

MitraStar

2012

Corporate Social Responsibility Report





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OVERVIEW

MitraStar Technology complies with its corporate responsibility to create a beneficial relationship between its customers and our corporate management, to encourage our employees to show a strong company commitment and to cooperate with our partners to create a win-win situation.

We continue to win recognition and award on CSR. In 2012, we win the National Sustainable Development Award from Taiwan government.

In this report, we share our efforts in strengthening green product and service, employee care, health and safety, environmental protection and

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community. We have fully committed ourselves to our social responsibility and it is also the uncompromised commitment to all of our stakeholders.

The 「MitraStar Technology Corporate Social Responsibility Report」 is MitraStar Technology's third corporate social responsibility Report. We keep our promise as mentioned in our first report that we publish the CSR report annually to exposure our corporate social responsibility practices.

Report Scope

This report contains information related to MitraStar Technology. The financial figure is reported in NT dollars.

Report Framework

This report is compiled based on the Global Reporting Initiative (GRI) G3.1 framework. A table is also attached at the end of this report for readers' reference.

Contact Information

MitraStar Technology Corporate Social
Responsibility Committee
Email: csr@mitrastar.com.tw

**This report is also available on MitraStar
corporate website: www.mitrastar.com**



Message from the President

Dear friends and colleagues,

Keeping a philosophy of "innovation, striving for excellence, customer-orientation and value creation" in mind, with the creation of innovative products and technology as our core value, MitraStar promises to deliver effective services and best quality products and solutions to our customers for win-win. As a global citizen, we fully expect to fulfill our corporate social responsibilities through use of our professional knowledge and by

endeavoring to do our best in bringing the world the most convenient life possible.

"Corporate Social Responsibility is an Ongoing Journey"

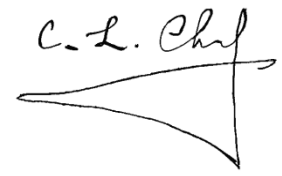
MitraStar is fully committed to fulfilling its responsibilities to society and the environment, as well as maintaining its corporate governance with integrity. Moreover, we respect the value of the community by supporting the neighborhood and also by providing our employees with a high quality and safe, working environment. To meet the challenges of climate change, we insist on innovation to comply with and surpass environmental protection policies and to provide eco-friendly products and technologies.

MitraStar not only complies with the corporate responsibility to create a beneficial relationship among all stakeholders but also proactive set a high standard ourselves on corporate management,

to encourage our employees on showing a strong commitment and accountability through daily operation.

C.L. Chang

President of MitraStar Technology





Corporate Profile

- A. MitraStar Technology Introduction
- B. Corporate Development
- C. Business Activities
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- F. Financial Highlights
- G. Award & Recognition

As a member of the global village, we are committed to fulfill our responsibility to society and the environment, as well as to supporting the best interest of its stakeholders. Moreover, we respect the value of the community not only by supporting the neighborhood in addressing pollution and energy issues, but also by encouraging similar commitment by its suppliers and employees, all with the goal of fulfilling our role as responsible corporate citizens.

A. MitraStar Technology Introduction

MitraStar Technology was established in Jan. 2011, a 100% owned subsidiary of MitraStar Holding Corporation and is located at the Science Park in Hsin-chu, Taiwan R.O.C. MitraStar, with its core competency on technology and product design innovation, keeps its focus on product development of wired and wireless broadband networking, next-generation Network, digital home multimedia and smart life applications. Our major businesses include DMS, Design, Manufacturing and Service. According to our customers' demands, we provide product design, mass production, logistic management and technical support.

MitraStar's robust product line covers many fields, including wireless broadband CPE, wired broadband CPE, broadband COE, fiber communication, digital home network and multimedia applications. We have also stepped into Next-generation Network (Internet of Things). This technology includes DSL, PON, Wi-Fi, WiMAX, and LTE in communication, and Routing, Switching, QoS, Security and Network Management in

networking. Regarding the rapid evolutionary trend of network and digital convergence, MitraStar is committed to providing high-quality products that fulfill the vision of "Smart living through a better connected world."

MitraStar is experienced in product research and development. Not only having strong technical capabilities, we are also proactive in phase with industrial and technical developmental trends. By realizing our customers' expectations, we work towards advanced technology and new products ahead of time to accelerate the product- leading position of our customers. For many years, team members' corporations with first-tier talent have accumulated abundant knowledge and experience on ODM/OEM R&D and high-quality manufacturing know-how. Based on such a solid background, MitraStar continues to promote its capabilities both in R&D and product manufacturing.

With a customer-oriented, innovative, striving for excellence and value creation in mind as our philosophy, MitraStar promises to deliver services to customers in a professional and enthusiastic

manner. At the same time, MitraStar will sustain its innovative corporation and most value-added products and solutions. With a Win-Win goal in mind, MitraStar wants to be in alliance with its customers in reaching maximum business success.

B. Corporate Development

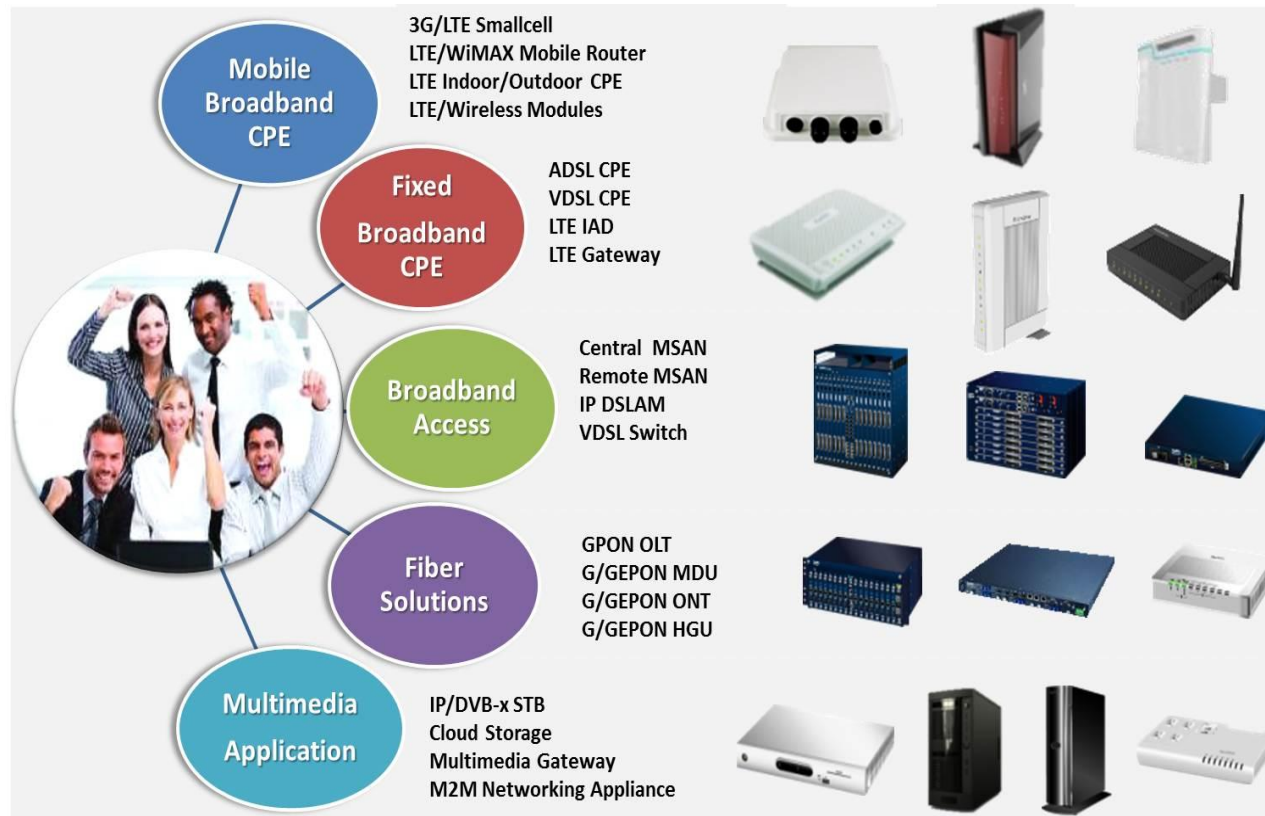
The Unizyx Holding Corporation began operations on August 16, 2010, as it was set up to hold ZyXEL's group of communications businesses. The ZyXEL Communications Corporation became a 100%-held subsidiary of this holding company through a share swap with the parent holding company.

November 2010, to split the product development department from ZyXEL Communications, Unizyx set up the MitraStar Technology as its subsidiary. January 2011, the split process completed, the new holding company becomes the parent company and has ZyXEL Communications and MitraStar Technology as its subsidiaries.



C. Business Activities

Products & Solution Offerings



D. Network Market Overview

As demands for smart phones and tablet computers become popular, integrated networks and wireless services are riding the tide of mobile computing to make wireless broadband, cloud computing and smart home appliances the focal point of the networking and communications industry.

According to MIC reports, the global market value for telecom equipment had increased 15.5% in 2012 to reach 402.3 billion (0.4 trillion) US dollars; along with the growing global telecom market value of US\$2.03 trillion, the total global telecom market of networking equipment and services reached US\$2.43 trillion in 2012. As demands for equipment and services increase, the estimated value for 2013 could reach US\$2.59 trillion, a 6.6% annual growth.

Domestically, the telecom equipment market achieved steady growth in terms of access products such as Switch, WLAN, DSL CPE, Cable CPE and 4G with an estimated 8.5% annual growth in 2013 reaching NT\$1.214 trillion. In general, the outlook for the future global telecom market is still going upward.

In the corporate market, the global IT spending reached

US\$3.6 trillion in 2012 with an estimated growth of 4.4% to achieve US\$3.79 trillion. The category with the highest growth is Telecom, followed by IT services, which grows with the prevalence of cloud computing, with an anticipated value of US\$4.29 trillion in Year 2016.

The annual telecom procurement budget is expected to grow from US\$2 trillion in 2012 to US\$2.32 trillion in 2016 with a 3% CAGR; in which services will take as much as 79% in the market of Year 2016. Demographically, the most prominent growth will be seen in Central and East Europe, Middle East and Africa with CAGR of 10.1-11.3% from 2012 to 2016.

According to the figures announced at the Broadband Forum, the number of broadband users broke the 6 billion mark to 6.57 billion in 2012 with 13% growth from the previous year. With continuing deployments of telecom infrastructures in developing countries and upgrades in developed regions, the growth of global broadband users will maintain its momentum to reach 8 billion in 2015 with strong performance in Asia, Central and South America as well as Middle East; in which Asia still maintains the highest user population of 2.62 billion, or 48% worldwide in 2015, while the United States will be the second largest with 93 million users.

MitraStar Technology

In response to new demands of innovative services, mobile broadband and network security, numerous integrated products and services are being launched regularly. At ZyXEL, we always make it our core competence to secure market trends and refine technical expertise for strengthening ZyXEL's market position and leading the industry through the product development agility.

E. Network Market Summary

With corporate resource effectively utilized through the stockholding organization, MitraStar has successfully increased its revenue and competitive edge.

1. Competitive Advantages

Research and development for quality

MitraStar invests a considerable amount of resources on its two global research centers every year for future product developments. The company had obtained not only the coveted ISO 9001 and TL9000 R 5.0 certifications for the quality of its communication products, but also countless awards from professional publications all over the world in recognition of its newly announced products every year.

2. Technology Research and Development Overview

In our wired/wireless networking and multimedia (xDSL, PON, WLAN, LTE and STB) lines, deployment flexibility are meticulously enhanced while stringent protection is offered on the network security products; and the VoIP, IP TV, Ethernet switch, router, network storage and smart home gateway products provide integrated application services. We feature product ranges for fundamental telecom deployments, enterprise-class solutions and integrated home media applications to seize the great opportunity of future growth in every aspect.

As business opportunities emerge with ubiquitous IP services, fiber optics, mobile and media applications on the Internet, MitraStar's role in the networking/telecom industry will be more important than before for its comprehensive product range and development capability.

F. Financial performance

The total revenue of Unizyx in 2012 is NT\$ 1.22 billions, and the after-tax net revenue is NT\$ -3.04 billions with EPS of NT\$ - 0.06.

1. Financial status and operating results

Unit: NT\$ thousands

Accounting Title	2011	2012
Operating income	1,409,473	121,907
Gross profit (loss) from operations	1,409,473	121,907
Operating income (loss)	1,289,416	9,414
Income from continuing operations before income tax	1,289,416	9,414
Income from continuing operations	1,254,491	-30,377

2. Profitability analysis

Item	2011	2012
Rate of return on assets (%)	12.70	-0.30
Rate of return on stock equity (%)	12.85	-0.30
Operating income to capital (%)	0.19	25.66
Income before tax to capital (%)	0.19	25.66
Net income to sales (%)	89.00	-31.44
Earnings per share (USD)	2.61	-0.06

G. Award & Recognition

- 2011 Taiwan Green Classics Award
- 2011 Award of Overall Excellence in Air Pollution Prevention, Hsinchu County
- 2011 Second Place, "Weight Loss for Health" Program, Hsinchu County
- 2011 Award of Excellence in the Environment Conservation Contest
- 2011 Award of Workplace Health Promotion
- 2012 Award of Overall Excellence in Air Pollution Prevention, Hsinchu County
- 2012 Award of Excellence in the Environment Conservation Contest
- 2012 Mark of Excellence in the Low Carbon Emission Program by EPA
- 2013 Certificate of Clean Production Evaluation



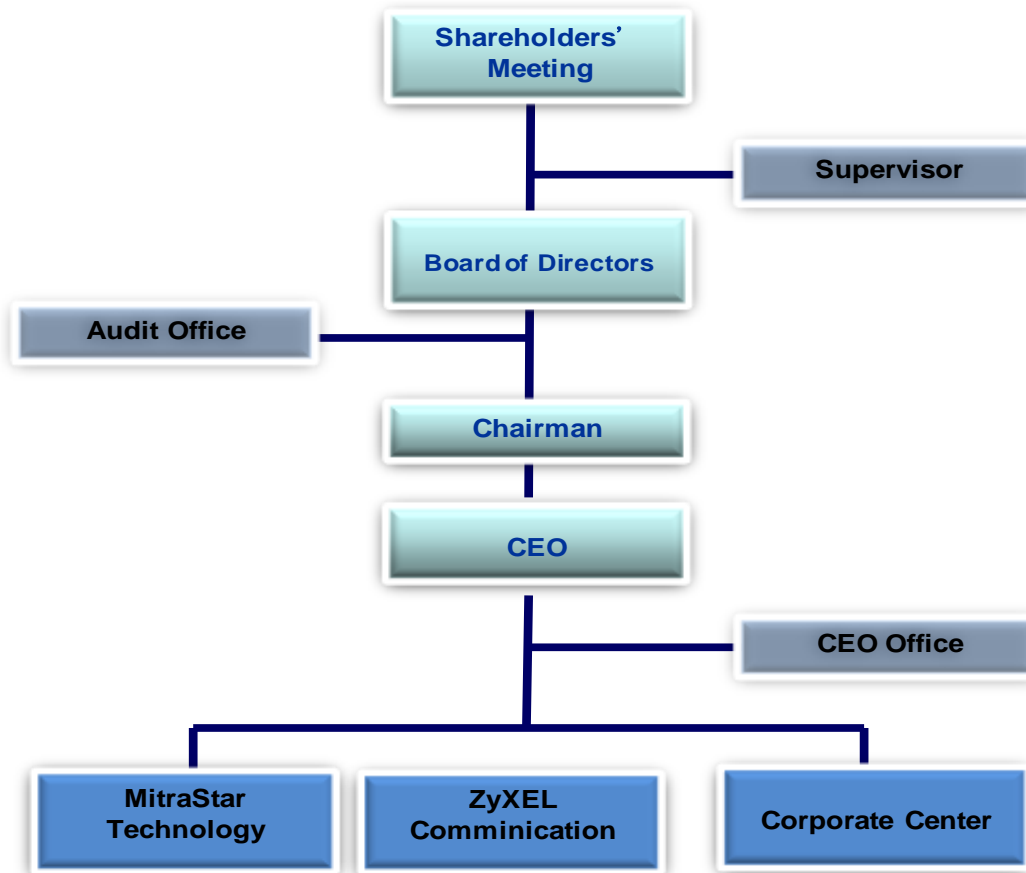


Corporate Governance

- A. Governance Structure
- B. Board of Directors
- C. Compensation Committee
- D. Shareholder Rights
- E. Code of Conduct
- F. Political Contributions
- G. Corporate Responsibility Committee
- H. Stakeholder Communication

With Integrity as one of its core corporate values, MitraStar holding company and its subsidiaries strongly observe this principle to abide legislations and business ethics. We create the economic value to offer all stakeholders with the best interest. On business ethic, we provide general guidance to all Group employees and assist us in carrying out our daily activities on principle of ethical business practice and our corporate values. The guideline is a global Code, the employees and business partners shall respect the standards in the operation of their work and business and ensure that we deal in all fairness with its customers, suppliers and competitors.

A. Governance Structure



B. Board of Directors

The Unizyx Board of Directors currently consists of nine directors, including two independent positions: Global Unichip board director and consultant and Global Mobile Corporation founder and senior consultant, Mr. KC Shih, senior consultant of 21 Vianet Group, Mr. Feng Qian. Dr. Shun-I Chu is the chairman of Unizyx Group and Dr. YuhLong Chen is the deputy of chairman.

All Unizyx Board members are industry professionals, and Unizyx provides occasional courses and information to the members to keep them connected with the company's current status and reviews the financial consultant as well.

The Board had held four meeting in 2012.

C. Compensation Committee

In order to enhance the administrative functions of the board, Unizyx established a Compensation Committee on August 9, 2011 to assess the performance and compensation of directors and supervisors of the board on a regular basis.

The Committee consists of three directors, in which two are independent directors. Mr. KC Shih, an independent director, is the convener of the Committee. The Committee meets no more than every six months to evaluate and amend the policies on performance and compensation assessment of Unizyx directors, supervisors and managers. The Committee held two meetings in Year 2012.

The compensations for directors and supervisors in recent years are provided according to Unizyx's corporate guidelines and have been approved by the board of directors and stockholders; and the compensations for the President and Vice Presidents are offered reasonably with reference to similar positions in the industry as well as their job description and actual contribution.

MitraStar Technology

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D. Shareholder Rights

1. Protection to Rights

Daily stock-related businesses and transactions of Unizyx are handled by Mega Securities, and a team is assigned to settle stockholder suggestions or disputes. Activities of major stockholders and related parties are overseen by professional agents and publicly revealed on Web sites designated by government authorities. Through these measures, corporate risks are under strict control and potential financial frauds from illegitimate loans and endorsements can be completely avoided.

2. Open Information

- Open information on corporate operations and an inquiry/answer mechanism are provided to investors on the company Web site.
- Unizyx has designated a staff to collect and reveal corporate information and a spokesperson to provide the information on the company Web site for investors to inspect.

E. Code of Conduct

This Code of Conduct provides general guidance to all MitraStar Technology employees and assists us in carrying out our daily activities on principle of ethical business practice and the letter and the spirit of applicable laws and our values. This is a global Code, and the employees and business partners shall respect and adhere to the same standards in the operation of their work and business and ensure that we deal in all fairness with its customers, suppliers and competitors.

1. Corporate Compliance

- Every behavior should comply with integrity and ethic, for "Integrity" is the core value of every employee should strictly perform.
- Every employee should comply with local laws, rules and regulations while conducting business.
- MitraStar Technology's business partners must follow the regulations.
- Improve the service level and provide the products

fulfilling customers' needs to gain business rather than providing improper interest to customers.

- Act in accordance with fair business, marketing and advertising practices when dealing with consumers and should take all reasonable steps to ensure the safety and quality of the goods or services they provide. A standard of fair trade, commercial advertisements and competition should be established.

2. Anti-Corruption

- All employees should not engage, directly or indirectly, any bribe or other activities which may construct as corrupt business practices.
- When dealing with customers, suppliers and other external individual or groups shall uphold the fair, open and honest business attitude.
- Improve the service level and provide the products fulfilling customers' needs to gain business rather than providing improper interest to customers.
- In its relations with governmental agencies,

customers and suppliers, will not, directly or indirectly, engage in bribery, kick-backs, payoffs, or other activities which may be construed as corrupt business practices.

F. Political Contributions

MitraStar Technology remained politically neutral, and prevented from making political contributions.

G. Stakeholder

The MitraStar Corporate Responsibility Committee operates under its associated principles to oversee the CSR issues within the Group.

1. The Mission

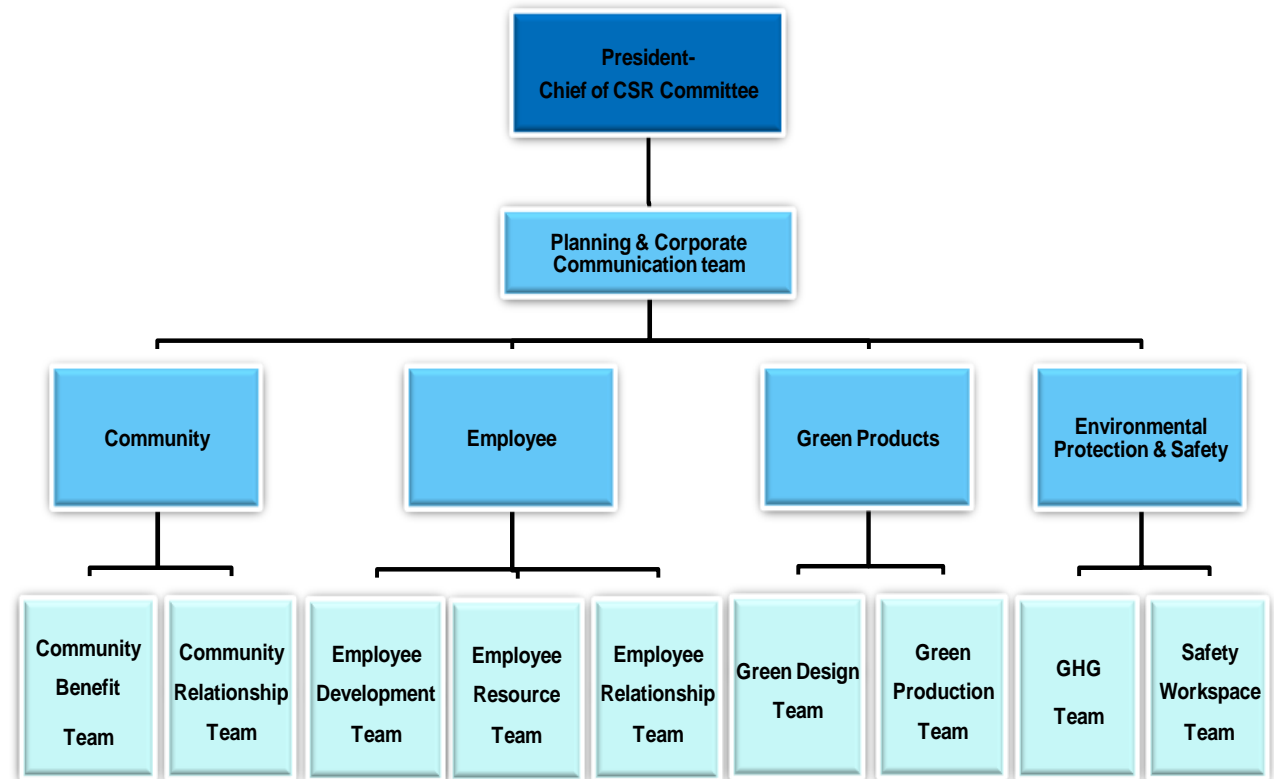
In addition to plotting the consensus of the company's future course, the MitraStar executives decided to found the MitraStar Corporate Responsibility Committee to carry out the company's vision and mission on realizing the responsibilities aggressively through activities, participations and contributions.

2. Objectives

The main objectives of MitraStar Corporate Responsibility Committee are laying down the MitraStar Technology's CSR strategies, implementing the related plans, setting goals, managing performance and resources to meet the company's CSR targets such as corporate governance, employee relationships, community care, environment protection and green product designs, among others.

3. Organization

Directly headed by MitraStar president, the MitraStar Corporate Responsibility Committee is operated by members from departments within the company. Backed by an effective organization and full support from the top executives, the Committee implements the related projects with participation from employees of all levels. The Committee calls for meetings every three months to update the CSR roadmap and review the progress of projects for possible improvements as well.



H. Stakeholder Communication

1. Stakeholder communication channel

MitraStar Technology corporate social responsibility activities are led by MitraStar CSR committee. The committee's members include representatives from corporate governance, employee, community, environmental protection & Safety and green product teams.

The committee identifies stakeholders and integrates stakeholders' concerns into annual plan. MitraStar Technology stakeholders include customer, employee, supplier, government and community. MitraStar Technology will has certain responsibilities to its stakeholders and communicate with various channels to understand their needs. The communication channels and activities with our stakeholders are described in the table below.

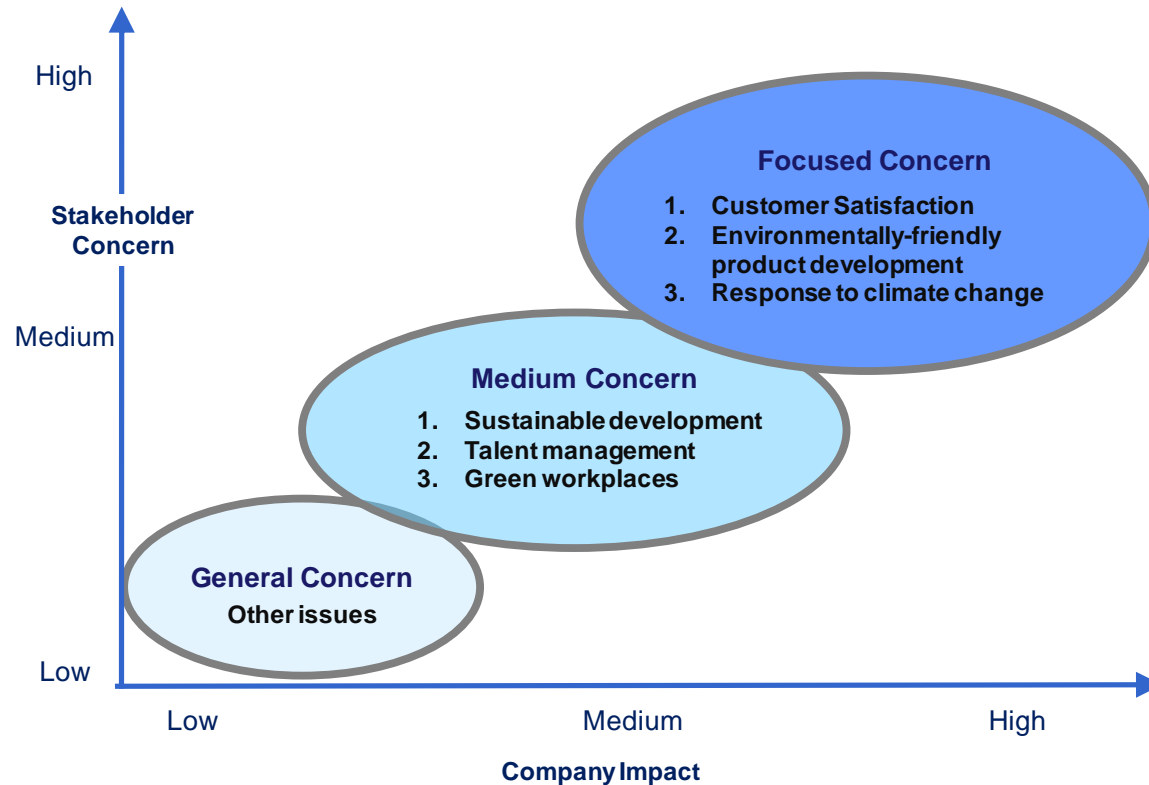
Stakeholder	Responsibilities	Communication Channels
Customer	<ul style="list-style-type: none"> ▪ Provide high quality products ▪ Green product development ▪ Fulfill the environmental requests from customers 	<ul style="list-style-type: none"> ▪ Customer Satisfaction survey ▪ Customer online service system
Employee	<ul style="list-style-type: none"> ▪ Employee Wellness ▪ Employee development ▪ Health & safety working place 	<ul style="list-style-type: none"> ▪ Wellness website ▪ Online class ▪ Multi communication channel
Suppliers	<ul style="list-style-type: none"> ▪ Audit for suppliers 	<ul style="list-style-type: none"> ▪ Green System
Government/ Community	<ul style="list-style-type: none"> ▪ Comply with regulations ▪ Support promotion ▪ Participate public activities ▪ Support the community activities ▪ Prevention of incidents and accident 	<ul style="list-style-type: none"> ▪ Communication channel with government ▪ Internal association ▪ 「The Progressive Foundation of Education」 ▪ 「Shun-I Chu and ZyXEL Scholarship」 ▪ Association of Science Park Industries

2. Analyses of Stakeholder Issues

The “MitraStar Corporate Social Responsibility Committee” holds regular meetings to discuss corporate governance, economic, social and environmental issues that are relevant to the company’s stakeholders. The discussed issues are prioritized according to their importance and relevance to the company and its stakeholders for the MitraStar Technology management to shape its CSR strategies.

The MitraStar Technology takes good care of the issues affecting our stakeholders. All stakeholders are invited to visit the CSR pages on the MitraStar Web site to learn the details about how the company handles the issues, or they can write to the CSR mailbox for direct feedbacks or suggestions.

MitraStar CSR contact e-mail:
csr@mitrastar.com.tw





Employee Development & Care

A. Employment

B. Compensation

C. Employee Development

D. Employee Relations

E. Employee Care

Talented people represent the most important asset for our continuous growth, as well as to fostering the company's culture of innovation and versatility. The company offers a challenging, enjoyable and competitive working environment and compensation plan, as well as several approaches aimed at creating a desirable balance between career and personal life. Through comprehensive training programs and personal development plans, our employees are encouraged to acquire further working skills in parallel with self-esteem, to encourage the future growth of themselves and the company.

A. Employment

As “Innovation” is our core value, we have a team that is motivated and believes in independent thought and originality. Our employment policy is:

- Maintain a working environment that provides appropriate remuneration, development opportunities and meets international and local relevant labor laws, rules and regulations.
- Restrict any discrimination, harassment or persecution in the workplace. Forbid any discrimination regarding race, color, religion, national origin, gender, age, disability, sexual orientation, gender identity, pregnancy, political factions and marital status.
- Support and respect, within its sphere of influence, the protection of international human rights set out in the United Nation’s Universal Declaration of Human Rights, the International Labor Organization’s (ILO) fundamental conventions and the Global Compact. In particular, ZyXEL supports the effective elimination of all forms of compulsory labor and child labor as

defined in the ILO. It will make this a criterion in the management of its suppliers and sub-contractors.

- Provide a safe working environment and require extensive training and safe equipment. Employees must be committed to maintaining a safe and healthy work environment by employing all safety operation procedures and principles while conducting business.

1. Recruitment

1.1 Equal Opportunity

MitraStar is an equal opportunity company that opens all positions to every talented individual within or outside the organization with fair, consistent standards. On the other hand, the human resource staff has also received complete training on interviewing skills to ensure the indiscriminate processes and employee quality.

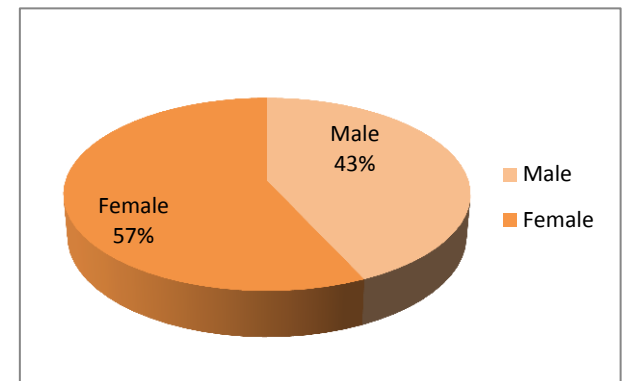
The related policies also clearly state that all new recruits and employees will be treated reasonably and fairly in terms of application, admission, development, security and rewards.

1.2 Diversity of Our Employees

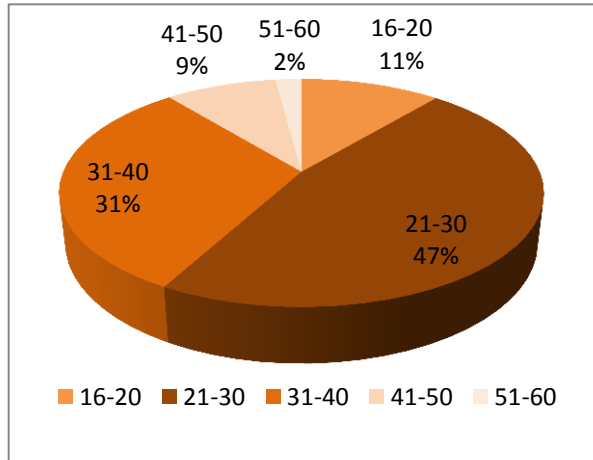
With innovation as its core value, MitraStar calls for people with diversified talents and creativity. The company recruits people without any regard to their age, gender, ethnic group, color, religion, nationality or political backgrounds.

Categories		Male	Female	Subtotal
Age	16-20	85	181	266
	21-30	502	615	1117
	31-40	311	429	740
	41-50	98	98	211
	51-60	25	25	50
	60+	0	0	0
Total by Gender		1021	1348	2369

Employee by Gender



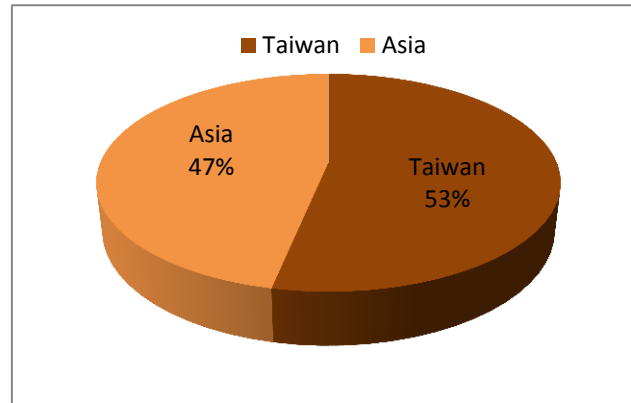
Employee by Age



MitraStar recruits professionals from both Taiwan and rest of the world, and also promotes local managers in overseas branches to fully exploit the potential of respective markets and to effectively communicate with the branch employees. The cross-market efforts would also inspire more creativity for MitraStar colleagues to deliver better customer values.

Categories		Male	Female	Subtotal
Working Location	Taiwan	710	552	1262
	Asia	467	640	1107
Total by Gender		1177	1192	2369

Employee by Geography



2. Workforce Structure

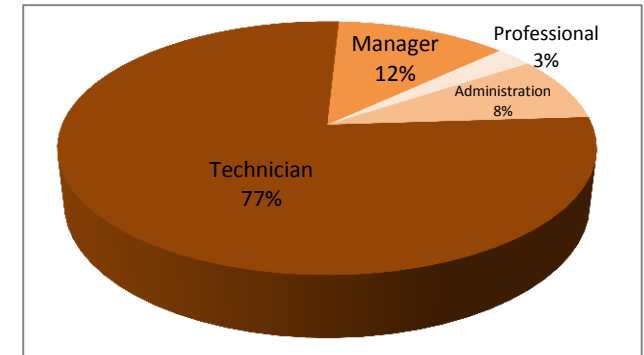
At the end of 2012, MitraStar Technology had 2,369 employees, including 252 managers, 54 professional, 170 administration and 1,579 technician people.

Employee Structure

Categories	Groups	Male	Female	Subtotal
Job	Manager	180	72	252
	Professional	20	34	54
	Administration	36	134	170
	Technician	939	640	1579
Working Location	Taiwan	710	552	1262
	Asia	467	640	1107

Age	16-20	85	181	266
	21-30	502	615	1117
	31-40	311	429	740
	41-50	98	98	211
	51-60	25	25	50
	60+	0	0	0
	Employee Type	Regular	1176	1192
Temp	1	1	2	
Avg. Service Yrs.			3.5	3.6

Employee by Job



3. Employee Retention

To encourage employees staying with the company, MitraStar offers career development opportunities, extracurricular activities, rewards for long tenure and outstanding performance as well as courses of professional and management skills.

Turnover Rate/Gender

Gender	2010	2011	2012
Male	21.8%	26.4%	28%
Female	23.9%	37.8%	26%
Average	22.8%	32.2%	27%

B. Compensation

The compensation of each individual MitraStar employee is decided with the best interest of both stakeholders and employees in mind, and gender is never the concern.

Pension: the Committee of Employee Pension Reserve Administration has been established in May 1991 in accordance with the Labor Standards Law to supervise the deposit process of pension fund into the Central Trust Bureau. Started from July 1, 2005, employees who chose to adopt the new pension system would have 6%

of their monthly salaries automatically transferred to their personal pension accounts at the Labor Insurance Bureau.

C. Employee Development

Based on the strategy of cultivating qualified and potential employees, we provide diversified learning resources and programs to strengthen all employees' professional skills and knowledge. Also, through the principle of knowledge and experience sharing, we encourage our employees to expand their experience level and to accumulate intellectual assets.

1. Diversified Training Programs

In addition to traditional "Classroom Training" and "On-the-Job Training", we also provide E-Learning Training Programs. MitraStar founded the "Corporate University" in 2006 to introduce the in-person training courses into virtual classes. This e-learning platform allows MitraStar colleagues to obtain and share knowledge together through courses such as workspace safety, environment protection, marketing, quality assurance, research/development and management to maintain the company's long-term

ability to compete on the market.

The e-learning platform consists of two Web sites: an online knowledge base for MitraStar employees and a training Web site for global distributors; both are designed to fulfill the strategic needs and to prepare colleagues for the upcoming challenges. The main objectives of the platform are:

- Meeting the need of business growth and globalization
- Systematic human resource development and management
- Building a platform for barrier-free knowledge exchange
- Enhancing professional skills of worldwide distributors for better business
- Improving service quality of worldwide distributors for customer satisfaction
- Solid partnership with worldwide distributors for long-term mutual benefits

2. Training Hours

In the past three years (2012), the Corporate University offered over 220 courses, or 2462.92 hours, through both classroom and online sessions accommodating over 2,566 attendees. The courses added the number of the University’s training hours up to 16878.64, or 13.16 hours per employee/per year in average.

In the meantime, the higher executives received even more – 3355.71 hours of substantial training, or 20.71 hours per person/per year.

The University is expected to become a rich, versatile platform for both instructors and attendees to open-mindedly share their experience at MitraStar to foster more talents and therefore better competitive advantage.

2011 Training Hours					
year	Class	Training Hours	Headcount	Total Training Hours	Average Training Hours per Employee
2011	175	1187.83	2970	12856.08	13.3
2012	220	2464.92	2566	16878.64	13.16

2011 Training Hours - Managers		
Year	Total Training Hours	Average
2011	2354.47	15.19
2012	3355.71	20.71

working hours, benefits, vacation and retirement offerings, but we also provide adequate channels for employees to communicate their thoughts and ideas with the management and to receive positive feedback through constructive interactions.

3. Performance Management

In order to fairly evaluate performance of employees, then reward them properly with job transfer, promotion, salary raise or training courses and to recognize the core competence and career path of every employee, MitraStar has created a performance evaluation guideline to coordinate targets and plans. The guideline will ensure that PDCA is implemented effectively for the company to align with the business roadmaps. The new recruits will receive their first evaluation as soon as they are hired, while current employees are evaluated in the mid-year period and by the end of the year. Managers and their associates will discuss the progress of annual plans, confirm needs for additional trainings and draft new objectives and plans for the upcoming year.

D. Employee Relations

We not only have legitimate and competitive wages,

1. Communications

We strive to keep these communication channels open between its employees and the management. Such conduits include meetings, suggestion boxes, bulletin boards, internal documents and e-mails for work groups. Managers are also given the opportunity to talk to their colleagues directly, in face-to-face affairs like “Free to Speak”, “Groups of Honor” and “Town Meetings”. In these events, employees can freely express their opinions or doubts about company policies, operations and employee benefits and the raised issues will be taken care of and followed up on by responsible managers.

Corporate Employee Committee

In the Corporate Employee Committee, representatives from both the employer and employees are elected to attend regular meetings. The employer would bring up work-related issues to

communicate with the employees for possible improvements and to reach mutual agreements.

2. Employee Rewards

To acclaim the employees who contributed their opinions for improvements or performed exceptionally well, MitraStar provides many forms of rewards to encourage more input and higher loyalty to the company.

- Competitions: the “Love the Earth” competition rewards winning employees who came up with creative ways to improve the pallets, carton stacking methods, green designs and energy-saving inventions.
- Employees of the Year: every year, department heads would recommend employees with exceptional performance as candidates for all employees to vote for the “Employees of the Year”. MitraStar also offers rewards and acclamation to the winners to recognize their achievements.
- Reward for Long Tenures: in the year-end company banquet, employees with long tenures will be rewarded and recognized for their long-time contribution to the company.

- Individual proposals, outstanding performance and special contributions will be rewarded as well.

3. Employee Rights

Support and respect, within its sphere of influence, the protection of international human rights set out in the United Nation’s Universal Declaration of Human Rights, the International Labor Organization’s (ILO) fundamental conventions and the Global Compact.

3.1 Elimination of Forced or Compulsory Labor and Child Labor

In particular, we support the effective elimination of all forms of compulsory labor and child labor, as defined in the ILO. It will make this a criterion in the management of its suppliers and sub-contractors.

In accordance with the Government’s “Industry Cooperative Plan”, MitraStar has established a mutually beneficial relationship with local schools to provide student internship. The interns are mostly over 16 years old and only a few of them are between 15 and 16; they are all under

supervision of Article 44 of Taiwan’s Labor Standards Law that excludes them from heavy or dangerous tasks. In addition, a counseling office has also been opened within MitraStar for the school faculty to help students on work-related issues; MitraStar also observes Article 44 of the Labor Standards Law, which states that minorities are not allowed to work for over 8 hours each day or on holidays.

3.2 Gender Equity

Strict rules and regulations to prevent right-infringing incidents, such as sexual harassment create an equality-based, safe working environment. In the case of any violations, the affected employees are encouraged to submit the case to an independent committee that consists of representatives from the management and employees. Eliminating any such harassment illustrates the company’s sincere commitment to protecting everyone in the workplace.

E. Employee Care

1. Employee Welfare Committee

Formed by employees from all levels, our Employee Welfare Committee embraces the mission of creating the best working environment possible for everyone, and it helps colleagues to better play their roles in both the office and home. The Committee regularly organizes or subsidizes the following activities:

- Company-wide events: hiking, dinner gathering, family days and annual evening banquets.
- Sports: activities and competitions organized by respective clubs, and have over 1500 attendances.
- Arts: painting, seminars
- Clubs: over 20 clubs such as ball sports, yoga, belly dancing, illustration and oil painting, etc. and have over 1000 attendances.
- Travel: sponsorship for employee travel groups and activities
- Others: support for employees' family occasions, tuition fees and emergency expenses



Painting Club



Seminar



Sport Game



Balloon Club

2. Employee Health Promotion

2.1 employee health check-ups

Every year, MitraStar invites medical professionals to the factories to provide regular employee health check-ups that exceed government standards. Physical checkups: according to the result of checkups, follow-up targets are categorized into different levels for the highest level of employee wellbeing: I: Normal, II: recommended to improve with healthy diet and exercise and III: recommended for further physician evaluation.



health check-ups

2.2 Multiple health promotion activities

In addition, MitraStar also works government agencies to hold health promotion activities such as stress-relieving massages, cancer prevention seminars, blood -pressure checking and blood donations. The activities effectively help employees to become more conscious about their health..



Female health check-ups



Blood donation



HPV injection



blood pressure checking



2.3 Health Care

We have the internal nurse and doctor to provide the health consultation. The service including:

- Employee health checking
- Health consultation
- Medical transfer service
- Prevention of professional diseases

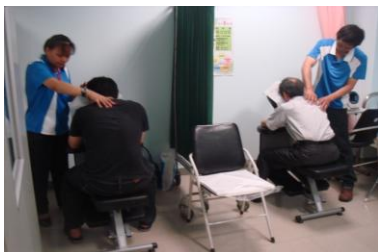
➤ Medical professionals consultation service

Provide employee the consultation service in service hours.



➤ Blind massage service

Invite the blind masseuse to provide the stress relieving service for employee, and also taken care of disadvantaged people.



3. 24-hour Toll-free Hotlines

An expert team consisting of lawyers and consultants in psychology, financial and health fields provide a round-the-clock counseling service under the Employee Assistant Program (EAP). These experts help employees to overcome physical and mental health issues, legal issues, marriage, education, career management, insurance, tax and finance difficulties. All personal information and records are under strict protection and supervision.

4. Freedom of Belief

MitraStar respects religious beliefs of employees from all countries and cultural backgrounds. Colleagues of the same religion are free to hold periodic gatherings, such as English Bible reading guides, for mutual supports and mental growth.

5. Working place

Lounges, karaoke rooms, kids' playgrounds, convenience stores, restaurants, cafeterias, breast-feeding rooms, as well as on-campus travel agencies, banks, insurance services, telecom application, shopping card application service are also available.



Cafeteria

Gymnasium with badminton, volleyball, basketball, billiards, table tennis, aerobics and weight training rooms allow employees to enjoy their favorite sports for better physical and mental health.



Gymnasium

6. Employee Welfare

- Dining Delights: The company cafeteria offers six buffet lanes and two cafeterias with nearly 100 cuisines for employees to choose from.
- Dormitory: Visiting employees can reside in the dorm until they find a more suitable place to stay in the future.

- Transportation: Complimentary transportation can be arranged for interns, foreign workers and off-hour workers.
- Parking Space: All employees who commute by car or motorcycle can enjoy free, parking spaces. Aside from the motorcycle parking lot, a four-level, underground car park is also provided.
- Special parking space for pregnant, injure and honor employees.

7. Employee Organizations

All employees are free to establish clubs or groups of common interest within the company and we will even subsidize such activities organized by these groups. Currently, there are over 20 active clubs/groups in the company including:

- Ball Games: basketball, volleyball, badminton, table tennis, golf, billiards, softball
- Outside Activities: mountaineering, swimming
- Dancing: belly dance, dance club
- Exercise: yoga, Chinese shadow boxing
- Art: book club, oil painting, ukulele, balloon art, table game
- Public service: charity, green market

Formed by employees from all levels, Employee Welfare Committee organized the ball games for two months and there are 300 employees to join the game. Also, we encourage our employees to interact with employees from other companies to have activities together like as ball game and exhibitions.

We create the best working environment possible for everyone, and it helps colleagues to better play their roles in both the office and home.



softball game -

softball club was recognized the forth



Community

- A. Cultivation of Talent
- B. Care for the Community
- C. Environmental Protection

A responsible enterprise that fulfills its social responsibilities through application of its core values may generate more positive influence and persuade society to contribute as well. As a perpetual value of ZyXEL, "Innovation" is always reflected by the company through its public service efforts. Dr. Shun-I Chu, chairman of MitraStar Technology, not only practices this belief personally, but also encourages employees to participate in all kinds of social services and spread this idea.

According to MitraStar Technology Code of Conduct :
For corporate social responsibility to international community :

As a Corporate citizen and fulfill social responsibilities, encourage employees to participate community activities during their leisure time.

For community, we do:

A. Cultivation of Talent

MitraStar reserves a high percentage of its revenue to invest on research and development. It's not only for future Internet life of better quality, but also for fostering the potential talents and the community.

➤ The Progressive Foundation of Education

Different from non-benefit organizations and foundations carrying corporate names for publicity, the "Progressive Foundation of Education" and "Shun-I Chu and ZyXEL Scholarship" were founded privately by Dr. Shun-I Chu, chairman of Unizyx, MitraStar's parental company in 1999 for public benefits.

The objectives of Progressive Foundation of Education

are public policy research, facilitation of community improvement and equal education opportunities. Based upon on the groundwork, the Foundation clearly defines its tasks and therefore the plans to sponsor the development of talented people.

In 1998, Dr. Shun-I Chu donated ten million NT Dollars to the Chiao Tung University to establish the Network & Telecommunication Development Fund, and he later donated five million shares stock (100 million NT Dollars of worth) in June 2011 to maximize the effectiveness of the Fund in facilitating research and education of telecom technologies as well as the knowledge exchange between the industry and institutions.

The Network & Telecommunication Development Fund is utilized mostly on academic seminars, telecom technology labs and scholarships. 2012 is its 15th year of the scholarship being handed out to the select recipients.

➤ Shun-I Chu and ZyXEL Scholarship

The Scholarship is offered to nearly 400 college and high school students with excellent grades or from disadvantaged families in the Hsinchu and Miaoli area.



➤ **Sponsorship to Tsing Hua University's "ZyXEL Auditorium"**



In 2003, Dr. Shun-I Chu sponsored the restoration of Tsing Hua University's "ZyXEL Auditorium" for the facility to become a multi-purpose space for performance and other cultural activities. Over 100 events such as lectures, chamber music, drama, dance, movie, society and art exhibitions take place in the auditorium every year, and they are open for the campus and the community to enjoy and participate.

B. Care for the Community

Follow the step of Dr. Shun-I Chu, employees also organize the "Charity Group". For years, MitraStar has taken care of disadvantaged people in its area by offering children and senior citizens necessary resources, nursery access and financial assistance.

1. Establishment of "Morning Sun Lyceum"

Our volunteers raised money to build the "Morning Sun Lyceum" through community fairs and garage sales. The facility helps intellectually challenged children to enjoy the respect and support others do, and educates them to take care of themselves in the future. Field trips are regularly organized for these children, to keep them in touch with society and natural environments.

2. Care for Disadvantaged Children

MitraStar periodically organizes donation events for the fund needed to provide children from aboriginal and financially challenged families with free meals. The fund is also shared with charity organizations and Family Support Centers.

3. Balloon Club at St. Teresa Children Center:

The Balloon Club spent the Christmas eve at St. Teresa Children Center to bring forth joy to the children in need by teaching balloon arts and playing games with everyone.



4. Care for Solitary Senior Citizens

We offer donations and condolences to senior citizens; we also provide funds and organize events at nursing homes housing.

5. Supports sustainable farming through promoting produce

Local produce such as peaches, cabbages and bamboo shoots from Jianshih Township, Hsinchu County, has been brought into our employee cafeteria for purchase at reasonable prices to facilitate fair trade.

C. Environmental Protection

We donate to many charities and works with government agencies to support natural wildlife preservation, green environment and resource recycling activities to attract more public participation and to contribute its fair share as a responsible corporate citizen.

➤ Your Waste, My Gold

MitraStar perpetually benefits both the environment and its own operations with ever-improving

manufacturing and recycling processes. All waste materials are meticulously separated, categorized and reported according to government regulations and all the work of the waste processing, service providers is under stringent supervision.



3C product recycle



Occupational Safety Month



Green house agreement

➤ Public Services

To promote environmental awareness, we regularly donate and support social work organizations, as well as government agencies, on nature preservation, greener environment and resource recycling activities to further society's awareness of these issues, while we do our best to fulfill our role as a responsible corporate citizen.

➤ Unizyx Group Park

The establishment of park - a 5140 square meter green space that provides employees with a peaceful and natural place to take a break and relax. The versatile planting not only offsets its CO2 emission but also promotes biological diversity to meet the requirement of Convention on Biological Diversity.



➤ Battery Recycling

Starting in 2009, all depleted batteries are collected and recycled in line with the “lifecycle management guidelines for dry batteries” proposed by the Hsinchu County’s Department of Environmental Protection. Many batteries were recycled properly thanks to this movement.



➤ Regular Motorcycle Check

Since 2008, in order to reduce air pollution caused by commuters on motorcycles, we have worked with the Department of Environmental Protection of Hsinchu County to perform periodical exhaust checks on these vehicles, with the inspected motorcycles showing a pass rate of over 95%. Also we are recognized 3rd on “Mobile pollution sources Control Award” in Shin-chu county.



➤ Month of Working Safety and Environmental Care

MitraStar actively involves in the event organized by Hsinchu Science Park since 2006. Activities include redemption of recycled goods, environment care DIY, health and wellbeing, ecology tours and poster design competitions, among others. We also held the poster design campaign to promote the environment protection idea.



➤ **“Power for Change: Plant a Green Seed”**

Program:

MitraStar started the “Power for Change” Program in 2012 to initiate a series of environmental awareness programs on Facebook and other social media in hope to bring its colleagues and their family members awareness of land and environment care. Started with the “Green Market”, activities such as tree planting, lights out for one hour on the Earth Day, bring house plants to the office campus horticulture tour, experiencing rice field cultivation and personal “adoption” of rice fields were organized and introduced.

In 2012, we’ve completed events including:

➤ **The “Green Market”:**

MitraStar colleagues introduce healthy produce from their homes through cooking, tasting and purchasing activities; our colleagues and their families also visited local farmers and their fields to learn more about caring the land and environment from who create the real food and real value.

➤ **The “Million Trees Project”:**

Since 2012, MitraStar attends the International



Million Trees Project sponsored by the HIMA Foundation launching tree-planting events in 100 cities to address the global warming issue. First of all, 49 trees were planted in Badsikan, Yunlin County. As Badsikan bring affected constantly by drying coast vegetation and strong winds from the sea, the HIMA Foundation jointed forces with the Yunlin County

to build the Badsikan Eco Park. Employees at MitraStar collectively donated to sponsor the program for creating the largest eco park in Asia.

In 2013, MitraStar employees and their families planted countless trees in the Sanying regain of New Taipei City to bring environmental awareness to the next-generation family members and to promote the ecology benefits of the city’s Sunny Forest Park.





Health & Safety

- A. Environmental, Safety & Health Policy**
- B. Verification of Management System**
- C. Environment, Safety and Health Risk Management**
- D. Contractors' Environment, Safety and Health Management**

MitraStar Technology also works continuously on environmental and safety management on a daily basis.

With certification of ISO 14001, TOSHMS, OHSAS18001, and Greenhouse Gas (GHG) ISO14064 Verification, MitraStar Technology systematically facilitates and integrates management processes for quality, environment and occupational safety following the PDCA Standards for a holistic and effective infrastructure of constant improvements.

A. Environmental, Safety & Health Policy

By way of defining and publicizing the environment and safety-related policies, MitraStar Technology expresses its intention to take environment and safety issues into consideration in every aspect. It requires all employees to comply with the terms listed in the environment and HSF manual. Protecting the health of its employees and the environment is MitraStar Technology's genuine commitment. It observes all government regulations and enforcing policies relevant to the environment, HSF and safety.

B. Verification of Management System

MitraStar Technology have obtained the ISO14001 Environment Management System, OHSAS18001 Occupational Safety and Hygiene Management System Certification. In addition, MitraStar Technology also elevates its ability to compete on the global market.



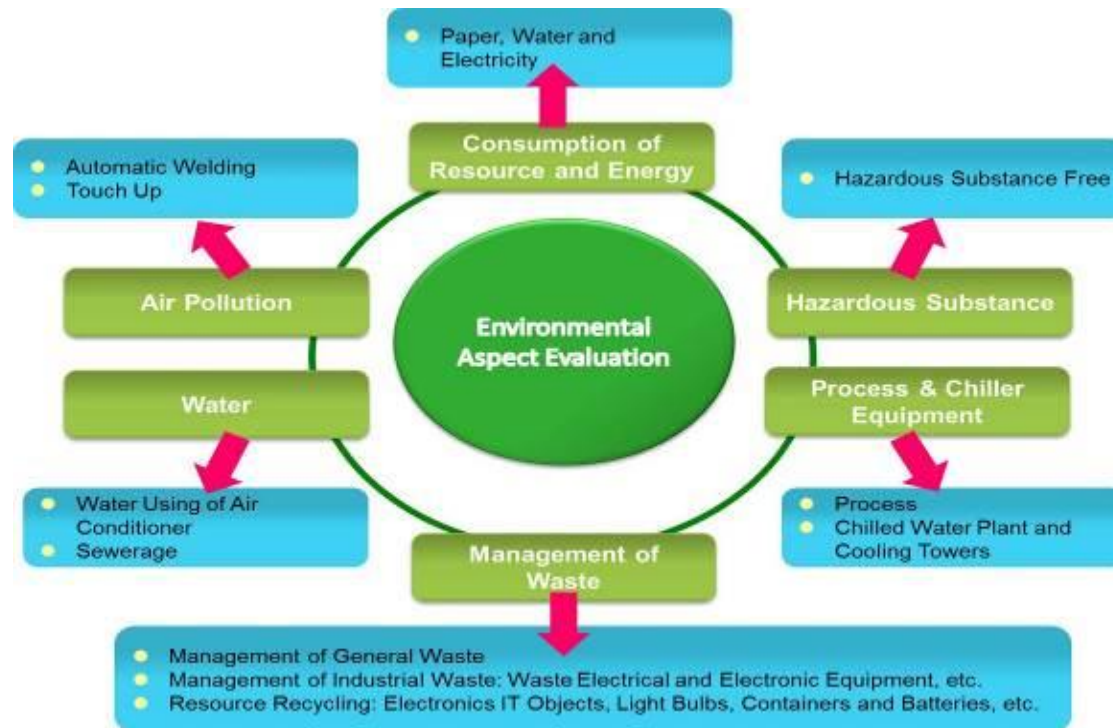
ISO14001 certificate

OHSAS18001 certificate

C. Environment, Safety and Health Risk Management

In terms of environment-related risks, most pollutants would be the metal sublimation and volatile isopropanol produced by reflowing ovens and wave soldering ovens.

MitraStar keeps improving its production line equipment to conform to international ecology standards. In fact, the vision of MitraStar has evolved from an early "regulation-savvy" to "green enterprise as a whole", as it is today.



In terms of the manufacturing processes, preventive measures, such as the safety design of machinery, operating procedures, training, automatic inspection, safety auditing, management of chemicals, environmental assessment, employee health check and management, protective gears and management of high-precision operations are taken on a daily basis to ensure a comfortable, safe and worry-free working environment for employees.

1. Working environment inspection

The kinds and quantity of chemicals used in the factory are inspected every six months to evaluate the actual quantity required for production, while the personnel and environment are also inspected in terms of the following elements for formal records:

- Physical environment factor: noise.
- Chemical environment factors: carbon dioxide, organic solvents and lead metal
- Organic solvent: isopropanol.



Environment inspection

Personnel inspection

2. Improvement of working environments

- Proactively implement the “5S” principles in the factories.
- The airflow in factories along with the entire environment conditions is inspected and recorded every six months; all anomalies will be corrected immediately.
- All materials on the production line or in the warehouse are delivered with automatic transportation systems or forklifts.
- The warehouses are kept bright and spacious and materials are stored in proper order. The speed of forklifts is limited to under 20km/h, and critical points on the assigned paths have anti-shock pads installed.



3. Machines risk protection

- All machines and equipment with higher personnel risk (e.g. forklifts, cranes and high-pressure gas controllers) are inspected every year to ensure safety, and warning signs are clearly posted on such machines to remind the operators.
- All departments operating the high-risk machines must plan for regular inspections and maintenance. For instance, forklifts must be checked before any operation of the day begins.
- The factory operators also inspect high-risk and general machineries on a regular basis; any found anomaly will be recorded on a checklist, and vendors will be contacted to provide the necessary service. The safety and environment unit will perform re-inspection to ensure that the conditions have been properly addressed.

4. Personal protection

Any employee who may have contact with hazardous material is required to use personal protection gears to minimize the risk of exposure. Protection gears

designed for different working conditions are prepared and stored in clearly labeled cabinets, and improperly used protection gears must be replaced immediately. Guidelines and regulation of gear usage are communicated with all related employees to ensure the best protection possible.



5. Humidity, noise and vibration control

- Improper temperature and humidity are eliminated in the working environment.
- Certified inspectors are commissioned to examine the working environments every six months. In designated noise areas, employees are required to wear hearing protectors while visitors are given disposable earplugs.

6. Management of dangerous and harmful materials

- Datasheets of chemical substance used are placed throughout the factories in the security and environment units and on production lines; the security and environment units also provide the electronic files of such data sheets for employees to download freely.
- The chemical substances are clearly labeled according to the “Regulation of Labeling and Hazard Communication of Dangerous and Harmful Materials”.
- The electronic files of the latest Chemical Material Safety Datasheet, renewed every year, are provided for download. The list of dangerous materials is also updated annually.
- The “Management Procedures and Communications of Dangerous Materials” is enacted and updated annually for employees to follow during the storage, handling and disposal process of dangerous materials.

7. Prevention of professional diseases

The company regularly offers health checks to employees for the best balance between their health and working conditions as well as to protect them from professional diseases. In addition to regular, standard checking items, special inspections on lead material, radiation and noise influences are performed and tracked as well. Operators of certain tasks are given additional checks annually; anyone with results of Level 2 or above must receive a second check to ensure their proper condition. As of today, the company is yet to have any case of professional disease.

8. Firefighting equipment and signs

- The firefighting equipment is installed and labeled properly as required by the law.
- Firefighting equipment and signs, such as evacuation lights, fire extinguishers and indoor/outdoor hydrants, are inspected quarterly; evacuation maps and emergency lightings are placed at appropriate locations such as safety ladder exits. In addition, backup power generators will provide the electricity for

necessary lighting in emergency conditions.

- External inspectors are commissioned to perform annual equipment checks for guaranteed functionality.

9. Investigation, analysis and record of professional accidents

Should any undesired accident happen to our employees or contractors, internal first-aid unit will be dispatched to control the situation while the security unit investigates the possible causes. All department heads will assign engineers to assist the investigation in hope for future prevention and improvement measures. On the other hand, even false alarms should be elevated monthly through managers, seed personnel in departments and the security unit for the unit to generate reports and to prevent future occurrence.

MitraStar generates monthly statistics of cases, types and causes of employee injury for analysis and thus prevention measures of frequent accidents; fortunately there's no case of dispute, penalty or indemnification in recent years. As required by the law, MitraStar reveals its monthly report on professional

accidents; in 2011, the disabling injury frequency rate was 1.94 and the disabling injury severity rate was 21%.

10. Risk Assessment and Emergency

Responses

- The "Safety and Hygiene Appraisal, Assessment and Management Procedures" and "Emergency Response Procedures" are updated annually, and all employees are required to exercise.
- Local fire extinguishing, emergency reporting and personnel evacuation drills are performed every six months, while full-scale fire and chemical leakage drills are performed annually. In 2011, 1600 people joined.
- Emergency response teams are formed for day and night shifts respectively. The teams are divided into functional groups such as Reporting, Fire Extinguishing, Evacuation Assistance, Safety Assurance and First Aid.
- Realistic exercises and drills are performed periodically.

11. Trainings for the security staff

The security staff consists of well-trained, certified professional personnel from security firms capable of carrying out the jobs. The training given to the staff emphasizes especially on compliance of the human right-related regulations.

12. Safety and Hygiene Trainings for Employees and the Management

- On-job safety- and hygiene-related training courses arranged for work floor employees and the management.
- New recruits and transferred employees must receive mandatory safety and hygiene training courses.
- The management receives the Business Continuity Plan training, which emphasizes on how to prevent the manufacturing from being shut down due to personnel casualty or equipment breakdown.



D. Contractors' Environment, Safety and Health Management

All contractors are required to observe the "Regulations for Security, Environment and Hygiene of Contractors". Contractors must apply before entering the company campus for commissioned jobs, and all operations should comply with the Regulation.

1. Regulations for contractors

- Contractor personnel must receive courses on environment, safety and hygiene topics.
- All on-site operations must be applied first, and

contractors will be informed of the possible hazards before entering the work site.

- Supervisors will stay on-site and perform inspections before, during and after the working sessions.
- Application forms must be returned to the safety unit to confirm the completion of jobs.
- Any contractor violating the factory regulations will be penalized and ordered to stop until the condition is corrected.

2. Contractor training on safety and hygiene issues

- Training courses are regularly provided to contractors, and participating contractors must pass the exams to qualify for work.
- Supervisors will inform contractors of safety and hygiene issues, and confirm the application of personal safety gears before potentially dangerous operations can begin. The results will be reported to the safety unit upon confirmation.



Environment Protection

A. Greenhouse Gas Reduction

B. Energy Conservation

C. Water Resource Management

D. Alchemy for Waste

E. Air Pollution Prevention

F. Ecological Preservation

G. Environmental Protection Expenditures

We donate to many charities and works with government agencies to support natural wildlife preservation, green environment and resource recycling activities to attract more public participation and to contribute its fair share as a responsible corporate citizen.

A. Greenhouse Gas Reduction

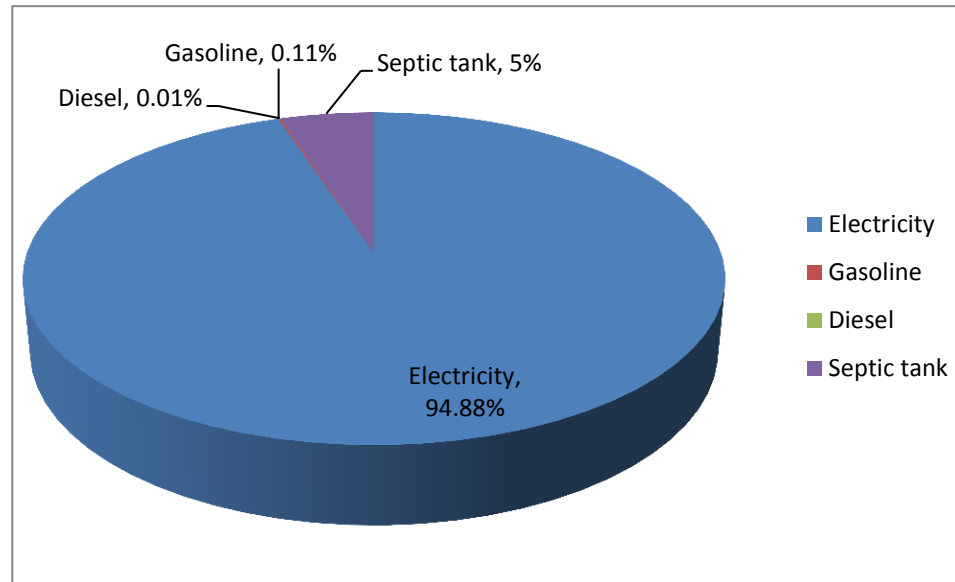
The global climate is deteriorating due to the increasing greenhouse gas in the atmosphere. Being responsible citizens of the global community, we should do our shares to face the challenge and proactively help the earth to remain well habitable to the entire human race.

MitraStar set 2009 as the “greenhouse gas reference year” to track its annual emission and thus lay out its improvement plans. According to the ISO14064 standard, the greenhouse gas inspection covers direct sources such as emergency generators and company cars (Category 1) and indirect sources such as purchased electricity power and other emissions (Category 2 and 3).

In 2012, MitraStar emitted 9038 tons of CO₂-e in Category 1 and 2, most of which (94%) came from electrical powered equipment; the second largest source was the cesspool that produced 5% of the total emission. Please refer to the chart below for details.

To further reduce CO₂ emission, MitraStar enforces several energy-saving policies such as cutting unnecessary lightings, setting higher temperatures for

cooling water, encouraging employees to use stairs instead of elevators, among others.



2012 Greenhouse Gas Emission

B. Energy Conservation

1. Glass-roof patio for daylight saving

The Hsinchu Headquarters in Taiwan has a glass-roof patio to save lighting expense in the daytime.

2. Saving of air conditioning expense

For a smaller carbon footprint, MitraStar introduces Thermal Energy Storage Air-Conditioning System (TES) that stores the cooling power produced in off hours to be released in peak hours. Since the system shifts the energy consumption to off hours to take advantage of the lower electricity price, it not only lowers the basic consumption threshold and total amount on the power bill, but also fully utilizes the capacity of air conditioning systems.

3. Reduce factory lighting expense and compress air leakage

- Energy-saving lighting is used in working areas when possible.
- Luminosity of office areas is set to 500 to 600LUX.
- Lights are turned off in lunch breaks and off hours when possible.

- Infrared-activated lights are used in areas with less traffic, such as hallways and parking lots.
- Malfunctioned T5 lights will be replaced with T8 types.
- Free float traps are used in air compressors.
- Periodic inspections are performed on compress air pipelines and connectors to prevent leakage.

4. Company bus and carpooling

To cut the carbon emission from vehicles, MitraStar employees are encouraged to:

- Take the company bus service, offered since 1996, for daily commuting.
- Take the shuttle bus service provided by the Hsinchu Science Park since 2002 for on-campus transportation. There are four routes: Red, Purple, Orange and Green, for different directions.
- Colleague carpooling has been organized since 2005 to cut fuel expense and reduce air pollution.

C. Water Resource Management

Water resource is scarce in Taiwan, the Government occasionally conducts water rationing on industrial usage in addition to the long-term water resource management. To address this, MitraStar also promotes reasonable use of water in all its operations.

Since MitraStar requires no water in its manufacturing processes, most water is consumed by the personnel and cooling system. In 2012, the water waste was only 37,217 square meters.

To save more water, the company introduces water-saving faucets and toilets, limits wall cleaning and plant watering, adjusts the inlet/outlet ratio of cooling water towers, promotes water-saving practices and more.

Furthermore, MitraStar commissions inspectors every year to enter the sewage pipe network of the Hsinchu Science Park to ensure the water waste meets applicable environment standards.

D. Alchemy for Waste

1. Reduced use of raw materials

The amount of raw materials used in the manufacturing processes is deliberately decreased to save on costs and to cut the waste. The reduction has been realized with the following methods:

- Packaging materials are recycled.
- Low-volatility solvents are used to reduce the amount needed.
- Closed spraying system for less organic solvent usage.
- Improved flowing path in tin ovens for less tin bar usage.
- Fans are replaced by smart heat-dissipation mechanisms.

2. Management and recycling of wastes

During the manufacturing processes, workflow improvement and material recycling are employed to cut both acquisition cost and pollution to the environment. All recyclable or reusable materials are separated, categorized and reported online as

required by the Environmental Protection

Administration for strict supervision to the processing service providers.

Most wastes produced on the MitraStar campus fall into three categories:

- General commercial wastes: These are mostly daily-life garbage.
- Hazardous commercial wastes: Waste organic solvents, tin and lead pieces as well as electronic components.
- Recyclable materials: Paper, plastic and iron/tin cans.

The wastes are managed with the following principles:

- Experts from the Environmental Protection Administration are invited to instruct how to separate different waste materials.
- Paper is cut and bound to become notebooks.
- Packaging material made of PVC is reused.
- Waste tin or lead pieces are collected and melt to make blocks.
- Inseparable metal wastes are recycled to become raw materials or even artworks.

In 2012, general commercial wastes produced in the MitraStar campus were 89 tons, hazardous waste 23 tons and recyclable material 66 tons. All wastes were confirmed to meet the Environmental Protection Administration standards.

E. Air Pollution Prevention

MitraStar and all its affiliates produce no ozone-harming substance, NO_x, SO_x or other air pollutants, only volatile gas from organic materials is emitted. To ensure the gas doesn't cause any damage, MitraStar reports its usage of such materials and pays the associated fees every quarter.

In addition, qualified agencies are also commissioned to take samples from the exhaustion duct to make sure the emission has the minimum impact to the environment.

F. Ecological Preservation

Located in Taiwan's Hsinchu Science Park, the MitraStar Headquarters is surrounded by highly developed industrial buildings and roads rather than environment conservation areas; it means that the MitraStar campus does not have any significant environmental impact on the neighboring properties. Instead, MitraStar makes its campus more eco-friendly with massive green plants according to the "Guidelines for Science Park Environment Protection" and had even won several building beautification and greening awards.

➤ The Unizyx Group Park

We built the 5140m² Park to improve the working environment with a selection of plants such as Large-leaf Banyans, Acacias, Flame Trees, Liquidambar, Red Cedars, Formosan Michelia, Mexican Frangipani, Hong Kong Orchid Trees and China Berries. These plants not only compensate CO₂ emitted by the factories, but also promote biological diversity for the environment.



G. Environmental Protection Expenditures

MitraStar has a comprehensive set of environment protection guidelines based on government regulations. The guidelines provide a standard for employees to produce less waste and to prevent the manufacturing processes from polluting the surroundings:

- Waste water and air: despite that fact that MitraStar produces no pollutant in its daily operations, the company still aggressively monitors its own gas emission and waste water by assigning

s staff and commissioning qualified external inspectors to perform periodic checks. In addition, MitraStar has its own certified sewage processing facility for the utmost eco-friendliness.

- Commercial wastes: wastes produced during the manufacturing processes are all handled by qualified processing service providers.
- Factories are required by the law to obtain licenses for either pollutant processing facilities or pollutant emission. Since sewage processing in the Science Park is handled by the Science Park Administration, MitraStar is exempted from applying for its own license.
- As required by the Science Park Administration, MitraStar had submitted the Pollution Prevention Fee of NT\$702,381 in 2012.
- Recycling: recyclable materials are handled by qualified service providers.

In the past three years, no MitraStar affiliate has been involved in pollution-related disputes or penalized for producing pollutants.



Green Product & Service

- A. Green Collaboration System**
- B. Green Design**
- C. Green Supply Chain**
- D. Green Product**
- E. Green Production, Package & Shipping**
- F. Green End of Life**
- G. Carbon Footprint Disclosure**
- H. Green Channel**

As a green enterprise, MitraStar manifests itself in terms of social responsibility with the following pledge: “We commit ourselves to the development and manufacturing of environment-aware products with high energy efficiency”. To keep this promise to every MitraStar stakeholder, we always have the green environment in mind when developing new products and technologies.

A. Green Collaboration System

In order to stay aligned with the commitment, MitraStar designed and implemented the “Green Product Management Workflow” to stay ahead of the world’s green efforts and to remain competitive on the global market. As the world pays more attention on environment and climate issues, making products “green” has become an obligatory effort for enterprises to focus on. Fulfilling consumer demands for green products is a new challenge for world-class companies like MitraStar to overcome for future growth and success.

MitraStar Technology asks itself to be a strict compliance supplier concerning European Union environmental directives, "Waste Electrical and Electronic Equipment Directive (WEEE) ", "Restriction of Hazardous Substances Directive (RoHS) " and" Energy-Consuming Products, Eco-Design Directive (EuP) ".

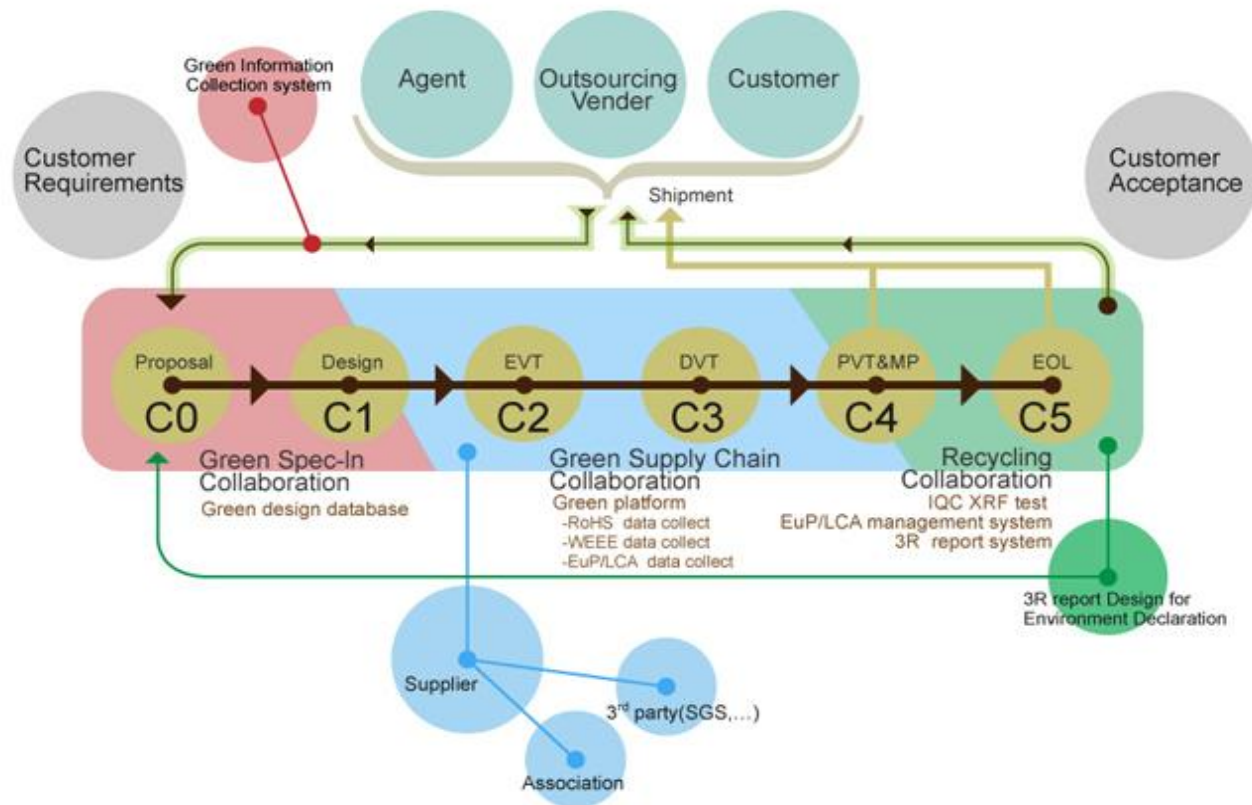
At the same time, in order to fully implement green business management, MitraStar Technology has built a "green cooperative information system” to control each stage from the suppliers of raw materials, production,

manufacturing, transport, to usage and disposal to insure all meet green requirements in every aspect.

Through use of the "Coordinated Information System", "Green Product Database", "Life Cycle Analysis System", "3R and disassembly Report Database" and "Restriction of Hazardous Substances Management System", MitraStar Technology aggressively controls its environmental impact in the entire lifecycle of all of its

products, in its commitment, and in its responsibility as a corporate citizen in developing a low-toxic, waste-reducing, easily recyclable and energy-efficient product.

With establishment of the “Information Management System for Green Product Collaborative Operations”, MitraStar Technology becomes the first in the industry to implement many green development initiatives.



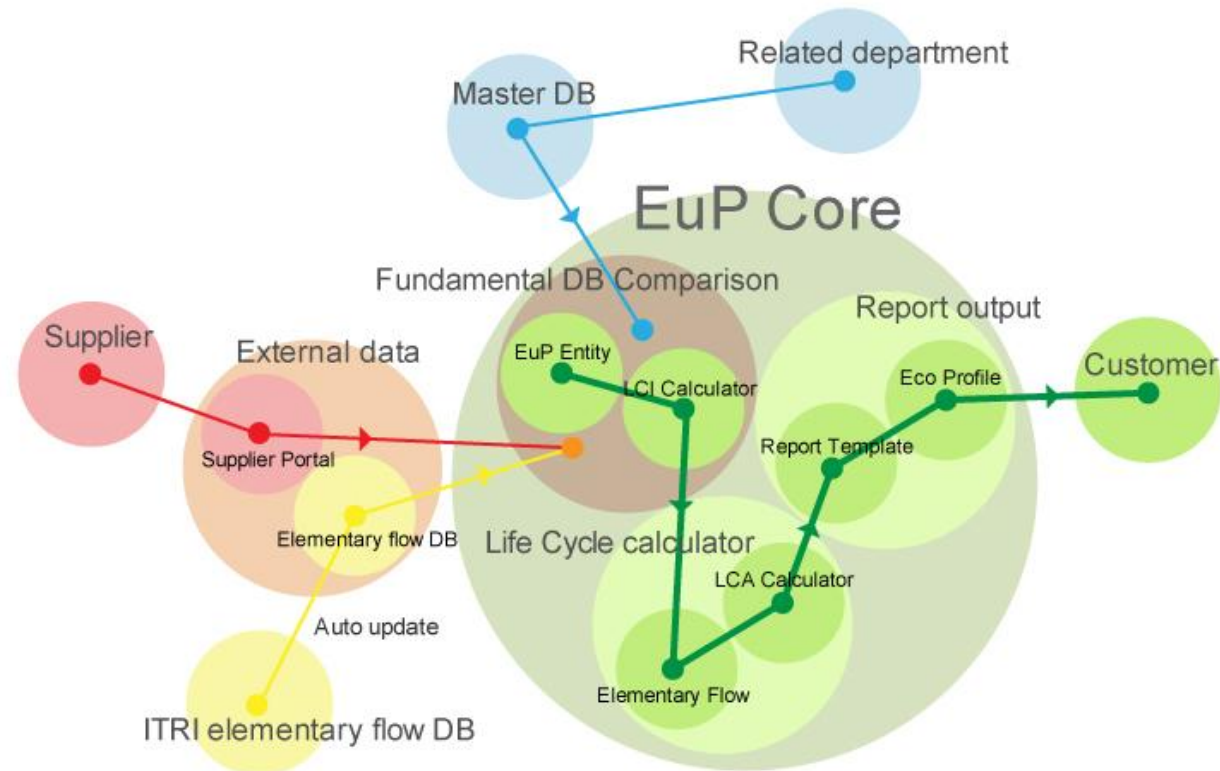
B. Green Design

1. Lifecycle Environmental Impact in Design Consideration

MitraStar designs every product with the lifecycle and environmental impact in mind. The “Green Design Database” effectively helps the engineers to consider the impact, resource usage, pollution reduction and ecological balance in terms of material, design, manufacturing, package, transportation, consumption and disposal to prevent the environment from being negatively affected by the products. More specifically, they elaborate on such efforts as:

- Material: reduced usage, introduce recycled materials when possible, choose the best fit for the product.
- Structure: simplified, standardized and modularized.
- Manufacturing: low pollution, with less resource consumption and less impact to the environment.
- Packaging: use less material and adopt reused and recycled material as much as possible.

- Transportation and Distribution: by means of low pollution, low resource consumption methods.
- Consumption: high efficiency, low-energy consumption, low pollution and long product life are the keys to elevating consumer satisfaction.
- Disposal: disposed products are reused or recycled whenever possible for extended life and value that benefits future development.



2. Through use of the "Coordinated Information System" to control product lifecycle

Through use of the "Coordinated Information System", MitraStar aggressively controls the environmental impact in the entire lifecycle of all of its products by many management system to develop a low-toxic, waste-reducing, easily recyclable and energy-efficient product at the beginning of product design.

Green Products Design

▪ **Green Design Database**

By employing more energy-efficient, waste-reducing, lightweight materials that are toxin free and easily recyclable in product design and listed in complied "Green Design databases".

▪ **EuP LCA Management System**

"Life Cycle Analysis" (LCA), in compliance with EuP requirements, is regularly carried out on all products.

▪ **Recycle Collaboration System**

During product design, ease in disassembly and distribution for the 3R (Re-use, Recycle and Recovery) is strongly taken into consideration.

C. Green Supply Chain

1. Green Supply Chain Development Stage

MitraStar Technology green system includes four development stages

First Stage: Regulations Compliance

Target - WEEE, RoHS, Battery, EuP

Second Stage: Regulations Exceed

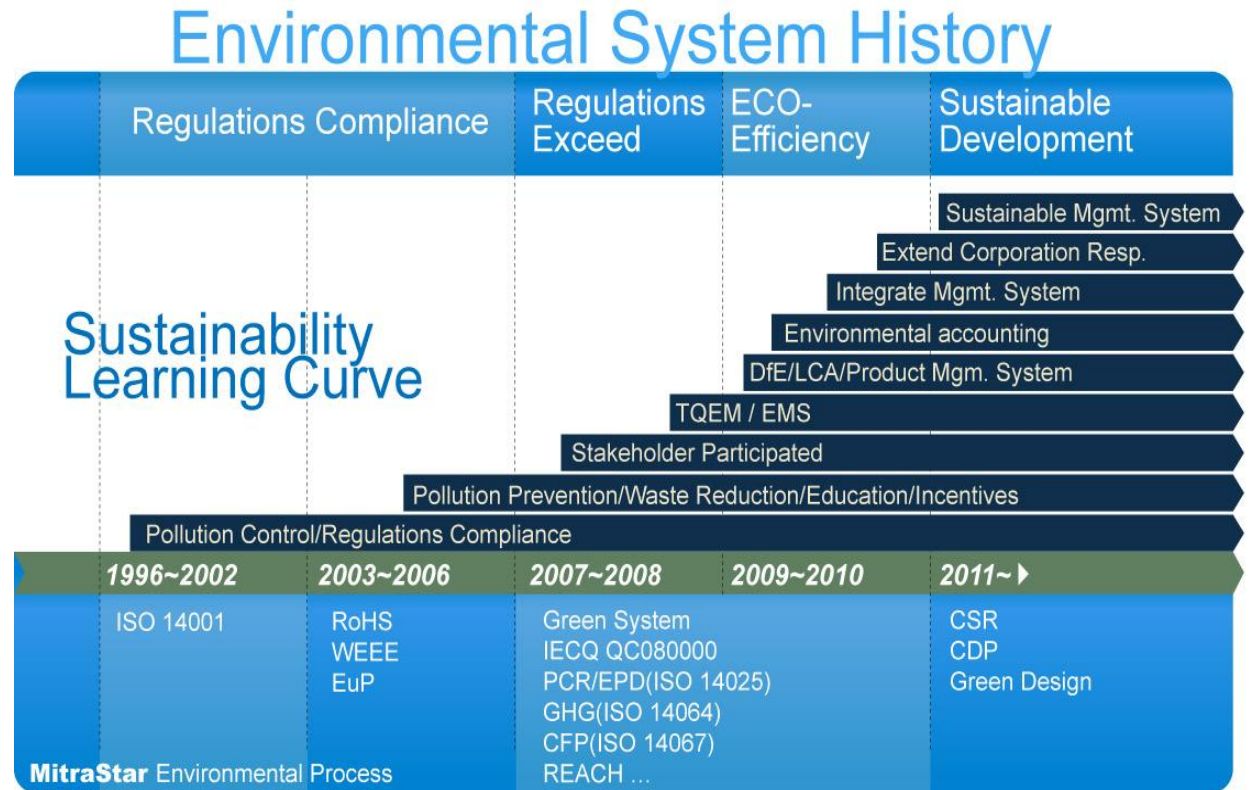
Target - Green IT System, GPMS, IECQ QC080000

Third Stage: ECO-efficiency

Target - PCR, EPD (ISO 14025), GHG (ISO 14054), PFOS, REACH

Fourth Stage: Sustainable Development

Target -CSR, CDP, CFP (ISO 14067), Green Design (ISO 14062)



2. Green Supply Chain

The "Green Supplier Auditing Procedures" require suppliers to verify their carbon footprints. The auditing procedures provide a rating standard and a rating form to categorize the suppliers, so the procurement units can make decisions based on the status and auditing frequency of the suppliers. A database with "Green Parts" has also been established to recognize a green supply chain and to integrate with ERP and Data Management Systems to generate technical documents and ensure conformity to carbon emission regulations.

3. Green Management Platform

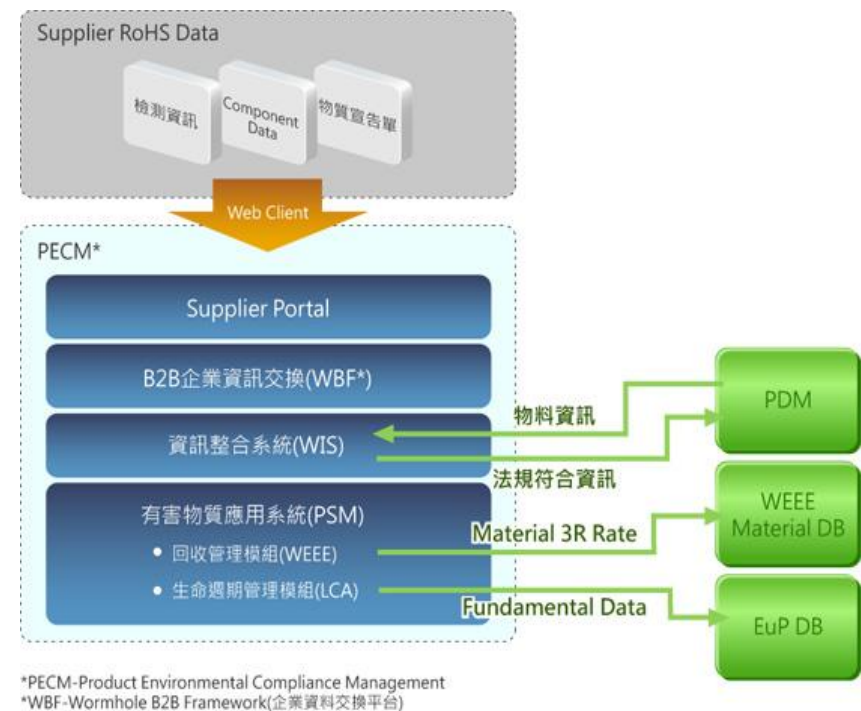
To assist its suppliers in introducing the "Green Procedures of Management Operations", MitraStar demands that all parties communicate through an online platform in order to acquire information from inspection and testing reports. The platform becomes an important source of pollution and toxic-free components for procurement units to look for concerning qualified parts and their suppliers.

4. Green System Management

In order to achieve green auditing while reducing the risk caused by insufficient personnel and experience, MitraStar's green management system comes with a supplier management feature that significantly reduces the expense on component inspection and improves the control over green materials delivered by qualified suppliers.

5. Green Procurement

MitraStar demands their suppliers to upload the information required by the WEEE, RoHS and EuP regulations for better management of green components. The platform works as follows:



6. Green Supplier Auditing

MitraStar constantly performs auditing procedures on major component suppliers and contractors to confirm their ability, while the GP Auditing Team helps these external partners to produce green products as well.

D. Green Product

MitraStar' energy-saving products decrease power consumption to help customers to reduce energy cost and to enhance usability.

Green Product & Technology Development

As green issues gain more attention, we also excel in environmental protection and energy technology products. We have actively implemented relevant environmental regulations and have made industry-leading green enterprise management mechanisms. We ask ourselves to be a strict compliance supplier concerning European Union environmental directives, "Waste Electrical and Electronic Equipment Directive (WEEE)", "Restriction of Hazardous Substances Directive (RoHS)" and "Energy-Consuming Products, Eco-Design Directive (EuP)".

▪ Detect Inactive Link

With power usage adjustment by link status, our device automatically reduces power usage when any shut down network device or inactive link is detected; in other words, power consumption of the series can be

adjusted according to the number of active network devices.

▪ Wake on Demand

Automatically reduce power usage by bringing the device out of power-saving mode only when there's network activity such as Internet access or an Internet call.

▪ Detect Cable Length

The device equipped with this green feature can automatically detect the length of connected Ethernet cables and adjust power usage accordingly. The shorter the cable length, the less power it consumes.

▪ Wireless Scheduling

In order to save power and reduce wireless radiation when the wireless network is not in use, the Wi-Fi device can be configured to turn on or off automatically according to user's wireless usage patterns.

▪ Smart Fan

With our smart fan technology, the device can run at slower speeds to reduce power consumption when the system temperature is low.

▪ Intelligent Power over Ethernet, PoE

The Intelligent PoE technology allows power to be supplied over the same Ethernet cable, and thus eliminates the need for costly electrical wirings. It not only supports the PoE switches provide the power the devices actually needed with auto-detection capability to reduce the power consumption but also increases the potential amount of connected power devices.

E. Green Production, Package & Shipping

1. Green Production

As an ISO14001- and OHSAS18001-certified enterprise, MitraStar holds annual meetings for internal auditing and assessment for effective environmental, safety and hygiene management that live up to ISO Standards. The companies also bring forward improvement plans for implementation and further assessments.

Moreover, MitraStar has also obtained the DNV IECQ QC080000 Certification for hazardous material management to ensure all its products satisfy customer

requests and local regulations on hazardous or restricted material. The company always applies higher standards than the industry requires on their green products in terms of environmental care, safety and health.

2. Product Packaging

We use less material for packaging and utilize reused and recycled materials as much as possible.

Reduced

As long as the packaging is sufficient for protecting the contained product, using less material shrinks the box to an optimum size and thus reduces costs associated with manufacturing, transportation and even carbon emissions. For instance:

- The thickness of a PE bag has been reduced from 0.1mm to 0.07mm
- The integration of inner and outer box slashes 32.9% off the original volume.

Reuse & Recycle

The non-toxic, RoHS-compliant material chosen to make

packaging can be recycled and is biodegradable :

- cartons and boxes consist of 80% to 90% recycled paper
- most product containers use 100% recycled paper

3. Product Shipping

The way MitraStar uses pallets to load cartons is another surprisingly effective way to save energy. The standardized packaging and improved loading methods not only allows a pallet to contain more products, but also reduces the effort and energy involved in loading and shipping.

F. Green End of Life

During product design, ease in disassembly and distribution for the 3R (Re-use, Recycle and Recovery) is strongly taken into consideration. Disposed products are reused or recycled when possible for extended life and value that benefit resource savings and future developments.

Recycle Collaboration System

Through the use of "Green Collaboration System", we generate "3R & Dismantling Reports" for product recovery and to set the goals for it. Besides, we provide a "Design for Environmental Declaration", and establish complete recovery management. We have also established "WEEE Registration Monitoring and Management Platform," to manage our products' status for the environmental authorities of each country.

G. Carbon Footprint Disclosure

1. Carbon Footprint Disclosure

As green house gases (GHG) continue to raise global temperatures and adversely affect the global climate, by voluntarily controlling and reducing our "carbon footprint", MitraStar aims to fulfill what we believe to be a basic corporate responsibility, with an eye towards benefiting society as a whole.

Among the First to be Granted a Carbon Footprint Label in Taiwan

Taiwan government Environmental Protection Administration (EPA) announced the carbon footprint labeling system to help businesses gear themselves up to the global trend of making products greener and of helping to mitigate global warming. Our product has been granted a carbon footprint label in Taiwan. We are among the first group of Taiwan companies to achieve this distinction, and are also the first networking equipment maker to receive this honor.



Green Product Eco-Profile

2. Making of Product Categorization Rules (PCR)

In 2010, we led the industry in proposing the PCR for Home Gateway and Home Network Infrastructure Device products at the same time. After meticulous discussion among shareholders and a panel formed of experts, the Environment and Development Foundation, a member of the GEDnet (Global Environmental Declaration Network) in Sweden, approved both PCR proposals in December 2010 and registered them on the GEDNet Web site for the world's communications and network companies to observe.

The two PCR proposed and established by us all comply with ISO14025 International Standards that regulate energy consumption, water resource usage, amount of industrial waste and water/air pollutant generated, along with the associated carbon footprint.

PAS2050 - World's First Carbon Footprint Verification on VDSL2 CPE Product

A carbon footprint verification on our product has been achieved and certified, according to the International Carbon Footprint Standard PAS2050 in 2010. By succeeding in earning this third party verification by BSI (British Standards Institution), the certified device is the world's first VDSL2 CPE to achieve this carbon footprint verification. It is a critical milestone for carbon footprint management of networking products.



Carbon Footprint Report

Appendix

Global Reporting Initiative (GRI 3.1) Sustainability Reporting Guidelines and its Content Index

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
1. Strategy and Analysis				
1.1	Statement from the most senior decision maker of the organization	Message from the Chairman	3	
1.2	Description of key impacts, risks, and opportunities.	Message from the Chairman Corporate Profile - D. Network Market Summary	3、6	
2. Organizational Profile				
2.1	Name of the organization.	Corporate Profile - A. MitraStar Technology Introduction	5	
2.2	Primary brands, products, and/or services.	Corporate Profile - C. Business Activities	6	
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Corporate Profile - B. Corporate Development	5	
2.4	Location of organization's headquarters.	Corporate Profile - A. MitraStar Technology Introduction	5	
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Corporate Profile - A. MitraStar Technology Introduction	5	
2.6	Nature of ownership and legal form.	Corporate Profile - A. MitraStar Technology Introduction	5	
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Corporate Profile - A. MitraStar Technology Introduction	5	
2.8	Scale of the reporting organization, including: <ul style="list-style-type: none"> •Number of employees; •Net sales (for private sector organizations) or net revenues (for public sector organizations); •Total capitalization broken down in terms of debt and equity (for private sector organizations); and •Quantity of products or services provided. 	Corporate Governance - A. Governance Structure	10	
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Corporate Profile - B. Corporate Development	5	
2.10	Awards received in the reporting period.	Corporate Profile - G. Award & Recognition	8	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
3. Report Parameters				
3.1	Reporting period (e.g., fiscal/calendar year) for information provided	Overview	2	
3.2	Date of most recent previous report (if any).	Overview	2	
3.3	Reporting cycle (annual, biennial, etc.)	Overview	2	
3.4	Contact point for questions regarding the report or its contents.	Overview	2	
3.5	Process for defining report content. •Determining materiality; •Prioritizing topics within the report; and •Identifying stakeholders the organization expects to use the report.	Overview Corporate Governance - H. Stakeholder Communication	2、14	
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	Overview	2	
3.7	State any specific limitations on the scope or boundary of the report.	Overview	2	
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	Corporate Profile - B. Corporate Development	5	
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	Overview	2	
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods).	Overview	2	
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Corporate Profile - B. Corporate Development	5	
3.12	Table identifying the location of the Standard Disclosures in the report.	Global Reporting Initiative Sustainability Reporting Guidelines and its Content Index	50	
3.13	Policy and current practice with regard to seeking external assurance for the report.	Overview	2	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
4. Governance, Commitments, and Engagement				
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	Corporate Governance - A. Governance Structure	10	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	Corporate Governance - A. Governance Structure	10	
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or nonexecutive members.	Corporate Governance - B. Board of Directors	10	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Corporate Governance - D. Shareholder Rights	11	
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	Corporate Governance - C. Compensation Committee	11	
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Corporate Governance - C. Compensation Committee	11	
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Corporate Governance	9	
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	Corporate Governance	9	
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	Corporate Governance	9	
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Corporate Governance	9	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Corporate Governance	9	
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization	Corporate Governance - H. Stakeholder Communication	14	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	subscribes or endorses.			
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.			
4.14	List of stakeholder groups engaged by the organization.	Corporate Governance - H. Stakeholder Communication	14	
4.15	Basis for identification and selection of stakeholders with whom to engage.	Corporate Governance - H. Stakeholder Communication	14	
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Corporate Governance - H. Stakeholder Communication	14	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Corporate Governance - H. Stakeholder Communication	14	
5. MANAGEMENT APPROACH AND PERFORMANCE INDICATORS				
Economic				
DMA	Disclosures on Management Approach			
EC1	Economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Corporate Profile - F. Financial Highlights Community	8、26	
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Environmental Protection - A. Greenhouse Gas Reduction	40	
EC3	Coverage of the organization's defined benefit plan obligations.	Employee Development & Care	16	
EC4	Significant financial assistance received from government.	Corporate Profile - F. Financial Highlights	8	
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	Employee Development & Care - B. Compensation	19	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. (Core)	Employee Development & Care - A. Employment	17	
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	Employee Development & Care - A. Employment	17	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	Community	26	
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	Corporate Profile - C. Network Market Overview	6	
Environmental				
DMA	Disclosures on Management Approach			
EN1	Materials used by weight or volume.	Environmental Protection - B. Energy Conservation Environmental Protection - C. Water Resource Management Environmental Protection - D. Alchemy for Waste	40 、 40 、 41	
EN2	Percentage of materials used that are recycled input materials.	Environmental Protection - D. Alchemy for Waste Green Product & Service - E. Green Production, Package & Shipping Green Product & Service - F. Green End of Life	41 、 49 、 49	
EN3	Direct energy consumption by primary energy source.	Environmental Protection - A. Greenhouse Gas Reduction Environmental Protection - B. Energy Conservation	39 、 40	
EN4	Indirect energy consumption by primary source.	Environmental Protection - A. Greenhouse Gas Reduction Environmental Protection - B. Energy Conservation	39 、 40	
EN5	Energy saved due to conservation and efficiency improvements.	Environmental Protection - B. Energy Conservation	40	
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Green Product & Service	43	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Environmental Protection - B. Energy Conservation	40	
EN8	Total water withdrawal by source.	Environmental Protection - C. Water Resource Management	40	
EN9	Water sources significantly affected by withdrawal of water.	Environmental Protection - C. Water Resource Management	40	
EN10	Percentage and total volume of water recycled and reused.	Environmental Protection - C. Water Resource Management	40	
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Environmental Protection - F. Ecological Preservation	42	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	Environmental Protection - F. Ecological Preservation	42	
EN13	Habitats protected or restored.	Environmental Protection - F. Ecological Preservation	42	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Environmental Protection - F. Ecological Preservation	42	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	Environmental Protection - F. Ecological Preservation	42	
EN16	Total direct and indirect greenhouse gas emissions by weight.	Environmental Protection - A. Greenhouse Gas Reduction	39	
EN17	Other relevant indirect greenhouse gas emissions by weight.	Environmental Protection - A. Greenhouse Gas Reduction	39	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Environmental Protection - A. Greenhouse Gas Reduction	39	
EN19	Emissions of ozone-depleting substances by weight.	Environmental Protection - E. Air Pollution Prevention	41	
EN20	NOx, SOx, and other significant air emissions by type and weight.	Environmental Protection - E. Air Pollution Prevention	41	
EN21	Total water discharge by quality and destination.	Environmental Protection - C. Water Resource Management	40	
EN22	Total weight of waste by type and disposal method.	Environmental Protection - D. Alchemy for Waste	41	
EN23	Total number and volume of significant spills.	Environmental Protection - G. Environmental Protection Expenditures	42	
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Environmental Protection - D. Alchemy for Waste	41	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	Environmental Protection - C. Water Resource Management	40	
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Green Product & Service	43	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Green Product & Service - E. Green Production, Package & Shipping	49	
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental	Environmental Protection - G. Environmental Protection Expenditures	42	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	laws and regulations.			
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	Green Product & Service - E. Green Production, Package & Shipping Community - C. Environmental Protection	49 - 29	
EN30	Total environmental protection expenditures and investments by type.	Environmental Protection - G. Environmental Protection Expenditures	42	
Social: Labor Practices and Decent Work				
DMA	Disclosures on Management Approach			
LA1	Total workforce by employment type, employment contract, and region broken down by gender.	Employee Development & Care - A. Employment	17	
LA2	Total number and rate of employee turnover by age group, gender, and region.	Employee Development & Care - A. Employment	17	
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Employee Development & Care - E. Employee Care	22	
LA4	Percentage of employees covered by collective bargaining agreements.	Employee Development & Care - D. Employee Relations	20	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.			
LA6	Percentage of total workforce represented in formal joint management worker health and safety committees that help monitor and advise on occupational health and safety programs.	Health & Safety - C. Environment, Safety and Health Risk Management	33	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Health & Safety - C. Environment, Safety and Health Risk Management	33	
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Health & Safety - C. Environment, Safety and Health Risk Management	33	
LA9	Health and safety topics covered in formal agreements with trade unions.	Employee Development & Care - D. Employee Relations	20	
LA10	Average hours of training per year per employee by employee category.	Employee Development & Care - C. Employee Development	19	
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Employee Development & Care - C. Employee Development	19	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
LA12	Percentage of employees receiving regular performance and career development reviews by gender.	Employee Development & Care - C. Employee Development	19	
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	Employee Development & Care - A. Employment	17	
LA14	Ratio of basic salary of men to women by employee category.	Employee Development & Care - B. Compensation	19	
LA15	Return to work and retention rates after parental leave, by gender.	Employee Development & Care - A. Employment	20	
Social: Human Rights				
DMA	Disclosures on Management Approach			
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.			
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	Green Product & Service - C. Green Supply Chain	46	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	Employee Development & Care - C. Employee Development	19	
HR4	Total number of incidents of discrimination and actions taken.	Employee Development & Care - D. Employee Relations	20	
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	Employee Development & Care - E. Employee Care	22	
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	Employee Development & Care - A. Employment	17	
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	Employee Development & Care - A. Employment	17	
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	Health & Safety - C. Environment, Safety and Health Risk Management	33	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Employee Development & Care - D. Employee Relations	20	
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.			

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
HR11	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.			
Social: Society				
DMA	Disclosures on Management Approach			
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	Community – B. Care for the Community	28	
SO2	Percentage and total number of business units analyzed for risks related to corruption.	Corporate Governance - E. Code of Conduct	11	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	Corporate Governance - E. Code of Conduct	11	
SO4	Actions taken in response to incidents of corruption.	Corporate Governance - E. Code of Conduct	11	
SO5	Public policy positions and participation in public policy development and lobbying.	Corporate Governance - E. Code of Conduct	11	
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Corporate Governance - E. Code of Conduct	11	
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	Corporate Governance - E. Code of Conduct	11	
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	Corporate Governance - E. Code of Conduct	11	
SO9	Operations with significant potential or actual negative impacts on local communities.			
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.			
Social: Product Responsibility				
DMA	Disclosures on Management Approach			
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	Green Product & Service	43	
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of			There is no any incident of non-compliance with

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	products and services during their life cycle, by type of outcomes.			regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.
PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.	Health & Safety - C. Environment, Safety and Health Risk Management	33	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.			There is no any incident of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Corporate Governance - H. Stakeholder Communication	14	
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	Corporate Governance - E. Code of Conduct Health & Safety - C. Environment, Safety and Health Risk Management	11 、 33	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.			There is no any incident of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.			There is no any substantiated complaint regarding breaches of customer privacy and losses of customer data.
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.			There is no any significant fine for non-compliance with laws and regulations concerning the provision and

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