Disclosure is made in accordance with 「Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies」 implemented since 2019(Amended). Differences from last year's staff count and salary will be disclosed in 2020.
2. Median earnings will be applicable from the next reporting year after the implementation date. (Applicable in April 2020 when reporting 2019 salaries)
3. General staff: General administrative clerk (including Technician, DL, IDL, Contract employees, Interns)

2018 the average new hire rate by gender 、age and region.

Age\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
The number of employment	138	116	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Age 30 and Under	57.97%	58.62%	12.58%	13.65%	72.8%	66.0%
Age 30-50	42.03%	41.38%	87.42%	86.35%	26.2%	34.0%
Over 50	0.00%	0.00%	0.00%	0.00%	1.02%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

2018 the average turnover rate by gender 、age and region.

Age\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
The number of dismissal	123	81	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Age 30 and Under	37.00%	47.00%	12.76%	13.38%	91.8%	86.4%
Age 30-50	63.00%	51.00%	87.24%	86.62%	8.07%	13.60%
Over 50	0.00%	2.00%	0.00%	0.00%	0.13%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Employee Turnover of the Age Group of 30 and Under at MSIS and MSIK:

1. The majority of employees in the 30 and under age group are front-line operators. The reasons for the turnover are mostly related to personal reasons, salaries and benefits, job responsibilities and conditions in the local workplace. The MSIS & MSIK management of the plants continues to monitor the local situations and implement improvement measures.
2. Recruitment of employees in this age group was mainly targeted at filling the vacancies left in front-line operations. This was necessary replenishment of manpower.

2018 Employee composition contract type

Type\Location\Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
The number of employee	1,489	881	MSIS and MSIK do not provide information on the number of employees due to the confidentiality of the customer contract.			
Full Time-Official Employees	99.1%	99.4%	100.00%	100.00%	93.8%	88.3%
Full Time-Contract Employees	0.9%	0.6%	0.00%	0.00%	6.09%	11.70%
Part Time-Interns	0.00%	0.00%	0.00%	0.00%	0.14%	0.00%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2018 the parental leave status at MSIT (%)

Descriptions	MSIT	
	Male	Female
No. of people qualified for parental leave	53	44
Actual no. of applicants	5	13
No. of people expected to be reinstated in the current year (A)	0	7
Actual no. of people reinstated in the current year (B)	0	6
No. of people reinstated from long-term child care leave in the previous year, and who have worked for one year since (C)	0	6
Actual no. of people reinstated in the last year (D)	1	10
The parental leave reinstatement rate(B/A)%	0.00%	85.71%
The parental leave retention rate(C/D)%	0.00%	60.00%

Note: Employees of PRC nationality don't have legal parental leave.

2018 the maternity and paternity leave status at MSIS & MSIK (%)

Descriptions	MSIS		MSIK	
	Male	Female	Male	Female
No. of people qualified for maternity and paternity leave	68	110	882	801
Actual no. of applicants	68	110	40	89
No. of people expected to be reinstated in the current year (A)	68	110	40	89
Actual no. of people reinstated in the current year (B)	57	87	40	80
No. of people reinstated from maternity and paternity leave in the previous year, and who have worked for one year since (C)	87	64	55	41
Actual no. of people reinstated in the last year (D)	90	80	65	81
The maternity and paternity leave reinstatement rate(B/A)%	83.82%	79.09%	100.00%	89.89%
The maternity and paternity leave retention rate(C/D)%	96.67%	80.00%	84.62%	50.62%

Note: Employees of PRC nationality enjoy longer maternity leave under Chinese labor regulations; therefore, the reinstatement time often extends across reporting

3.3 Employee Development

Employee development is our focus. Given employees are indispensable from the future development of MSI; therefore, we begin with the selection, education, and retention of employees. As for employee education, we start from plan and implement internal and external training for employees. We have also established the Training and Education Management Regulations as the reference of continuing education and internal training of employees. Employees at MSI can receive continuing education and seek self-development through comprehensive learning channels and resources, such as internal training, external training, and expatriation. We also organize conferences, speeches, and e-learning programs for employees to improve professional skills and competencies. They may take training courses during work time at the expense of the organization as well.

Occupational Career Vision

Knowledge learning is the key behind the company's ongoing progress and develops. Through systematic career development planning to make knowledge change and innovation, develop the potential of employees 、 enhance work performance 、 organizational efficiency and advanced the MSI's sustainable development.



Occupational Development Blueprint

MSI has designed its career roadmap for the purpose of training top talents needed to response the highly competitive electronics industry, and establish development of workplace potentials 、 professional capacity development 、 tiered training management 、 leadership training for the career core value, and contributes to MSI's vision and strategies by improving organizational performance and optimize organizational structure to help employees realize their dream career.



Occupational Development Planning

•Development of workplace potentials

- Basic training for new employees: All newly recruited MSI employees are required to complete the online of general knowledge course training before commencing duty. The course provides employees with a fundamental understanding of MSI's corporate culture and management policies including human rights, intellectual property rights, information security and occupational safety and health, which will shortens the time for manpower import.
- Specialized training: Training of special skills for the recruited duty, including online operation 、 quality management and skills pertaining to specific roles.
- In-service training: Employees can request external training and conducting external professional courses for employees improve skills.
- Language learning: The Company has contracted with foreign language centers and purchased learning materials from them to give employees the option of choosing the suitable foreign language institution to learn from.

•Professional capacity development

- MSI University was established in 2009 with four main colleges, namely: Leadership Development 、 Research & Development 、 Technology and Sales & Marketing. The MSI university courses content combined with the company's overall strategy to carrying out focused, specialized and differentiated training for different job roles by limited resources utilization.

•Tiered training management

- Managers in the growth phase are subjected to training on corporate culture, corporate identity and value. Depending on their job roles, they also undergo different forms of knowledge transfer to become management successors.

•Leadership training

- For key business management talents, through a series of internal and external courses to train employees on market analysis 、 leadership 、 strategic management and business decision-making, and create a strong management team and ensure corporate good governance within the organization.

2018 the training status overview (Average training hours per employee)

Grade\Location\ Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Executive	10.30	12.40	64.83	62.25	8.46	0.00
Mid-level executives	11.83	16.46	31.42	38.28	10.48	12.61
Supervisor	4.05	12.82	10.28	11.93	11.57	8.69
General staff	15.07	13.10	9.24	9.59	18.79	15.37

Note:

1. Executive: including Assistant Vice President or above.
2. Mid-level executives: Section Manager or above
3. General staff: General administrative clerk (including Technician, DL, IDL, Contract employees, Interns)
4. There were no female senior executives at MSIS.

2018 MSI invests in employee training and education content.

Item\Location	MSIT	MSIS	MSIK
Number of newcomers	249.00	18,104.00	3,493.00
Total orientation training hours for newcomers	3,203.77	1,658.00	1,712.00
Education and Training Expenditure (NT\$ Millions)	5.86	5.83	2.24
Average training expenditure per employee (NT\$/person)	2,472.57	885.88	953.72

2018 human rights courses and training

Human Rights Training Item	MSIT	MSIS	MSIK
The Non-discrimination 、ethics(including anti-corruption) 、employee rights (including human rights) 、forced labor and sexual harassment training total hours (hours)	207.5	9,360	856
Newcomers training percentage (%)	100%	100%	100%

Note 1: Please refer to MSI's 2018 annual report for more details on corporate governance courses and training undertaken by board members and the senior management. The employee irregularly uses e-mails and the intra EIP system to promote the human rights.

Note 2: MSIS hired contract labor from manpower agencies during the reporting period to support the increase in production orders, which is reflected in total training hours. Contract employees were entitled to the same rights as permanent employees.

3.4 Employee Relations

At MSI, effective communication with employees is seen as a significant part of our operations. To achieve this, we made several channels open and transparent to facilitate effective exchange of opinions between our management and employees and among peers. We believe that only through open channels will our employees be able to fully express their opinions and the management hears the truest voices from the employees. Only through effective communication will we achieve a harmonious relationship between management and employees.

Effective Communication

•Employee Assistance Project (EAP)

The Employee Assistance Project (EAP) help employees can get help for the following issues: work stress, emotional problems, tax, legal affairs, medical care, and others. By combing internal and external services, EAP helps employees to solve related problems and release work stress and emotions to regain mental health, so that their family will not need to worry about their physical and mental condition.

The contact information of Employee Assistance Program (EAP)	
MSIT	EAP email : eaphelp@msi.com EAP Hotline : 8585
MSIS	EAP Hotline : 8858
MSIK	EAP Hotline : 8085

• The intranet EIP

The MSI EIP internal website provides employees with timely information on the Employee Welfare Committee (EWC) and administration-related matters. In addition to the preferential and discount information, employees can learn about their own rights and benefits as well as entitlements through this platform, and this website also integrates multiple employee systems, including salary checking, performance evaluation, computer repair, and personal health management, allowing employees to experience the most immediate service and care.





•Reporting Channels (Business Ethics/Legal/ESH complaints/Sexual Harassment Grievance)

MSI is dedicated to maintaining a fair, balanced, safe and healthy workplace. In addition to the timely inspections made by immediate supervisor、HR and nurses, employees may also raise complaints on illegal conducts, discriminations or safety/health concerns using various channels. We ensure to communicate with employees under protected privacy and transparency for further improvement to workplace health. No related complaint was received during the reporting period.

ESH Reporting Mail	esh@msi.com
Business Ethics & Legal Mail	080419864@msi.com
Sexual Harassment Grievance Mail	113@msi.com.tw

•Health Management Service

We arrange health checkup once every two years for employees and once per year for expatriate employees and senior managers. Male and female employees are entitled to different checkups, and a health management system is being used to manage health check information, which employees may access for health check inquiry, health-related knowledge and news on their own. Each plant site has medical staff stationed to provide timely communication on health issues.

•Meeting Communications (Environmental Safety and Health、Collective Bargaining、Department Meeting、Management Meeting)

Through different business groups, MSI engages employees in weekly、monthly and quarterly meetings to discuss the current state of business and issue major announcements. Employees are entitled to reflect opinions through available channels, and the communication provides the management with a better understanding of the current state of governance for more harmonic employment relationship.

During the reporting period, the employee collective agreement

Item\Location	MSIT	MSIS	MSIK
Collective Bargaining	Quarterly	Quarterly	Annual
Labor Union	None*	Yes	Yes
Percentage of total employees covered by collective bargaining agreements (%)	100	100	100

* MSIT has no employee unions and representatives established; employee communication can be conducted through multiple channels, such as the Environmental Safety and Health Committee, departmental meetings, and employee assistance project (EAP).

3.5 Healthy Workplace

A healthy workplace is essential to improving employees' mental state and strengthening the Company's human capital. At MSI, we view healthy employees to be the foundation of sustained business achievements, and therefore invest actively into employee care、welfare system and workplace safety to help employees adapt and adjust. Developing employee health self-management、cultivation of health occupational competence and a supportive working environment is how MSI rewards its growth partners in its pursuit for a sustainable future.

LOHAS at MSI

Various hardware and software facilities and activities are arranged at different plant sites according to the preferences of employees. In addition to using these facilities on ordinary days, employees have organizational activities, club activities, athleticism and cross departmental gatherings periodically organized by individual plant sites. These activities of different types are wished to provide employees physical and mental relaxation and make them enjoy a rich, healthy and balanced life between work and leisure.

•Employee Assistance Project (EAP)

Employee Assistance Project (EAP) was introduced in 2010 to provide employees with a broad variety of services including emotion

management, stress management, legal and medical assistance free of charge. EAP offers the following benefits to MSI:

1. Resolves issues that may affect productivity and are of concern to the organization.
2. Helps employees identify and resolve issues that may affect individual work performance, such as: health 、 mental state 、 family 、 finance 、 alcohol/drug addiction 、 legal conflict 、 emotion 、 stress or other personal issues etc.

During the reporting period, a total of two persons in the Taiwan region used EAP to assist the employee in adaptation to work. The employee assisted by this program has been properly arranged.

•Employee Regular Health Checkups

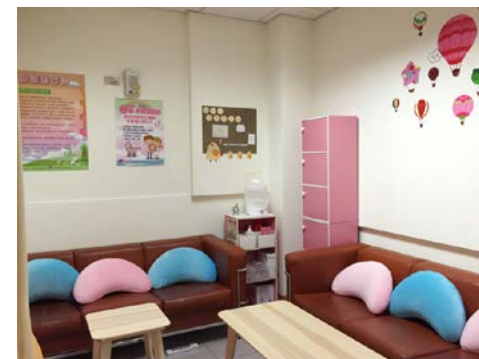
MSI holds regular employee health checkups and offers more frequent and more comprehensive checks than what the laws require. Employees involved in hazardous operations are subjected to special checkups. Based on checkup results, the Company evaluates health risks of individual employees and offers various degrees of care through plant infirmaries. The above arrangements are intended to help employees develop self-awareness in health management.



•Medical Clinic Establishment

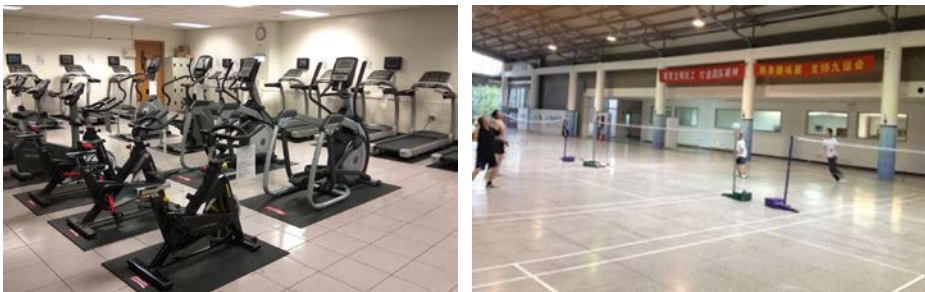
All three plant sites have medical clinic in place with physicians and nurses stationed to enhance on-site medical care and support MSI's ongoing efforts such as prevention of occupational illness, health checkup, tiered health management and health promotion. Furthermore, we provide nursery conditions that are more favorable than what the laws require, and have breastfeeding room in place for female employees to breastfeed in private and comfort. The breastfeeding room was awarded a Best Breastfeeding Facility Certificate by the Department of Health of New Taipei City Government for providing a good breastfeeding environment.

Medical Service Item	Medical Service Content
Healthcare Service	Non-prescription drugs and general injury treatment facilities have been provided.
Health Promotion Instruments	Health instruments such as sphygmomanometer, multi-purpose scales and body fat analyzers have been made available.
Health seminar	Seminars on balanced diet, ergonomic engineering, stress relief, weight loss and blood donation are held irregularly.
Consultation by Stationed Medical Doctor of Occupational Illness	All plant premises have physicians stationed on-site to provide consultation on occupational and general illness.
Health Education Service	Epidemic disease prevention and control, health education, health education and medical consultation.
Emergency Aid	Emergency medical aid (including AED).



•Establishment of Employee Center

We believe exercise to be beneficial not only to employees' health and work performance, but also for shaping corporate culture and brand value. This is why we have implemented a variety of facilities from dance room, badminton court, basketball court to treadmill and introduced a wide range of exercise courses (such as yoga, aerobic boxing, street dance etc.) for employees to choose from.



•Art and Literature Lectures

For the 2018 MSI Arts and Culture Festival, the Company organized a series of seminars (3 sessions) and invited prominent figures from various industries to share their views and experience. Through the stories of people from different backgrounds, we give employees an insight to the lives of others and encourage them to take control of their future.



•Employee Welfare

The Employee Welfare Committee (EWC) is established at MSIT according to the Employee Welfare Policy. The committee funds come basically from two sources: 0.05% of the organizational sales turnover and 0.5% of the salary of individual employees for every month. These funds are mostly used to organize major annual events, the year-end party, cultural talks, gifts/cash gifts for the three major festivals, club activity subsidy, travel grants, monetary gifts of birthday, employee emergency aid, maternity allowance, wedding cash gift, department gatherings, interdepartmental gatherings, and employee recreational facilities.

Welfare Item/Location	MSIT	MSIS	MSIK
Business Bonus	V	V	V
Pension	V	V	V
Employees Insurance	V	V	V
MSI University	V	V	V
Employee Clubs	V	V	V
Leisure Facilities	V	V	V
Free Massage Service	V	—	—

Health Promotion

The Ministry of Health and Welfare has been advocating the idea of 「people's rights to health and responsibilities in staying healthy」 as the modern concept to a healthy lifestyle. MSI is aware of the importance of employees' health to business growth, and has therefore invited specialists from the infirmary to assist employees with health monitoring and promotion. In the meantime, we have taken the initiative to create a healthy work environment, offering various facilities and measures for employees to take part and live a healthy life. MSI's health promotion efforts incorporate the following emphases:

- Evaluation of health history, including current state of health, previous health problems, fitness, nutrition and mental health.

- Review of health conviction, stress in everyday life, and other health risk factors such as smoking habit, pollution, contagion, alcohol consumption, betel nut chewing, exposure to occupational hazards and electromagnetic field etc.
- Balanced diet and exercise habit.
- Regular health checks for common illness 、Pap smear and prenatal check for women.

•Health Management

We manage different workers' health conditions and undertake appropriate actions by reassigning tasks, making improvements to the work environment, arranging medical care, providing first-aid equipment, and offering health education, guidance and promotion for further enhancement of competitive advantage.

List of health management practices undertaken by MSI:

Health Management for High-risk Employees	Employees are reminded to follow up on health statistics and seek medical advice on a regular basis. Assistance for medical transfer and prevention plans for illnesses associated with abnormal workload are arranged as deemed necessary. Employees who exhibit high health risks are subjected to medical assessment and consultation before going on business trips; furthermore, subsidies and advises are given as recommended by Centers for Disease Control to employees who need to undergo inoculation for overseas business trip.
Maternity Health Protection and Management	In an attempt to eliminate workplace hazards that may present risk to pregnant women or female employees in the first year after giving birth, MSI not only conducts regular workplace risk self-assessments but also engages certified physicians to perform on-site inspections, with improvements and adjustments made to the workplace or employees' duties accordingly.
Emergency Aid Equipment	First-aid officers and kits have been made available on each floor, whereas the production plants both have AEDs in place for emergencies.
Mental & Spiritual Health Care	MSI employees are entitled to free, confidential one-to-one mental counseling service with professional counselors. MSI also organizes stress relief seminars and publishes articles to help employees channel stress and resolve mental troubles.
Health Education Promotion	MSI publishes monthly health articles onto the intranet to inform employees of the latest epidemic diseases and health issues. The Company also organizes health seminars (20 sessions during the reporting period) on various topics and arranges free vaccination in October each year when influenza is most prevalent. Employees are free to decide whether to participate in the above.

The health management activities organized during the reporting period, which totaled 20 events and 1,952 attendees.

Health Promotion	Self-paid Hepatitis A Vaccine	Lectures and Seminars	Introduction to sport injury and kinesiology tape
	Self-paid Hepatitis B Vaccine		Work stress and emotion management
	Company Subsidy for Influenza Vaccines		Say goodbye to insomnia
	Blood Donation		Challenges of menopause
	Women's Cancer Screening		Is ketogenic diet for you?
	Pap Smear Test and vaccination for Women		
	Oral Cancer Screening		
	Tobacco Addiction Treatment		

•Employee Clinic Medical Service

MSI's clinic is staffed by a qualified physician who provides employees convenient on-location medical services. The clinic also conducts seminars on seasonal epidemics, health education and workplace health that extend beyond the manufacturing plants to reach the communities through brochures and pamphlets brought home by our employees.

The employee clinic medical services are shown in the table below. A total of 5,798 employees use medical services during the reporting period.

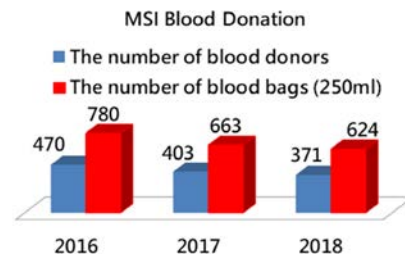
Service Item		MSIT	MSIS	MSIK
Medical Service		NHI Clinic 、Health Counseling 、Preventing Ergonomic Related Hazards Management	Clinics and Psychological Consultation Room	Clinics
Employee Physical Examination		Common and special exams		
Health Promotion Activity		Speeches and Dynamic Information		
Medical Professionals	Hospitalist	2	1	1
	Registered Nurse	3	1	1



•Blood Donation

Blood donation is an act that benefits oneself and others. It promotes blood metabolism, which enhance one's health, and plays a part in emergency rescue to save someone's life. Starting from 2002, the clinic at MSI Taipei Head Office has been inviting the Blood Center to host a blood drive at MSI every year. Other MSI offices also organize unscheduled blood drive activities to bring all members of the MSI family the opportunities to give and help others.

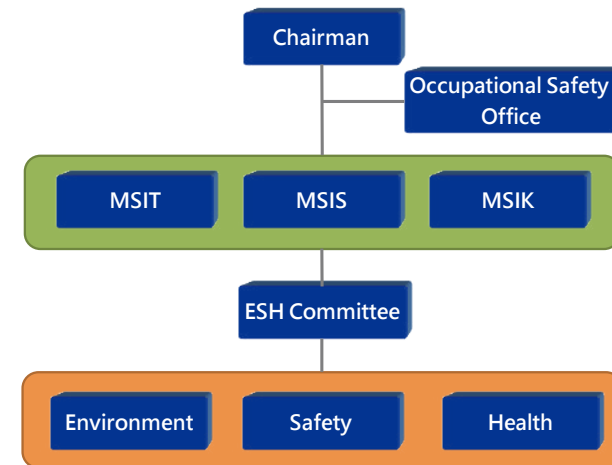
Note: Only MSIT give blood donation during the reporting period.



3.6 Occupational Safety and Health

Since 2003, MSI has been committed to promoting occupational safety and health (hereinafter referred to as OSH) management. Through internal control management, MSI fully implements the OSH management system regulations and occupational safety management requirements of internal departments; compliance inspection is conducted regularly at the request of laws, clients, or stakeholders. MSI is also constantly working to improve the OSH management at each operating site. The Employee Code of Practice and OSH Code of Practice describe employees' relevant health, sanitation, and safety rights and interest; the Environmental Safety and Health Committee is set up, in which labor representation accounts for more than one half of the committee. Through the supervision and implementation of the management system, the ISO 14001 and OHSAS 18001 Certification obtained to achieve the goal of continuous improvement.

MSI Environment · Safety & Health (ESH) Organization Structure



The ESH regulations check lists during the reporting period:

Regulation Category	Applicability	Amendment	Impact	Compliance
ESH Management	20	4	All work is adjusted according to the requirements of the regulations.	Yes
Firefighting Management	3	1	Mainly in response to major public security accidents in medical institutions or nursing home in recent years, the revised fire management requirements will not affect the current fire management.	Yes
Food Sanitation Management	2	1	To enhance the coordination of food safety affairs for food manufacturers and other foods, the revised food management requirements will not affect the current management.	Yes
Environmental Protection	54	13	Water Pollution Prevention & Waste Cleaning & Environmental Product Specification & GHG Reduction of the revised management requirements that is not affect the current management .	Yes

Environment 、 Safety & Health Committee

MSI has established an 「Environmental Safety and Health Committee」 whose responsibilities are to ensure environment quality, workplace safety, and compliance with labor safety and health laws. We encourage all employees to participate actively in environmental safety and health-related matters, and expect everyone to take responsibility in the environment management system. MSI promises that all operating activities are carried out in protection of employees, customers and the nearby environment. To properly evaluate our commitments, the Environmental Safety and Health Committee convenes meetings once per quarter whereas the company undergoes internal as well as external audits each year and adjusts its management approach and strategies based on audit findings. Let us achieve the goal of continuously improving the performance of environmental safety and health management.

During the reporting period, MSI's labor participation in the Environmental Safety and Health Committee and the main discussion topics are summarized below:

Item/Location	MSIT	MSIS	MSIK
Number of Labor Representatives [A]	31	43	27
The total number of health and safety management committee members [B]	37	83	43
The ratio of labor representatives [A/B] * 100%	83.78%	51.81%	62.79%
Health and Safety topics	1. Workplace Monitoring 2. Traffic Safety Promotion 3. Safety and Health Risk Management 4. Health Promotion	1. Occupational Safety 2. Fire Equipment Management 3. Chemical Management 4. Machinery Equipment Protection	1. Electrical Safety 2. Fire Equipment Management 3. Chemical Management 4. Food and Beverage Sanitation
Completed ISO 14001 and OHSAS 18001 certification.	It has been individually certificated by 3rd parties.		

Workplace Safety

MSI complies with occupational safety and health laws 、 labor standard 、 operational safety standards and implementation rules of all plant locations, and has occupational safety and health anagement plans in place to enforce compliance. Internally, the Company assigns safety and health units and officers to oversee performance and perform regular checks. We also arrange regular health checks for existing employees and pre-job checkups for new recruits, and provide the necessary environmental safety and health-related training to ensure employees' compliance with work codes.

•Work Injuries and Traffic Accidents

Environmental safety and health statistics for the reporting period showed no significant increase in work-related injuries over the previous year; nevertheless, we shall continue to execute our 3-tier safety training as a means to raise hazard awareness among employees. In terms of traffic accident, Taipei Headquarter reported significantly higher number of cases mainly due to the ongoing subway construction nearby, which posed additional hazard for motorcyclists particularly during rush hour. We will continue to reduce chances of traffic accident by reminding employees of danger at particular sections as well as the importance of servicing tyres and brakes.

The number of work injuries and traffic accidents during the reporting period is shown in the table below.

Item / Manufacturer / Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Work injuries	0	2	9	1	2	3
Traffic Accidents	7	4	1	0	0	1



•Disability Injuries

We are dedicated to creating a work environment that is free of safety concern, and has made zero-hazard workplace as our ultimate goal. A multitude of training courses, drills, protective gears and preventive measures have been introduced in compliance with local government regulations and corporate policies to raise employees' safety awareness and build a corporate culture of safety.

The disabling injuries statistics during the reporting period is shown in the table below.

Item / Manufacturer / Gender	MSIT		MSIS		MSIK	
	Male	Female	Male	Female	Male	Female
Disabling Frequency Rate(FR)	0.00	1.18	1.34	0.72	7.21	16.24
Disabling Severity Rate(SR)	0	2	20.88	2.50	61	111
Frequency-Severity Indicator(FSI)	0.00	0.05	0.17	0.04	0.66	1.34
Injury rate (IR)	0.00	0.24	0.27	0.14	1.44	3.25
Occupational diseases rate (ODR)	0.00	0.00	0.00	0.00	0.00	0.00
Lost day rate (LDR)	0.00	0.35	0.00	0.00	12.26	22.20
Absentee rate (AR)	0.19	0.53	4.60	2.60	1.66	2.00
Work-related fatalities	0.00	0.00	0.00	0.00	0.00	0.00

Formula Notes:

The record date for total number of employees was December 31, 2017.

Disabling Frequency Rate(FR) = Total # of injuries * 1,000,000 / Total hours worked

Disabling Severity Rate(SR) = Total # of lost days * 1,000,000 / Total hours worked

Frequency-Severity Indicator(FSI) = $\sqrt{FR * SR / 1000}$

Injury Rate(IR) = Total # of injuries * 200,000 / Total hours worked

Occupational diseases rate (ODR) = Total # of Occupational diseases cases / Total hours worked * 200,000

Lost Day Rate (LDR) = Total # of lost days * 2000,000 / Total hours worked

Absentee Rate(AR) = (Total # of absentee days over the period / Total # of workforce days worked for same period) * 100%

Absentee Rate(AR) : Employees' absence from duty (not caused by occupational injuries or occupational diseases), including sick leaves 、 full-pay sick leave and occupational sickness leave; not including permitted vacations 、 personal leaves 、 national holiday 、 maternity leaves 、 fraternity leave and mourning leave.

•Construction Safety Management

In an attempt to enhance safety and health and prevent occupational hazard in construction projects, we have assigned suitable supervisors, depending on the nature and size of the project involved, to supervise, audit, inspect and perform random checks on project, and thereby minimize chances of accident and pollution.

Construction safety management:

1. Work hazards are notified in advance whereas work activities are subject to prior review.

2. Special work activities that involve open fire, elevation, confined space, hoisting or gondola are subject to safety confirmation prior to commencement and random on-site inspection after commencement.

The construction safety management during the reporting period is shown in the table below.

The number of internal audits	Non-conformity	Improvement	Improvement Rate
31	34	34	100%

Education and Training of Environment 、 Safety & Health

•Employee

Employees' health is critical to MSI, which is why we have taken the extra step to implement, maintain and manage our safety and health measures. The MSIT convenes 「Environmental Safety and Health Committee」 meetings whereas MSIS and MSIK organize 「employee seminars」 to promote employees' awareness. MSI employees involved in special, high-risk operations are required to undergo special health checks.

The education and training of ESH during the reporting period is shown in the table below.

Item	Course Title	Total hours	Objects
Occupational safety and health education training 、 Hazardous substance education	New Employee Consensus Training	1,096,194	New Employees

Staff Safety and Health Education and Training	Work Safety Education and Training	54,072	Internal Staff
	Safety and Health Education and Training for Supervisors	256	Managers
Environmental Education	Environmental Education	1,447	Internal Staff

•Contractor

Contractors that perform special work activities involving open fire, elevation, non-standard electricity, hoisting, gondola or lack of oxygen must apply for permit from the work safety unit of the respective plant before commencement. These contractors have also been made aware of MSI's 「Contractor Work Safety and Health Rules」 to ensure that they have a thorough understanding of environmental hazards and applicable safety and health rules. Contractors need to have work plans and personnel eligibility reviewed and approved before commencing work, and a work safety unit will be assigned to inspect safety on-site before and during work activities, as well as making sure that the work

site is restored properly with all files retained for future reference upon completion. Contractors will be instructed to suspend work immediately for any violation against environmental protection or work safety laws, or upon discovery of imminent hazard to employees. In which case, work may resume only when both the project owner and the work safety unit confirm that satisfactory improvements have been made to the defect. No safety incident had occurred due to construction activity during the reporting period.

As for onsite contractors, they all need to proceed with relevant insurance as required by the government and the legal regulations, in addition to complying by various safety and health work rules from MSI. In addition, we will supervise that onsite contractor pay sufficient attention to the labor conditions of their workers so that they could also be in compliance with national labor standards. We have also arranged training courses so that onsite contractors could better understand our requirements for health, safety, and environmental protection. The ESH training of Contractor during the reporting period is shown in the table below.

Item	Course Title	The Number of the Attendance			Total Hours			Objects
		MSIT	MSIS	MSIK	MSIT	MSIS	MSIK	
Safety 、Health and Fire Fighting Training	Safety 、Health and Fire Fighting Fire Management Educations	321	236	39	321	472	78	Resident Contractor
	Resident Contractor Education Training	36	Not applicable.		54	Not applicable.		
	Resident Contractor Internal Meeting	36			18			
Working Safety Promotion	Working Safety Promotion for Worker	321	56	68	321	112	68	Special Operation Contractor
Food Sanitation and Safety	Food Sanitation and Safety	9	32	50	9	64	400	Resident Restaurants Supplier



●Environmental education

MSI considers environmental education to be critical for conveying respect for the nature and raising environmental awareness. This is why we have introduced a series of environmental courses to provide people with the correct knowledge that they can rely upon to formulate solutions. Working with environmental protection organizations, we held 3 seminars in 2018 to promote awareness towards sustainability and inform employees on the changes that are happening on Earth, as well as ways to improve quality of life.

■ Plastics reduction seminar

The seminar began by directing the audience's attention to ocean waste. Using long-term survey data and coastal cleanup records, it demonstrated how plastic materials are so easily accessible that they end up in the incendiary or landfill shortly after being used. In the end, the problem comes back to haunt us, causing irreversible damage to marine life. The seminar ended with a reminder that everyone should make progressive changes to their lifestyles and start taking environment-friendly actions.

■ Preventing food waste with fridge management

The seminar aimed to explain the cause of food waste and how it affects the environment, starting from our fridge. It encouraged employees to think about wastage and what we can do to reduce energy and carbon before making the next purchase. Lastly, the seminar called out to its audience to cherish our existing environment and make transitions toward the green diet.

■ Implications of genetically modified foods

Genetic modification (GM) is one of the most highly disputed technologies today, and although Taiwan does not grow GM crops, GM foods have already made their ways into our lives. In this seminar, we introduced the audience to the current state of GM foods and discussed their implications on health, food safety and the ecosystem.



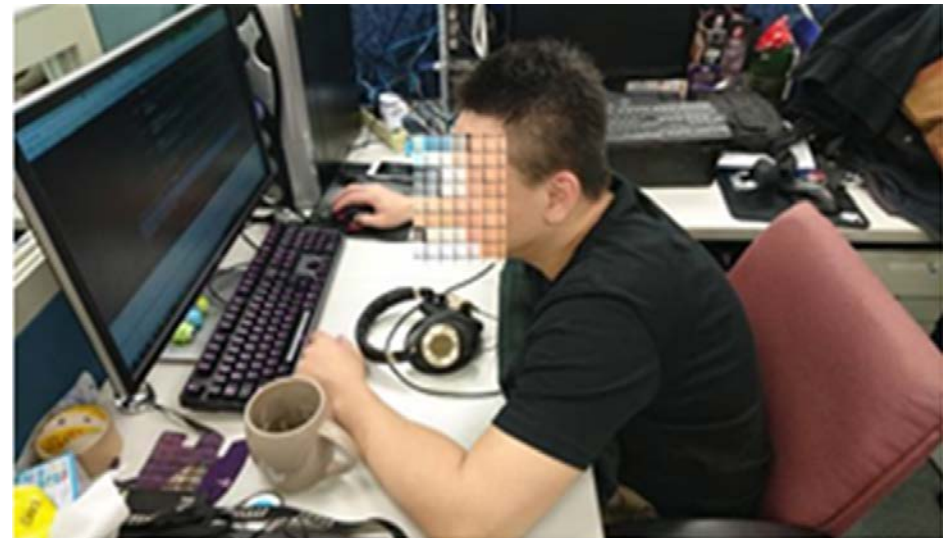
Ergonomics Management

Ergonomic engineering is the idea of understanding the human body, its sensory and mental capacities and limitations, and making design changes to tools, machinery, procedures, methods and environment so that employees/users may achieve maximum efficiency, productivity and satisfaction under safe, comfortable and humane conditions. In an attempt to minimize ergonomic hazards that may lead to repetitive musculoskeletal injuries, MSIT initiated an ergonomic hazard prevention survey in 2018 and assigned its environment safety and health unit to conduct a musculoskeletal survey as part of the annual health checkup. Based on the survey results, the Company conducted a series of hazard assessments and improvements and followed up on the outcome of the investigations/improvements. The goal was to provide the company with objective recommendations and prepare future plant sites for ergonomic hazard, and in doing so create a safe and healthy workplace. During the reporting period, MSIT surveyed a total of 1,758 employees, and 359 of whom exhibited discomfort but tolerable symptoms. Out of the 359 employees, 243 had symptoms that were considered acceptable while the other 116 who experienced discomfort are being followed up by stationed physicians with work details adjusted accordingly. Depending on the outcome of this survey, the company may consider applying the same feasibility assessment on the other two plants. The following are illustrations of improvements made to employees's sitting posture.

- Problems before adjustment of sitting posture: Shoulder and neck pain, soreness at the hips, worsened eyesight.

Ergonomic hazard analysis:

1. Head leading forward.
2. Upper body bending forward with no spine support.
3. Line of sight is too high and off-center from the screen.





- Feedbacks of adjusted sitting posture: Significant improvements to shoulder pain, neck pain and soreness at the hips. Eyesight to be monitored further.

Recommended adjustments:

1. Adjust chair to the appropriate height.
2. Correct the sitting posture and use cushion for spine support.
3. Adjust screen angle so that the line of sight is at center with head slightly dipped.





msi[®]

4. Product Value

4. Product Value

Faced with the challenges of deteriorating natural environment, we have responded with product risk assessment as a means to focus on the environmental goals we have set. By adhering to environment-friendly initiatives around the world, such as United Nations Framework Convention on Climate Change (UNFCCC) 、Paris Agreement etc., we implement sustainability strategies and strive to become the industry's leading green enterprise. As countries become increasingly aware of the environmental impact of production activities and emphasize producers' responsibilities, companies must also take environmental protection into consideration while developing new technology. Therefore, MSI actively promotes environment-friendly product design and green supply chain management system, while at the same time taking the initiative to collaborate with business partners on green product development and in doing so mitigate or even improve environmental impacts throughout the product life cycle.

4.1 Product Sustainability

MSI offers an extensive range of products and services in the e-sport industry to the satisfaction of millions of players and fans. While we strive to improve product performance, we also try to reduce energy consumption and impact to the environment and the society at the same time. In addition to addressing hazardous substances 、energy/resource consumption 、waste reduction and ESH(Environment 、Health and Safety) issues etc. throughout our operations, we also invite suppliers to join us in the creation of a green supply chain free from human rights dispute and the offering of environment-friendly 、low-toxicity 、low-carbon 、compliant and sustainable products.

Adaptation to Environmental Impact

In recent years, there has been increasing attention from around the world towards environmental performance of the manufacturing industry, which manufacturers have responded by incorporating environment-friendly elements into product development. This ongoing call for lower resource consumption and lower environmental impact throughout the entire product life cycle has kept motivating MSI to systematically incorporate environmental concerns into product design and development. MSI has incorporated 「Reduction Hazardous Substances Reduction」 、 「Energy and Resources Saving」 、 「Ease of Disassembly/Recycling」 and 「Waste Reduction」 policies into the project development workflow. By emphasizing on Reduce, Recycle and Reuse (3R), we aim to minimize environmental impact of our products and improve market competitiveness as a result.

•Environmental Impact Management and Measures List

Goals	Aspect	Management Measures	Goal Achievements	Future Goals
Reduction Hazardous Substances Reduction	Reduction in the use of Hazardous Substances	All raw materials are subject to RoHS and REACH of prohibited and restricted substances management.	All meet the requirements.	Make continuous of restricted substances management.
		Conduct hazardous substance management on the MSI Green Product Management Platform (GPM).	10,890 approved parts has been completed.	Make continuous of hazardous substance management by GPM every year.
	Compliance with IECQ/QC 080000	The global waste/resource recycling regulations have been established, and the 「MSI Standard for Environmentally Friendly Products-9th Edition」 has been published and included in the requirements for management.	Identify and manage 352 hazardous substances; Obtain IECQ/QC 080000 certification.	Make continuous import the identification results into the MSI management specification by annually.

Energy and Resources Saving	Reduce energy consumption and carbon emissions	The product outer packaging box is only available in 5 sizes, avoiding over-packaging and increasing the carrying capacity by about 3%.	All meet the requirements.	Assess the possibility of optimizing the carrying capacity.
		Increase the average efficiency of external power supply conversion from 88% to 89%.	Except for specific products and customer-specified materials, the external power supply compliance with efficiency level V & VI.	Evaluate the possibility of optimizing the average active efficiency of the conversion.
		At least 80plus bronze medal products are adopted in internal power supply products, which is 2% more efficient than 80plus white power supply series.	All meet the requirements.	Make continuous use the 80plus specification's product.
Ease of Disassembly/ Recycling	Resource Recycling	Reducing the utilization rate of composite materials and use a single or compatible material plastics to increase the plastic recycling rate.	Plastic recycling rate of 90%	Improve plastic recyclability to 92%.
		The materials of plastic and paper packaging materials are labeled for recycling.	100% complete labeling.	Make continuous labeling.
		Reduction the proportion of parts in products, which are mainly treated by incineration or landfill.	The proportion of such materials has dropped from 5% of the total weight of a product to less than 2.5%.	Make maintaining incineration or landfill materials accounts for 2.5% of the total weight of the product.
Waste Reduction	Regulatory Impact	The global waste/resource recycling regulations have been established, and included in the requirements for management.	The 「MSI Standard for Environmentally Friendly Products-9th Edition」 has been published.	Make continuous update.
		Recycling rate of related electrical and electronic equipment of MSI during the reporting period which is superior to 80% set out in the EU WEEE Directive.	Recycling rate >90%	All meet the WEEE requirement.

Product Ecodesign

MSI approaches this issue from a product life cycle thinking perspective while taking into consideration the financial and technical feasibility. By conducting assessments over the entire product life cycle, we hope to minimize environmental impact of our products and services, and in doing so improve the friendliness of our products to the environment and the society.



•Product Life Cycle Thinking

Scope	Goals	Management Strategy	Response Measures
Extraction of raw materials	Reduction Hazardous Substances	Comply with international laws and related declaration requirements on hazardous substances Monitor uses of EU's SVHC substances and assess reductions Choose environment-friendly materials (e.g. halogen-free materials)	<p>■ MSI has completed an Eco-design guideline and continues to perform environmental impact assessments on its products</p> <p>■ Carbon footprint survey was completed on 16-inch workstation laptops in 2018. Life cycle carbon footprint of this particular product was calculated at 260 kgCO₂e.</p>
Manufacturing	Optimize Production Technology	Adopt green production technology Simplify production procedures Reduce production waste	
Transportation	Best Logistics Management	Adopt reusable packaging materials (e.g. pallets) Improve transport efficiency Plan deployment of logistics vehicles Adjust logistics distance	
Use	Improve Energy/Material Efficiency	Reduce product energy consumption Reduce use of materials and adopt modular design Use renewable materials Easier identification, maintenance and replacement of parts	
Disposal	Waste Management Optimization	Reduce packaging waste Reduce product waste Increase recycling percentage Safe for incineration or landfill	

•Energy Saving Product

Through eco-design analysis and product carbon footprint inventory, we found that the main stage of carbon footprint in our products lies in energy consumption during user operation. Our response to this issue is to use technologies currently available to improve energy efficiency, starting from the product design stage. In hardware, product energy efficiency can be achieved through using high-efficiency materials and components. In software and firmware, efficient energy can be achieved through scenario-based power management. Effective management can not only reduce power consumption, but cut down product carbon footprint.

The table below exhibits the energy efficiency of MSI's Energy STAR-certified products, including notebook computers, desktop computers and all-in-one computers. The average energy efficiency performances are all higher than the standard 27.85%、12.41% and 23.25%, respectively.

(Other MSI of ENERGY STAR certified products, please refer to the Energy Star website: <https://www.energystar.gov>)

Product Categories	Model	ETEC* Calculation**		ETEC_Max Calculation**		Average ETEC saving [%]
		(kWh/yr per pcs)	(GJ/yr per pcs)	(kWh/yr per pcs)	(GJ/yr per pcs)	
Notebook Computer	MS-16S2	24.83	91.871	25.16	93.092	1.31%
	MS-17F2	31.41	116.217	58.11	215.007	45.95%
	MS-17E3	37	136.9	58.09	214.933	36.31%

Desktop Computer	Trident 3 B920 (H310)	136.6	505.42	157.06	581.122	13.03%
	MI3 B919 (H310)	137.38	508.306	167.06	618.122	17.77%
	B916 (7B54 Z370)	179.97	665.889	192.33	711.621	6.43%
All in One Computer	AAC1	117.57	435.009	122.02	451.474	3.65%
	AAC2	70.75	261.775	86.62	320.494	18.32%
		43.12	159.544	82.59	305.583	47.79%

* Typical Energy Consumption (Etec): means the electricity consumed by a product over specified periods of time across defined power modes and states.

** Etec Calculation and Etec_Max Calculation equation please reference Energy Star Computer V7.1.

•Product Certification

To ensure that user's environmental, health and safety needs are met, MSI has established internal procedures and electronic review flow. The scope of which includes all of MSI's production lines, and label of contents all comply with environmental, safety, and health marking requirements from various countries to ensure that health and safety needs of consumers throughout the world are met.



•Resource Recycling Management

MSI advocates green production 、reduction at source 、resource recycling and reuse. Through efficient recycling and reuse of resources, we take progressive steps toward achieving zero product waste.

Green Product Design Index	Ecodesign Concerns	Management Measures
Resource Recycle	Design for material reduction Easy to disassemble, recycle, and reuse	<ol style="list-style-type: none"> 1. Recycled materials are introduced and used, and 10% recycled plastics have been introduced for mass production under specific client requirements in accordance with product safety regulations. 2. The ISO 14006 management system has been established for product eco-design assessment. 3. LED backlight panels have been used in all products containing displays; the panel of the LED backlight has been fully used to reduce excessive processing when the products are discarded. 4. The product color box is printed with eco-friendly soy ink to reduce the environmental impact of chemical paints.

4.2 Product Responsibility

MSI has always adopted the mission to offer high-quality products and services. Through establishment of internal procedures and review systems, MSI enforces 「product responsibility management」 with emphases on reliable quality, enhanced information protection and accountability, which ultimately promotes sustainable consumption and market competitiveness.



Evaluation Mechanism

Evaluation Categories	Range of Application	Management	Implementing Measures	Goal Achievements	Future Goals
Safety	MSI products and components	NPI(New Product Introduction , NPI) - Product design electronic flow control system	<ul style="list-style-type: none"> ● EMC & Safety & RFI Design & Verification procedures ● Green new product development operation procedure ● New Product Design procedures ● Packaging approval operation procedure ● New Product Introduction 	100% meets the requirements of customers and regulations in global regions, achieving the goal of enhancing product competitiveness.	Offer high-quality products characterized by 「low pollution」 、 「low energy consumption」 and 「high safety」 to prevent products and services from being penalized.
Health		Green Product Management (GPM)			
Environmental		Global Flow-MSI Packaging electronic flow control system			
Personal Information Protection	All customer service	Customer Privacy and Personal Information Protection Measures	<ol style="list-style-type: none"> 1. Announcement of privacy policy over the website 2. Establishment of breaches of personal information and processing control mechanism 3. Enforcement of information party's rights through enhanced procedures 4. Processing personal information legally with the Users' consent 5. Personal information handling and store requirements 6. Personal privacy protection measures 7. Signing of personal information contracts with 3rd-party information handlers 8. Appointment of accountable units 	MSI did not receive complaints regarding violation of client's privacy right and/or loss of clients' information.	Protect privacy and security of customers' information during processing and exchange, and thereby avoid possible lawsuit.

Note: MSI Product Liability Communication/Complain : Stakeholder mail: 080419864@msi.com 、 Taiwan Product Service Hotline 0800-018-880

Product Safety Assessment

We address potential safety risks of our products in four steps: 「Hazard identification」 、 「Risk characterization」 、 「Risk management」 and 「Risk communication」 .

●**Hazard identification:** For better assessment of product safety, we first conduct to identify hazards in our products and analyzed them for the following aspects:

- Legal Compliance Requirements
- Consider the contact of hazardous substances with the human body
- Voluntary industry requirements

●**Risk characterization:** After identifying and analyzing product hazards, we then investigate the severity and scope of risk exposure and describe the potential harm.

●**Risk management:** Based on the results of product hazard assessment, we take appropriate risk management measures for each product category.

●**Risk communication:** The following information has been made available by MSI to provide stakeholders a better understanding of the potential risks associated with every product category:

- SDS(Safety Data Sheet)
- Instructions for safe operation and disposal of MSI products
- Product Safety Instructions
- Material Safety Statement

Product safety assessment content and performance during the reporting period is shown in the table below.

Impact Categories	Range of Application	Item	Evaluation Content	Goal Achievements	Future Goals
Safety	Computer Sytems	Safety	Electromagnetic 、 Safety 、 Radio Frequency	■ Compliance with the regulations and laws : 100% compliant	Ongoing
	Equipment Terminals	HDMI	Hardware Terminals Safety		
		USB			
Health	Components	Hazardous Substances Management	Environmental Hazardous Substances Management	■ Compliance with the regulations and laws , and ■ The reduction hazardous substances and human contact considerations: 100% compliant	■ Ongoing ■ Continuously update the 「 MSI Standard for Environmentally Friendly Products 」
	Batteries	Waste Batteries			
	Components	CSCL			
		REACH			
		POPs			
		PPW			
Environmental	Package Materials	Packaging Labeling	The waste disposal and recycle rate after product using.	■ Compliance with the regulations and laws , and ■ The hazardous substances and human contact considerations: 100% compliant	■ Ongoing ■ Continue to register recyclers 、 declared products and package weights that meet WEEE requirements.
	Computer Sytems	WEEE			
	Package Materials	PPW			
	Batteries	Waste Batteries Labeling			
	Computer Sytems	ErP	Energy Efficiency Requirements	■ Compliance with the regulations and laws , and ■ The voluntary industry requirements : 100% compliant	■ Ongoing ■ Continuous voluntary testing and reporting product energy efficiency
		Energy Star			
		CEC			
		DOE			
		MEPS(GEMS)			



4.3 Hazardous Substances Management

MSI evaluates negative environmental impacts associated with production and operations, commits to using environment-friendly materials, and complies with laws and customers' requirements. We demand all suppliers and internal departments to act strictly in accordance with MSI's 「MSI Standard for Environmentally Friendly Products」 and have specified in all procurement contracts that all products and services provided by suppliers must conform with environmental protection requirements. MSI currently 「prohibits/restricts 129 substances」 and 「reports 223 substances (including REACH SVHC and items subject to reporting under industry guidelines and at customers' request)」. Through hazardous substance management, we coordinate with the supply chain to introduce environment-friendly products that not only comply with laws, but also mitigate or even undo impacts to the ecosystem.

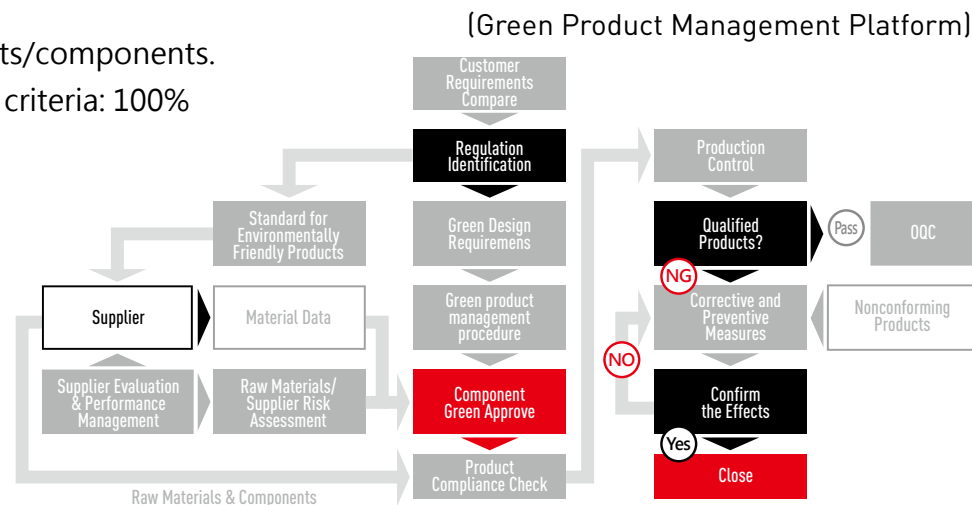
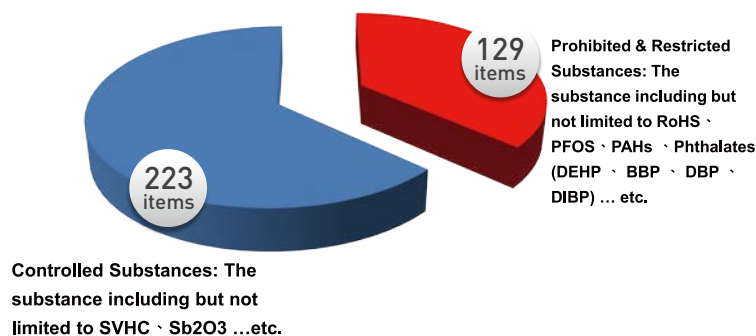
Green Product Management (GPM)

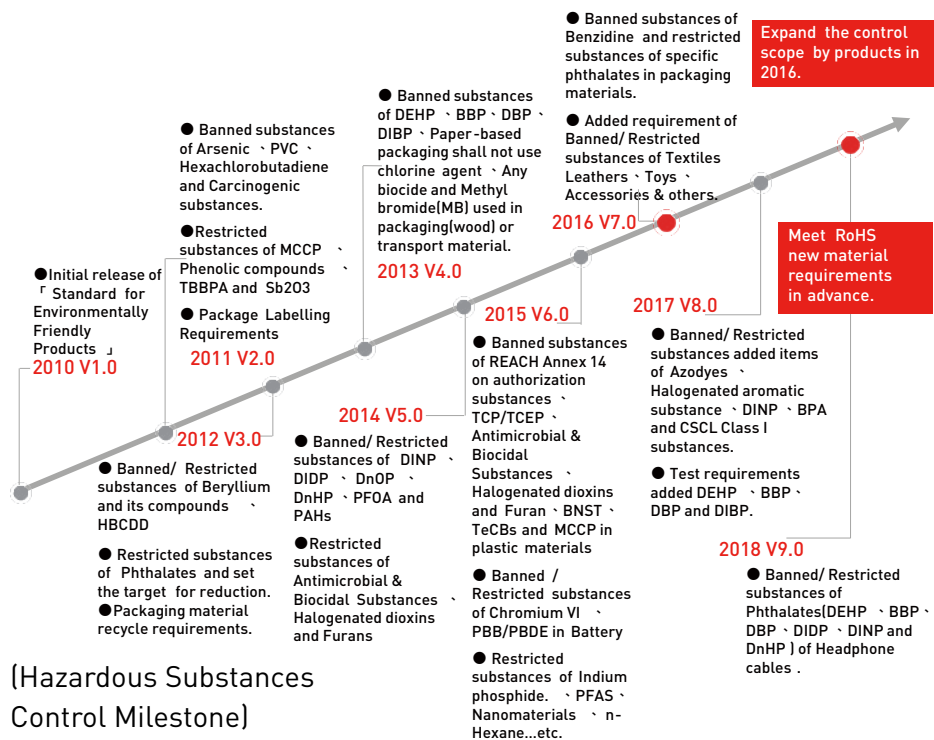
In addition to imposing standards and contract controls, MSI has completed the implementation of a Green Product Management (GPM) system and began using the platform since 2010 to monitor regulatory requirements、industry standards and customers' specifications. Suppliers' feedbacks are analyzed and interpreted immediately by MSI's internal departments, and once product conformity has been confirmed, information is transmitted back through this platform. The GPM has been integrated with existing management systems (such as IECQ/QC 080000) to complement manual control and reduce the time taken on routine data management tasks, thus making it a major communication channel with customers and suppliers.

GPM management performance during the reporting period:

- None of MSI's products has violated environmental laws. Therefore, MSI has not been punished, fined or sanctioned. No recalls were implemented and no customer complaints were received.
- The supplier signs the 「Environmental Compliance Statement」 of MSI, and there are 33 new supplier added in 2018 (As at the end of 2018, there were completed 938 suppliers sign the statement).
- MSI completed component qualification management for 10,890 parts/components.
- Percentage of new suppliers that were screened using environmental criteria: 100%

MSI Hazardous Substance Management





environmentally sustainable products. Based on the premise of the controllability and economic value of the product materials, we are planning and introducing HF flame retardants. We are dedicated to reducing harmful substances and providing customers with environmentally friendly product choices

HF flame retardant management measures during the reporting period as below list:

HF Flame Retardant Management Item	Goal Achievements	Goal	Future Goals
The E-sports product bill of materials (BOM) does not use halogen flame-retardant materials.	2018 base year: 71% (ongoing)	>2% per year	Growing to 85% in 2025
VGA cards and motherboards introduce into flame retardant materials on printed circuit boards	2018 base year: 0% (2018 is the starting year of the project)	>10% per year	2025: ■ VGA card HF PCB usage increased to 78%. ■ Motherboard HF PCB usage increased to 65%.
All-in-one computers do not use halogen flame-retardant in plastic chassis.	100% completed	Ongoing	Ongoing

Halogen-Free(HF) Flame Retardant Management

When choosing materials for product development, MSI not only ensures compliance with applicable hazardous substance laws, but also undertakes pro-active management over substances of potential environmental impact. Although the halogen-based flame retardants (BFR/CFR) are not prohibited or restricted by the current laws, they have certain negative impact on the environment, ecology and human body. Therefore, MSI has specifically created an HF (Halogen-free, HF) category from its classification of material properties for better control, while continuously evaluated and enhanced the feasibility of using HF materials.

We have carefully evaluated the use of low-hazard raw materials since the beginning of our design to provide our customers with innovative,

4.4 Supplier Management

As a result of ongoing environmental, social and economic changes and the public's rising expectation for businesses to contribute actively in poverty elimination and creation of job opportunities, the scope of corporate social responsibilities in the 21st century has broadened from individual companies to cover the entire supply chain. In light of this development, MSI will expand its sustainable development strategy to suppliers' cooperation, and exert influence as an industry leader to guide suppliers through the transition of adopting a mutually beneficial business model.



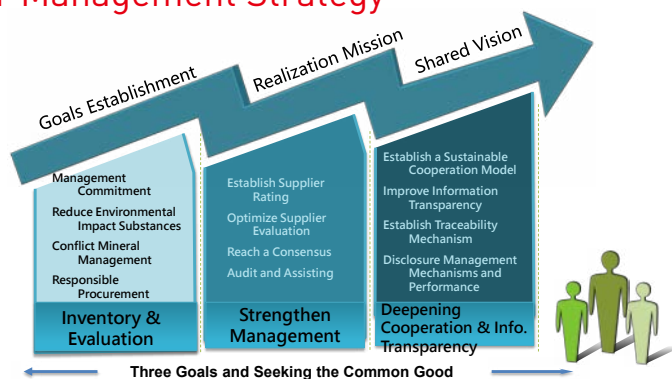
Supplier Management Policy

We hold 「Common Good」 at the core of good governance, and hope to contribute MSI's experience to assist suppliers with environmental protection, safety, worker rights and human rights issues in ways that realize our vision of a sustainable, win-win shared value. MSI has compiled a list of 「Corporate Social Requirements」 based on the RBA code, the International Labor Standards and 「Universal Declaration of Human Rights」 that specifically requires suppliers to comply with MSI's standards and laws applicable at MSI's plants with respect to labor practice, ethics, environment safety and management system.

Supplier Management Commitment

- Protect intellectual property rights.
- Refrain from accepting or offering improper benefits 、 exclusive dealing 、 attempt to monopolize 、 combine or conspire with any other person or persons, or making exclusive trade arrangements whether solely or jointly with another party.
- Lead suppliers in the adoption of sound environmental protection, safety, human rights and worker rights practices.
- Encourage use of substances with lower environmental impact.
- Ensure that minerals certified by the Responsible Minerals Initiative (RMI) are used in the supply chain.

Supplier Management Strategy



Supplier Management Capabilities and Goals

In addition to performance standards such as quality, cost and delivery timeline, MSI has also established evaluation standards and agreements with existing as well as new suppliers based on international codes of conduct and standards. Suppliers are audited and reviewed on a regular and unscheduled basis, whereas under-performers are counseled and followed up for improvement.

Through 「integrity management」 、 「supplier management」 、 「environment management」 and 「human rights management」 we maintain good partnership with all our supply partners in an open 、 honest 、 mutually beneficial and transparent manner.

Management Ability	Shared Value	Management Goal
Business Ethics Management	Business Ethics and Fair Trade Compliance Intellectual Property Rights	Establish grievance channels for ethics-related issues; sign integrity commitments; eliminate fraud in procurement; and avoid compromising the interests of two parties.
Supplier Management	Supply Chain Sustainability Management Information Security Protection Customer Privacy Management	Improve supply chain response; enhance occupational safety and health; enforce information security and customer privacy management.
Environmental Management	Energy and Resources Management Waste Management Climate Change Adaptation	Eliminate hazardous substances, reduce waste, and assess impacts of climate change to avoid business disruption.
Human Rights Management	Labor Regulations Anti-harassment 、 Anti-discrimination Conflict Mineral Management	Demand suppliers' compliance with codes of conduct and create an electronics supply chain that conforms with RBA and ILO requirements.

Supplier Risk Management

MSI closely monitors expectations of stakeholders 、 international organizations and customers, and evaluates suppliers' business environment 、 business quality 、 service standard 、 collaborative capacity and supply capacity based on their individual strategies 、 contract fulfillment 、 market presence 、 performance and requirements. Based on the above findings, we are able to identify risk issues that are relevant to MSI.

•Supplier Risk Assessment

MSI's suppliers are evaluated on their manufacturing abilities, delivery punctuality, services and management and CSR performance through on-site audit, interview or document review. To ensure that our supplies meet MSI's economic, environmental and social requirements, we require qualified suppliers to sign affidavits declaring they do not use banned or restricted substances in their products as well as full compliance with labor practice principles.

Risk Identification Item	Economic		Environmental		Social
Risk Assessment	Industry Environment	Delivery Status	Company Total Quality	Service Quality	Compatibility
Assessment Purpose	To establish understanding of the current political 、 legal 、 social 、 economic 、 technological and geographic environment.	To investigate suppliers' response capabilities in terms of product quality 、 cost control 、 delivery timeline and quantity.	To investigate suppliers' managerial competence, including human resources 、 financial position 、 production equipment 、 R&D 、 reputation 、 environmental protection practice 、 emergency response 、 service satisfaction and communication.		To confirm the overall cooperative capacities, including suppliers' behaviors 、 common values 、 information disclosure practices and product specifications.
Assessment Item	Safety of the environment, transportation, and technology standard.	Product qualification ratio, pricing, procurement cost, timing flexibility, and quantity flexibility.	Personnel competence 、 technical competence, and environmental impact throughout the product life cycle.	Supplier's service attitude 、 service details and standards 、 service response time, and quality of after-sale service.	Corporate culture 、 organization management 、 corporate strategy 、 system management and product standardization.
Risk issues related with MSI	Labor rights, conflict minerals, energy and resource consumption and GHG emissions management				

•Identification and Assessment of High Risk Supplier

We evaluate suppliers' risks using a number of factors including industry category, location and substitutability. Based on the outcome of the evaluation, we are able to develop a supplier risk grading system that identifies high-risk suppliers for regular and unscheduled audit/ review, and follow up with counseling and improvements to reduce supplier management risk.

Identification criteria for key suppliers:

- High purchase (sale) percentage
- Product exclusivity
- Ability to implement sustainable practices
- High technical barrier
- Highly pollutive manufacturing
- High labor intensity



Assessment Category	Economic	Environmental	Social
Sustainability Risks	Compliance Business Ethics Exclusive Product Quality 、 Delivery & Cost	Compliance Management System Climate Change Adaptation Waste Management	Health and Safety Human Rights Management Conflict Minerals Labor Practices and Working Hours
High Risk Supplier	Integrated Circuit	Panels 、 Cables 、 Plastic Parts	
	Printed Circuit Board (PCB)		

Supplier Risk Management Measures

Under the new economic environment, it is increasingly common for companies to adopt strategies such as global procurement 、 business outsourcing and centralized management. While these strategies are all based on cost savings, they inevitably increase the risk of supply chain management. As the supply chain becomes increasingly dependent upon cooperation 、 sharing 、 outsourcing 、 communication and globalization, MSI has responded with more flexible supply chain practices and tightened monitoring of suppliers' current state of business and materials supply in an attempt to minimize risk of supply shortage in the event of economic 、 environmental and social impact.

MSI Supplier Risk Management Measures	
Business Continuity Management	<ul style="list-style-type: none">■ Integrate the Company's requirements, require suppliers to develop contingency procedures and plans to address natural or man-made hazards that caused by suppliers' products and services, and thereby ensure business continuity.■ Develop a flexible and diversified supply chain to prevent supplies from being monopolized to the point that threatens overall business operations.■ Flexible contract management with optional terms and stage-by-stage execution to reduce business losses caused by changing market price.

Environmental Sustainability Management	<ul style="list-style-type: none">■ Demand that suppliers establish an emergency reporting system for natural disasters, so that situation and recovery can be updated to MSI in a timely manner in the event of disaster.■ Demand that suppliers implement contingent measures such as backup production and inventory reserve to mitigate operational impact in the event of natural disaster, violation or accident.■ Comply with environmental laws, offer clean-produced products and services, and enforce the environment management system.
Code of Conduct Compliance	<ul style="list-style-type: none">■ MSI is committed to maintaining business integrity and prohibits any action that violates professional ethics. In addition to a whistleblower system, the company also has measures in place protect informants' identity.■ Require that suppliers establish and enforce management guidelines based on international initiatives on labor and human rights (such as RBA, OECD Guidelines for Multinational Enterprises etc.), and ensure full compliance with local laws where production sites are located.■ Ensure the confidentiality of business information and demand that suppliers respect intellectual properties of both parties.■ Out of protection for human rights and compliance, suppliers are required to perform due diligence investigation to ensure that raw materials and products do not involve illegal minerals and smelters.

Supplier Selection and Responsible Sourcing

As a successful and leading business in e-sports, we purchase materials in a responsible manner and in the utmost transparency and fairness. We also work with suppliers to improve the quality of their products, and gain insight into their production 、 employee and environmental practices in order to ensure procurement of ethical 、 environment-friendly 、 responsible and high-quality supplies from them as part of our green purchase.

We ensure that our suppliers achieve the following objectives through ethical procurement, environmental protection, and responsible production of materials:

Item	Implementing Measures	Goals	Goal Achievements	Future Goals
New suppliers that were screened and managed using social criteria	<ul style="list-style-type: none"> ■ MSI evaluates supplier risk primarily based on product quality 、 delivery time 、 substance management 、 audit outcome (e.g. RBA) and their ability to enforce risk management. ■ We target high-risk and main suppliers for audit and improvement, and use questionnaires to survey suppliers' performance in terms of environmental 、 social and routine practices. The outcome enables us to identify potential risks in environmental, social and economic aspects. Through random on-site audit, counseling and collaborative training, we take steps toward reducing risks of supply disruption. 	The labor standards and working environment in accordance with rules and regulations.	<ul style="list-style-type: none"> ■ New supplier screening ratio: 100% ■ High risk and key supplier on site audit: 71 ■ Responsible Mineral Initiative(RMI)-The reply ratio of Conflict Minerals Reporting Template (CMRT) statement: 90% 	<p>Ongoing:</p> <ul style="list-style-type: none"> ■ New suppliers that were screened and managed using social criteria. ■ The high risk and key suppliers carry out key audits and improvements. ■ The reply ratio of Conflict Minerals Reporting Template (CMRT) statement >90%
New suppliers that were screened and managed using environmental criteria		<p>Conduct due diligence investigation based on OECD guidelines and prepare regular reports in compliance with Responsible Minerals Initiative (RMI) for higher transparency.</p>		
		Establish a ESH 、 safety 、 hazardous substances management system of requirement.	<ul style="list-style-type: none"> ■ New supplier screening ratio: 100% ■ Key suppliers obtain certification ratio as below: Environmental Management: 90% Quality Management: 100% Occupational Health Safety: 70% ■ Number of suppliers violate of local environmental regulations.: 1 (China supplier, and we has requested improvement within the specified time.) ■ There are 33 new supplier had meet the 「 MSI Standard for Environmentally Friendly Products 」 manage requirements. 	<p>Ongoing:</p> <ul style="list-style-type: none"> ■ New suppliers that were screened and managed using environmental criteria. ■ The high risk and key suppliers carry out key audits and improvements. ■ Meet the 「 MSI Standard for Environmentally Friendly Products 」 management requirements.
		Meet the 「 MSI Standard for Environmentally Friendly Products 」 management requirements.		
		There is improving using of hazardous substances in products and striving to reduce environmental impact substances.		

Note: MSI Supplier Communication/Complain: Stakeholder mail: 080419864@msi.com

Conflict Minerals Management

Ethics 、 environmental protection and social engagement are the means through which MSI demonstrates sound governance to its stakeholders. Through RMI's regular due diligence investigation, we demand suppliers to make responsible purchase of tantalum 、 gold 、 tin and tungsten and avoid using conflict minerals in their products, as well as any action that may indirectly violate human rights or national/international laws.

In respect of international human rights and implement corporate social responsibility, MSI will take related measures to avoid using Conflict Minerals. Besides Conflict Minerals statements, we are also disclosure the information of conflict minerals due diligence measure and supply chain



smelters list. MSI has completed the 「 Conflict Minerals Management Measures 」 in order to facilitate the investigation and control of conflict minerals.

MSI Conflict Minerals Statement website link: https://www.msi.com/html/popup/csr/sh_conflict.html

MSI conducts annual certified mineral surveys on suppliers based on the latest Conflict Minerals Reporting Template (CMRT) and follows up on the progress of the submit. This survey has been effective in managing supply chain and minimizing default risks. In 2019, surveys were issued to a total of 381 suppliers to gather responses on their performance in the previous year, and 345 (90%) of which have replied. This response rate has increased progressively year after year; those that did not submit their responses are being followed up and counseled depending on levels of risk exposure.

•MSI Conflict Mineral Control Measures

Item	Implementing Measures	Goals	Goal Achievements	Future Goals
Supplier Signing Commitment	There are signing of Procurement Contract 、 Electronic Industry Code of Conduct Letter Agreement 、 「 MSI Standard for Environmentally Friendly Products 」 and Corporate Social Responsibility Requirements.	Supplier 100% completed	100% completed	New supplier was requested to sign management commitments.
Document Management	Conflict Minerals Management Measures	Management approach has been established.	The measures have implemented.	Continue to focus and survey whether the management item is updated.
Conflict Minerals Due Diligence	Responsible Mineral Initiative(RMI)-The Conflict Minerals Reporting Template(CMRT) Survey	Issued every January and completed at the end of March each year.	Completed during the reporting period. Reply rate: 90%	Ongoing Reply rate: >90%
	Due Diligence Analysis	There are analyses of smelter information in the CMRT questionnaire from supplier feedback.	The metal mines used in our products from smelters that have received a "conflict-free" designation by the RMI.	
Due Diligence Information Disclosure	CMRT company level report	The report is available in every April.	Information has been provided to customers in need at April.	Ongoing Available every April
	The investigation results were revealed on the MSI website.	The report is available in every April.	The report has been disclosed on the official website in April.	
Unqualified Supplier	Unqualified product management procedure	Management procedure has been established.	No unqualified suppliers found.	Ongoing Continue to ensure product compliance

•Cobalt Metal Survey

Battery has emerged as the key component in the world's ongoing movement towards energy/carbon reduction and in new consumer and auto electronics. Since cobalt is an essential metal to making Li-ion batteries, the mining of which has become so aggressive that some even incorporate disputable means. About half of the world's cobalt supply is sourced from Republic of the Congo, where exploitation of workers and child labor has caught the attention of human rights organizations worldwide. In light of this development, MSI began promoting awareness on risks associated with cobalt throughout its supply chain in 2018, and will be conducting investigation and evaluation in 2019 to ensure that suppliers have performed their due diligence checks and enforced labor and human rights in conformity with international standards. As a demonstration of our responsible procurement initiative, we will be disclosing the outcome of our investigation in next year's CSR report.

4.5 Customer Services and Satisfaction

MSI attention on building relationship with customers through brand, and considers product and service experience after purchase to be the ultimate testament for a brand's success. We recognize customers' encouragement/complaint、compliment and criticism as constructive feedbacks, and measure customers' satisfaction by 「overall product value, service, environment and performance」 to provide the basis for better service experience」.

Customer Service

We engage customers closely in all of our services. By heeding their demands and making immediate responses, we strive to build long-lasting customer relations for strengthened loyalty, closer interaction、reduced service cost and improved profitability.



• Service innovation

MSI's service innovation is inspired by customers' needs, and we constantly strive to explore new and better ways to satisfy customers' diverse needs. We recognize customers' dissatisfaction as opportunities to make improvements; for this reason, we have adopted the following mindsets to ensure that we exceed customers' expectations.

- Completed customer requirements: We satisfy customers in terms of both result and workflow, and constantly try to find new areas to serve.
- Improved customer service: Through systematic steps, we explore and deliver customers' needs and make ongoing service improvements to adapt to newly emerged products and services.
- Enhanced service experience: We assist customers in getting as many benefits as possible from a single service, and find possible ways to improve existing services without having to request for new solution.
- Maximize brand value: We pay attention to customers' problems and try to find opportunities to serve.

•Product After-Sale Services

MSI has over 6,500 service centers in over 120 countries globally to provide customers convenient and localized sales and after-sale support. Our service centers provide quality services for product replacement, testing, technical consultation, accessories and free notebook computer health check-ups. In addition to support offered at local service centers, our online support also offers technical information inquiry, in-store service tracking, online service request and customer satisfaction survey.

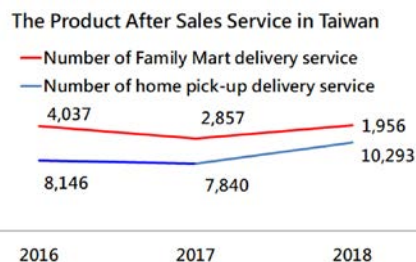
Service Channels

- 0800 Taiwan Customer Service
- Internet Customer Service System
- MSI Forum
- Authorized service locations
- On line MSI Member Center



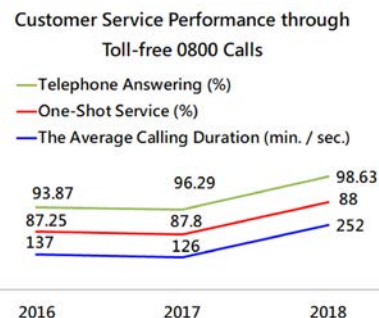
•Pick-up Delivery Service

We launched the home pick-up service for certain products in 2015. Now, our customers can send their products out for repair without leaving the comfort of home. After a product is received for service, MSI's work begins: Our service staff updates the customer on progress, including notification when the product is sent back to the customer, does a post-service call, call to inquire the status of use and troubleshoot on the spot, as well as conduct a survey to inquire suggestions for MSI Services. Information derived from all customer service calls serves as valuable references for improvement of the quality of our customer services.



•Customer Service Performance through 0800 Hotline

MSI uses 0800 hotline service as a means to gather customers' response and thereby identify opportunities for ongoing improvement. We have internal performance indicators available to measure customers' complaints and opinions raised through different channels; together, they provide the basis for continuous service quality improvement.



•Product Free Check-up Campaigns

As a gratitude to consumers' support, MSI offers twice free diagnosis services each year including NB/AIO/PC hardware servicing, software/firmware maintenance, and hard drive and peripherals testing. They are part of our efforts to ensure the quality of products delivered to customers.



Customer Satisfaction Survey

Depending on the sales location and product category, we provide online and in-store after-sale technical service and support to customers, and invite customers to participate in a voluntary satisfaction survey (the details of which are frequently adjusted depending on the current market condition) after each service. If a customer expresses dissatisfaction, the Company would immediately initiate follow-up and visit, while at the same time forward customers' opinions to relevant departments for review and improvement. Outcome of every case will also be analyzed and presented to sales units to provide reference for new product planning.



Customer Privacy and Personal Information Protection

Protecting customers' personal information and privacy has always been part of MSI's fundamental service principles. The Company complies with the Personal Information Protection Act and related laws with regards to privacy protection and the collection and confidentiality of personal information. We make limited and protected use of personal information, notify customers of their rights, and process information with their consent and in full compliance with laws. These practices provide customers with assurance to the products and services we offer. Please refer to MSI's privacy policy at <https://www.msi.com/page/privacy-policy> for more details on how we gather, make use and process your personal information.

MSI is dedicated to protecting personal information and privacy of all its customers. The company has completed internal identification of

personal information risks and implemented protection measures, and encountered no complaint or lawsuit concerning privacy violation during the reporting period. In the future, we will continue to protect customers' privacy at the highest standard.

•Customer Privacy

For the protection of customers' confidential information, MSI would confirm the following with customers before providing product maintenance and service:

- Backup of computer data (including but not limited to account/password, photo and music files etc.)
- Reminder on risk of file loss.
- MSI's privacy policy, service terms and conditions, and compliance notes.
- Customers may decide whether to use MSI's products and services.

•Personal Information Management Mechanism

Categories	Strategy Management
Organization Management	A personal information protection team has been assembled to execute tasks relating to personal information protection. An Data Protection Officer (DPO) has been appointed to oversee information and communication security within the organization.
Policy Management	Establish and implement personal information protection policies and rules, and publish on the corporate website; review and revise on a yearly basis based on compliance and audit findings. Comply with the Personal Information Protection Act and provide consumers with the function to inquire 、retrieve and delete personal information, and the option to unsubscribe marketing messages.

Procedure Management	Implement policies on internal/external privacy 、Cookie and data storage/security. Internal data processing procedures. Data transfer protocol and record. Data leakage incident evaluation and reporting procedures. Procedures for exercising of information owners' rights.
Employee Management	Customers' profile is being treated as 「confidential」 document; all documents containing personal information is being held at designated locations, and access of which is strictly controlled. 100% of employees are required to undergo personal information protection training. Outsources are being required to sign confidentiality agreements.



TRUE GAMING





msi[®]

5. Environmental Value



5. Environmental Value

Economic activities by humans have caused irreversible impacts to the environment and accelerated climate change, increasing the frequency of natural disasters. Meanwhile, environmental issues concerning GHG emission 、wastewater and waste treatment are putting electronics manufacturers at increasing risk of fines and work suspension. In pursuit of business growth and breakthroughs, MSI has taken a balanced approach towards growth and environmental protection by constantly monitoring and improving the ways we manage energy 、waste 、water resource and GHG emission. Overall, we have outlined a sustainability roadmap aim at achieving 「low carbon, reduced waste and low pollution」 that will ensure MSI's coexistence with the natural environment.

5.1 Environment Management Policy

The water, electricity, raw materials and other energy resources, waste disposal, and product hazardous substances used in the operation of the Company are all in compliance with local laws and regulations where each plant is located. To achieve the goals of environmental protection and sustainable development, we will continue to implement and improve preventive works and fulfill our corporate social responsibilities. We promise that:

1. Business activities will be conducted with priorities given to meeting full compliance with environmental protection and other relevant laws and regulations.
2. We will make all efforts to build a green supply chain and ensure that practices for protection of the environment are effectively implemented.
3. We will improve the efficiency of using resources and Implement an effective system for energy-saving and carbon emission reduction.
4. We will continue monitoring our practices of waste disposal and use of hazardous substances to ensure pollution control is continuously maintained and updated.
5. We will use and develop environmentally-friendly technologies.
6. We are committed to achieving good corporate governance and expanding economic development that includes environmental sustainability.

Environment Management Goals

MSI has set environmental and conservation targets for various forms of energy/resource, and management goals for the use, emission and reduction of energy and resources all under the environment management system. Together, they provide reference to our environmental policy and management efforts, and serve as the basis for ongoing audits and improvements.

Item	Management Goals	Results	Future Goals
Reduction of GHG emissions	4% average annual reduction of GHG emission compared to 2007 (baseline year)	Reduction of 5.77%	By 2025, GHG emission reduced by 50%.
Reduction of Energy Consumption	1% average annual reduction of energy consumption compared to 2007 (baseline year)	Reduction of 4.74%	<ul style="list-style-type: none"> ■ By 2025, total energy consumption reduced by 50%. ■ From 2019 we coordinate with the GHG management goals and set the average energy saving rate of 4% per reporting year as the target.
Reduction of Water Resources	1% reduction of total water consumption compared to last year.	Reduction of 6.65%	Continued to reduce 1% compared to the previous reporting year.
Reduction of Waste	1% reduction of total waste compared to last year.	Reduction of 5.48%	
Hazardous Substance Control	Increase the use of the Bill Of Material (BOM) of halogen-free materials in e-sport product by at least 2% per year by 2025 compared to 2018 (baseline year).	Achievement of 71%	The halogen-free materials ratio of BOM reaches the growth rate of 85% by 2025.
Reduction of Hazardous Substance	Increase the use of the halogen-free materials in VGA card and motherboard product by at least 10% per year as the target by 2025 compared to 2018 (baseline year).	2018 (baseline year): 0% (2018 is the starting year of the project)	By 2025, the halogen-free materials ratio of PCB reaches to VGA 78% / Motherboard 65%.
Compliance	During the reporting period, MSI ensured that the operations activities were in compliance with environmental regulatory requirements at the factory site.	No substantial fines or non-monetary punishments were imposed on MSI for violation of environmental-protection laws.	Continue to meet regulatory requirements.

Environmental Management Measures and Performance

Out of respect for environmental protection, pollution control, green production and sound corporate management, MSI not only complies with environment and energy-related laws, but also incorporates international certified environment management systems and occupational safety and health management systems into its operation. These measures help promote environment, safety and health awareness within the organization, support pollution prevention efforts, and contribute to our goals as a hazard-free, zero-accident and sustainable business.

•Environmental Safety and Health (ESH) Management

We devote attention to environment-friendly measures and make improvements on an ongoing basis. Management and action plans are devised annually to improve environmental safety and health performance, and mitigate impact of business operations on the environment and the community. MSI's commitment to environment safety and health is supported by robust management systems, policies and rules. Together, they help identify potential risks within the environment and minimize environmental impact of our business operations and products. By regularly checking existing practices for compliance, we ensure that our environment management system continues be effective.



MSI ESH related management system list:

Management System	MSIT	MSIS	MSIK
ISO 14001	V	V	V
ISO 14064-1	V	V	V
OHSAS 18001	V	V	V
IECQ/QC 080000	V	V	V
ISO 50001	Not applicable	V	Not applicable

•ESH Continuous Improvements

「Pollution prevention and ongoing improvement」are the two main principles that MSI has adopted to enforce environment management. By undergoing annual internal and external audits, we ensure that our environment practices are Plan、Do、Check and Action to ensure the goal of achieving sustainable improvement.

•ESH Management Performance

Item/Location	MSIT	MSIS	MSIK
ESH related management system	Obtain the 3rd party audit certification*.		
Water Footprint Inventory	76,417 m3 reduction of total water consumption compared to last year.		
Reduction of GHG emissions	6,843.17 Tonnes CO2e reduction of total GHG emission compared to last year.		
Energy Saving Management	17,379.9 GJ reduction of total power consumption compared to last year.		
Air Quality and Noise Measurement	We voluntary air quality and noise management commitment. No incidents of serious air and noise pollution were reported to MSI's operations were found.		
Waste Water Discharge	The test results of all MSI operation sites fully complied with local regulations. No incidents of serious leakage were reported and no impact to the local environment and wildlife habitats related to MSI's operations was found.		
Waste Management	It was also not reported for serious incidents of hazardous substance leakage nor had fines imposed for violation of environmental protection laws.		

Compliance**	No substantial fines or non-monetary punishments were imposed on MSI for violation of environmental-protection laws.
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* The certification including: ISO 14001、ISO 14064-1、OHSAS 18001、IECQ/QC 080000、ISO 50001(Only MSIS)

** ESH Communication/Complain : Stakeholder mail: 080419864@msi.com、ESH mail: esh@msi.com

Environmental Expenditure

MSI engages in an industry that is not involved in high-pollution and high-energy consumption. The relevant operations are mainly plant assembly and administrative operations, and an environmental management system (ISO 14001) and an occupational safety and health management system (OHSAS 18001) have been established, and valid verification from an impartial third party has been obtained. The relevant environmental expenditure and investment during the reporting period are as follows:

Item	Expenditure (NT\$)	The Goals and Benefits
The Total Expenditure on Environmental Protection	14,824,333	Benefits: Ensures that the company's environmental activities and disposal meet the requirements of relevant laws and regulations and reduce the possibility of environmental pollution. Uses: Waste disposal, Maintenance of wastewater treatment system and waste water testing, environmental management external services, 3rd party certification of management system.
The Total Amount of Investments in Environmental Protection	119,120,494	Benefits: Ensures that environmental protection equipment is operating properly. Uses: Equipment maintenance, equipment supplies, environmental education and training.

5.2 Climate Change Management

Climate change and potential disasters have made risk analysis and extremity forecast two very critical issues for the electronics industry.

At MSI, we have performed impact analysis and risk assessment on areas we consider to be vulnerable given the prevailing climate and environmental changes. These assessments provide us with a general idea of our existing protections and risk exposure, which we may exploit to explore potential opportunities. Despite the fact that MSI is not an energy-intensive manufacturer, the Company has made proactive statements about its control over GHG emission, signed various commitments and taken action to reduce GHG in living as well as operational activities. Meanwhile, strategies have been developed in response to environmental and operational impacts.

•Management Strategy

- Resilience to climate change: Implement risk identification, response and prevention measures in relation to climate change and avoid impact to operations.
- Promote low-carbon production: Adopt optimized technologies to reduce greenhouse gas emission, and set reduction goals.
- Incorporate green energy equipment: Acquire and utilize renewable energy equipment such as solar-powered heaters to reduce dependency on power grid.
- Improve energy efficiency: Devise energy and carbon reduction measures and enforce action plans for improved energy efficiency.

•Control Measures

- Identification 、evaluation and analysis of impacts and risks associated with future climate.
- Adaptation planning and review.
- Energy/resource coordination.
- New protection facilities or improved disaster prevention equipment.
- Regular examination of asset and commercial insurance coverage to determine whether they are adequate for compensating losses caused by climate change.

•Mitigation of Climate Change

MSI supports UNFCCC and the Paris Agreement, which introduce the objective of keeping greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner.

Risk Identification and Response Measures

Item	Aspect	Response Measures	Goal Achievements
Environmental Regulations & Compliance	Voluntary GHG emission inventory declarations	Survey GHG emission and energy consumption	Complete GHG Inventory.
	Voluntary total GHG cap control	Promote low-carbon manufacturing and energy/carbon reduction measures	Achieve the goal of reducing emissions.
	Low-Carbon Economy(Carbon Tax 、Carbon Trading etc.)	Search for relevant laws using the management system; raise employees' awareness to laws and internal policies and thereby reduce chances of violation.	Completed establishment of carbon trading procedures for plants in China
	Product Energy Efficiency Standards	Evaluate viable technologies and materials to be used for product design and reducing energy consumption.	<ul style="list-style-type: none"> ■ Energy efficiency of new-generation circuit designs has been improved even further. ■ Complied with energy consumption requirements of ErP 、MEPS 、CEC and Energy Star.



Extreme Climate	Natural Disasters probability of occurrence and severity level, affect production and operation.	<ul style="list-style-type: none"> Assess mitigation measures for risks of natural disaster that are caused by climate change. Make appropriate improvements and enhancements to plant sites, and advise the government on making improvements to infrastructures in order to withstand climate risks. Incorporate commercial insurance and emergency production procedures to reduce losses in the event of natural disaster. 	<ul style="list-style-type: none"> Implemented Business Continuity Planning (BCP) and established emergency response procedures for natural disasters and fire Commercial insurance coverage has been acquired
Economic Activity	Supply Chain Management	Evaluate suppliers' competence and help them adjust whenever deemed necessary.	No supplier was found to exhibit imminent risk.
	The consumption pattern was being changed and Increase the demand for environmentally friendly products.	Implement product life cycle environmental impact analysis; assess product eco-design to ensure reduce environmental impact.	Completed establishment of product eco-design procedures, and 100% of system products have completed the assessment.
Energy Management	Identify Weaknesses in Energy Consumption	Monitor energy usage at various plants and identify weaknesses that can be improved upon.	<ul style="list-style-type: none"> Adopted ISO 50001 Energy Management System. MSIT and MSIK adopt a voluntary management approach and replace energy-saving equipment according to schedule.

5.3 Greenhouse Gas Management

The Earth's climate and environment are deteriorating due to exponential increase of greenhouse gases over the years. In addition to supporting carbon reduction initiatives of international organizations,

MSI has implemented its own GHG management systems at various plant sites and assigned environment safety and health units to regularly review and enforce applicable measures.

GHG Management Commitment

MSI is well-aware of the reality that Earth's climate and environment are deteriorating due to exponential increase of greenhouse gases over the years. As a responsible citizen of planet Earth, we commit to:

- Duly monitor GHG emission of the business.
- Execute GHG reduction measures and develop low power consumption products.
- Publicly announce the GHG strategy and become the industry's role model.

•During the reporting period, the GHG Management Commitment approach as below list:

Purpose	To facilitate response to risks and opportunities associated with new control measures imposed by local and foreign governments against climate change-sensitive activities.
Policies	MSI ESH and CSR Policy 、ISO 14001 Environmental Management System
Management	Impacts of climate change and greenhouse effect are being felt at an increasing scale throughout the world. MSI will continue to monitor and analyze the changing climate as well as how the world reacts to it. Outcomes of our analysis will be reported to the senior management on a regular basis, whereas the board of directors will be notified of issues that require special attention. For more details on MSI's initiative at identifying risks and opportunities of climate change, please visit the corporate website: https://tw.msi.com/html/popup/csr_tw/evmtprrt_climate.html
Responsibilities	Administrative Div. 、Corporate Sustainability Office
Resources	Organization: Maintenance Section 、Corporate Sustainability Office Knowledge: Environmental care promotion via email.
Goals and Targets	Please refer to 5.3 Greenhouse Gas Management-GHG Management Goal

Assessment Mechanism	ISO 14064-1 Certification · GHG Inventory Report
Assessment Result	5.3 Greenhouse Gas Management-GHG Emission
Communication/ Grievance Mechanisms	ESH Mail: esh@msi.com

GHG Management Goal

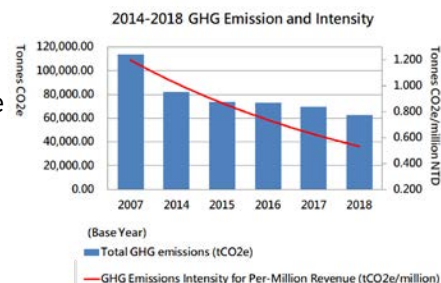
Climate change is an imminent issue that businesses must react to eventually. Global changes such as increasing temperature and extreme weather conditions serve as a reminder that we must pick up the pace of our reduction measures. This is why we have initiated a series of GHG surveys to ascertain the source of emission as well as the degree of impact, and are constantly exploring solutions and goals to mitigate impact of GHG on the environment.

MSI is committed to managing carbon emission and greenhouse gas emission. We pledge to achieve the following before 2025:

- 50% reduction in greenhouse gas emissions (baseline year 2007).
- 30% improvement in system product efficiency (baseline year 2014).

GHG Emissions

We have been executing GHG surveys since 2008, and in order to establish common grounds and reduction goals over the long term, all plant sites are required to conduct GHG survey in accordance with ISO 14064-1 and obtain 3rd-party certification once every year. Having established baseline data on GHG emission, we set 2007 as the baseline year (total GHG emissions 113675.33 tCO₂e) and aimed to achieve GHG reduction by 50% before 2025.



•GHG emission management performance during the reporting period

Item	Goals	Goal Achievements	Future Goals
Total GHG Emissions	1% reduction of total GHG emissions compared to last year.	<ul style="list-style-type: none"> ■ Total GHG Emissions 62,713.95 tCO₂e ■ 50,961.38 tCO₂e reduction of total GHG emissions compared to 2007(baseline year). ■ 9.84% reduction of total GHG emissions to last year. The reduction target for 2018 was achieved. 	<ul style="list-style-type: none"> ■ By 2025, 50% reduction of total GHG emissions (60,803 metric tons of CO₂e) compared to 2007(baseline year). ■ From the next year, we set the 4% average annual reduction of GHG emission compared to 2007 (baseline year).
GHG Emission Intensity	Regular Disclosure	<ul style="list-style-type: none"> ■ Total GHG Emission Intensity 0.529 tCO₂e/ million NTD. ■ 1.116 tCO₂e/million NTD of total GHG emissions in 2007(baseline year) , and decrease 52.57% decrease of volume compared to baseline year. ■ 0.125 tCO₂e/million NTD reduction of total GHG emissions compared to last year. 	Continuous annual regular disclosure

•Emission Factor and Management

Except for power coefficient and fossil fuel calorific coefficient, all other coefficients cited during the reporting period were calculated using data published by IPCC in 2006.

Electricity Emission Factor	Taiwan	By Bureau of Energy, Ministry of Economic Affairs notice for 「Electricity Emission Factor」
	China	By Nation Development and Reform Commission notice for Baseline Emission Factors for Regional Power Grids in China.
Fossil Fuel Emission Factor	Taiwan	By Bureau of Energy, Ministry of Economic Affairs notice for 「Energy Using Product Unit and Heating Value List」
	China	By China Energy Statistical Yearbook 2012.



Global Warming Potential (GWP)	GHGs are converted to CO ₂ -equivalents based on Global Warming Potentials the IPCC 1995 Second Assessment Report. (Unit: Tonnes CO ₂ e)	
The context for any significant changes in emissions that triggered recalculations of baseline year emissions.	Taiwan	None
	China	None
Setting Organizational Boundaries	Taiwan	MSI used the control approaches to consolidate GHG emissions. Under the control approach, MSI accounts for 100% of the GHG emissions from operations over which it has control.
	China	

•GHG Emission Inventory Results

Year	2007 (baseline year)	2014	2015	2016	2017	2018
Scope 1 Direct emission (tCO ₂ e)	6,383.20	3,012.00	2,366.53	2,227.64	1,865.96	2,349.55
Scope 2 Indirect emission (tCO ₂ e)	107,292.13	79,160.00	71,434.50	71,135.95	67,691.00	60,364.40
GHG Emissions Intensity for Per-Million Revenue (tCO ₂ e/million)	1.255	0.968	0.865	0.718	0.654	0.529

5.4 Energy Management

Considering that office and production activities make up the majority of energy consumption, and hence GHG emission, in MSI, we have introduced self-assessment practices based on the requirements of each plant, including ISO 50001 - Energy Management System for MSIS, to help identify energy-intensive equipment and areas where energy efficiency and power usage habits can be improved upon. Starting

from the next reporting year, we will aim to reduce average energy consumption by 4% yearly compared to the base year (2007), and thereby conform with international GHG reduction goals.

Energy Management Commitment

Consistent energy supply is an essential element to sustainable business. MSI is not an energy-intensive business and it uses energy mainly for production and office activities. We promise to:

- Explore energy-saving measures, enforce energy conservation management and increase energy efficiency on an ongoing basis.
- Adopt low-carbon technology in our production for lower GHG emission.

•During the reporting period, the Energy Management approach as below list:

Purpose	GHG management is an ongoing effort at MSI. We monitor GHG inventory by surveying the types of energy used and the amounts consumed, and develop awareness of our energy efficiency through disclosure of energy intensity. These insights have enabled us to devise action plans for the purpose of reducing energy consumption and GHG emission.
Policies	Project Management 、ISO 5001 Energy Management System
Management	Please refer to 5.4 Energy Management-Energy Management Measures
Responsibilities	Maintenance Section 、Corporate Sustainability Office
Resources	Organization: Maintenance Section 、Corporate Sustainability Office Knowledge: Energy saving promotion via posters and email.
Goals and Targets	<ul style="list-style-type: none"> ■ Project evaluation for energy management status ■ 4% average annual reduction of energy consumption compared to 2007 (baseline year) ■ ISO 5001 Energy Management System Certification (MSIS)
Assessment Mechanism	<ul style="list-style-type: none"> ■ To confirm project management efficiency ■ Establish an annual achievement goal ■ Management System(ISO 50001)
Assessment Result	<ul style="list-style-type: none"> ■ Please refer 5.4 Energy Management-Carbon Reduction Measures ■ Direct and Indirect Energy Consumption ■ Obtained ISO 50001 certification (MSIS)
Communication/ Grievance Mechanisms	Stakeholder mail: 080419864@msi.com

•Energy Management Measures

We adopt a multitude of reduction measures in daily operations. We also advocate for a low-carbon environment and encourage employees to adapt to more efficient ways of spend electricity in order to achieve carbon reduction goals.

Item	Management Measures
Energy Management	<ul style="list-style-type: none"> ■ Plant dormitories partially use solar heating solutions for hot water supply, and additional heat pumps have been installed to recycle heat from air compressors. ■ Chiller outlet temperature and chiller operation time have been adjusted to reduce power consumption. ■ The temperature of air-conditioners in production line and offices is controlled at 26°C.
Lighting Management	<ul style="list-style-type: none"> ■ The unnecessary lighting in the office area was shutdown. ■ Lights are turned off during lunch break ■ Lighting control is applied in office areas after business hours (except for lighting at emergency exits)
Public Facility Management	<ul style="list-style-type: none"> ■ Photocopiers are being run on power-saving mode, and turned off after office hours and during public holidays. ■ Drinking fountains are being run on power-saving mode, and turned off during public holidays. ■ Air conditioner operations are managed area-by-area, turning on only when needed
Energy Conservation Promotion	<ul style="list-style-type: none"> ■ The Company offers proposal bonus incentives to encourage energy-saving solutions from employees ■ Energy conservation dissemination to staff.(eg. Email 、Posters ... etc.)

•Carbon Reduction Measures

MSI is not an energy-intensive manufacturer. To improve energy management, we constantly adopt energy-saving measures in the office and make efficiency enhancements to office equipment; in doing so, we reduce the amount of energy consumed and the volume of carbon emitted, which mitigates risks and hazards of global warming and climate change. During the reporting period, MSI made numerous improvements to lighting equipment and air conditioners, while at the same time replaced outdated equipment and implemented new management measures that reduced GHG emission by 6,843.17 tCO₂e.

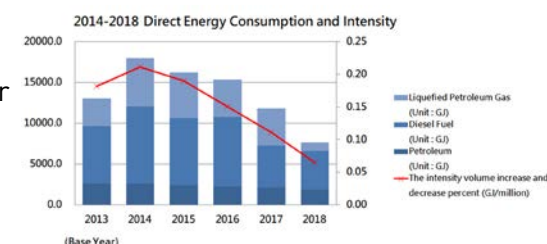
Carbon reduction measures at the MSI

Location	Measurements		Goal Achievements
	Equipment Improvement	Energy Efficiency Improvement	
MSIT	Office lighting fixtures have been replaced with LED lights	Replaced 6,669 LED lights, which saves energy by 60% compared to traditional fluorescent lamps.	6,843.17 tCO ₂ e reduction in GHG emissions
MSIS	Replacement of air compressor 、 installation of inverter chiller 、 switch to inverter and automated air conditioner system, and integration, synchronization and automated temperature adjustment for air conditioner pump/chiller/cooling tower.	Air conditioners were improved and replaced to reduce power consumption by 13.81%	
MSIK	Office lighting fixtures have been replaced with LED lights	Replaced 11,500 LED lamps, which saves energy by 50% compared to traditional fluorescent lamps	

•Direct and Indirect Energy Consumption

Direct Energy Consumption

MSI fossil fuels are only used for official vehicles, boilers, and emergency power generation equipment, and cooking at the employee cafeteria in various factories, and are not used for other operational purposes.





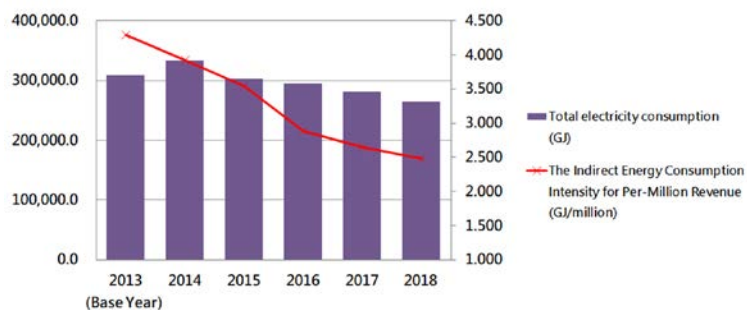
Item	Goal Achievements
Fossil Fuels Consumption	■ Fossil Fuels Consumption 7,682.0 GJ ■ 35.11%* reduction of indirect energy consumption compared to last year.
Fossil Fuels Consumption Intensity	■ Fossil Fuels Consumption Intensity 0.06 GJ/million NTD ■ 0.05 GJ/million NTD reduction of fossil fuels consumption intensity compared to last year.

* : The higher reduction was mainly attributed to increased revenues and Micro Electronics having purchased heat-exchanged hot water from vendors for use by employees.

Indirect Energy Consumption (electricity consumption)

Item	Goal Achievements
Electricity Consumption	■ Indirect Energy Consumption 264,097.7 GJ ■ 6.17 % reduction of indirect energy consumption compared to last year.
Electricity Consumption Intensity	■ Indirect Energy Intensity 2.482 GJ/million NTD ■ 0.16 GJ/million NTD reduction of electricity consumption intensity compared to last year.

2014-2018 Indirect Energy Consumption and Intensity

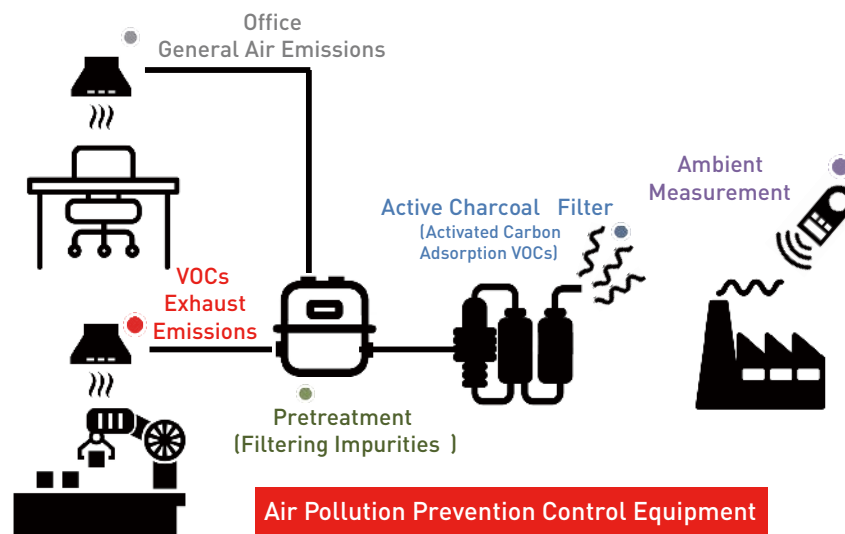


5.5 Pollution Prevention

While we commit ourselves to developing high-quality gaming products, we also strive to improve the local environment and control the level of pollution generated from our operations. In terms of pollution control, we continue to minimize treatment costs and comply with legal requirements by making improvements to production technology and treatment procedures.

AIR Pollution Prevention

MSI generates air pollutants mainly in the form of VOCs (Volatile Organic Compounds) emitted from auxiliary materials (such as solder flux, alcohol etc.) used in the production process. We adopt exhaust prevention equipment (e.g. active carbon absorption) to treat the exhaust emitted from production, which is released into the environment in strict compliance with local air pollution control laws and emission standards. Air quality (including indoor and operating environment) is monitored regularly to ensure the effectiveness of air pollution control measures. Furthermore, no ozone-depleting substance is used during production and no NOx and SOx is released into the atmosphere.



Goal	Management Measures	Control
Optimize Indoor Air Quality	<ul style="list-style-type: none"> ■ Reduce storage and use of materials characterized by high volatility and toxicity ■ Use alcohol instead of naphtha for product cleaning ■ Apply control over the use of organic solvent-based products (e.g. air fresheners) at confined spaces and office areas 	<ul style="list-style-type: none"> ■ Air in production and office areas is exchanged regularly to maintain air quality. ■ Random inspections (for CO2, PM2.5 etc) are conducted to maintain air quality. ■ Filters are cleaned and renewed regularly to maintain air quality.
Peripheral Boundary Air Pollution Emission Control	<ul style="list-style-type: none"> ■ Low-sulfur fuel is used in emergency power generators. ■ Improvement to pollute production procedures. 	<ul style="list-style-type: none"> ■ Installation of active-carbon absorption equipment. ■ Regular testing of air quality in peripheral boundary.

Wastewater Discharge Management

MSI complies with prevailing environmental standards. The Company generates wastewater mainly from living activities, and all wastewater is treated before discharge (for MSIK, wastewater is discharged to Kunshan water treatment plant for collective treatment through direct pipeline connection). The company has real-time monitoring equipment in place to check the quality of wastewater, and wastewater is discharged only when treated to standard. MSI is subjected to regular wastewater quality inspections of the authority, and has managed to meet the required standards. MSI discharged 452,428 tonnes of wastewater during the reporting period (excluding MSIK), up 4,491 tonnes from the previous year. This was mainly due to capacity expansions undertaken by MSIS that resulted in higher employee count and additional needs for steel plate cleaning, and hence the increase in wastewater discharges.

Waste Management

Based on pollution prevention and the producer's responsibility and the aim to meet the requirements of international environmental protection, when designing a product, MSI takes into account the requirements regarding use, disassembly, recycling, and low toxicity of the whole life

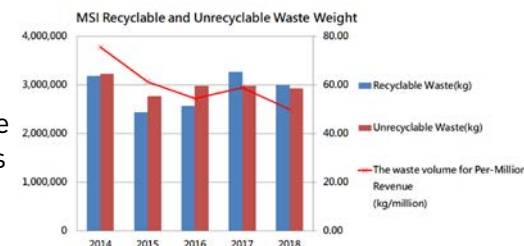
cycle to reduce the amount of waste for disposal, alleviate the difficulty of recycling, and improve environmental performance; a qualified outsourcing agency is selected based on the location of the factory to treat the waste accordingly.

•Waste Type

Waste generated by MSI operations is divided into general business waste (subdivided into recyclable and non-recyclable) and hazardous business waste, and are managed according to an environmental management system, in which waste generation, classification and collection, and recycling and transportation are properly managed and recorded. As for the disposal method, qualified waste disposal providers are commissioned to recycle, reuse, incinerate or bury the waste according to the category of the waste to ensure that secondary environmental pollution will not be caused. During the reporting period, the total amount of MSI recyclable waste was 2,989,068 kg, and the total amount of non-recyclable waste was 2,927,915 kg.

•Total Waste

During the reporting period, the total amount of MSI waste was 5,916,983 kg, and the waste density per million revenue was 49.92 kg/million (NT\$), which was 342,807 kg total waste reduction from 2017. The 1% waste reduction target for 2018 was achieved.



Item	Goal	Goal Achievements	Future Goals
Total Waste	1% reduction of total waste compared to last year.	<ul style="list-style-type: none"> ■ Total Waste 5,916,983 kg ■ 5.48% reduction of total waste compared to last year. The waste reduction target for 2018 was achieved. 	1% reduction of total waste compared to last year.
Waste Intensity	Regular Disclosure	<ul style="list-style-type: none"> ■ The Waste Intensity 49.92 kg/million NTD ■ 8.90 kg/million NTD reduction of waste intensity compared to last year. 	Continuous annual regular disclosure



Peripheral Boundary Noise Prevention

MSI monitors and controls noises caused to the peripheral boundary. The Company engages external surveyors to measure noise levels each year, and keeps track of noises generated from plant activities and equipment on an ongoing basis to ensure compliance with legal requirements. All of our plants are located inside designated industrial zones or science parks and outcomes of the above tests have all conformed with legal requirements, meaning that no disturbance is caused to nearby communities.

5.6 Water Management

MSI focuses on clean production and environmental protection. The waterless manufacturing process is adopted at each plant to produce various products; no effluents are produced in the manufacturing process. The water consumption is mainly based on employees' use of water, and only domestic sewage is produced. 100% of the domestic water source comes from municipal water supply (tap water) and does not from rivers and lakes, groundwater, or the ocean, which has no significant possible impact on water sources and community water.

For the management of domestic sewage, MSI has sewage prevention equipment, which is managed by designated personnel, and the discharge is supervised on a regular basis. The generated effluents are discharged into the sewage management system; the effluents from MSIK are directly discharged to the Kunshan Wastewater Treatment Plant, and the sewage is treated altogether by the treatment plant. MSIS has a central water recycling system; the recycled water is used for irrigation and toilet flushing. All of MSI plants are all located in the industrial zone and are not in ecologically sensitive areas. The results of effluent inspection are all in compliance with local laws and regulations, and show no serious impact on the local ecological environment and relevant habitats.

•Water consumption during the reporting period

Item	Goal	Goal Achievements	Future Goals
Total Water Consumption	1% reduction of total water consumption compared to last year.	<ul style="list-style-type: none">■ Total water consumption 1,071,974 m³(1,071.974 megaliters)■ 221,552 m³ reduction of total water consumption compared to 2015 (baseline year)■ 6.65 % reduction of total water consumption compared to last year. The water reduction target for 2018 was achieved.	The water consumption is mainly based on employees' use of water and we continuous set the water consumption to be 1% lower than last year.
Water Consumption Intensity	Regular Disclosure	<ul style="list-style-type: none">■ Water consumption intensity 9.04 m³/million NTD■ 17.13% reduction of water consumption intensity compared to 2015 of 15.17 m³/million NTD (baseline year).■ 16.19% reduction of water consumption intensity compared to 2017 of 10.79 m³/million NTD.■ 16.19% reduction of water consumption intensity compared to last year of 10.79 m³/million NTD.	Continuous annual regular disclosure

•Reclaimed water volume statistics by MSIS during the reporting period

Item	Goal Achievements
Reclaimed Water Volume	<ul style="list-style-type: none">■ Reclaimed water volume 162,833 m³■ 37.58 % increase of reclaimed water volume compared to last year.■ Reclaimed Water 15.19% of total water consumption , and 4.88% increase of volume compared to last year.
Reclaimed Water Intensity	<ul style="list-style-type: none">■ Reclaimed water intensity 1.37 m³/million NTD■ 37.58 % increase of reclaimed water intensity compared to last year.

*: The reasons for the expansion of reclaimed water intensity are increase the number of employees in order to expand production capacity, and the recycled water is used for toilet flushing and greening.



msi[®]

6. Love in MSI



6. Love in MSI

Based on the concept that 「Change progresses constantly, Service continues silently, Contributions accumulate, Dreams realize step by step」. MSI practices CSR commitments, provides the greatest support and assistance. We has long been coordinating with corporate employees to work with stakeholders (such as government agencies, schools etc.) on various charity programs including students' lunch, education, donation and care for socially disadvantaged; all of which are intended to create an equal society that is free of poverty.

MSI public care services and donations item as below table:

Public Care Service Items	
The number of public welfare programs	37
Total amount of donations for public welfare(NTD)	24,381,961
The number of corporate volunteers	1,235
Total hours of employee participation (hours)	2,327
The number of benefit students for school lunch	6,911
The number of education assistance program schools	59
The number of benefit schools for education care	12,717
The number of benefit schools for education care	240
The number of blood donors	371
The number of blood bags (250 ml)	624

6.1 Remote Locations Care-School Lunch Fund

Based on the concept that 「Change progresses constantly, Service continues silently, Contributions accumulate, Dreams realize step by step」. MSI practices CSR commitments, provides the greatest support and assistance. We has long been coordinating with corporate employees to work with stakeholders (such as government agencies, schools etc.) on various charity programs including students' lunch, education, donation and care for socially disadvantaged; all of which are intended to create an equal society that is free of poverty.

Public Welfare Program: School Lunch Fund and Sponsored to purchase locally produced vegetables or rice

MSI has funded elementary schools and junior high schools in remote areas to procure certain Taiwanese own rice or vegetables on a regular basis to promote local rice farming while subsidizing the food ingredients for the schools' lunches, enabling the schools to feel the warmth of society.

During the reporting period, the donating list as below:

Donation Item	Donation Amount (NT\$)	Number of Students	Number of Schools
School Lunch Fund	371,790	99	2
Sponsored to Purchase Locally Produced Vegetables or Rice	4,991,085	6,812	57



6.2 Sharing Good of Learning-Pluralistic Educational

Education is critical to the progress of a society, and although people may differ in terms of genetics and background, everyone should have fair, reasonable and equal opportunity to quality education. By providing educational resources, MSI hopes to reverse the adverse environment that disadvantaged students are subjected to, and narrow the learning divide at the starting line.

Education care for disadvantaged students

Public Welfare Program: Tutor Service for Disadvantaged Students

Social resources are utilized to implement MSI's 「Love from MSI」 help to students remedial program for disadvantaged students, which cultivated students' basic learning ability, helped disadvantaged students build self-confidence to develop their potential and create a new society of mutual care and mutual assistance.

During the reporting period, the donating list as below:

Donation Item	Donation Amount (NT\$)	Number of Students	Number of Schools	Number of Class	Number of Lessons
「Love from MSI」 Education Assistance Program- Tutor Service for Disadvantaged Students	2,864,600	2,044	33	113	8,931



Public Welfare Program: MSI English Enhancement Program for Students from Disadvantaged Families

MSI English Enhancement Program for Students from Disadvantaged Families has been launched with social resources to bridge the English ability gap caused by the urban and rural gap, the amount of resources, and the differences in family social and economic conditions, so as to flip education in remote areas.

During the reporting period, the donating list as below:

Donation Item	Donation Amount (NT\$)	Number of Schools	Number of Lessons
MSI English Enhancement Program for Students from Disadvantaged Families	1,500,000	18	2,005



Science Education

Public Welfare Program: MSI 2018 PowerTech Creative Technology Program for Youth

In response to the rise of Makers and 「STEAM」 - the educational purpose of science, technology, engineering, arts, and mathematics; young people are guided to explore their interest in science and develop their popular science potential through hands-on and popular science creation learning approaches to cultivate new generations of technological talents. In response to the rise of Makers and 「STEAM」 - the educational purpose of science, technology, engineering, arts, and mathematics; young people are guided to explore their interest in science and develop their popular science potential through hands-on and popular science creation learning approaches to cultivate new generations of technological talents.

During the reporting period, the donating list as below:

Donation Item	Donation Amount (NT\$)	Achievements
Subsidized elementary schools and junior high schools in New Taipei City for the organization of summer camps and PowerTech clubs, and organized group training, courses and events in New Taipei City and on a nationwide scale.	1,000,000	<ul style="list-style-type: none"> ■ Promoted juvenile technological creation contest as a means to improve hands-on practice and basic science knowledge for students and teachers. ■ Livened up courses taught at schools and aroused students' interest to basic science knowledge and hands-on practice.



Public Welfare Program: MSI sponsored to coding education and Taiwan coding education festival

AI and robotics are expected to play a major part in our future society, which makes programming and design two very important subjects in our curriculum. Through a collaboration with Coding, private educators and government agencies, MSI launched a course called 「Coding」 that aims to help children develop skills such as logical analysis、creative thinking、process control、problem solving and collaborative learning to better capture opportunities of the digital economy and improve competitiveness of the new generation.

During the reporting period, the donating list as below:

Donation Item	Donation Amount (NT\$)	Number of Students	Number of Schools	Achievements
<ul style="list-style-type: none"> ■ Donations were made to the Coding course in Hsinchu County ■ Hosted the 「2018 Coding Carnival (New Taipei City)」 ■ Sponsored the 「2018 Coding Carnival (Hualien)」 	1,500,000	2,500	32	<ul style="list-style-type: none"> ■ 30 elementary schools in Hsinchu County received the Coding course ■ Event was held at Chung Hwa Senior High School in New Taipei City ■ Event was held at Hwa-Gang Junior High School in Hualien County



Public Welfare Program: MSI sponsored to school e-sports Camp

Taiwan currently has over 60 schools that offer e-sport classes or courses. To support e-sports education, MSI organized e-sport camps at 12 tertiary institutions nationwide in 2018, which provided eager students with in-depth knowledge about the hardware, software and industry backgrounds needed to support a competent e-sport environment.

During the reporting period, the donating list as below:

Donation Item	Number of Students	Number of Schools	Achievements
MSI School e-sports Camp	862	12	Students were educated on the e-sport industry and possible career development.



Public Welfare Program: MSI sponsored to school broadcasting study camp for E-sports

E-sports has progressed to the point that online viewers now rival, if not exceed, viewers of conventional sport matches such as NBA and NFL, which makes e-sport game coverage an increasingly popular business in the media industry. As the world's leading brand of gaming peripherals, MSI is dedicated to supporting the e-sports industry in Taiwan, and has collaborated with 「Pi」 a popular streamer, to organize a series of 「E-sport Game Coverage Workshop」 at Overseas Chinese University and Chi-Ying Senior High School. MSI also offers an internship program as an opportunity for participating students to apply knowledge in practice, and help jump start career for the new generation of gamers.

During the reporting period, the donating list as below:

Donation Item	Number of Schools	Achievements
MSI School Broadcasting Study Camp for E-sports	2	Participants were given a thorough explanation on how e-sport games are covered, as well as the personnel, technologies, hardware and software needed to progress a game and present game images properly.



6.3 Flip Life-Disadvantages Groups Help

The underprivileged tend to be the most non-influential and neglected group of people in the society, and their basic rights can be easily sacrificed over the course of social changes. This group of people requires timely and adequate support in terms of social security, healthcare, education and employment in order to break free of the prevailing vicious cycle for a life of hope.

Public Welfare Program: Flight with Dreams Fund for Students from Disadvantaged Families

MSI has been a long-term member of the Committee of New Taipei City Flight with Dreams Fund. This committee, formed by a panel of representatives from the industrial, public and academic sectors, selects students with high performance from disadvantaged families and sponsors the students with scholarships so that they can focus on learning, complete their education and have enjoyable years on campus without having to worry about tuition fees and living expenses. This scholarship aims to improve the lives of students with good academic performances from rural areas of New Taipei City.





Public Welfare Program: New Taipei City Government Family Day for Children in Special Education

To enable students in special education to have diverse life experiences, the Education Department, New Taipei City Government, holds Family Day education days for students in special education in the second semester, allowing these children who seldom travel far away to have the opportunity to have different life experiences. Through the activities and shuttle bus services arranged by the Education Department, parents' burden is alleviated and the children are more willing to go outdoors. This program helps these little angels to study and grow up happily. MSI has sponsored this program for fourth consecutive years and has joined forces with the public group of Taiwan Taxi Public Group to help these young angels to experience life through different activities.

During the reporting period, the donating list as below:

Year	2015	2016	2017	2018
Organizer	Education Department of New Taipei City Government Taiwan Taxi Public Group			
Sponsor	MSI			
Co-organizer	Wei Chuan Pushin Ranch	Ching Yang Aqua Marine Enterprises Taipei Philharmonic Orchestra- Sistema Taiwan Museum of Marine Science & Technology	Green World Ecological Farm	LEOF00 Village
Sponsorship Fee (NTD)	140,000	170,000	231,550	246,470
The number of participants	400	400	400	400
The number of participating schools	80	80	80	80

Public Welfare Program: Strategic Alliance Cooperation Program

Currently, the society's attention on long-term nursing has been largely focused on caring for disabled persons, while long-term stress and issues concerning caregivers tend to be overlooked. Having recognized caregivers as a hidden risk amidst an aging society, MSI specifically finances local caregiving institutions so that they may recruit staff in greater diversity (nurses 、volunteer workers 、local/foreign nursing staff) to accommodate the needs of high-risk caregivers and support them multiple times a day, over a short period of time, on flexible occasions and within small areas. With this additional support, we hope to cover the shortfall of long-term nursing resources provided by the government.



During the reporting period, the donating list as below:

Year	2017	2018
Items	<ul style="list-style-type: none"> ■ All In One Services ■ Family Caregiver Services ■ Respite Care Services ■ Holiday Care and Supportive Services for the Family Caregivers 	
Long-Term Care Facilities	Hondao Senior Citizen's Welfare Foundation	
Number of service people	369	
Donation amount (NTD)	826,440	495,400

Public Welfare Program: Sistema Taiwan Cooperation Program

The mission of Sistema Taiwan is mainly to provide musical education for disadvantaged children, and inspire new possibilities through art. Through this program, we are able to discover musical talents spawning within children, which provide us with the motivation to continue what we do. In 2017, MSI introduced 「music as a life-changing opportunity」 and launched a series of musical education of charitable nature. The education program is being sponsored through Sistema Taiwan, which supplies teaching staff and instruments for children located in Ruifang and Shuangxi. Through music, we hope to enrich the minds of children and help them develop positive attitudes to withstand the hardship in life.

During the reporting period, the donating list as below:

Year	2017	2018
Items	170. Sponsored Sistema Taiwan for musical instruments and teaching staff.	
Donation amount (NTD)	300,000	350,400

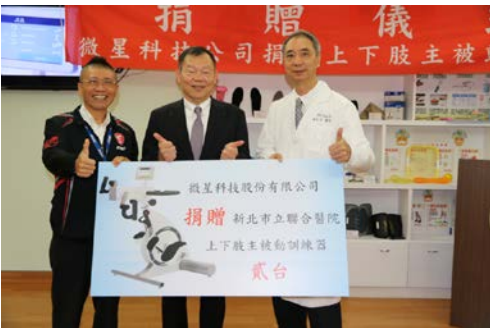


Public Welfare Program: Donated the Upper and lower limb rehabilitation training equipment for the New Taipei City Hospital.

In addition to pursuing breakthrough in business performance, MSI is also devoted to charity contribution. After being notified by New Taipei City Department of Health that New Taipei City Hospital was having difficulties acquiring new equipment, we assessed the situation and ultimately decided to donate two sets of training equipment support treatment of upper and lower extremities and maximize the effect of physiotherapy at New Taipei City Hospital for persons with disability, elders and the socially disadvantaged in the Sanchong area. This equipment is believed to have been used to its maximum potential given the fact that it is suitable for almost all patients.

During the reporting period, the donating list as below:

Items	Quantities	Donation amount (NTD)
The Upper and lower limb rehabilitation training equipment	2	500,000





Public Welfare Program: 2018 The E-sports Competition of Corporate Charity

During the 2018 Charity Tournament organized by Blizzard Entertainment, 7 renowned companies including MSI were invited to compete for 11 weeks straight, and MSI had taken this opportunity to demonstrate to the world its professional gaming spirit while at the same time contribute to charity with the goal of 「giving back to the society」. Together, participating businesses of this event raised NT\$1 million in donation for 「Angel Heart Family Social Welfare Foundation」, and contributed to the care of children with special needs. Through this e-sport tournament, we also hoped to direct the public's attention to caring for the socially disadvantaged.

During the reporting period, the donating list as below:

Items	Sponsorship Fee (NTD)
Registration fee donation	120,000
Total amount for fund-raising campaign	1,000,000



Public Welfare Program: MSI public welfare lotto activities

In recent years, there has been competition among businesses in hosting lavish year-end banquets featuring renowned celebrities as a means to reward employees. Contrary to this approach, MSI began exploring different elements that would make year-end banquets as joyful as they are meaningful, and thus the idea of 「charity banquet」 started to emerge in MSI. Since 2016, we have been inviting employees

to join us in charity during year-end banquet by purchasing scratch cards and lottery tickets. One lucky winner would be drawn at the end of the event to claim 50% of the prize pool, while the other 50% is donated to charity organizations.



During the reporting period, the donating list as below:

Year	2016	2017	2018
Items	Cash donation		
Donation amount (NTD)	68,900	99,505	136,050
Recipient Unit	Eden Social Welfare Foundation Taiwan Fund for Children and Families	Eden Social Welfare Foundation	Eden Social Welfare Foundation

6.4 Social Engagement-Common Good

Driven by the mission to 「promote decency in the society」, MSI fulfills its duty as a corporate citizen through programs including 「corporate volunteer」 and 「community feedback」; both of which are aimed to direct corporate resources and employees' attention towards the environment, the community and charity where we are able to contribute influence to good deeds.

Corporate Volunteers

Public Welfare Program: Diversity Service of Corporate Volunteers

MSI encourages employees to participate in social services during off hours. Through internal club activities, such as deep-root education,

environmental education, and caring for society, to spread love in the society, motivating employees to be committed to the organization, shaping the organizational culture together, drive social integration, community cohesion and community change.

Diversity Participation	Clubs	Service Achievements
The 26th Northern Taiwan Special Cheerleading Tournament for Children with Intellectual Disabilities	Volunteer Club	Cheer Leading Competition of the Mentally Challenged is an attempt to improve learning of the mentally challenged by stimulating their minds with music and dance. The event has been successful not only in raising participants' self-confidence, but also gathered more support to the parents of the mentally challenged. The event received total participation count of 18 from corporate volunteers during the reporting period.
Potted plant auction	Horticultural Club	Members of the horticulture club assemble after office hours to engage in plantation activities. They involve themselves in a number of voluntary activities such as making charity purchase of garden products 、arranging DIY sessions 、invoice donation and providing plant care. Through the horticulture club, employees are able to indulge themselves in the satisfaction of growing plants and participating in charity. Donations totaling 407 invoices and NT\$6,300 were received during the reporting period, and were entirely donated to Mennonite Social Welfare Foundation and Taiwan Fund for Children and Families, respectively.
Beach Cleanup	Swimming Club	The coastal cleanup was an event organized by MSI's swimming club with an emphasis on 「environment care and clean Earth」. It involved employees and family members in making physical contributions to Earth's sustainability. A one-day coastal cleanup even was organized at Laomei in the northern coastline during the reporting period

Charity performance	Dance Club	MSI encourages employees to seek balance between work and life, and members of the dance club had taken this advice to heart by rallying co-workers to watch the show - 「The Witch and the Cauldron」 by IfKids Theatre Studio. The dance club offered to donate NT\$30 for every employee and family member who signed up for the show. A total of 212 people joined to watch the show, which resulted in NT\$6,360 being donated to Child Welfare League Foundation.
Design Badge Charity Auction	Photography Club	At the end of 2018, members of the photography club invited co-workers to join them in charity! ! For a small cost, employees were given the opportunity to make their own magnetic badge while all proceeds collected by the photography club were donated to charity. Proceeds totaling NT\$10,000 were collected from the charity sale, and all of which were donated to St. Camillus Center For Intellectual Disability.
Uniform Receipt for Spring Couplets	Employee Welfare Committee	As the Chinese New Year approached, the EWC invited employees to participate in charity by offering them the opportunity to donate invoice in exchange for Chinese couplets or Gaming packs. The event served as a reminder to care for those in need as employees prepared themselves for the upcoming celebration. 2,000 invoices were gathered during the reporting period, and all of which were donated to Taiwan Fund for Children and Families.
Volunteer service at Datong Children's Home	Golf Club	Members of the golf club assisted Datong Children's Home with maintenance tasks such as cleanup, painting and weeding so that residents may have a renewed and comfortable space to live in. A total of 25 employees had participated and made contributions during the reporting period. By providing assistance to children's home, the Company was able to improve reputation and gain insight into the operations of the social welfare institution.



Giving Back to the Community

Public Welfare Program: Strengthening Community Cohesiveness

Activities	Contents
Zhonghe Village Deity Cultural Festival	The village deity had most followers and safeguard local communities. The Zhonghe district has many distinctive village deity temples, including the well-known Hongludi and Lixing village deity temples. As a local enterprise based in Zhonghe, MSI offered sponsorships to distinctive local cultural festivals and ceremonies to share the blessings with local people and pray for the peace and prosperity of the country. A total of NT\$350,000 was donated during the reporting period.
Greening maintenance of Huazhong Bridge Slope Green Space and Zhonghe Qiaohe Rd.	MSI is headquartered in Zhonghe District, New Taipei City. The vicinity is dominated by industrial areas. Frequently, large and small vehicles enter and exit, and the surrounding environment does not have too much green beautification. Therefore, MSI Technology proposes to adopt the Zhonghe Qiaohe road to the Zhonghe District Office. The tree plan hopes to enhance the beauty and safety of the street tree and benefit the community. A total of NT\$1,000,000 was donated during the reporting period.



6.5 Cherish Natural Resources-Environmental Friendly

Environmental friendliness arises from mankind's respect for nature, and could only be inspired through advocacy of environmental culture and civilized values. This awareness enables us to find the right balance between economic gains and sustainability that facilitates the perpetual renewal of natural resources.

Public Welfare Program: Defending Our Environment

Environmental Participation	Contents
Forestation at Jinshan Coast	「Planting trees is the beginning, and tree protection is even more important」. It is even more difficult to nurture and protect seedlings in coastal forests. 「Forestation at Jinshan Coast」 was first introduced by MSI back in 2016, and over a 3-year period, the Company has mobilized more than 400 employees to plant 5,200 seedlings. Today, forestation has become a highly participated event within the organization. From 2016 until the reporting period, MSI had planted trees with the capacity to absorb 170,820 kg of CO ₂ .

Wugu Wetlands Ecological Protection Program	Wugu Wetland has the highest density of birds in Northern Taiwan, and owing to the efforts of The Society of Wilderness, this area has been designated as a national wetland. In recognition for the contributions made by The Society of Wilderness to the wetland, MSI donated NT\$500,000 for the 2nd year to support The Society of Wilderness in restoring Wugu Wetland in 2018. In addition to sponsoring the maintenance of Wugu Wetland, MSI also organizes internal seminars to educate employees on environmental issues, plastics reduction and features of Wugu Wetland, as well as swallow-watching tours. Slowly and gradually, we help employees develop green habits and remind everyone to treasure the environment we live in.
Original Design Farming- Find a Farmer to Grow Organic Rice	MSI recognizes the idea of Nanao Natural Farm and adopted around 0.5 hectare of farmland; Nanao Natural Farm is responsible for rice milling and ploughing on behalf of MSI. When the output exceeded the guaranteed yield, the exceeding amount would be shared evenly among all the farming parties involved. MSI donates the harvested rice to the Food Bank of the Social Welfare Department of New Taipei City so that disadvantaged groups can also enjoy delicious rice. Hopefully, this donation can encourage every sector of the society to respond to the 「House of Happiness, Goods Bank」 program. 2018 is MSI the 2nd year join this program and offered sponsorship fee totally NT\$ 500,000. A total of 2,850 kg of rice was donated during the reporting period.



6.6 Community Relations-Resource Donation

「Giving back to the society」 has been an important part of MSI's CSR efforts, and by donating computers to communities in need, we demonstrate our resolve to help move the society forward and send the message that everyone has the ability to contribute to charity one way or another.

Public Welfare Program: Donation of Computers

Recipient Organization	Activities
Hualien Caliewan Social Caring Association	Hualien County PNZ Social Welfare Association has been offering free after-school tuition for children of indigenous people since 2005. Computers used by the association were too outdated to run the library management software, and after learning the problem, MSI offered assistance to upgrade hardware and donated 12 desktop PCs. Because of the added hardware, up to 12 students may receive remote one-on-one teaching on Mandarin, English and Mathematics courses at the same time.
R.O.C. FSCI	Founded in 1990, ROC Federation of the Spinal Cord Injured (FSCI) is an organization aimed at rallying support from the society to help people with spinal cord injuries become self-dependent and re-adapt social life, and in doing so relieve the burden imposed on the family, the society and the nation as a whole. FSCI had approached MSI for assistance because their computers were too outdated to run modern software, and after investigating the issue, we provided them with a desktop PC that can be used to support consultation and assistance for the spinal cord injured.
Social Welfare Department, New Taipei City Government	New Taipei City Social Welfare Department has community service stations available to serve elderly citizens, and a significant part of their service involves data input, which makes computer literacy a basic skill and computers an essential learning tool. Useful as computers may be, they often pose financial burden to service stations that have limited resources. With the right equipment, these service stations will be able to realize their full potentials and provide a friendly environment that cares for and improves the lifestyle of elders in the local community. After being made aware of this shortcoming, MSI donated 23 desktop PCs to 23 service stations located throughout the city to equip them better for the globalized era.



Taiwan Alliance for Advancement of Youth Rights and Welfare	「Young Studio」 is a facility created by New Taipei City Government within the premise of Yonghe Youth Rental Home. The studio, currently managed by Taiwan Alliance for Advancement of Youth Rights and Welfare, has been designed with a teenage theme with help from architecture aesthetics experts and MSI. Similar to the idea of 「job cafe in Japan」, the studio is divided into three sections. MSI installed 10 desktop PCs at the studio to support counseling and business startup consultation for young adults.
Hualien Hsi-Fu Elementary School	Indigenous people in Hualien County have long been a financially disadvantaged group, and recent changes in demographics have further altered the household structure, thus giving rise to single-parent family, grandparenting and new immigrants. The lack of care and financial resource has put children at a learning disadvantage and deprived them of hope for the future. With the 3 computers donated by MSI, Hualien County Government's tuition aid team is able to experiment new solutions through a 「Digital Tuition Aid Pilot Platform」, and take practical steps toward building children's basic learning capacity as well as hope for the future.
The Cerebral Palsy Association	Children with cerebral palsy are at risk of muscular atrophy due to 「tension」, and in an attempt to stimulate muscle activities and expand vision of children with cerebral palsy, The Cerebral Palsy Association of R.O.C. has introduced a 「Computer Workshop」 led by professional instructors that guides children with cerebral palsy through basic typing, computer skills and into the world of Internet. To help improve interpersonal relations, the workshop also teaches children to make contact with the world through social network. Having learned of the fact that the association lacks the budget to purchase computer equipment, MSI donated 8 desktop PCs to help people with cerebral palsy learn and exercise arms and muscles. Furthermore, by connecting them to the Internet, we helped expand their vision and quench their thirst for knowledge.

Fun Heart Taipei Public Welfare Caring Association	ROC FUN Social Welfare Association has always placed great emphasis on children's education. In the last year, the association organized a number of educational activities targeting civil issues, including 「Urban News Reporter」, at local communities, and arranged a series of after-school studies, creative courses, and information studies to help build children's character. With the 10 laptops donated by MSI, the association was able to host courses on Scratch programming at local community centers and churches, which helped improve children's learning of programming language for a more competitive career in the IT industry.
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6.7 Instant Care-Emergency Assistance

In 2018, a 6.4-scale earthquake occurred at Hualien, which resulted in the collapse of one building, severed damage to roads and bridges, and people being confined and trapped. Following the earthquake, MSI donated NT\$5 million to be used specifically for disaster relief and recovery for victims in Hualien. The donation was made not only as part of our corporate social responsibilities, but out of care for Hualien residents as well.



Annex I. GRI Standards Content Index (2016)

GRI 102: General Disclosures 2016

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	102-2 Activities, brands, products, and services	2.1 Company Overview	16	
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	102-4 Location of operations	2.1 Company Overview-Operations Worldwide Annual Report P.122-P.125	17	
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	102-6 Markets served	2.1 Company Overview	16	
	102-7 Scale of the organization	2.1 Company Overview Annual Report P.97-P.100	16	
	102-8 Information on employees and other workers	3.2 Employee Profile	33	
	102-9 Supply chain	1.3 Stakeholder Identification and Issues 4.4 Supplier Management	11 57	
	102-10 Significant changes to the organization and its supply chain	About this report	-	No significant changes
	102-11 Precautionary Principle or approach	2.4 Risk Management	21	
	102-12 External initiatives	-	-	•Comply with the requirements of Taipei Exchange Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TPEx Listed Companies and Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies. •Respond to external initiatives such as the UN SDGs, RBA Guidelines, ISO 26000, Responsible Minerals Initiative (RMI).
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3. Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	2.5 Business Ethics 2.6 Legal Compliance	23 25	
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	102-46	Defining report content and topic Boundaries	About this report	-	
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	102-48	Restatements of information	-	-	Update of historical data
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	102-50	Reporting period	About this report	-	
	102-51	Date of most recent report	About this report	-	
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	102-53	Contact point for questions regarding the report	About this report	-	
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			1.4 Identification of sustainability development Issues	12	
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GRI 406 Non-Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	3.1 Employee Policy-Friendly and Healthy Workplace	30	
			3.3 Employee Development-During the reporting period, human rights courses and training	37	
GRI 418 Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.4 Employee Relations-Reporting Channels [Business Ethics/Legal/ESH complaints/Sexual Harassment Grievance]	38	
			2.6 Legal Compliance 4.5 Customer Services and Satisfaction-Customer Privacy and Personal Information Protection	25 64	

Annex II. ISO 26000 Index

Core Subjects and Issues		Related Report Sections	Page	Note
Organizational Governance	Decision-making processes and structures	2.3 Governance Structure	20	
Human Rights	Due diligence	2.5 Business Ethics	23	
	Human rights risk situations	3.5 Healthy Workplace	38	
	Avoidance of complicity	3.5 Healthy Workplace	38	
	Resolving grievances	3.4 Employee Relations	37	
	Discrimination and vulnerable groups	—	—	All MSI operating policies and systems are not subject to the influence of gender, religion, race, nationality, or political parties.
	Civil and political rights	3.4 Employee Relations 3.6 Occupational Safety and Health-Environment · Safety & Health Committee	37 43	
	Economic, social and cultural rights	3. Employee Value	28	
	Fundamental principles and rights at work	3.3 Employee Development	35	
	Employment and employment relationships	3.1 Employee Policy 3.2 Employee Profile	28 33	
Labor Practices	Conditions of work and social protection	3.5 Healthy Workplace	38	
	Social dialogue	1.3 Stakeholder Identification and Issues	11	
	Health and safety at work	3.5 Healthy Workplace 3.6 Occupational Safety and Health	38 42	
	Human development and training in the workplace	3.1 Employee Policy 3.3 Employee Development	28 35	
The Environment	Prevention of pollution	5.5 Pollution Prevention	76	
	Sustainable resource use	5. Environmental Value	68	
	Climate change mitigation and adaptation	5.2 Climate Change Management	70	
	Protection of the environment, biodiversity and restoration of natural habitats	—	—	The MSI operating plants are all located in industrial parks, all of which have passed the EIA and have no relevant impact or influence on the surrounding organisms.
Fair Operating Practices	Anti-corruption	2.5 Business Ethics 2.6 Legal Compliance	23 25	
	Responsible political involvement	—	—	MSI maintains a neutral stance on politics, does not engage in any political donations or lobbying, and does not participate in relevant political activities.
	Fair competition	2.6 Legal Compliance	25	
	Promoting social responsibility in the value chain	4.4 Supplier Management	57	
	Respect for property rights	2.5 Business Ethics 2.6 Legal Compliance 4.4 Supplier Management	23 25 57	

Consumer Issues	Fair marketing, factual and unbiased information and fair contractual practices	2.5 Business Ethics 2.6 Legal Compliance	23 25	
	Protecting consumers' Health and safety	2.6 Legal Compliance 4.2 Product Responsibility	25 53	
	Sustainable consumption	4.1 Product Sustainability 4.2 Product Responsibility 4.5 Customer Services and Satisfaction	50 53 63	
	Consumer service, support, and complaint and dispute resolution			
	Consumer data protection and privacy	4.5 Customer Services and Satisfaction	63	
	Access to essential services			
	Education and awareness	—	—	Through digital forums, such as technology forums and online communities, MSI combines the experiential marketing of key stores with business partners in different sectors to allow users to understand the industrial development and technological exchanges. For relevant information, please visit the MSI official website: https://www.msi.com/index.php .
Community Involvement and Development	Community involvement	6.4 Social Engagement-Common Good-Contribute to the society	86	
	Education and culture	6.2 Sharing Good of Learning-Pluralistic Educational 6.3 Flip Life-Disadvantages Groups Help 6.5 Cherish Natural Resources-Environmental Friendly	80 83 88	
	Employment creation and skills development	3.1 Employee Policy 3.3 Employee Development	28 35	
	Technology development and access	2.1 Company Overview	16	
	Wealth and income creation	2.2 Financial Performance 3. Employee Value 3.2 Employee Profile-Employment	19 28 33	
	Health	3.5 Healthy Workplace 3.6 Occupational Safety and Health	38 42	
	Social investment	6. Love in MSI	80	



Annex III. United Nation Global Compact Comparison Table

Category	10 Principles	Related CSR Report Section	Page
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights;		23
	Make sure that they are not complicit in human rights abuses.	2.5 Business Ethics 2.6 Legal Compliance	25
Labor	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	3.1 Employee Policy-Friendly and Healthy Workplace 3.4 Employee Relations- Meeting Communications (Environmental Safety and Health 、 Collective Bargaining 、 Department Meeting 、 Management Meeting)	28 38
	The elimination of all forms of forced and compulsory labor;		
	The effective abolition of child labor; and	3.1 Employee Policy-Friendly and Healthy Workplace	28
	The elimination of discrimination in respect of employment and occupation.	3.1 Employee Policy-Friendly and Healthy Workplace 3.4 Employee Relations	30 37
Environment	Businesses should support a precautionary approach to environmental challenges;	5. Environmental Value	68
	Undertake initiatives to promote greater environmental responsibility; and	4.1 Product Sustainability 5. Environmental Value	50 68
	Encourage the development and diffusion of environmentally friendly technologies.	4.1 Product Sustainability	50
Anti-Corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	2.5 Business Ethics	23
		2.6 Legal Compliance	25

Annex IV. Assurance Statement

INDEPENDENT ASSURANCE OPINION STATEMENT

Micro-Star International Co., Ltd. 2019 Corporate Social Responsibility Report

The British Standards Institution is independent to Micro-Star International Co., Ltd. (hereafter referred to as MSI in this statement) and has no financial interest in the operation of MSI other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of MSI only for the purposes of assuring its statements relating to its corporate social responsibility (CSR), more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by MSI. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to MSI only.

Scope

The scope of engagement agreed upon with MSI includes the followings:

1. The assurance scope is consistent with the description of Micro-Star International Co., Ltd. 2019 Corporate Social Responsibility Report.
2. The evaluation of the nature and extent of the MSI's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the MSI 2019 Corporate Social Responsibility Report provides a fair view of the MSI CSR programmes and performances during 2018. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the MSI and the sample taken. We believe that the 2018 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate MSI's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS (2008) with 2018 Addendum. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that MSI's description of their approach to AA1000AS (2008) with 2018 Addendum and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a review of issues raised by external parties that could be relevant to MSI's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 8 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

Inclusivity

This report has reflected a fact that MSI has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the MSI's inclusivity issues.

Materiality

MSI publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of MSI and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the MSI's management and performance. In our professional opinion the report covers the MSI's material issues.

Responsiveness

MSI has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for MSI is developed and continually provides the opportunity to further enhance MSI's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the MSI's responsiveness issues.

Impact

MSI has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. MSI has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the MSI's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

MSI provided us with their self-declaration of in accordance with GRI Standards: Core option (For each material topic covered by a topic-specific GRI Standard, comply with all reporting requirements for at least one topic-specific disclosure). Based on our review, we confirm that social responsibility and sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the MSI's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum in our review, as defined by the scope and methodology described in this statement.

Responsibility

The CSR report is the responsibility of the MSI's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:



Peter Pu
Managing Director BSI Taiwan
2019-05-30



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Taiwan Headquarters: 5th Floor, No. 39, Ji-Hu Rd., Nei-Hu Dist., Taipei 114, Taiwan, R.O.C.
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Micro-Star INT'L CO., LTD.

No.69, Lide St., Zhonghe Dist.,
New Taipei City 235, Taiwan (R.O.C.)
www.msi.com

tel:886-2-3234-5599
fax:886-2-3234-5488