

2018

# MitraStar Sustainability Report



<b>Overview</b>	2
<b>Message from the President</b>	3
<b>Appendix</b>	
GRI 4.0 Index	52

<b>Stakeholder Engagement</b>	
<b>1</b>	
<b>Stakeholder Communication</b>	
A. Stakeholder Communication Objectives	5
B. Stakeholder Identification	5
C. Analyses of Stakeholder Issues	5
D. Stakeholder Concern Topics and Actions	6
E. Stakeholder Communication Channel	7

<b>Sustainability Management</b>	
<b>2</b>	
<b>Corporate Governance</b>	
A. Governance Structure	9
B. Board of Directors	9
C. Compensation Committee	9
D. Shareholder Rights	9
E. Code of Conduct	10
F. Political Contributions	10
G. CSR Committee	11

<b>Economic Dimension</b>	
<b>3</b>	
<b>Company Profile</b>	
A. Company Introduction	13
B. Corporate Development	14
C. Business Activities	14
D. Network Market Overview	15
E. Business Development	15
F. Financial Highlights	16
G. Award & Recognition	16

<b>Environmental Dimension</b>	
<b>4</b>	
<b>Environment Protection</b>	
A. Greenhouse Gas Reduction	18
B. Energy Conservation	18
C. Water Resource Management	19
D. Alchemy for Waste	19
E. Air Pollution Prevention	20
F. Ecological Preservation	20
G. Environmental Protection Expenditures	20
<b>5</b>	
<b>Green Product &amp; Service</b>	
A. Green Collaboration System	23
B. Green Design	24
C. Green Supply Chain	25
D. Green Product	27
E. Green Production, Package & Shipping	27
F. Green End of Life	28
G. Carbon Footprint Disclosure	28

<b>Social Dimension</b>	
<b>6</b>	
<b>Employee Development &amp; Care</b>	
A. Employment	30
B. Compensation	32
C. Employee Development	32
D. Employee Relations	33
E. Employee Care	34
F. Health & Safety	40
<b>7</b>	
<b>Community</b>	
A. Cultivation of Talent	47
B. Care for the Community	48
C. Environmental Protection	48

# 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 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 Responsibility Report」 keeps our promise as mentioned in our first report that we publish the CSR report annually to exposure our corporate social responsibility practices.

## Report Scope

MitraStar Technology including MitraStar headquarters in Hsinchu, Taiwan, Wuxi MitraStar and Genezys Technology in Wuxi, China.

The social, environmental and economic indicators presented in the report, for the period of 12 months from 1 Jan. 2018 to 31 Dec. 2018 and covering data on the company's office and manufacturing activities

The financial figure is reported in NT dollars.

## Report Framework

This report is compiled based on the Global Reporting Initiative (GRI) G4.0 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](mailto:csr@mitrastar.com.tw)

This report is also available on MitraStar corporate website: [www.mitrastar.com](http://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.



A handwritten signature in black ink that reads "Wayne Huang". The signature is written in a cursive, flowing style.

Wayne Huang

President of MitraStar Technology

# Stakeholder Communication

- A. Stakeholder Communication Objectives
- B. Stakeholder Identification
- C. Analyses of Stakeholder Issues
- D. Stakeholder Concern Topics and Actions
- E. Stakeholder Communication Channel

MitraStar's stakeholder management procedure is to build the management objectives and procedure, following the identification of stakeholders, it has the plan to establish the communication channels and improve the relationship with stakeholders. The actions disclose MitraStar's performance on corporate responsibility.

### A. Stakeholder Communication Objectives

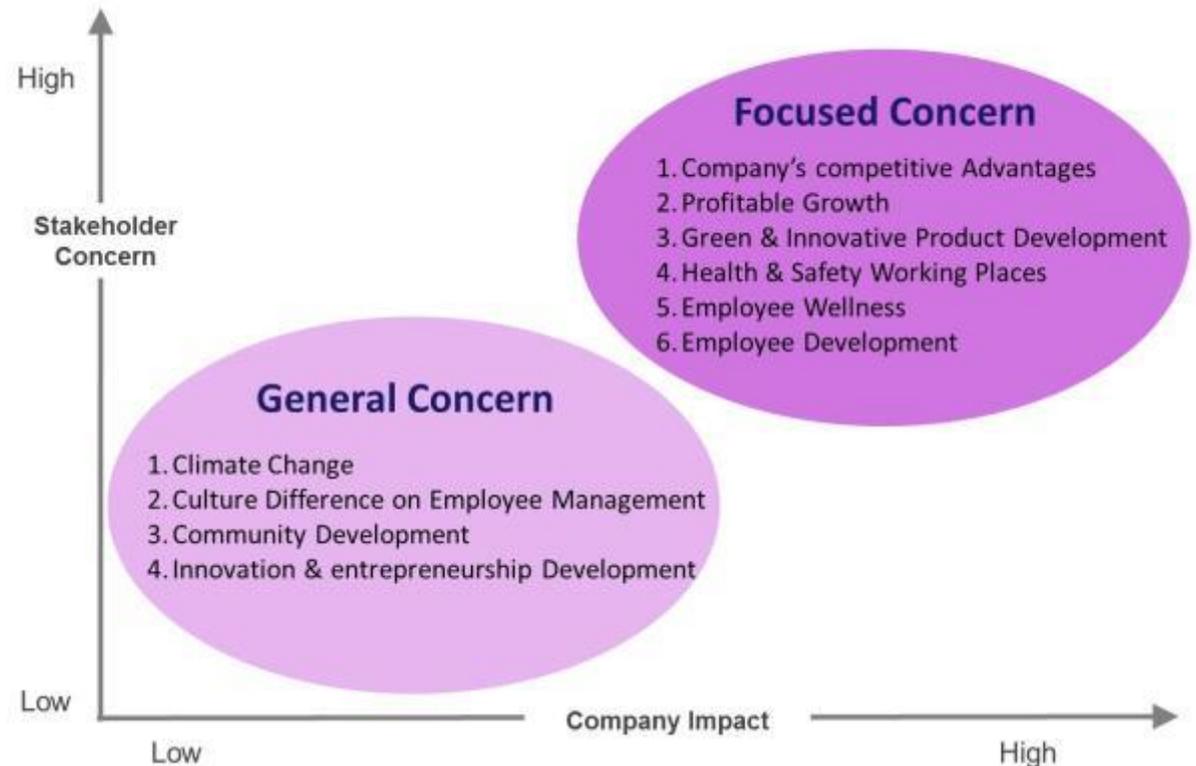
- Understand stakeholders' concerns
- Continue to communicate to improve CSR-related performance

### B. Stakeholder Identification

Through the economic, social and environment dimensions, we define stakeholders which can influence MitraStar or be influenced by MitraStar. We have identified MitraStar's stakeholders to include: investors, employees, suppliers, customers, governments and communities. After identifying our stakeholders, we establish individual communication channels with each of them to provide them the multiple channels.

### C. 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 management to shape its CSR strategies.



## D. Stakeholder Concern Topics and Actions

MitraStar identifies stakeholders and integrates stakeholders' concerns into annual plan. MitraStar's stakeholders include customer, employee, supplier, investor, government and community. We will have certain responsibilities to our 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	Topics of Concern	Actions	Communication Channels
<b>Customer</b>	<ul style="list-style-type: none"> <li>• Provide high quality products</li> <li>• Product development ability</li> <li>• Green product development</li> <li>• Customer Service</li> </ul>	<ul style="list-style-type: none"> <li>• Provide high quality product</li> <li>• Green product development</li> <li>• Conduct customers' green policies</li> <li>• Conflict mineral survey</li> </ul>	<ul style="list-style-type: none"> <li>• Customer online service system</li> <li>• Customer audits</li> </ul>
<b>Employee</b>	<ul style="list-style-type: none"> <li>• Employee Wellness</li> <li>• Employee development</li> <li>• Code of conduct</li> <li>• Health &amp; safety working place</li> </ul>	<ul style="list-style-type: none"> <li>• Family day activities</li> <li>• Subsidize employee group activities</li> <li>• Diversified Training Programs</li> <li>• Provide employees with a safe and healthy working environment</li> <li>• Prevention of incidents and accident</li> <li>• Multiple health promotion activities</li> </ul>	<ul style="list-style-type: none"> <li>• Wellness website</li> <li>• Corporate announcement</li> <li>• Multi communication channel</li> <li>• Online class</li> <li>• Diversified Training Programs</li> </ul>
<b>Supplier</b>	<ul style="list-style-type: none"> <li>• Supply chain management</li> </ul>	<ul style="list-style-type: none"> <li>• Supplier green system audit</li> <li>• Supplier conflict mineral survey</li> </ul>	<ul style="list-style-type: none"> <li>• Green System</li> <li>• Audit for suppliers</li> </ul>
<b>Investor</b>	<ul style="list-style-type: none"> <li>• Company's competitive advantages</li> <li>• Potential for future growth</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance shareholder value conduct company finance and revenue status fairly</li> </ul>	<ul style="list-style-type: none"> <li>• Reveals company financial status information on the company Web site</li> <li>• Shareholders' meeting</li> <li>• Investor Conference</li> <li>• Spokesman</li> </ul>
<b>Government / Community</b>	<ul style="list-style-type: none"> <li>• Comply with regulations</li> <li>• Support the community activities</li> <li>• Nurture talent</li> </ul>	<ul style="list-style-type: none"> <li>• Comply with regulation promotion and activities</li> <li>• Communication channel with government</li> <li>• Participate public activities</li> <li>• Sponsor innovative startup competitions</li> </ul>	<ul style="list-style-type: none"> <li>• Association of Science Park Industries</li> <li>• Internal association</li> <li>• The Progressive Foundation of Education</li> <li>• Shun-I Chu and Zyxel Scholarship</li> <li>• Zyxel Foundation</li> </ul>

## E. Stakeholder Communication Channel

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](mailto:csr@mitrastar.com.tw)
- **MitraStar Website**  
[www.mitrastar.com.tw/abouttitle.php?ctwo=q4qzastawtgaseaswgse](http://www.mitrastar.com.tw/abouttitle.php?ctwo=q4qzastawtgaseaswgse)
- **MitraStar Weibo** <http://weibo.com/u/3811787593>
- **MitraStar YouTube** [www.youtube.com/watch?v=RINQToIFXQY](http://www.youtube.com/watch?v=RINQToIFXQY)
- **MitraStar Youku** <http://i.youku.com/u/UMTMwMDA5MTk0NA>

**MitraStar** Products Design Manufacturing About Us

**About Us**

Vision and Mission  
Message from the President

Organization  
Organization  
Operation Site

**Corporate Responsibility**

- Sustainable Operation
- Green Operation
- Green Product
- Employee Live and Work
- Community and Environment
- Green Award and Certification
- CSR Report

Join Us

- Core Values
- Why MitraStar
- Life in MitraStar
- Job Opportunity

News

**Corporate Responsibility**

**Sustainable Development**

**Green Operation**

MitraStar 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.

**Green Products**

It is a critical All products from MitraStar take green factors and environment care into account – it's a promise not only to our customers, but also to every consumer who enjoy MitraStar products.

**Green Award and Certification**

**Community and Environment**

Starting with itself, MitraStar aims to establish an influential network of the enterprise, society and environment to help development of communities reached by its business practices.

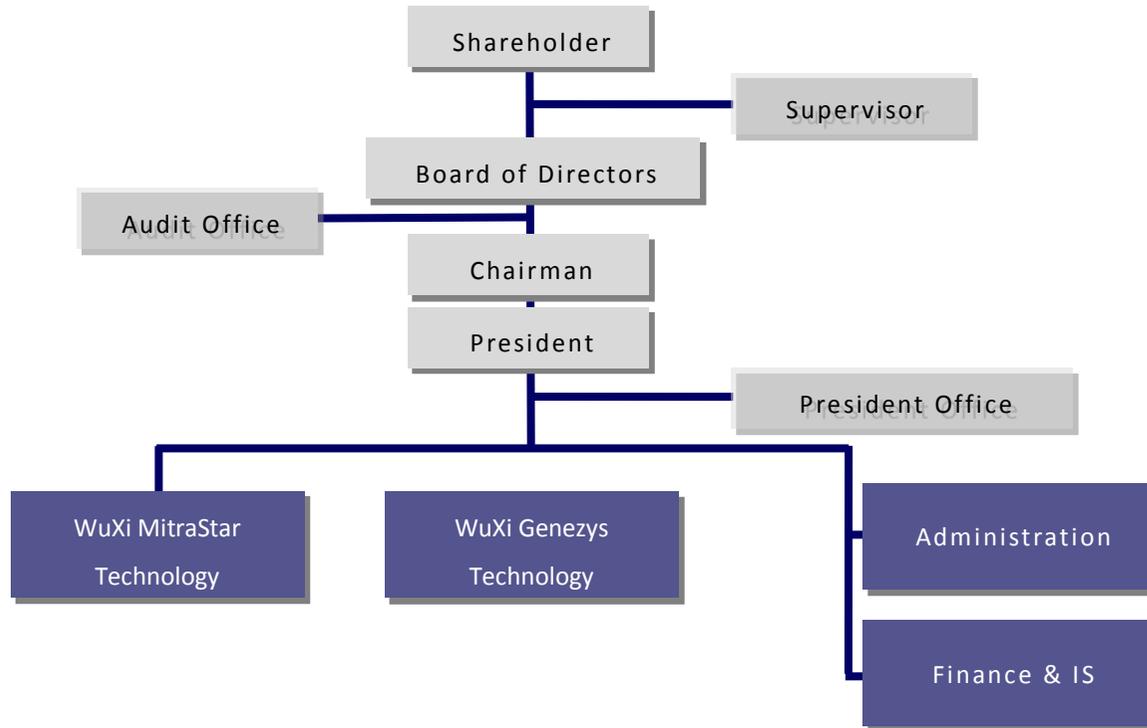
**Employee Live and Work**



# 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

## A. MitraStar Governance Structure



## B. Board of Directors

The MitraStar Board of Directors currently consists of three directors who are assigned by Unizyx holding corporation. Dr. Shun- I Chu is the chairman of MitraStar Technology. All MitraStar Board members are industry professionals, and MitraStar 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.

## C. Compensation Committee

MitraStar Technology is without the compensation committee. In order to enhance the administrative functions of the board, its holding company, 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 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.

## D. Shareholder Rights

Unizyx holding company is the only one corporate shareholder of MitraStar Technology. The ways Unizyx protects its shareholders are:

## 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 and top executives 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. Corporate Responsibility Committee

The MitraStar Corporate Responsibility Committee includes representatives from every related department and operates under its associated principles to oversee the CSR issues within the Group.

### 1. 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

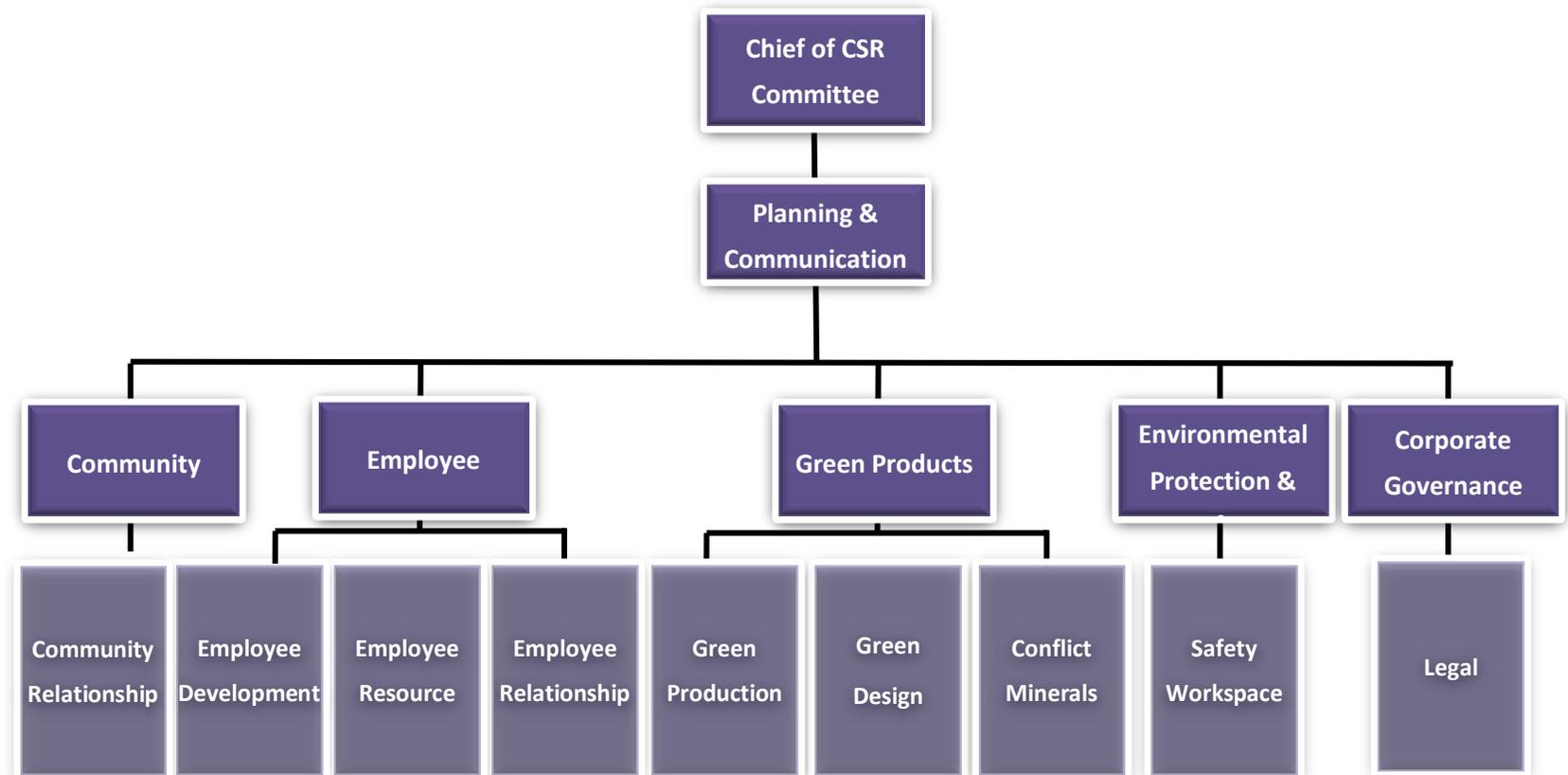
The main objectives of MitraStar Corporate Responsibility Committee are laying down the MitraStar Technology's CSR

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.



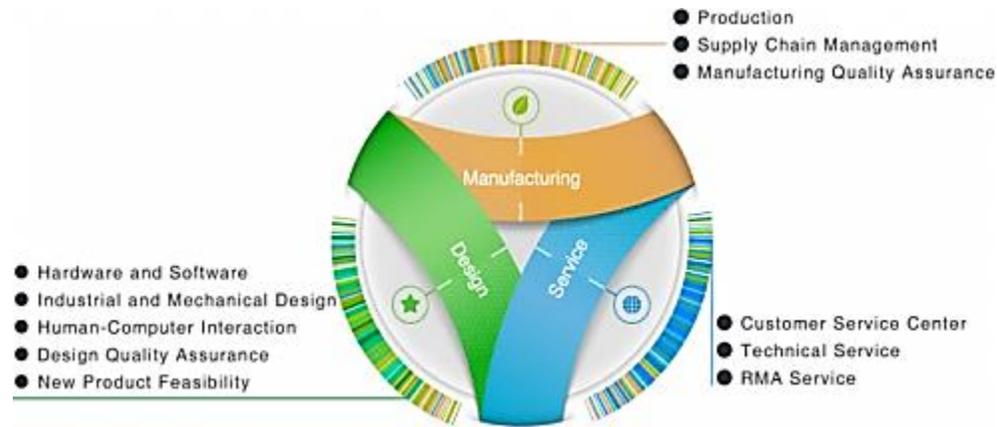


# Company Profile

- A. MitraStar Technology Introduction
- B. Corporate Development
- C. Business Activities
- D. Network Market Overview
- E. Network Market Summary
- F. Financial Performance
- G. Award & Recognition

## A. MitraStar Technology Introduction

### Creating smarter living through a seamlessly connected world



With passion pursuing the ultimate profession, MitraStar excels in offering reliable, highly effective services through its experienced, well-trained teams of network experts. To create innovative products and solutions with unparalleled value, MitraStar commit itself to collaborating proactively with its partners not only to satisfy customers, but also to generate more benefits for all.

The consistent investment on developing networking equipment empowers MitraStar to keep keen observations on the global market in order to maintain its product edge with flexibility and creativity as well as to fulfill customer demands with its outstanding design, manufacturing management, channel management, technical support and all-aspect service capability.

As convergence of digital media accelerates, MitraStar's derives its advantage from the abilities to foresee the trend and concentrate on development of mobile broadband, next-generation networking, digital entertainment, smart home and

Internet applications; these enable MitraStar to offer competitive, cost-effective mobile and fixed-line broadband products along with services designed exclusively for its customers and business partners.

As a leader and innovative developer of high-quality, high-performance networking products, MitraStar distinguishes itself with the aptitude to secure a prominent market position by integrating best-of-breed technologies and comprehensive product portfolios conceived to realize the "Creating smarter living through a seamlessly connected world." vision for the better future of our community.

### Operation Site

#### MitraStar Technology Corp.

No. 6, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

#### WuXi MitraStar Technology Corp. (Manufacturing)

No.1-1, Minshan Road, Xinwu District, Wuxi City, Jiangsu Province, China

#### WuXi Genezys Technology Corp.

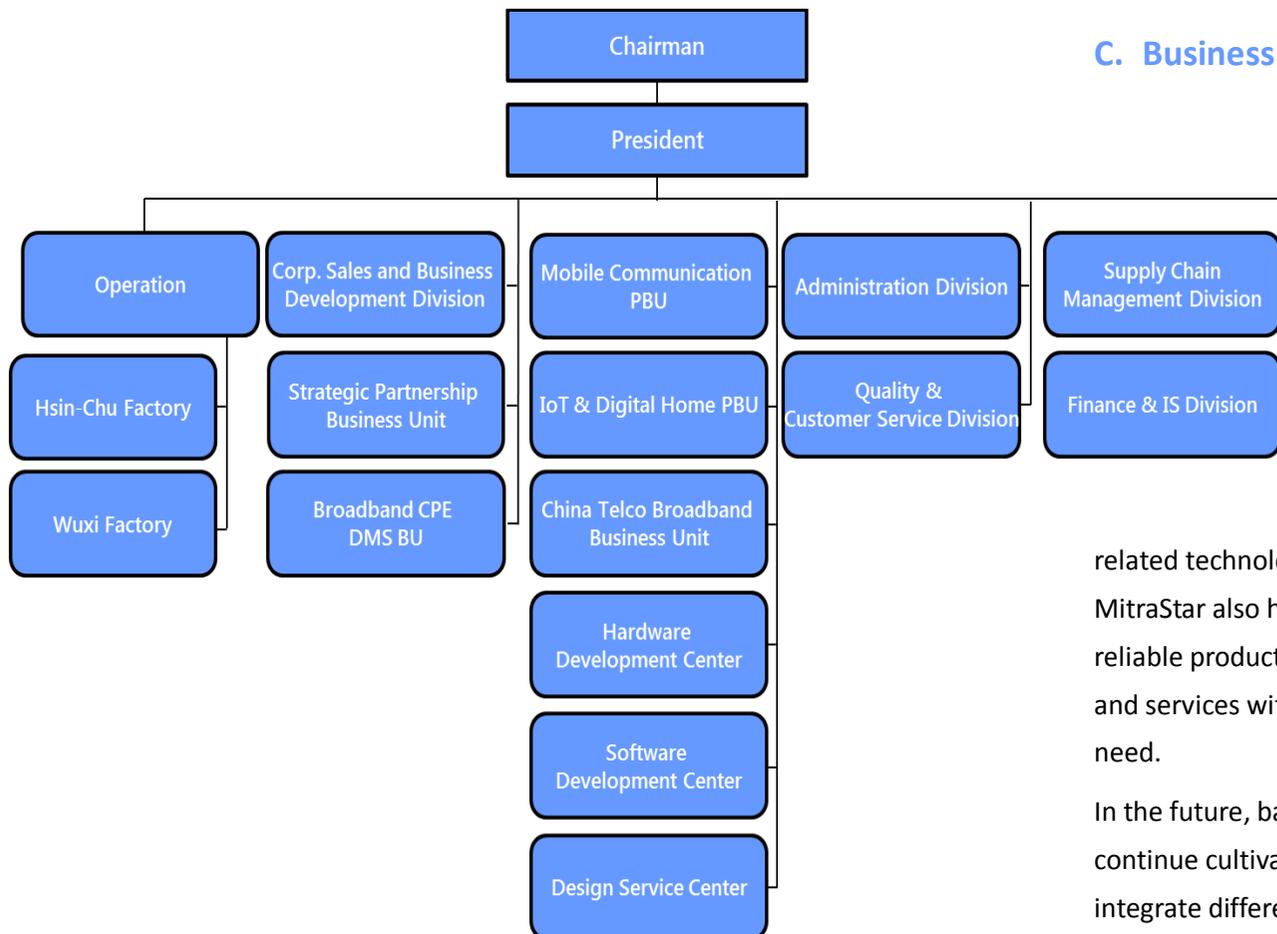
No.1-1, Minshan Road, Xinwu District, Wuxi City, Jiangsu Province, China



## 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. In 2011, Unizyx set up the MitraStar Technology as its subsidiary. The new holding company becomes the parent company and has MitraStar Technology as its subsidiary.

### MitraStar Organization:



Experienced in product research and development, MitraStar does not only have strong technical capabilities but is also proactive in aligning with industrial and technical trends. To understand and even exceed expectations from our customers, we work on both advanced technology and new products to accelerate product development and maintain our leading position. For years, our team members collaborate with many first-tier talents to accumulate solid knowledge and experience on ODM/OEM engineering and high-quality manufacturing.

## C. Business Activities

The business scope of MitraStar Design, Manufacturing and Service includes product ODM, Hardware ODM and OEM.

According to customers' requests, we provide Wireless Broadband CPE, Wired broadband CPE, Fiber CPE, Digital Home and Multi-media Application products, and next generation (internet/M2M) total solutions. The communication technology coverage is DSL, PON, WiFi and LTE...etc. Networking technology covers Routing, Switching, QoS, Security, Network Management...etc. and multimedia

related technology such as multimedia storage, processing and broadcasting.

MitraStar also has advanced M2M and IOT innovative products. Our solid R&D, reliable production capabilities enable us to provide above value in price products and services with speed, flexible, and tailor-made services to meet customers' need.

In the future, based on MitraStar's existing broadband access technologies, we will continue cultivating in high speed switching, and wireless broadband R&D to integrate different broadband applications and services to keep our worldwide leading position. Be a cross product line solution provider and enlarge our

capabilities from networking to application. [salesgroup@mitratar.com.tw](mailto:salesgroup@mitratar.com.tw)

## 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.

In response to new demands of innovative services, mobile broadband and network security, numerous integrated products and services are being launched regularly. We always make it our core competence to secure market trends and refine technical expertise for strengthening our 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

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 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.

## 3. Business Plan

MitraStar emphasizes on customer-oriented product and application design; this core value has been extended into products and services from every affiliated companies. We focus on better competitive advantage as a whole to contribute to the advancement of communication technology, which in turn fulfills the needs of the evolving Internet and its demanding users. This not only differentiates us from the rest of the pack, but also fosters higher momentum of the Group on the market.

## F. Financial performance

### MitraStar consolidated financial status and operating results

(Unit: NT\$ thousands)

#### 1. Financial status and operating results

Accounting Title	2018	2017
Sales	14,065,689	11,835,956
Gross profit	1,084,512	1,222,924
Operating income	-548,375	-549,912
Income before income tax	-496,009	-595,086
Consolidated net income	-474,540	-522,837

#### 2. Profitability Analysis

Item	2018	2017
Rate of return on assets (%)	-5.53	-6.71
Rate of return on stock equity (%)	-19.27	-17.57
Operating income to capital (%)	-17.31	-17.36
Income before tax to capital (%)	-15.66	-18.78
Net income to sales (%)	-3.37	-4.42%
Earnings per share (NTD.)	-1.50	-1.65

## G. Award & Recognition

### 2016

- 2016 Certificate of Cleaner Production Assessment
- 2016 Worksite Breastfeeding Promotion Program
- 2016 Award of Excellence in the Environment Conservation Contest

### 2017

- 2017 Leadership Award
- 2017 Award of Health working Environment
- 2017 Dynamic Workplace Creative Gold Award
- 2017 Taiwan i Sports
- 2017 Badge of Accredited Healthy Workplace

### 2018

- 2018 Talent Development Quality Management System (TTQS) Bronze Award
- 2018 Excellence for the Company in the Occupational Safety and Health
- 2018 Ecovadis CSR rating – bronze Award



# 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

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.

## A. Greenhouse Gas Reduction

MitraStar set 2017 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).

MitraStar emitted 224.082 tons of CO<sub>2</sub>-e in Category 1 and 5625.718 tons of CO<sub>2</sub>-e in category 2.

To further reduce CO<sub>2</sub> 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.

MitraStar Wuxi factory has the greenhouse gas survey process by China QCC every year.

## 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 2018, the water waste in Shin-chu factory was only 26,042 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 2018, MitraStar Hsin-chu factory general commercial wastes produced in the MitraStar campus were 43.51 tons, hazardous waste 1.238 tons and recyclable material 25.217 tons. All wastes were confirmed to meet the Environmental Protection Administration standards.

Wuxi factory reports pollution prevention every year.

### E. Air Pollution Prevention

MitraStar and all its affiliates produce no ozone-harming substance, NOx, SOx 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.

### 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 MitraStar Park

We built the 5140m<sup>2</sup> 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 compensate CO<sub>2</sub> emitted by the factories.



### 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:

**Hsin-chu factory:**

- 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 staffs 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.
- Pollution prevention expenses: As required by the Science Park Administration, MitraStar had submitted the Pollution Prevention Fee of NT\$483,951 in 2018.

**Major procedures observed by MitraStar Technology subsidiaries: Wuxi MitraStar and Genezys:**

- Commission an institution to perform annual monitoring of three pollution sources (air, water, factory noises);
- Water waste inspection against the following specifications: pH=7.3, COD=266mg/L, SS=76mg/L, TP=0.2mg/L, BOD=16.9 mg/L, oils=5.7mg/L to comply with the level 3 standard in chart 4 of GB8978-1996, “the common water waste discharge standard”;
- Appropriate signage at discharge areas according to the regulation;
- Since no water waste is produced in the manufacturing factory, daily sewage is processed in sewage tank and discharged into the city sewer grid, and then processed by the official plant;
- All waste are handled and disposed by certified waste processing contractors;
- All required water and solid waste discharge permits have been obtained, and all waste disposal usage and permission fees are paid in a total of RMB28430.1 between 2014 and 2018.

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

## A. Green Collaboration System

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) ", "Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) " and "Energy-Related Products Directive (ErP) ".

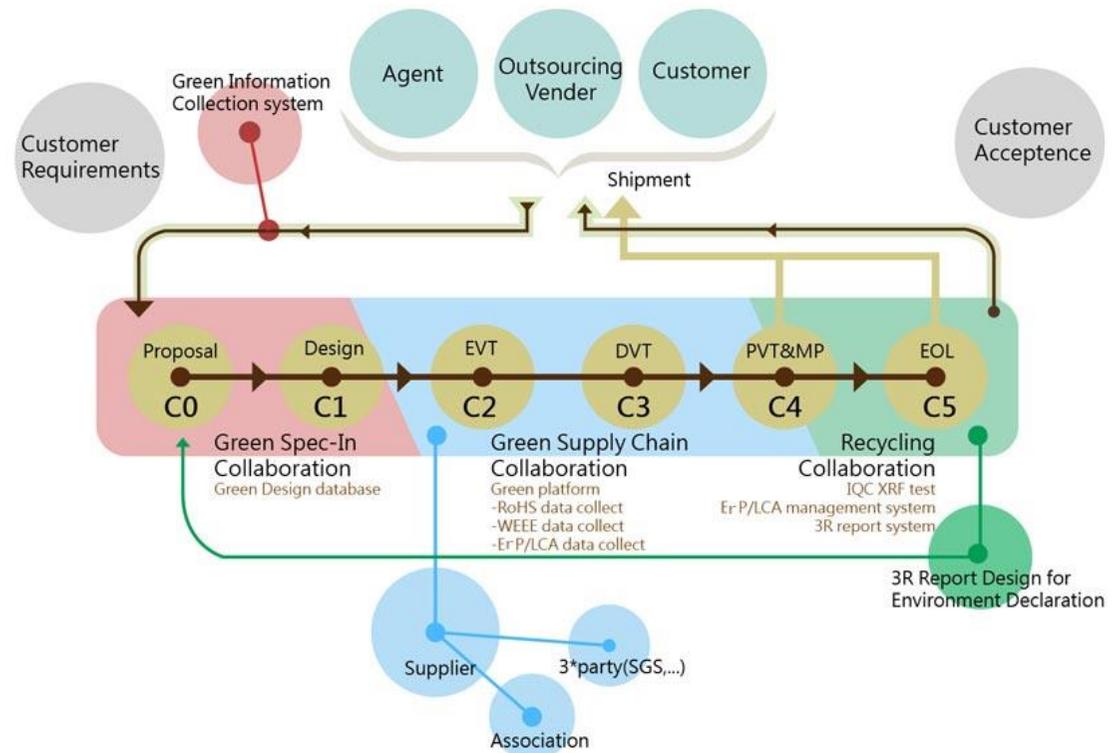
At the same time, in order to fully implement green business management, MitraStar Technology has built a "green cooperative information system" to control each stage from the suppliers of raw

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

Through use of the "Coordinated Information System" including "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.



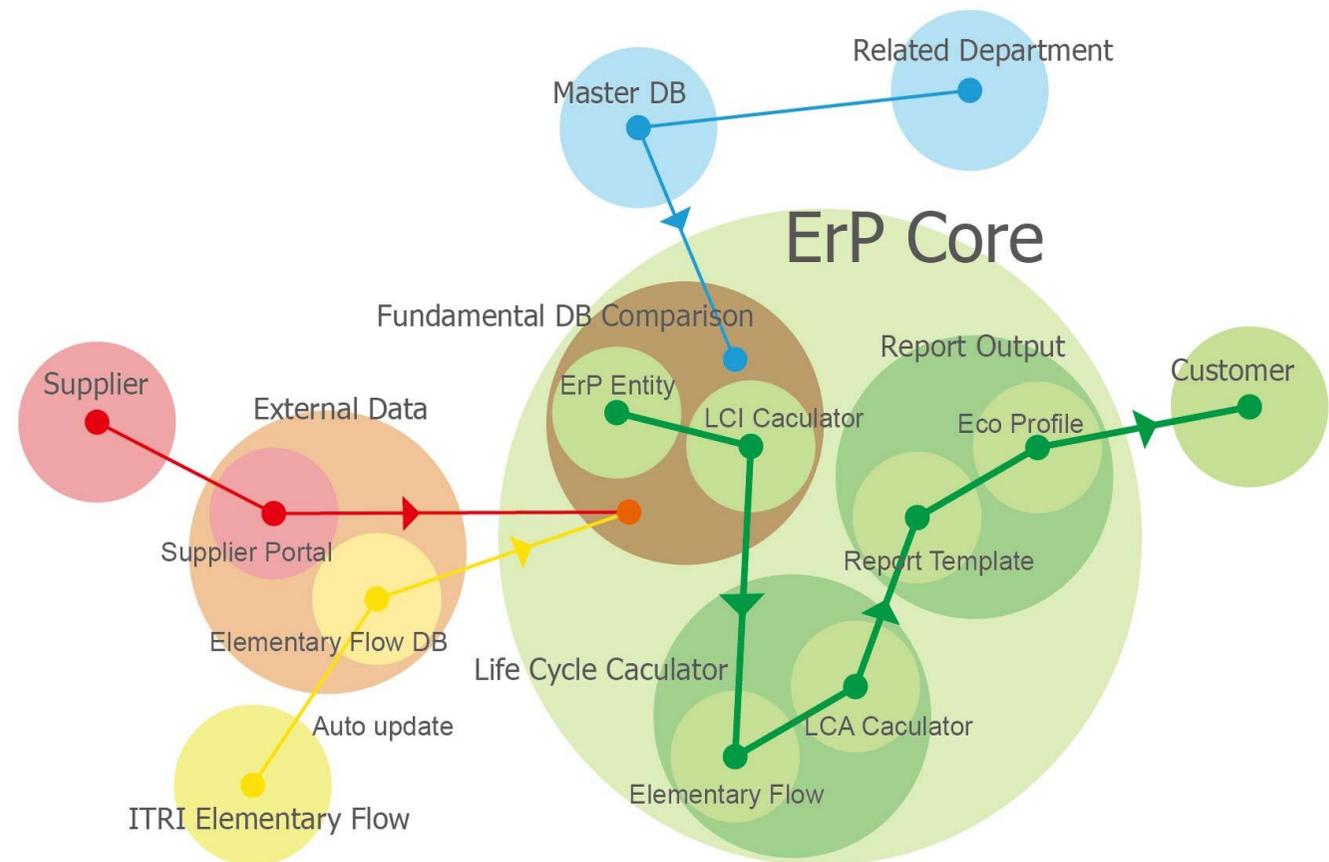
## B. Green Design

### 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 the use of "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".

#### ▪ ErP LCA Management System

"Life Cycle Analysis" (LCA), in compliance with ErP 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, and is stepping from stage 3 to stage 4.

#### First Stage: Regulations Compliance

Target - WEEE, RoHS, Battery, Eu PPW

#### Second Stage: Regulations Exceed

Target – Green IT System, IECQ QC080000

#### Third Stage: ECO-efficiency

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

#### Fourth Stage: Sustainable Development

Target -CSR, 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 ErP 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.

## 7. Conflict Minerals

MitraStar announces that it does not purchase conflict minerals from mines in the conflict regions. MitraStar adopts a sourcing policy that ensures the tantalum (Ta), tin (Sn), gold (Au), tungsten (W), cobalt (Co) and palladium (Pa) used in its products do not benefit the armed groups that perpetrate human rights abuses in the Democratic Republic of Congo and the surrounding area. Our suppliers must acknowledge and agree to our sourcing policy and be a responsible company.

MitraStar is sending the standardized questionnaire template following the Code of Conduct -

Responsible Business Alliance (RBA) format to our suppliers to acquire information regarding the smelters/refineries in their supply chains.

MitraStar expects each of our suppliers to do all of the following:

- Be responsible for social and environment protection.
- Refuse to use conflict minerals come from the Democratic Republic of Congo and its surrounding area.
- Implement due diligence processes to ensure that the tantalum, tin, tungsten and gold minerals used in their products do not come from the conflict areas.
- Suppliers must pass this requirement through their supply chains.

## D. Green Product

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

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-Related Products Directive (ErP)".

## 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 that 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 request our suppliers to report the materials information on the PECM (Product Environmental Compliance Management) system. Calculating the information by the 3R material database, the system generates "3R & Dismantling Reports".

### 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.

#### 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.

### 3. Carbon footprint assessment system

To effectively perform the carbon footprint assessment process, MitraStar and its industry partners started the "Green Supply Chain Carbon Cloud" plan to establish a collaborative platform for defining carbon footprints of different networking products and materials used in manufacturing. The platform automatically decides assessment ranges and boundaries, while the initiator provides lifetime data such as usage, recycle and discard phase along with parameters (such as electric power consumed) for the platform system to calculate accordingly.

Our EPON CPE, VDSL and GPON have received the carbon footprint certification by using the "Green Supply Chain Carbon Cloud" and certificated by 3<sup>rd</sup> party.



VDSL Product Carbon Footprint Verification

MitraStar rectifies its business development strategy for sustainable environmental-friendliness, energy-saving and carbon reduction, so the supply chain can implement and commit to the actions required for Paris COP21.

# Employee Development & Care

- A. Employment
- B. Compensation
- C. Employee Development
- D. Employee Relations
- E. Employee Care

## 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, MitraStar 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.

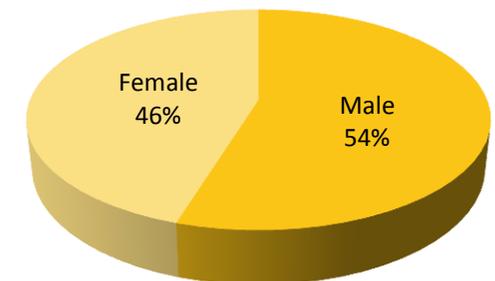
#### 1.2 Diversity of Our Employees

With innovation as its core value, MitraStar calls for people with diversified talents and creativity. The

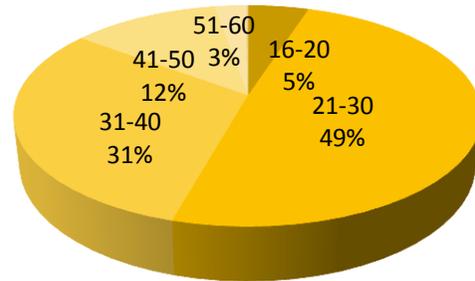
company recruits people without any regard to their age, gender, ethnic group, color, religion, nationality or political backgrounds.

Categories		Male	Female	Subtotal
Age	16-20	70	68	138
	21-30	685	618	1073
	31-40	427	383	838
	41-50	169	107	267
	51-60	37	23	55
	60+	1	0	1
Total by Gender		1389	1199	2588

Employee by Gender



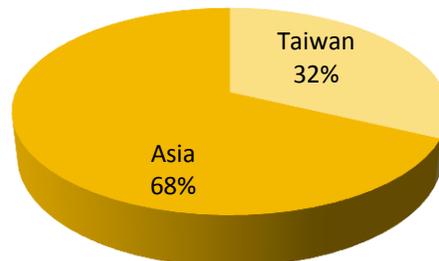
### Employee by Age



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	437	392	829
	Asia	952	807	1759

### Employee by Geography



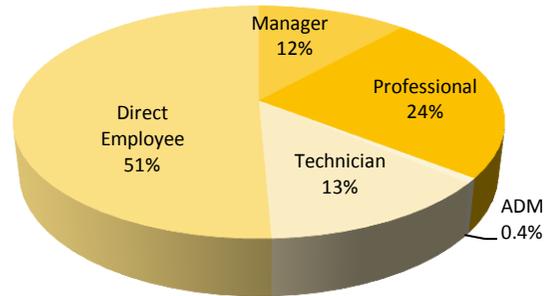
## 2. Workforce Structure

At the end of 2018, MitraStar Technology had around 2,588 employees, including 233 managers, 441 professional, 115 administration and 316 technician people and direct employee 1483.

### Employee Structure

Categories	Groups	Male	Female	Subtotal
Job	Manager	163	70	233
	Professional	330	111	441
	Administration	9	106	115
	Technician	183	133	316
	Direct Employee	704	779	1483
Working Location	Taiwan	437	392	829
	Asia	952	807	1759
Age	16-20	70	68	138
	21-30	685	618	1303
	31-40	427	383	810
	41-50	169	107	276
	51-60	37	23	60
	60+	1	0	1
Avg. Service Yrs.		3.13	3.47	3.29

### 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.

### 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", MitraStar including Hsin-chu and Wuxi factories 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 is an online knowledge base for MitraStar employees to prepare 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

#### 2. Training Hours

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.

**MitraStar Hsin-chu factory**

2016-2018 Training Hours					
Year	Class	Training Hours	Headcount	Total Training Hours	Average Training Hours per Employee
2016	188	990	5108	20568.71	20.97
2017	206	924	5211	19807.16	21.86
2018	151	640	2934	8936.11	10.78
2016-2018	545	2554	13253	49311.98	17.87

2016-2018 Training Hours – Managers		
Year	Total Training Hours	Average
2016	3855.81	23.95
2017	3959.92	23.71
2018	1569.6	10.46
2016-2018	9385.33	19.37

**MitraStar Wuxi factory**

2016-2018 Training Hours					
Year	Class	Training Hours	Headcount	Total Training Hours	Average Training Hours per Employee
2016	145	823.8	3974	44684.7	26.24
2017	144	872.5	5432	65919.2	28.1
2018	206	829.8	9042	122176.9	40.8
2016-2018	495	2526.1	18448	232780.8	31.71

2016-2018 Training Hours – Managers		
Year	Total Training Hours	Average
2016	1591.8	19.9
2017	1360	18.6
2018	2837.25	31.8
2016-2018	5789.05	23.43

**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, 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.

**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.

### 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.

#### MitraStar Wuxi factory:

Establish internal quality control protocols, including

“rescuing and protecting minor and child labor”, “anti-bonded labor”, “banning physical and mental abuse”, “anti-discrimination” and “freedom of association and employee representation”, etc.

## E. Employee Care

### 1. Employee Welfare Committee

The “MitraStar Welfare Committee” in Hsinchu Taiwan is the “Unizyx group 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 and annual evening banquets etc. Over 4,000 employees and their family participated these events.
- **Sports:** activities and competitions organized by respective clubs, and have over 1,500 attendances.
- **Arts:** painting exhibition, book fair and 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



Sport Contest



Spring Hiking



Concert on the Green



Book Exhibition



Christmas Decoration



Year-end Party





Dodgeball game

### MitraStar subsidiaries- Wuxi factory

Employee Union Committee organizes travel and support for employees' family occasions, tuition fees and emergency expenses

## 2. Employee Health Promotion

### 2.1 employee health check-ups

Every year, MitraStar Hsinchu 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 - A : Normal, B: recommended to improve with healthy diet and exercise, C: recommended for further physician evaluation. And D: Abnormal, recommended for further treatment.

Except for the arrangement for C and D for further treatment consultation, MitraStar also provide one day sick off and medical subsidy.



Health check-ups

### MitraStar subsidiary- Wuxi Factory

Wuxi Factory provides health check-ups regularly and also female check-ups every two years.

### 2.2 Multiple health promotion activities

In addition, MitraStar also works government agencies to hold health promotion activities such as

stress-relieving massages, weight loss activities, cancer prevention seminars, blood -pressure checking, blood donations and vaccination service. The activities effectively help employees to become more conscious about their health.

In 2018, MitraStar participated in the National Health Agency's selection campaign and "Workplace Creative Gold Point - National Excellence Award".

We also open the AED training classes from 2013 to create a health working environment for employees.



CPR and EAD class

### 2.3 Abnormal working loading

Every year, processing the high risk group identification and evaluation, keep tracking the abnormal working load employees and provide them with the health education.

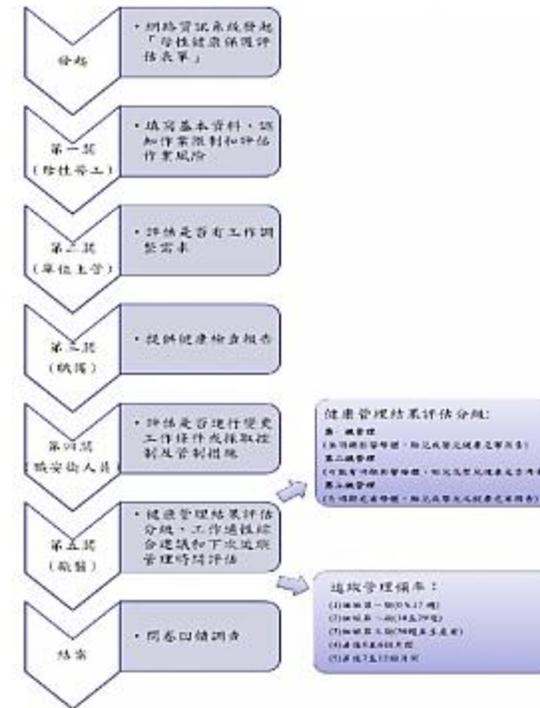
## 2.4 Motherhood protection

During the period the pregnancy, we provide our employees with five stages of surveys. Any health problems caused by work environment and situation change, internal doctor will follow up the problem base on the motherhood sheet 7-12 months after postpartum.

Releasing the motherhood sheet to employee to manage and protect our pregnant employee.

Also, the female employee benefits including exclusive parking space and breast-feeding accessories be provided to female employees for a better working environment.

Also the nursing room is provided at the Wuxi factory.



MitraStar Motherhood sheet



Nursing room at the Wuxi factory

## 2.5 Health care center

We have the 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. In 2018, over 1,200 people use this free service and the satisfaction percentage is 95%.



Docotor Consultation



Massage Service

## 2.6. 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.

90% employees consulted by EAP showed that the program is helpful for their questions.

Following the program, In 2018, various seminars including tax and living issues are provided. 90% employees are satisfied with the seminars according to the questionnaire.

### 3. 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.

## 4. Working place

Lounges, karaoke rooms, 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.



Café





Gymnasium and yoga room

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. In 2017, 20,000 people used the Gymnasium.

## 5. 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.

## 6. 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, physical training
- Art: oil painting, table game, calligraphy
- Public service: charity
- Music: Folk pop guitar

Formed by employees from all levels, Employee Welfare Committee organized the ball games for two months and there are 200 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 join other activities or 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.



Basketball Game



Kickball Game



Badminton Game

## F. Health & Safety

### 1. 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.

### 2. Verification of Management System

MitraStar Technology has obtained the ISO14001 Environment Management System, OHSAS18001 Occupational Safety and Hygiene Management System Certificate and Greenhouse Gas Inventory Certificate (GHG).



ISO14001 certificate

OHSAS18001 certificate

GHG certificate

Certificate for Hsin-chu Factory



Verification Statement of Greenhouse Gas Emission



ISO14001 certificate



OHSAS18001 certificate

Certificate for Wuxi Factory

### 3. Environment, Safety and Health Risk Management

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.

#### 3.1 Working environment inspection



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, illumination.
- Chemical environment factors: carbon dioxide, organic solvents and lead metal

#### 3.2 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 10km/h, and critical points on the assigned paths have anti-shock pads installed.

### 3.3 Machines risk protection

- All machines and equipment with higher personnel risk (e.g. forklifts 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 the target parts automatically; 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.

### 3.4 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.



### 3.5 Management 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.
- Operating the CCB (Chemical Control Banding) management. Report the classification of the dangerous and harmful materials and evaluate them periodically every year to eliminate the harmful effort to employees.

### 3.6 Prevention of professional diseases

Every year, 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, and radiation influences are performed and tracked as well. Operators of certain tasks are given additional checks annually.

### 3.7 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.

### 3.8 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 to report on the web 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 2018, the disabling injury frequency rate was 0.543 and the disabling injury severity rate was 4.

### 3.9 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.
- Emergency response teams are divided into six functional groups such as Operation Center, Reporting, Fire Extinguishing, Evacuation Assistance, Safety Assurance and First Aid, total 23 people.



### Wuxi Factory

#### Working safety

- Develop chain of command for occupational safety, safety regulations as well as safe work procedures;
- Establish plans and regulations for personal protective equipment;

- Renew out-of-date legal permits and licenses, and define danger sources;
- Routine check of critical (unacceptable) risk control to the environment;
- Routine checks for potential risks; designated worker must resolve the problems within a certain time period under the “Identifying and eliminating four danger signs” principle;
- Routine drills for safe evacuation the of entire staff and to elevate emergency response abilities;
- Establish standards for safe manufacturing procedures.

#### Workplace hygiene and health:



- Enforce physical inspection for new recruits as well as routine medical check-ups for all staff;
- Workers exposed to potential safety hazards receive annual physical check-ups;
- Arrange routine staff EMT rescue and patient care training to obtain licenses at Wuxi Red Cross;
- Commission the Wuxi Disease Prevention and Control Center to perform routine examination of utensils and drinking water;
- Require X-ray technicians to carry personal radiation monitoring devices and commission the Wuxi Environmental Pollution Monitoring Center to perform radiation inspections on a quarterly basis;
- Annual machinery inspection of X-ray equipment to ensure compliance with yearly limits and requirements based on the “Basic standards for protection against ionizing radiation and for the safety of radiation sources” as well as “Radiological protection standards for X-ray diffraction and fluorescence analysis equipment”;
- Routine equipment inspection performed with X-ray radiation detection devices to ensure proper safety levels;
- Ensure workplace safety by examining hazardous chemical and physical factors of the environment each year;

- Open all examination results to the employees.

#### 4. 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.

##### 4.1. 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.

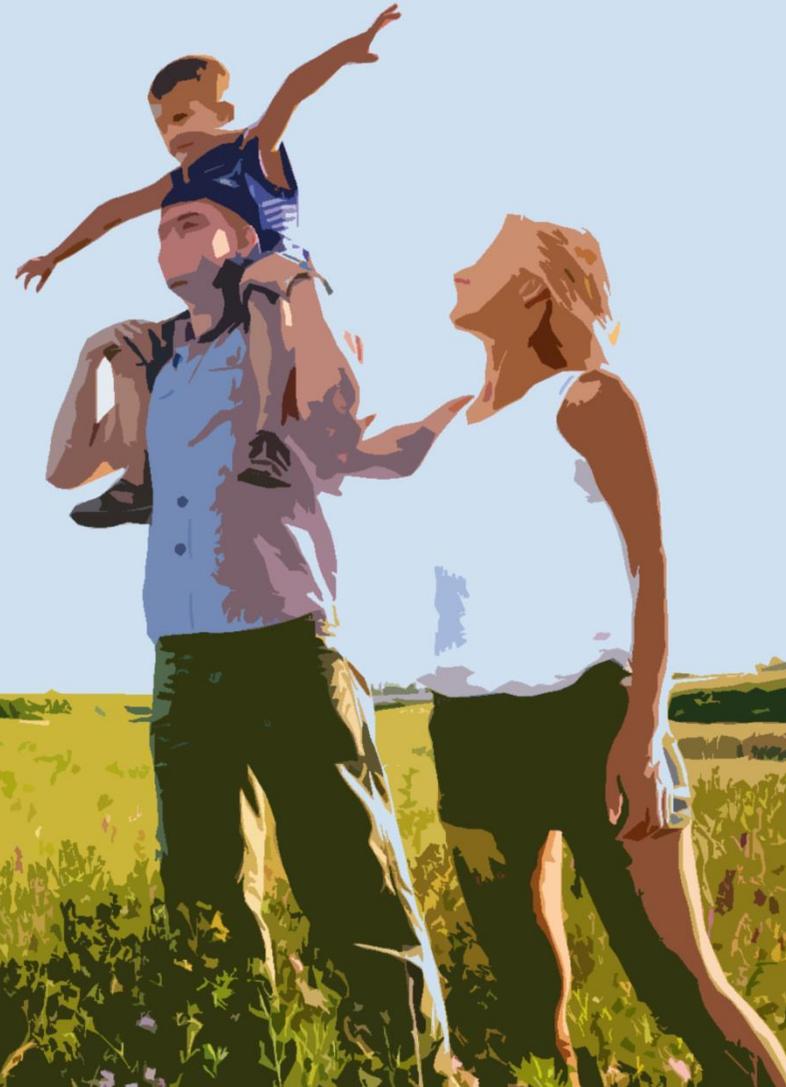
#### 4.2. Contractor training on safety and hygiene issues

- 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.



# Community

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



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.

### ➤ Shun-I Chu and Zyxel Scholarship

The Scholarship is offered to nearly 400 college and  
high school students with excellent grades or from  
disadvantageous 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.

➤ **Sponsorship to National Chiao Tung University "Zyxel Auditorium"**



## 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. Community Care

For responding to society needs, and upholding the concept of contributing to the society, we encourage and support colleagues to participate in public welfare activities and also internalize it into our corporate social responsibility culture.

Cooperated with the on-site 7-11 convenient store, we donate bread for charity at our charity booth during our spring activity every year; encourage colleagues to help the social welfare group by donating invoices or change, and also provide public welfare groups to set up their promotion stalls with space inside the company building, like as the charity events of "Children Are Us Foundation" and "Love Nature Sheltered Workshop"

### 2. Supports sustainable farming through promoting produce



Local produce such as peaches or others 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.

#### ➤ 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.

#### ➤ 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.



#### ➤ Green DIY

Green DIY lesson to communicate the green live.



#### ➤ Month of Working Safety and Environmental Care

Since 2006, we have participated in events organized by the Hsinchu Science and Industrial Park in Taiwan that sponsor positive activities such as painting competition, health promotion and green activities.



#### ➤ 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. Also in 2011 and 2012, we are recognized on "Mobile pollution sources Control Award" in Shin-chu county. 2018, we keep improving the check.



#### ➤ MitraStar 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.



These activities allow employees to know conserve energy while building the eco awareness at the same time. Meanwhile, the “Deliver Love to Africa” teach employee to cherish.



### ➤ Earth Day

To promote Earth Day and World Environment Day events, a series of environmental awareness programs including recycling, planting Organic vegetable and the “Deliver Love to Africa” activity were launched.

## Appendix

### Global Reporting Initiative (GRI 4.0) Sustainability Reporting Guidelines and its Content Index

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
<b>1. Strategy and Analysis</b>				
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 、 15	
<b>2. Organizational Profile</b>				
2.1	Name of the organization.	Corporate Profile - A. Company Introduction	13	
2.2	Primary brands, products, and/or services.	Corporate Profile - C. Business Activities	14	
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	Corporate Profile - B. Corporate Development	14	
2.4	Location of organization's headquarters.	Corporate Profile - A. Company Introduction	13	
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. Company Introduction	13	
2.6	Nature of ownership and legal form.	Corporate Profile - A. Company Introduction	13	
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Corporate Profile - A. Company Introduction	13	
2.8	Scale of the reporting organization, including: <ul style="list-style-type: none"> <li>•Number of employees;</li> <li>•Net sales (for private sector organizations) or net revenues (for public sector organizations);</li> <li>•Total capitalization broken down in terms of debt and equity (for private sector organizations); and</li> <li>•Quantity of products or services provided.</li> </ul>	Corporate Governance - A. Governance Structure	9	
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	Corporate Profile - B. Corporate Development	14	
2.10	Awards received in the reporting period.	Corporate Profile - G. Award & Recognition	16	
<b>3. Report Parameters</b>				
3.1	Reporting period (e.g., fiscal/calendar year) for information	Overview	2	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	provided			
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 Stakeholder Communication	2、5	
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	14	
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	14	
3.12	Table identifying the location of the Standard Disclosures in the report.	Global Reporting Initiative Sustainability Reporting Guidelines and its Content Index	55	
3.13	Policy and current practice with regard to seeking external assurance for the report.	Overview	2	
<b>4. Governance, Commitments, and Engagement</b>				
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks,	Corporate Governance - A. Governance Structure	9	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	such as setting strategy or organizational oversight.			
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	Corporate Governance - A. Governance Structure	9	
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	9	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	Corporate Governance - D. Shareholder Rights	9	
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	9	The compensations for the top executives are offered reasonably with reference to similar positions in the industry as well as their job description and actual contribution.
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	Corporate Governance - C. Compensation Committee	9	
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	8	
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	8	
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	8	
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	Corporate Governance	8	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	Corporate Governance	8	
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	Stakeholder Communication	4	
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization: * Has positions in governance bodies; *			

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	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.	Stakeholder Communication	4	
4.15	Basis for identification and selection of stakeholders with whom to engage.	Stakeholder Communication	4	
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Stakeholder Communication	4	
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.	Stakeholder Communication	4	
<b>5. MANAGEMENT APPROACH AND PERFORMANCE INDICATORS</b>				
<b>Economic</b>				
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	16、48	
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Environmental Protection - A. Greenhouse Gas Reduction	18	
EC3	Coverage of the organization's defined benefit plan obligations.	Employee Development & Care	30	
EC4	Significant financial assistance received from government.	Corporate Profile - F. Financial Highlights	16	
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	Employee Development & Care - B. Compensation	32	The compensation provided by MitraStar is much higher than the figure of Taiwan's law regulates for both male and female employees.
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. (Core)	Employee Development & Care - A. Employment	30	
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	30	
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.			No related investments and services
EC9	Understanding and describing significant indirect economic	Corporate Profile - D. Network Market Overview	15	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	impacts, including the extent of impacts.			
<b>Environmental</b>				
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	18 、 19 、 19	
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	19 、 27 、 28	
EN3	Direct energy consumption by primary energy source.	Environmental Protection - A. Greenhouse Gas Reduction Environmental Protection - B. Energy Conservation	18 、 18	
EN4	Indirect energy consumption by primary source.	Environmental Protection - A. Greenhouse Gas Reduction Environmental Protection - B. Energy Conservation	18 、 18	
EN5	Energy saved due to conservation and efficiency improvements.	Environmental Protection - B. Energy Conservation	18	
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	22	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	Environmental Protection - B. Energy Conservation	18	
EN8	Total water withdrawal by source.	Environmental Protection - C. Water Resource Management	19	Water source is 100% from city water
EN9	Water sources significantly affected by withdrawal of water.	Environmental Protection - C. Water Resource Management	19	There is no significantly affection on water sources by withdrawal of water
EN10	Percentage and total volume of water recycled and reused.	Environmental Protection - C. Water Resource Management	19	
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	20	MitraStar is not located on protected areas and areas of high biodiversity value outside protected areas.
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	20	MitraStar is not located on protected areas and areas of high biodiversity value outside protected areas.

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
EN13	Habitats protected or restored.	Environmental Protection - F. Ecological Preservation	20	MitraStar is not located on protected areas and areas of high biodiversity value outside protected areas.
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	Environmental Protection - F. Ecological Preservation	20	MitraStar is not located on protected areas and areas of high biodiversity value outside protected areas.
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	20	There is no IUCN Red List species and national conservation list species with habitats in areas affected by MitraStar's operations
EN16	Total direct and indirect greenhouse gas emissions by weight.	Environmental Protection - A. Greenhouse Gas Reduction	18	
EN17	Other relevant indirect greenhouse gas emissions by weight.	Environmental Protection - A. Greenhouse Gas Reduction	18	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Environmental Protection - A. Greenhouse Gas Reduction	18	
EN19	Emissions of ozone-depleting substances by weight.	Environmental Protection - E. Air Pollution Prevention	20	
EN20	NOx, SOx, and other significant air emissions by type and weight.	Environmental Protection - E. Air Pollution Prevention	20	
EN21	Total water discharge by quality and destination.	Environmental Protection - C. Water Resource Management	19	
EN22	Total weight of waste by type and disposal method.	Environmental Protection - D. Alchemy for Waste	19	
EN23	Total number and volume of significant spills.	Environmental Protection - G. Environmental Protection Expenditures	21	
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	19	
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	19	MitraStar is not located on protected areas and areas of high biodiversity value outside protected areas.
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	Green Product & Service	23	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	Green Product & Service - E. Green Production, Package & Shipping	27	
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Environmental Protection - G. Environmental Protection Expenditures	21	

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
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	27、48	There are no significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.
EN30	Total environmental protection expenditures and investments by type.	Environmental Protection - G. Environmental Protection Expenditures	21	
<b>Social: Labor Practices and Decent Work</b>				
DMA	Disclosures on Management Approach			
LA1	Total workforce by employment type, employment contract, and region broken down by gender.	Employee Development & Care - A. Employment	30	
LA2	Total number and rate of employee turnover by age group, gender, and region.	Employee Development & Care - A. Employment	30	
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	34	MitraStar is dedicated to fulfill its commitment to employees by providing them with good compensation and benefits. For a small amount of temporary employees that are hired due to specific needs, the Company is committed to providing them the compensation and benefits that comply to Taiwan's law
LA4	Percentage of employees covered by collective bargaining agreements.	Employee Development & Care - D. Employee Relations	33	MitraStar has no union, no employees covered by collective bargaining agreements.
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.			MitraStar complies with notification process regulations.
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.	Employee Development & Care - F. Health & Safety	40	More than 1/3 of total workforce represented in formal joint management worker health and safety committees
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	Employee Development & Care - F. Health & Safety	40	
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	Employee Development & Care - F. Health & Safety	40	
LA9	Health and safety topics covered in formal agreements with trade unions.			MitraStar has no union, no related agreements

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
LA10	Average hours of training per year per employee by employee category.	Employee Development & Care - C. Employee Development	32	
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	32	
LA12	Percentage of employees receiving regular performance and career development reviews by gender.	Employee Development & Care - C. Employee Development	32	
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	30	
LA14	Ratio of basic salary of men to women by employee category.	Employee Development & Care - B. Compensation	32	
LA15	Return to work and retention rates after parental leave, by gender.	Employee Development & Care - A. Employment	30	
<b>Social: Human Rights</b>				
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.			MitraStar does not have significant investment agreements that include human rights clauses or that have undergone human rights screening in its contract.
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.			MitraStar does not apply the requirements to our suppliers and contractors in our contract.
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	32	
HR4	Total number of incidents of discrimination and actions taken.	Employee Development & Care - D. Employee Relations	33	MitraStar has no discrimination case in this year
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	34	No significant risk found
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	30	No significant risk found
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	30	No significant risk found
HR8	Percentage of security personnel trained in the organization's	Employee Development & Care - F. Health & Safety	40	All security personnel are required to

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
	policies or procedures concerning aspects of human rights that are relevant to operations.			complete training regarding legal awareness, working guideline and reception courtesy.
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	Employee Development & Care - D. Employee Relations	33	There were no violations involving rights of indigenous people in this year.
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.			We don't have related assessment.
HR11	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.			There were no grievances related to human rights filed in this year.
<b>Social: Society</b>				
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	48	
SO2	Percentage and total number of business units analyzed for risks related to corruption.	Corporate Governance - E. Code of Conduct	10	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	Corporate Governance - E. Code of Conduct	10	
SO4	Actions taken in response to incidents of corruption.	Corporate Governance - E. Code of Conduct	10	
SO5	Public policy positions and participation in public policy development and lobbying.	Corporate Governance - E. Code of Conduct	10	
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	Corporate Governance - E. Code of Conduct	10	
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	Corporate Governance - E. Code of Conduct	10	
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	10	
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.			
<b>Social: Product Responsibility</b>				
DMA	Disclosures on Management Approach			

	GRI Indicators	Related TSMC CSR Report Section	Page(s)	Explanatory Notes
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	22	
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.			There is no any incident of non-compliance with 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.	Employee Development & Care - F. Health & Safety	40	
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.	Stakeholder Communication	4	
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 Employee Development & Care - F. Health & Safety	10 、 40	
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 use of products and services.

[www.mitrastar.com](http://www.mitrastar.com)