



2022 Zyxel Group Sustainability Report

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About the Report

Zyxel Group has published a CSR report every year since 2011. The Company's implementation of corporate sustainability has been disclosed in detail for adherence to the initial goal and commitment to our first CSR report.

Zyxel Group is dedicated to the fulfillment of corporate responsibility, boosting customer trust in our good corporate governance, allowing the employees to be identified with the Company, and facilitating cooperation with our partners in creating a multi-win situation. The Report discloses our commitments and efforts in a detailed manner. We will continue the fulfillment of corporate responsibility and promise all stakeholders sustainable development.

Report Content

Report period: January 1~December 31, 2022

• Issues of Stakeholders' Concern

This part covers the consideration of the potential impacts of stakeholders on the Company as well as the identification of significant issues associated with the operations and actual achievements in terms of economy, environment and society and discloses the Company's strategies, implementation processes, and outcomes. The significant issues this year are slightly different from those in the report for the previous year. Please refer to Chapter "Communication with Stakeholders" for details.

• UN Sustainable Development Goals (SDGs)

Zyxel Group supports the 17 SDGs set by the UN. In 2022, we focused on 7 SDGs which were adopted as the core and achieved in a sustainable manner.

Meanwhile, the "Zyxel Group Sustainability Committee" discussed economic, social and environmental issues concerning the Company's benefits and prioritized the issues discussed according to their significance for the Company and stakeholders and the importance of the issues to the management of Zyxel Group to formulate its CSR strategies in line with our SDGs.

• TCFD

The opportunities and risks of the financial impacts of climate change, as well as the response measures, were evaluated and disclosed.

• Report Structure

Pursuant to TWSE's "Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies" and "Corporate Social Responsibility Best Practice Principles for TWSE/GTSM Listed Companies", disclosures were made based on the framework of the Global Reporting Initiative (GRI) Standards, Sustainability Accounting Standards Board (SASB) Standards, and Task Force on Climate-related Financial Disclosures (TCFD). The disclosure framework reference table is attached as an appendix to the Report.

• GRI Standards

The Report was prepared in accordance with the framework of the GRI Standards: Core option. Materiality analysis results, disclosures, and reviews will be described in the following respective chapters.

• SASB Standards

The Company first adopted the disclosure framework of the SASB Standards in the Report to disclose information on MitraStar Technology in the "electronic manufacturing services (EMS) and original design manufacturing (ODM) industry" and on Zyxel Communications and Zyxel Networks in the "hardware industry".

Report Scope

The Report identifies material considerations and covers Zyxel Group and the subsidiaries thereof, Zyxel Communications (Zyxel), Zyxel Networks (ZNet), and MitraStar Technology. For Zyxel Group’s overseas subsidiaries, information on their finance and human resources is disclosed only.

Internal Examination

The information in the Report could not be disclosed unless it was examined internally.

Information Provision and Review by Departments

Business executors in the relevant business departments of the Company’s plants submitted information to the department heads for review.

Compilation by the Sustainability Committee

The communication team in the Corporate Sustainability Committee conducted information compilation, wrote the first draft of the Report after having discussions with the relevant sales departments, and handed over the first draft to the information providers for checking.

Approval by the Chief Sustainability Officer

The Report was submitted to the Chief Sustainability Officer for approval.

External Verification

External verification and auditing were carried out.

Disclosure on the Official Website

The communication team subordinate to the Sustainable Development Committee disclosed the Report on the official website of Zyxel Group.

External Assurance

Financial Information: The financial figures in the Report were prepared according to the International Financial Reporting Standards recognized by the Financial Supervisory Commission and the financial data was audited and verified by KPMG and is expressed in NTD.

Report Verification: We commissioned DNV GL Business Assurance Co., Ltd. to verify the Report’s claims of “complying with the GRI Standards: Core option, SASB and TCFD, according to the DNV VeriSustain™ Protocol and the AA1000 Assurance Standard.

Management System Verification Certificates

- ISO 9001 Quality Management System
- QC 080000 Hazardous Substance Process Management System
- TL 9000 Telecommunications Quality Management System
- ISO 14001 Environmental Management System
- ISO 45001 Occupational Health and Safety Management System
- ISO 14064-1 Greenhouse Gas Inventory Certificate
- ISO 27001 Information Security Management System

Report Publication

Zyxel Group Holding Corporation and the subsidiaries thereof publish a sustainability report on an annual basis. The last sustainability report was published in August 2022. The Report was published in September 2023.

Zyxel Group’s subsidiaries publish their own independent sustainability reports, namely the Sustainability Report of MitraStar Technology. To promote paperless practices for environmental protection, all the reports are published on the official websites

Feedback

Should you have any questions or suggestions regarding the content or activity in the Report, please don’t hesitate to contact us.

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A Word from the Chair of the Sustainability Advisory Committee

Dear Friends and Colleagues,

As industrialization continues to escalate, the exponential increase in direct and indirect carbon emissions from human activities has led to intensifying greenhouse effects, extreme climates, and escalating natural disasters. Our planet and its ecosystem cannot sustain such patterns without facing impending destruction. To counteract the worsening climate crisis, global initiatives have been undertaken to reduce carbon emissions and achieve net-zero emissions by 2050. International trade regulations and carbon tariffs have also been established to curb emissions across industrial supply chains, including those involving cross-border trade.

As responsible global citizens, and in alignment with customer and national expectations, we have a duty to ensure the reduction of carbon emissions in our own production processes and upstream supply chains. This commitment not only aligns with green operational resilience but also represents a critical competitive edge for our sustainable development.

At Zyxel Group, a leading international networking brand, our mission is to build a sustainable enterprise. Our vision entails creating economic value, fostering environmental sustainability, and promoting positive social values. To this end, we have established the Zyxel ESG Committee, guiding our sustainable development policies and strategies. From top to bottom, our group is dedicated to innovative breakthroughs, launching carbon reduction initiatives, and providing green product solutions. Our actions reflect our dedication to addressing the significance and expectations associated with ESG (Environmental, Social, and Governance) concerns among stakeholders.

We will continue to communicate with colleagues worldwide, urging collaborative efforts that influence positive change. Together with our customers and suppliers, we co-create green economic value, shaping a sustainable future.



Zyxel Group Chairman
Dr. Shun-I Chu

A handwritten signature in black ink, appearing to read "Shun-I Chu".

About Zyxel Group Corporation

The Zyxel Group Corporation began operations on August 16, 2010 in Shin-chu Taiwan, as it was set up to reorganize from Zyxel Communications which is founded in 1989 by Dr. Shun-I Chu. Zyxel Group has Zyxel Communications and MitraStar Technology as its subsidiaries is listed in the Taiwan Stock Exchange (TSE) under ticker number 3704 replacing Zyxel Communications. Zyxel Group offer complete networking solutions of Telco, SME and digital Home for a wide range of deployment scenarios.

Zyxel Communication Corp. develops innovative products under the Zyxel brand for telco, enterprise and home customers, while MitraStar concentrates on customized hardware/software integration of advanced products and technology for industrial needs.

Zyxel Group emphasizes on customer-oriented product and application design; this core value has been extended into products and services from every affiliated companies. Despite striving for individual growth, all our companies 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.

Today, Zyxel Group has subsidiaries in America, China, Southeast Asia, Europe and Middle East. and 150 global markets served. As a responsible corporate citizen, the Zyxel Group operates under highly open and proficient governance to maintain healthy value growth and their commitment to a green environment.

Organizational Development

August 2010: Zyxel Group Holding Corporation was funded through a share swap with Zyxel Communications. Zyxel Communications has been a totally held subsidiary of Zyxel Group Holding Corporation from then on.

January 2011: The Product R&D and Manufacturing Business Unit was separated from Zyxel Communications. Zyxel Group Holding Corporation established MitraStar Technology, another totally held subsidiary thereof. Zyxel Group Holding Corporation is the parent company with Zyxel Communications and MitraStar Technology as its main affiliates.

February 2019: Zyxel Communications segmented its channel business units. Zyxel Group Holding Corporation founded Zyxel Networks. Since the organizational segmentation and adjustment were carried out, Zyxel Communications has concentrated on the development of its business in the telecommunication market to offer well-structured broadband solutions and application services to telecommunications service providers and meet their needs for customization. Zyxel Networks has been devoted to satisfying the needs of small and medium-sized enterprises as well as domestic users.

June 2023: The company changed its English name from "Unizyx Corporation" to "Zyxel Group Corporation."

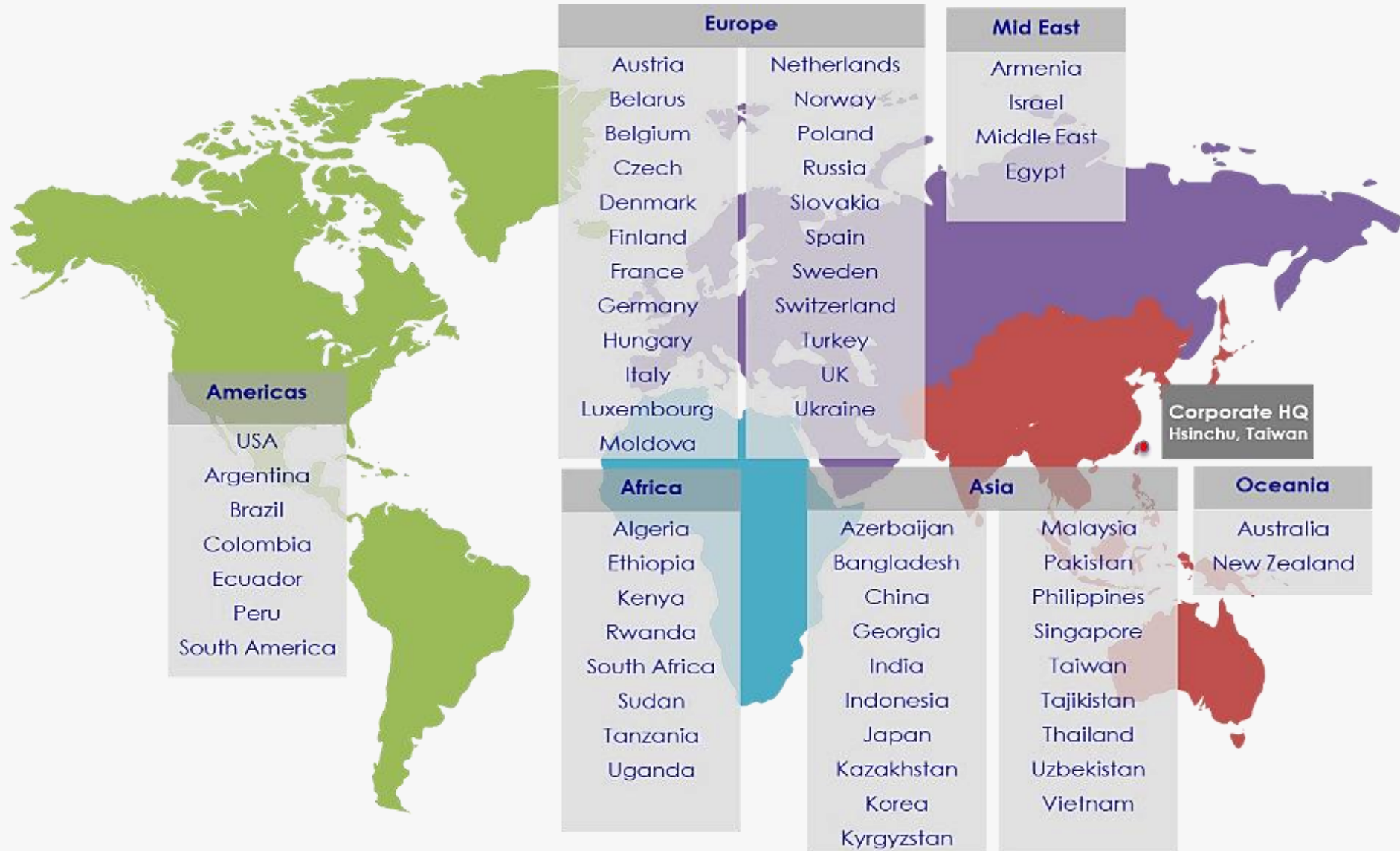
USD\$ **130.3** million
Capital

USD\$ **1024.5** million
Revenue in 2022

3,944
Total Employees in 2022

Global Market

Zyxel Group currently has markets in the Americas, China, Southeast Asia, Europe and the Middle East, serving 150 regional markets around the world.





Zyxel Communications

dedicates to developing comprehensive, reliable solutions that accelerate and satisfy the advent of next-generation fixed and mobile broadband technology to help operators to open up more opportunities with truly converged services.



Zyxel Networks

focuses on the development of networking solutions for business applications. To combine the popularity of cloud services, it provides the products and services that satisfy the networking needs of SMBs and home users.



MitraStar Technology

specializes in R&D and OEM of network communication technologies and products. It provides value from the customers' point of view by virtue of innovative design, and satisfy customers' needs with excellent production management, logistic management, technical support and customer services.

| Products & Services




The Zyxel Group offers service providers, businesses and home users with products and services through the Zyxel brand and MitraStar DMS services. In collaboration with customers, suppliers and all partners, Zyxel Group strives to stay ahead of the digital wave with its advanced, reliable broadband connectivity products and solutions.

To satisfy every demand from consumer devices to remote central office equipment, wired to wireless, home to cloud applications, we at Zyxel Group created a solid foundation with next-generation network technologies built into every new product for customers to design their own integrated applications. The efforts also allow the Zyxel Group to have a cross-the-board understanding on the global market and to create a more comprehensive range of solutions that empowers users to enjoy the best contemporary, smart networking experience.

We share the same values with our customers, and we are eager to satisfy them as well. Backed by our experienced teams, outstanding products and exceptional customer services, we are confident about every promise with our name on it.

For more details of products and services, please visit the [Zyxel Communications](#), [Zyxel Networks](#), [MitraStar Technology](#) websites.

Target Market

Service Provider	Business	Home
		
<p>EMPOWERING SERVICE PROVIDERS TO UNLOCK THE POTENTIAL OF BROADBAND</p>	<p>EXPERIENCE A TRUE ONE NETWORK LIKE NO OTHER</p>	<p>INSPIRE SMART DIGITAL LIFE</p>

Key Products

Zyxel Group takes the new generation of network communication technology as the core, and focuses on the product development and manufacturing of wired and wireless broadband networks, new generation networks, digital home multimedia and smart life applications, as well as Zyxel brand expansion. The main products and solutions can be divided into the following areas:

Broadband access equipment		Fiber optic equipment		Equipment for Businesses			Home Network			
Wireless and mobile customer premise equipment	Fixed line Customer premise equipment	Optical network units	Central office equipment	Wireless and mobile customer premise equipment	Fixed line Customer premise equipment	Optical network units	Central office equipment	Wireless and mobile customer premise equipment	Fixed line Customer premise equipment	Optical network units

Sustainability Achievements

Governance Evaluation

Top 20%



Ecovadis Sustainability Rating

MitraStar Technology and Zyxel Communications won the Silver medals



S&P CSA Sustainability Assessment

4th in the Global Communication Equipment Industry Sector



FTSE Russell Ranked

Top 20% in Telecommunications Equipment Industry



Taiwan Corporate Sustainability Awards (TCSA)

Golden



Businessweekly Magazine Ranking

Carbon Productivity: 1st in Taiwan's Telecommunications Industry



Carbon Disclosure Project (CDP)

Management level (A-) for value chain engagement
Awareness level (C) for climate change
Awareness level (C) for water safety



Sustainability Achievements

Economic Aspect

Employee Business Ethics

- *Employee business ethics education and training's completion rate **99.8%**
- *Material business ethics violations: **0**

Information Security Management

- *Material information security incidents: **0**
- *Completion rate of courses on business secret protection regulations **>99.8%**
- *The **ISO 27001** certificate has been obtained.

Supplier Sustainability Management

- *Percentage of suppliers signing a letter of commitment: MitraStar 73.93% / Zyxel Communications/Zyxel Networks **100%**
- *on-site supplier audit completion rate: Zyxel Communications/Zyxel Networks **100%**.

Environmental Aspect

Science Based Targets initiative (SBTi)

To support the global Science Based Targets (SBT) initiative, the Company declared that Zyxel Group will submit a **SBT commitment letter** in 2023, put forward the **short-term SBTs** in 2025, and deliver **on the net-zero emission commitment in 2050**

TCFD for the Financial Impact of Climate Change

The TCFD framework has been used to identify the risks and opportunities of the financial impact of climate change. We planned to start the **Situational Analysis and Financial Estimation Plan** for material risks and opportunities.

Greenhouse Gas Reduction and Inventory

The Company performed **Scope 1~Scope 3 GHG inventories** and subsequently acquired the **ISO14064 certificate**. In 2022, **a reduction of 95.839** tons CO₂-e in GHG emissions was achieved. The SBTi's Absolute Emissions Contraction approach was used to set an **annual carbon reduction target of 4.2%**

Biodiversity and Deforestation-Free Commitment

In response to the TNFD Biodiversity Initiative, we declare our commitment and actions towards biodiversity conservation and deforestation-free practices.

Product Carbon Footprint Inventory Plan

The **Product Carbon Footprint and Environmental Footprint Calculation Platform** was developed exclusively for Zyxel Group to measure a product's level of eco-friendliness throughout its life cycle and thereby allow the customers to take the environmental impact level into consideration during product planning.

Social Aspect

Women in Tech

- Female Senior Executives **20.3%**
- Females in STEM positions **26.9%**

Human Resource

- Total Training Hours: **154,000 hours**
- Total Training Costs: **NT\$6,600,000 dollars**
- Course Satisfaction: **4.3 score**

Human Rights Protection

- Material human rights violations **0**
- Completion rate of courses on employee sexual harassment prevention **>98.6%**
- Completion rate of human rights-related training courses for new employees **100%**
- The **"Labor Risk Factor Identification and Assessment Form"** has been used to conduct human rights risk surveys with employees
- Zero payment from migrant workers:** We pay in full the expenses and placement fee required for our foreign migrant workers to work.

Talent Training, Social Care and Environmental Protection

- Shun-I Chu Zyxel Group Scholarship: In 2022, NT\$ **8.8** million was awarded to **367** students. Sponsoring 4 Events Related to Talent Development
- "Bring Love with Shoe Boxes at Christmas"** Social Welfare Campaign for rural elementary schools
- "Walk From Heart"** Charity Brisk Walking and Step-counting Campaign

|Sustainable Management



A. Sustainability Management Framework

B. Sustainability Committee

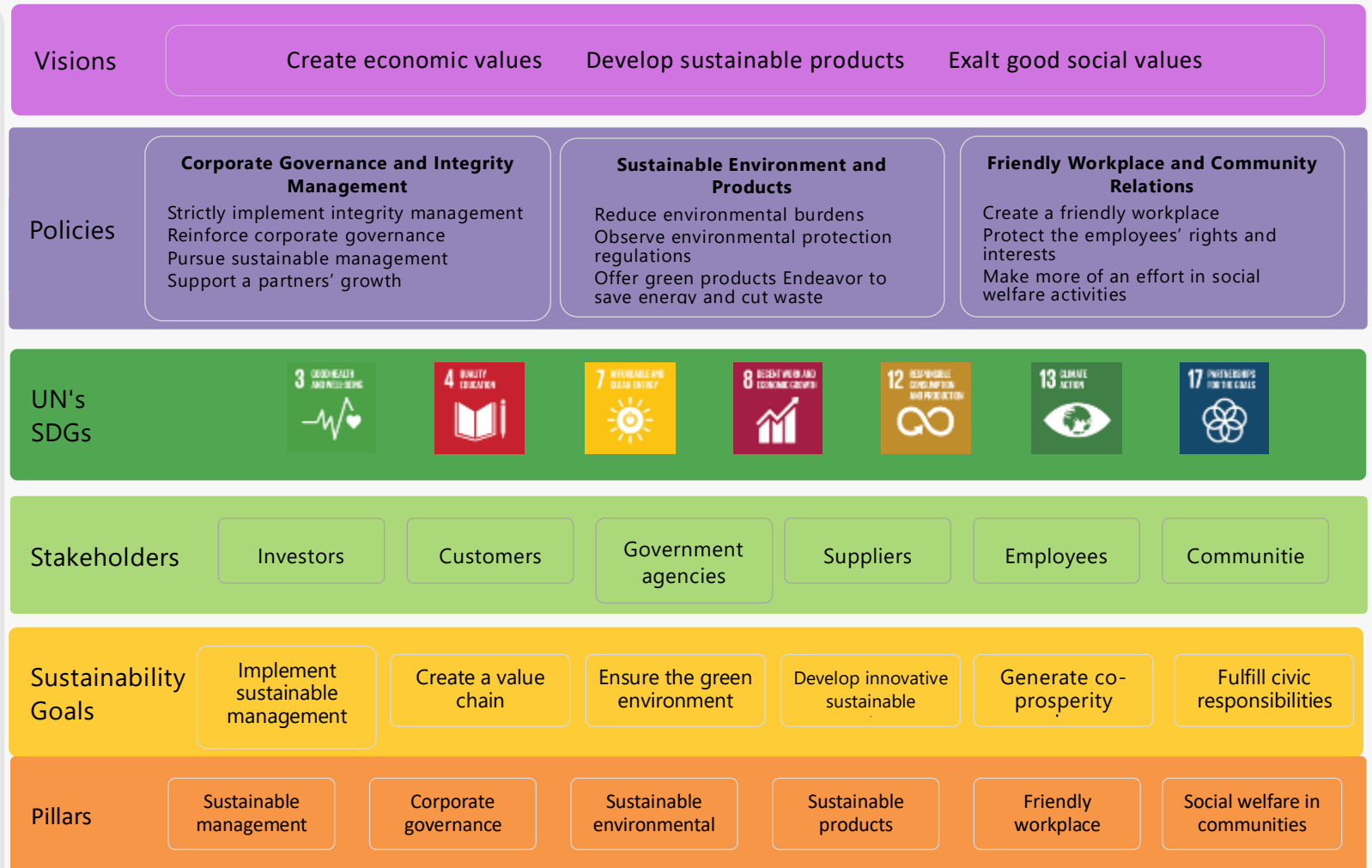
C. Response to UN Sustainable Development Goals

D. Stakeholder Communication

A. Sustainable Management Framework

Zyxel Group's sustainable management framework is based on our visions and integrated with our sustainability policies. We supervise sustainability matters and formulate and execute strategies through the Company's management platforms, such as the Board of Directors, Advisory Committee and Sustainability Committee.

The Sustainability Committee responds to the UN's SDGs and analyzes and identifies the material issues of the main stakeholders' concern, e.g., investors, customers, government agencies, suppliers, employees, and communities, thereby setting the Company's sustainable development goals. Our sustainability policies are implemented on the basis of our five main sustainability focuses, namely sustainable management, corporate governance, environmental protection, sustainable products, and friendly workplace and social welfare in communities.



Sustainable Policies

Zyxel Group takes the creation of economic value, sustainable product development, and promotion of good social value as its corporate vision. Through international regulations and guiding principles and the operation strategy of senior executives, Zyxel Group has gradually formulated sustainable development policies. Based on these standards, Zyxel Group creates economic benefits to support the best interest of its shareholders. Moreover, it respects the value of the community, not only by supporting the neighborhood in addressing pollution and energy issues, but also by encouraging similar commitment by its suppliers and employees.

Corporate Governance & Ethics

- Observe laws and regulations with improper interests, corruption, bribery, etc. strictly prohibited.
- Strengthen corporate governance with disclosed information, best interests of shareholders and implementation of international initiatives and standards.
- Pursue the goal of sustainable operation, pay attention to the rights and interests of all stakeholders, and continue to contribute to society.
- Help business partners to grow and build a responsible

Vision and Policies



Sustainable Environment and Products





- Bring less impact to the environment
- Comply with environmental regulations
- Provide green products
- Save energy and reduce waste

Friendly workplace and community relations





- Establish a friendly workplace with a good working environment and care to the physical and mental health and career development of employees.
- Protect the rights and interests of employees by creating a diverse and inclusive workplace, avoiding any discrimination, bullying and harassment at work.
- Focus on public welfare activities, social care and a harmonious society.

Material Issues Strategies and Goals








Governance/Economic Aspect

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Corporate governance	The Company's sustainable management goals can be achieved	<ul style="list-style-type: none"> Development of an effective corporate governance framework and control mechanism to enhance the function of the governance framework 	Ranking in the corporate governance evaluation	Remain among the top 21%~ 35% in the corporate governance evaluation	Remain/rank higher among the top 21%~35% in the corporate governance evaluation	
Business ethics	To create a business environment with sustainable development, unethical behavior must be prevented from endangering customer trust and causing business loss	<ul style="list-style-type: none"> Formulation of business ethics policies and regulations Shaping the corporate culture on the basis of "integrity" and conducting ethical education and training Implementation of moral hazard assessment and monitoring through internal control, self-evaluation, and auditing 	<ul style="list-style-type: none"> Education and training completion rate Number of material business ethics violations 	<ul style="list-style-type: none"> Achieve a completion rate of > 98% for business ethics education and training Ensure zero material business ethics violation 	<ul style="list-style-type: none"> Achieve a completion rate of 100% for business ethics education and training Ensure zero material business ethics violation 	 <p>Employment and economic growth</p>
Information security	The confidentiality of the information assets is ensured in compliance with the laws to gain customer trust	<ul style="list-style-type: none"> Identify information security management risks to avoid the impact of information security incidents Improve the employees' awareness and knowledge of information security 	<ul style="list-style-type: none"> Number of material information security incidents Online course completion rate Certificate acquisition 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of >98% for online courses on business secret protection laws and regulations The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of 100% for online courses on business secret protection laws and regulations Acquire the ISO 27001 certificate every year 	
Customer relationship management	Customer satisfaction and trust can be built for higher profits	<ul style="list-style-type: none"> Maintain smooth and effective communication with customers Adopt a rigorous product quality control mechanism Implement the customer information protection mechanism 	<p>Customer satisfaction score: MitraStar 10, ZNet 5</p> <p>Coverage of Business Secrets Protection Course</p>	<p>Customer satisfaction score: MitraStar >9.0, ZNet >4.3</p> <p>Coverage of Business Secrets Protection Course:>99%</p>	<p>Customer satisfaction score >9.5</p> <p>Coverage of Business Secrets Protection Course:>99.5%</p>	 <p>Partnerships for the goals</p>
Sustainable supplier	Sustainable supplier management can deepen the partnership with the supply chain and put into practice the Company's sustainability values	<ul style="list-style-type: none"> Realize a supply chain sustainability management model Build sustainable supply chain partnerships 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment Supplier ESG Education and Training Key Suppliers' acquisition of ESG-related certificates 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment: >80% for MitraStar Technology; 100% for Zyxel Communications/Zyxel Networks Supplier ESG Education and Training: MitraStar 80% ZNet/Zyxel 100% Coverage of key suppliers acquiring the ISO14064-1 certificate for their organizational GHG inventories: 80% for MitraStar Technology; 100% for Zyxel Communications; 100% for Zyxel Networks 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment: >90% Zyxel Communications/Zyxel Networks: 100% Supplier ESG Education and Training: 100% Percentage of key suppliers acquiring the ISO14064-1 certificate for their organizational GHG inventories: 75% for MitraStar Technology; 100% for Zyxel Communications/Zyxel Networks 	 <p>Employment and economic growth</p>  <p>Partnerships for the goals</p>

Environmental Aspect

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Climate strategy	By grasping the risks and opportunities of climate change, the Company can monitor the operational strategies and financial planning and mitigate the financial impact brought about by climate risks.	<ul style="list-style-type: none"> • GHG reduction • Enhancement of climate change resilience 	<ul style="list-style-type: none"> • Setting of targets using the SBTi's Absolute Emissions Contraction approach • Number of days of interrupted production due to climate-related disasters 	<ul style="list-style-type: none"> • Achieve an annual carbon reduction target of 4.2% (corresponding to a temperature rise of 1.5°C) • Ensure zero production interruption due to climate-related disasters 	<ul style="list-style-type: none"> • Achieve an annual carbon reduction target of 4.2% (corresponding to a temperature rise of 1.5°C) • Ensure zero production interruption due to climate-related disasters 	 <p>Climate action</p>
Energy management	To support sustainable management, we carry through our visions of environmental protection and energy saving, reduce GHG emissions, and cut energy costs	Increase energy efficiency	Achievement of energy saving targets	<ul style="list-style-type: none"> • MitraStar Technology Save 100,000 kWh of electricity (a reduction of 50 tons CO2e) • Zyxel Communications: Reduce the electricity consumption of the cooling towers by 15,000 kWh (a reduction of 8,310 metric tons CO2e) 	<ul style="list-style-type: none"> • MitraStar Technology Perform additional energy measures to achieve a reduction of 20 million kWh in the electricity consumption from 2015~2030 	 <p>Climate action</p>  <p>Affordable energy</p>
Green product	We increase the sustainable value of our products and stay engaged in the R&D and design of green products to develop a capability to design products with less environmental impact	Creation of green product design guidelines and inspection forms	<ul style="list-style-type: none"> • Creation of documents for product carbon footprint procedures • Setting short-term, medium-term, and long-term green design goals 	<ul style="list-style-type: none"> • Establish design guidelines to ensure eco-friendly packaging, product energy efficiency, easy disassembly and recyclability, and the use of sustainable materials and parts/components • Use non-plastic bags, energy-efficient software and hardware that can be disassembled easily, PCR plastics, and 100% recyclable paper packaging materials for green products to be shipped • Create a standardized product carbon footprint format 	Apply the green product design to all products to be shipped	 <p>Responsible consumption and production</p>

Social Aspect

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Talent attraction and retention	Attraction and retention of outstanding employees can help boost operating performance	<ul style="list-style-type: none"> Gain a grasp of the current salary trends in the market to offer overall competitive remuneration Provide multiple and smooth employee communication channels 	<ul style="list-style-type: none"> Employee turnover rate Complaints made through the employee communication channels 	Indirect employee turnover rate: < 20%	Indirect employee turnover rate: < 20%	 Gender equality  Employment and economic growth
Talent training and development	A wide range of talent training programs will attract outstanding employees to stay	<ul style="list-style-type: none"> Offer diverse talent training programs 	<ul style="list-style-type: none"> Completion rate of personal development programs for potential talent Completion rate and satisfaction of professional skill training programs 	<ul style="list-style-type: none"> A completion rate of 80% for personal development programs for potential talent A potential talent retention rate of 90% A completion rate of 100% and a satisfaction score of 4 or higher for professional skill programs 	<ul style="list-style-type: none"> A completion rate of 90% for personal development programs for potential talent A potential talent retention rate of 90% A completion rate of 100% and a satisfaction score of 4.3 or higher for professional skill programs 	 Quality education
Human rights management	Human rights can be maintained to create a sustainable workforce	<ul style="list-style-type: none"> Human Rights Protection Promote the concept of human rights 	<ul style="list-style-type: none"> Number of material violations of the laws Completion rate of human rights-related courses 	<ul style="list-style-type: none"> Ensure zero material violation of the laws Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 95% for courses on employee sexual harassment prevention 	<ul style="list-style-type: none"> Ensure zero material violation of the laws Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 97% for courses on employee sexual harassment prevention 	 Gender equality  Employment and economic growth
Occupational safety and health	The Company can ensure continuous operations and steady growth in a work environment with safety as a priority	<ul style="list-style-type: none"> Promote an occupational safety culture Give safety awareness education Implement preventive management 	<ul style="list-style-type: none"> Occupational safety course coverage Number of occupational accidents Occupational injury frequency Management system verification 	<ul style="list-style-type: none"> Course coverage > 95% Occupational accidents = 0 Occupational injury frequency = 0 Pass the ISO45001 certification process 	<ul style="list-style-type: none"> Occupational safety course coverage > 98% Occupational accidents = 0 Occupational injury frequency = 0 Pass the ISO45001 every year 	 Employment and economic growth
Social engagement	Activities help to build good relationships with communities and enhance their corporate images	Organize social welfare activities in support of Zyxel Group's long-term carbon neutrality goal	Number of participants in the activities	Have over 2000 people in the Company and community participate in the carbon reduction and environmental protection campaigns or lectures hosted by the Company every year	Have over 5000 people in the Company and community participate in the carbon reduction and environmental protection campaigns or lectures hosted by the Company every year	 Climate action

B. Sustainability Committee

Zyxel Group takes the Zyxel Group Sustainability Policy as our highest guiding principle for our sustainable development, and has established the Zyxel Group Sustainability Committee as the highest-level management for the planning, implementation, and supervision of our sustainable development strategy. The Zyxel Group Sustainability Committee formulates policies and goals for its three subsidiaries to operate sustainably. It discloses the vision and mission of sustainable development, sees to it that the subsidiaries carry out operations sustainably, and regularly reviews the implementation results.

The Zyxel Group Sustainability Committee is composed of Board of directors, senior executives, and members of relevant departments. The members include Zyxel Group and its three subsidiaries Zyxel, ZNet, and MitraStar. This steering committee acts as a strategic guidance unit. The chairman of Zyxel Group serves as the committee chairman to supervise the sustainability work and report to the board of directors about the subsidiaries' implementation of sustainable operations.

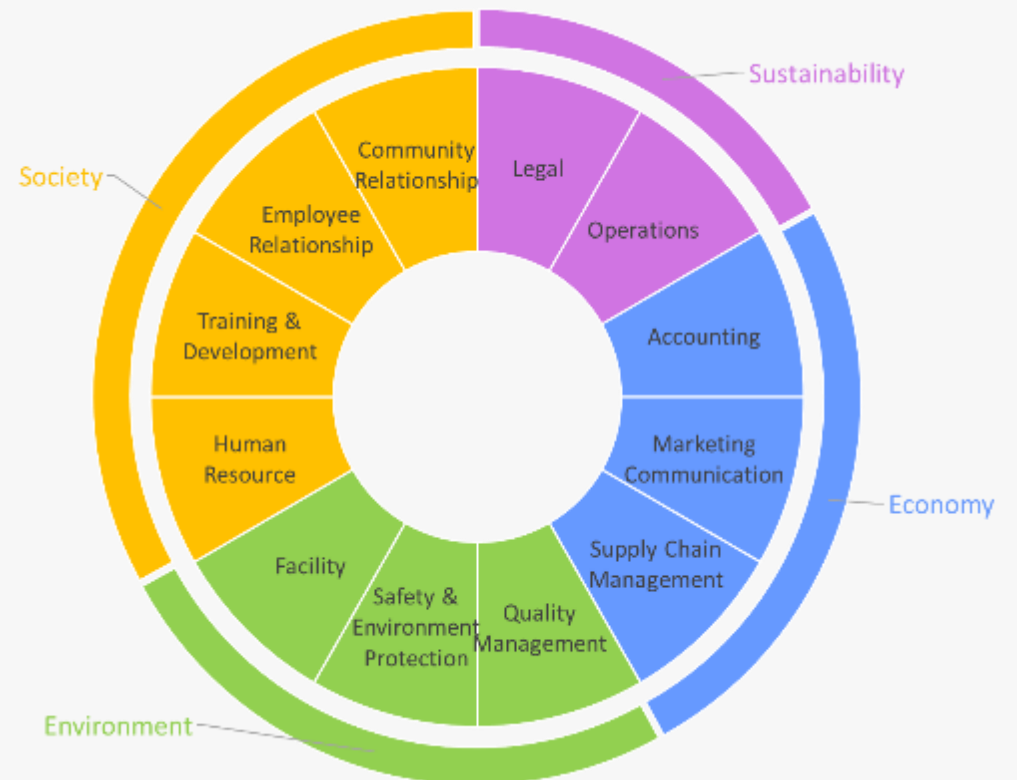
In 2022, the former Chief Operating Officer of Zyxel Communications was appointed as the dedicated Chief Sustainability Officer. The establishment of the "Sustainability Office" followed, overseeing and supervising sustainability initiatives, reporting to the board of directors, and providing guidance to subsidiary companies on their various sustainability efforts.

The "Sustainability Office" has a Corporate Communication and Planning Group which is responsible for resource integration, communication, and coordination between Zyxel Group and the three subsidiaries. It guides the implementation of the strategy of the committee from above and communicates with each executive team from top to bottom to enforce policies in a horizontally cascaded manner.

The Zyxel Group Sustainability Committee is composed of a number of sustainability working groups, headed by the top managers of relevant departments, who set annual and long-term goals, implement sustainable operations, and regularly report implementation results.

The Zyxel Group Sustainability Committee holds weekly reports where the sustainability working groups take turns to have dialogues, discuss with the Sustainability Manager, review the implementation status of related businesses, and check for continuous improvements. All of the sustainability working groups also report to the chairman of the steering committee every month to review the short, medium, and long-term sustainability goals and the blueprint for sustainable development. At the quarterly board meeting, the chairman of the steering committee and the communications team report to the directors on major decision-making issues, sustainability plans, and work progress.

The Sustainability Committee also releases ESG newsletters to promote our ESG initiatives and accomplishments to employees and customers, as well as providing ESG knowledge education. Additionally, in accordance with the functions of the committee's working groups, educational training is arranged periodically to progressively integrate sustainability principles and practices into the DNA of employees, thereby fostering a company culture that collectively achieves our sustainability objectives.



The chairman of the steering committee and the communications team report to the directors on major decision-making issues, sustainability plans, and work progress.

Sustainability Committee Structure

Board of Directors

- Supervise enterprises to practice sustainable development
- Ensuring the implementation of sustainable development policies

Steering Committee

Chairman: Shu-I Chu Zyxel Group
 Member: Gordon Yang Zyxel Group CEO
 Member: Wayne Hwang MitraStar President
 Member: Karsten Gewecke Zyxel President

- Strategic Guidance Unit
- Oversee sustainability work and report to the board

Key Work Items of the Sustainability Committee in 2022

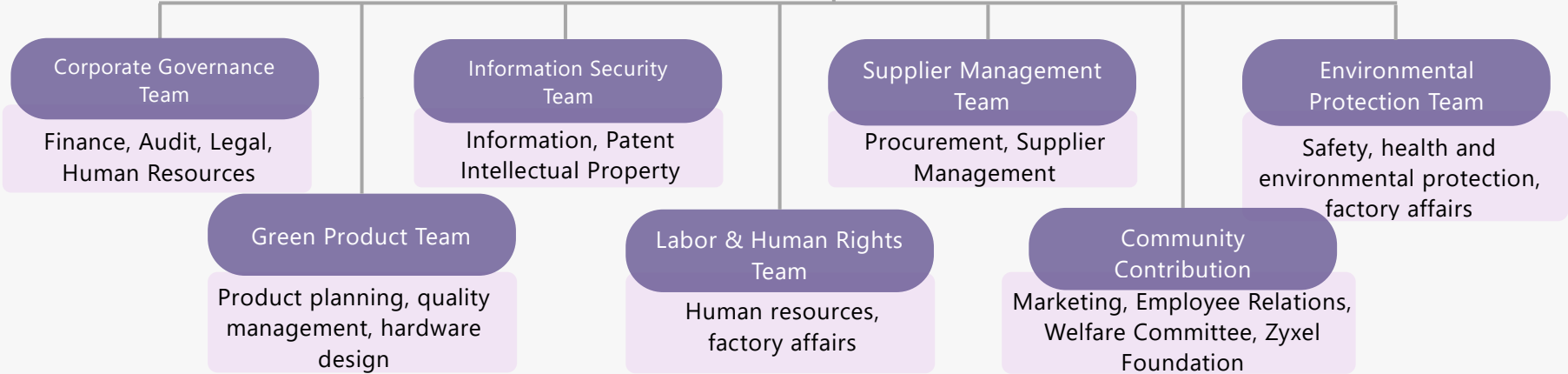
- Expert guidance for ESG (Environmental, Social, Governance) improvement projects.
- Stakeholder-focused issue questionnaire survey.
- "TCFD Scenario Analysis and Financial Estimation of Climate Change-Related Risks and Opportunities" project.
- Establishment of product carbon footprint calculation platform.

the "Sustainability Office"

CSO: Denise Lin
 Execution of Strategic Initiatives by Steering Committee.
 Communication Among Various Execution Teams.
 Top-down and Cross-functional Alignment in Strategic Execution

Communication and Planning Team
 Marketing

Audit team
 Quality Management · HR · Procurement · EHS



C. Response to UN Sustainable Development Goals



The United Nations passed its Sustainable Development Goals (SDGs) which set up 17 targets related to global sustainable development. Zyxel Group combines the major issues of its stakeholders through its sustainable development goals: implementing sustainable management, creating value chain, sustainable green environment, innovating sustainable products, creating common prosperity value and fulfilling civic responsibilities, actively respond to the relevant 7 SDG United Nations Sustainable Development Goals and list them as our promotion strategy and short, medium and long-term goals. The relevant implementation contents of this year are as follows:

Corporate Governance



- 99.8% completion rate of training on ethics and compliance
- 0 major cases of violations of business ethics
- 0 case of major violations

Environment Protection



- Conduct GHG Scope 1 ~ Scope 3 inventory, and obtained ISO14064 certificate
- 95.839 tons of CO2e emissions reduction in 2022

Employee Development & Care



- 100% completion rate of personal development plan for potential talents
- The retention rate of potential talents is 96%
- 100% completion rate of professional skills courses & 4.3 points for employee satisfaction

Value Chain



Require all partners to establish business relationships on the foundation of mutual trust and compliance to the law.



- The waste recycling rate of MitraStar Hsinchu site is 94%
- No violation of environmental protection laws and regulations



- 99.8% completion rate of human rights-related new training courses
- 99.8% completion rate of employee sexual harassment prevention courses



- Suppliers signed the CSR statement and commitment letter: Zyxel / ZNet 100% MitraStar 73.93%
- Suppliers signed the integrity commitment letters: Zyxel, ZNet 100% MitraStar 73.93%
- Promote the sustainable development of suppliers, and require suppliers to pay attention to their carbon footprint with a green supplier audit process.

Green Products & Supply Chain



Make energy-saving products to decrease power consumption to help customers reduce energy costs and enhance usability.



Take care of disadvantaged people in the area by offering children and senior citizens necessary resources, and financial assistance.



Build a "green cooperative information system" to control each stage from the suppliers of raw materials, production, manufacturing, and transport to usage and disposal to ensure all green requirements are met.



Invest a high percentage of revenue on research and development for fostering potential talent and the community.



Work with government agencies to support natural area preservation, green environment, and resource recycling activities.

D. Communication with Stakeholders

For the management of the issues of stakeholders' concern, Zyxel Group has a stakeholder management procedure in place. Through stakeholder identification and issue analysis, key stakeholders are identified to assess their impact on operations. Annual management objectives and procedures are set, communication channels are established, and plans for improving stakeholder relations are devised. A report on the annual outcomes of communicating significant stakeholder concerns is presented to the board of directors each year. These achievements are published on the website and in the sustainability report, enhancing corporate responsibility towards stakeholders.

Stakeholder Concerns Survey Project

To gain a more comprehensive understanding of our stakeholders and their concerns about the company, we initiated the "Stakeholder Concerns Survey Project" from 2021 to 2022. We began by providing training to the HEQ Investment and Control Sustainability Committee on conducting stakeholder surveys. Using their feedback on company concerns as a foundation and considering questionnaires from GRI, CDP, DJSI, and others, we designed two types of surveys. One focused on the impact of sustainability issues on operations for company executives, and the other gauged stakeholder interest in sustainability issues. Additionally, an English version of the surveys was created for use by overseas colleagues, international suppliers, and customers.

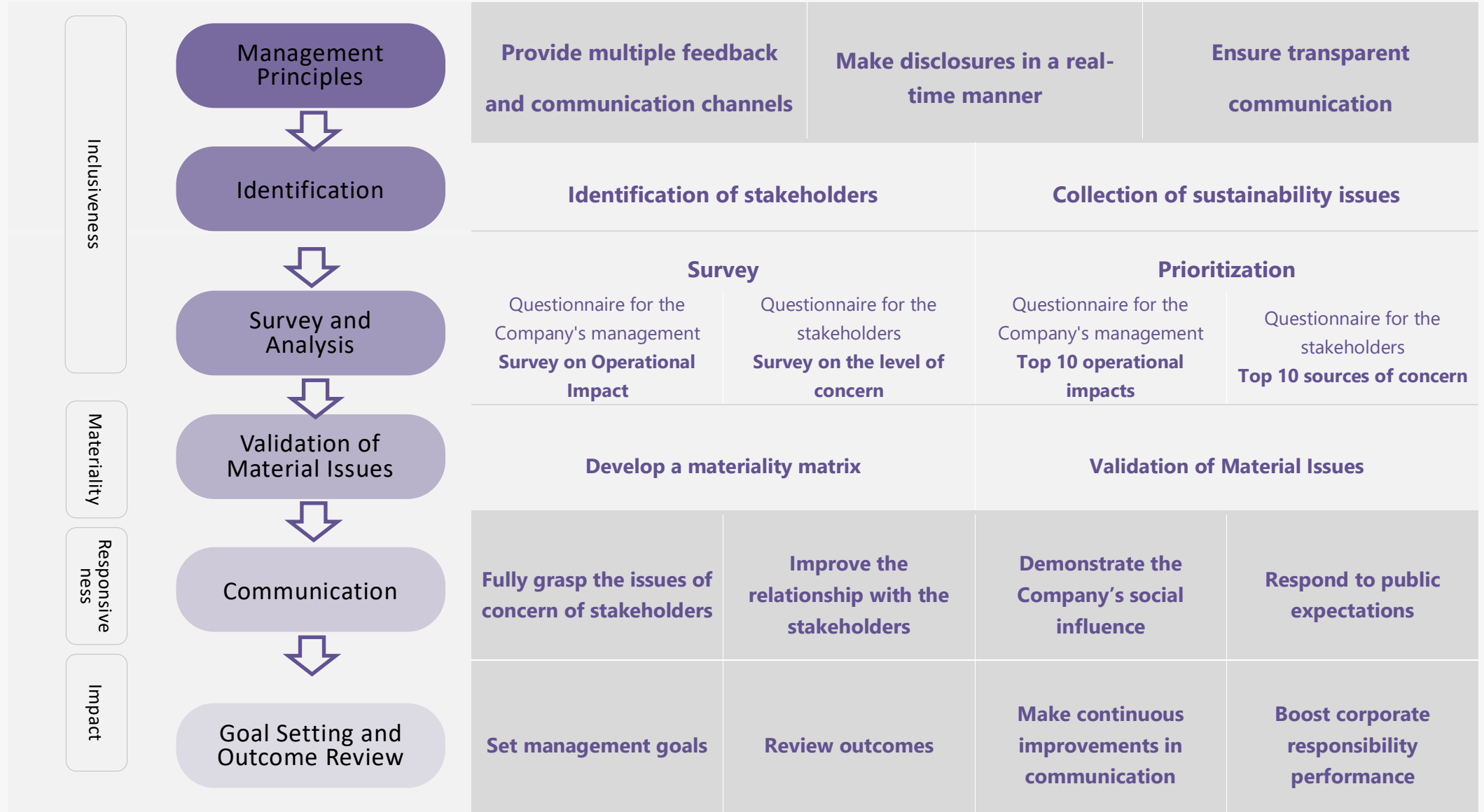


In 2022, a total of 13 major concern topics were identified as sustainability issues relevant to operations.

Stakeholder Online Questionnaire Survey

Zyxel Group values feedback from various stakeholders. To facilitate this, we have established a "Stakeholder Online Questionnaire" on our official website. This platform allows us to regularly gather concerns and issues that stakeholders have regarding our company. Our dedicated team is responsible for managing these responses, and we collaborate with relevant departments to assess and provide responses. From June 2022 to June 2023, a total of 160 questionnaires were collected. Through the analysis of these questionnaire responses, we evaluated the significant concerns that stakeholders have regarding HEQ Investment and Control. Notably, there were no changes in these concerns compared to the previous year.

1. Stakeholder Management Procedure



Step 1. Identification of Material Issues

Identification

Identification of Stakeholders: Zyxel Group identified operational stakeholders who are internal or external individuals or groups that influence the Company or are influenced thereby in the Company's economic, environmental, or social aspects pursuant to the "AA1000 Stakeholder Engagement Standard (SES)". Based on the "Zyxel Group Group Sustainability Committee's feedback on the main stakeholders of the Company at the ESG consensus meeting, six main stakeholder groups were eventually identified, including the investors, employees, suppliers, customers, government agencies, and communities.

Collection of Sustainability Issues: To ensure a comprehensive settlement of sustainable development issues, 26 initial issues were derived based on the feedback from the 52 members of the "Zyxel Group Group Sustainability Committee" on issues of concern of the Company's main stakeholders at the ESG consensus meeting along with the SDGs, GRI and SASB Standards, and the disclosure issues in the CDP Climate Change Questionnaire and DJSI Questionnaire, which we took as a reference. These issues include eight governance issues, six economic issues, six environmental issues, and six social issues and they were used as a basis for the analysis of material issues.

Feedback from **52**
Sustainability
Committee Members
+
SDGs
+
GRI、SASB
+
CDP、DJSI

6 Main
Stakeholder
Groups
Investors
Employees
Customers
Suppliers
Contractors
Government
Agencies
/Communities

26 Initial Sustainability Issues

8	6	6	6
Governance Issues	Economic Issues	Environmental Issues	Social Issues
Corporate governance	Financial performance	Climate strategy	Talent attraction and retention
Business ethics	Innovative management	Energy management	Workplace of diversity and inclusion
Risk and crisis management	Product quality	Green product	Workplace of diversity and inclusion
Legal compliance	Sustainable supplier	Water resource management	Talent training and development
Brand value	Material procurement	Waste management	Human rights management
Information security	Customer relationship	Biodiversity	Occupational safety and health
Privacy protection			
Tax affairs			



Step 2. Material Issue Survey and Analysis

Analysis

Survey: Two sets of questionnaires about “the Company’s management’s opinions on the impact of sustainability issues on the operation’s” and “the level of stakeholders’ concern about the sustainability issues” were designed. Their English versions were also available for our overseas employees and foreign suppliers and customers.

The questionnaires were sent by the relevant teams subordinate to the Sustainability Committee to the six stakeholder groups according to their “interaction frequency”, “influence”, and “level of concern”, with their “representativeness” taken into account. By doing so, we not only demonstrated the Company’s attention to the opinions of the stakeholders, but also increased stakeholder interaction, creating an image of the Company expressing deep concern over the sustainability issues.

Prioritization: The analysis method for the “questionnaire for the Company’s management”: Top 5 and top 10 issues were arranged in order of the number of checks by operational aspect. The analysis method for the “questionnaire for the stakeholders”: Top 5 and top 10 issues were arranged in order of average score.

Evaluate **26** Sustainability Issues

8 governance issues

6 economic issues

6 environmental issues

6 social issues

Survey on Operational Impact

Internal Questionnaire for the Company's Management

4 operational impacts

Business Growth Customer Trust

Talent Retention Risk Response

286 questionnaires/ 200

respondents with a response rate of

70%

Survey on the Level of Concern

Questionnaire for the External Stakeholders

 338 Employees	 133 Suppliers	 24 Customers
 15 Contractors	 12 Investors	1 from Government Agencies/3 from Communities 1 from the Media/3 from Other Sectors 5 from Academic Institutions

790 questionnaires/ 535 respondents

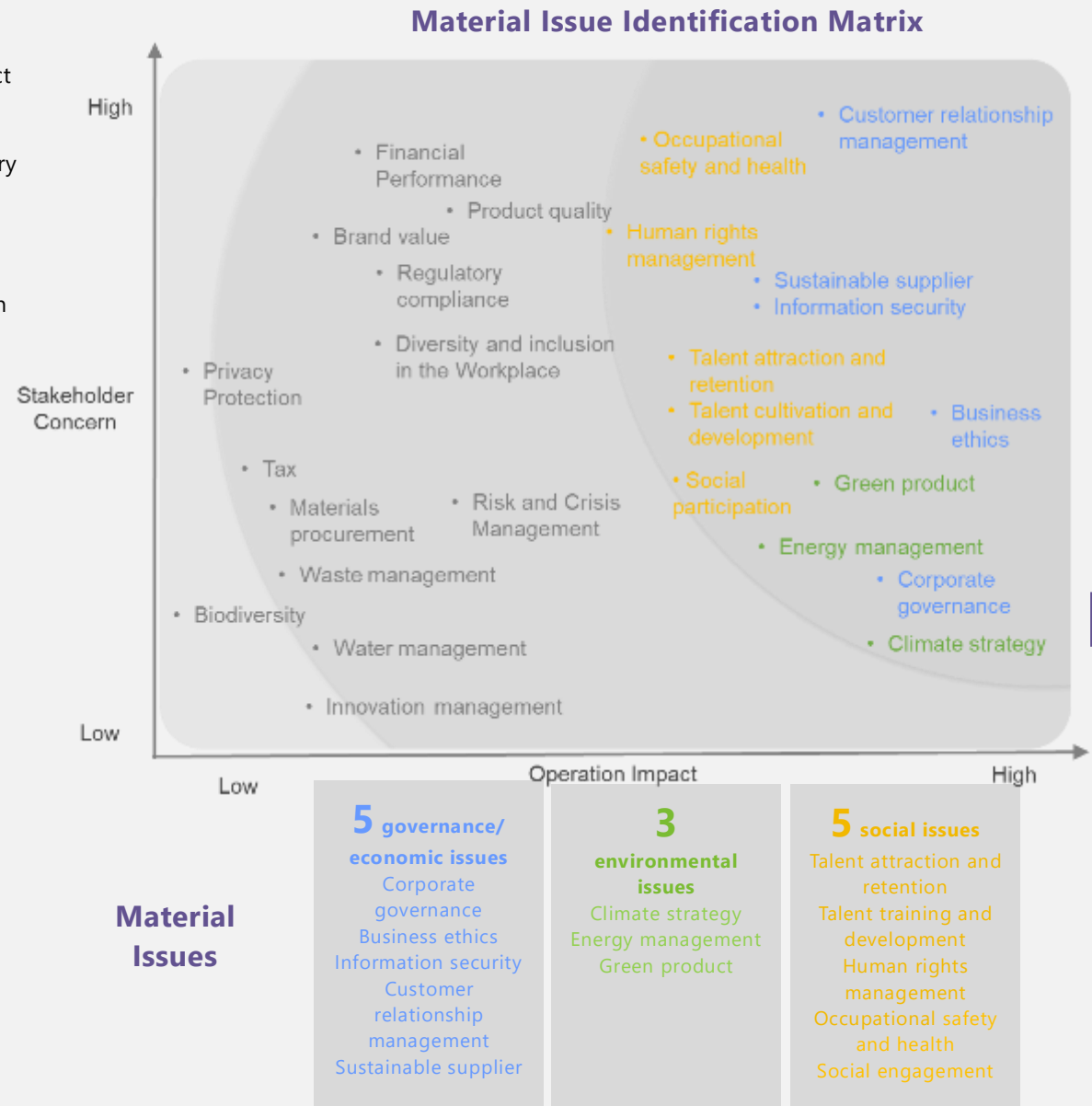
with a response rate of 67%

Step 3. Validation of Material Issues to Be Disclosed

In an attempt to understand the Company’s governance, economic, social, and environmental issues of the stakeholders’ concern, a materiality matrix was analyzed based on the issues’ operational impact and the stakeholders’ level of concern about the issues. A discussion with the “Zyxel Group Sustainability Committee” on the analysis result took place to identify issues of material concern and of secondary concern and use them as a reference for the Company’s CSR implementation work plans.

The 13 material issues correspond to the topics of the GRI Standards. Information on the issues of the stakeholders’ concern was disclosed in accordance with the GRI Standards.

We assessed the impact of each material issue on the operations to formulate strategies, develop management policies, and set 2025 medium-term and 2030 long-term goals. Annual achievements for the goals are reviewed every year for performance tracking and review.



Step 4. Communication Channel and Grievance Mechanism

Communication

Zyxel Group identifies stakeholders and integrates stakeholders' concerns into the annual plan.

Zyxel Group's stakeholders include investors, employees, suppliers, customers, government and communities. We have certain responsibilities to our stakeholders and communicate through various channels to understand their needs. The communication channels and activities with our stakeholders are described in the table below.

All stakeholders are invited to visit the CSR pages on the Zyxel Group website to learn the details about how the company handles the issues, or they can write to the CSR mailbox for direct feedback or suggestions.

- **Zyxel Group CSR contact e-mail:** csr@zyxelgroup.com
- **Zyxel Group Website:** www.zyxelgroup.com



Appeal

In order to protect stakeholders' rights, to advance communication with stakeholders, and to enhance corporate governance, we have established internal and external grievance mechanisms to fight corruption and provide a channel for stakeholders to communicate about the supply chain's social, human rights, and environmental issues. The cases handled by the personnel in charge will be transferred to the specific internal authorities.

For Internal stakeholders:

Human Resources Department

Whistleblower email address: care@zyxelgroup.com

For External stakeholders:

Audit Office

Whistleblower email address: audit@zyxelgroup.com

A whistleblower email address has been posted on the company website. The Internal Audit Unit and investigation team will set up a case in response to each complaint and maintain a file log. All complaints are kept strictly confidential. Zyxel Group will take all necessary steps to protect the informant and personnel participating in the investigation from retaliation or unfair treatment.

Material Issues for Operational & Value Chain Impact

Aspect	Major Issue	Operational Impact				Value Chain			GRI Standards	SASB Index	Chapter
		Revenue	Customer Satisfaction	Employee Recognition	Risk	Upstream Supplier	Corporate Operation	Downstream Customer			
Governance /Economic	Corporate governance	•	•	•	•		•		201-1, 207-1, 207-2, 405-1,415-1		Corporate Governance
	Business ethics				•		•		205-1~3,206-1		Business Ethics
	Information Security		•		•		•	•	418-1		Information Security Management
	Customer relationship management	•	•		•		•	•	418-1		Customer Relations
	Sustainable supplier	•	•		•	•	•		204-1 ,308-2 ,408-1 ,414-2	TC-HW-430a.1 TC-HW-430a.2 TC-HW-440a.1	Supplier Sustainability Management
Environment	Climate strategy		•		•	•	•	•	201-2 ,305-1~305-4, 305-6~305-7		Climate Change
	Energy management		•		•		•		302-1, 3~4	TC-ES140a.1 TC-ES150a.1	Energy management
	Green product	•	•		•		•	•	302-5 ,416-2		Green Products
Society	Talent attraction & retention			•	•		•		201-1 ,201-3 ,401-1 ,401-2,401-3 ,405-1		Diversity and Inclusion Recruitment
	Talent cultivation & development			•	•		•		404-1,404-2 ,404-3		Human Capital Development
	Human rights management			•	•	•	•		402-1 ,406-1 ,407-1 ,408-1 ,409-1	TC-ES310a.1	Human rights management
	Occupational Safety & Health			•	•	•	•		401-2 ,403-1~10	TC-ES-320a.1	Workplace Health & Safety
	Social Participation			•			•		203-1 ,203-2		Community Contribution

Major Issues Boundaries

Aspect	Major Issue	GRI Standards	Chapter	Company internal boundaries					Company external boundaries		
				Zyxel Group	Zyxel	ZNet	MitraStar	overseas subsidiaries	Customer	Supplier	Governance/Community/School
Governance / Economic	Corporate governance	201-1, 207-1, 207-2, 405-1, 415-1	Corporate Governance Diverse and Inclusive Employment	•	•	•	•	•			
	Business ethics	205-1~3, 206-1	Business Ethics	•	•	•	•	•			
	Information Security	418-1	Information Security Management	•	•	•	•				
	Customer relationship management	418-1	Customer Relations		•	•	•		•		
	Sustainable supplier	204-1, 308-2, 414-2	Supplier Sustainability Management		•	•	•			•	
Environment	Climate strategy	201-2, 305-1~305-4, 305-6~305-7	Climate Change	•	•	•	•				
	Energy management	302-1, 3~4	Energy management	•	•	•	•				
	Green product	302-5, 416-2	Green product		•	•	•		•	•	
Society	Talent attraction & retention	201-1, 201-3, 401-1, 401-2, 401-3, 405-1,	Diversity and Inclusion Recruitment	•	•	•	•	•			
	Talent cultivation & development	404-1, 404-2, 404-3	Human Capital Development	•	•	•	•	•			
	Human rights management	402-1, 406-1, 407-1, 408-1, 409-1	Human rights management	•	•	•	•	•			
	Occupational Safety & Health	401-2, 403-1~10	Workplace Health & Safety	•	•	•	•				
	Social Participation	203-1, 203-2	Community Contribution	•	•	•	•				

Actions & Communication Channels for Stakeholder Topics of Concern

Stakeholder	Issues of concern	Communication channel	Frequency	Actions	Outcome in 2022	Disclosure chapter
Investor	Corporate governance	<ul style="list-style-type: none"> Zyxel Group shareholders' meeting Zyxel Group company annual report/sustainability report Zyxel Group Investor Conference Zyxel Group company website: investor relations webpage Spokesman Market Observation Open System 	Every year	<ul style="list-style-type: none"> Provide investors with appropriate investment returns Provide timely and accurate financial information Releases important information on the Market Observation Open System 	<ul style="list-style-type: none"> in 2022, the Company's operating income totaled NT\$ 30.516 billion; the gross margin was 23.60%; an after-tax profit of NT\$1.627 billion was made; and the EPS was NT\$3.872 Achievements in Sustainable Development Initiatives in 2022. Sustainable Development Action Plan for 2023. Establishment of Risk Policy and Procedures. Stakeholder Concerns Survey Project Report. Progress Report on the "TCFD Scenario Analysis and Financial Estimation of Climate Change-Related Risks and Opportunities" Project. 	Governance Structure
	Business ethics		Quarterly			Business Ethics
Government	Corporate governance	<ul style="list-style-type: none"> Association of Science Park Industries Government department communication meetings Government seminars and public hearings 	Aperiodic	<ul style="list-style-type: none"> Comply with regulation Join promotions and activities Build communications channels with government Official correspondences and visits Seminar / Conferences 	<ul style="list-style-type: none"> Join Hsinchu Science Park Industrial Safety and Environmental Protection Month Series Activities No major violations of the law 	Governance Structure
	Business ethics					Business Ethics
Customer	Human rights management	<ul style="list-style-type: none"> Quarterly business meetings Customer online service system customer audit Email discussion 	Periodic	<ul style="list-style-type: none"> Online courses on legal regulations for the protection of business secrets Customer Satisfaction Survey Customer Service Online System Provide high-quality products Committed to the research and development of environmentally friendly products and technologies Cooperate with customers' specifications for environmentally friendly products Conflict Minerals Investigation 	<ul style="list-style-type: none"> Coverage Rate of Business Confidentiality Protection Law Course: 99.8% Customer satisfaction rating: MitaStar 9.49 out of 10 points, ZNet 4.28 out of 5 points Continuously optimize the customer service online system Conflict Minerals Investigation: MitraStar: 47companies; Survey coverage rate: Zyxel 99.19%/ ZNet 99.54% 	Human Rights Management
	Occupational Safety & Health		Workplace Health & Safety			
Customer	Information Security	<ul style="list-style-type: none"> Quarterly business meetings Customer online service system customer audit Email discussion 	Periodic	<ul style="list-style-type: none"> Online courses on legal regulations for the protection of business secrets Customer Satisfaction Survey Customer Service Online System Provide high-quality products Committed to the research and development of environmentally friendly products and technologies Cooperate with customers' specifications for environmentally friendly products Conflict Minerals Investigation 	<ul style="list-style-type: none"> Coverage Rate of Business Confidentiality Protection Law Course: 99.8% Customer satisfaction rating: MitaStar 9.49 out of 10 points, ZNet 4.28 out of 5 points Continuously optimize the customer service online system Conflict Minerals Investigation: MitraStar: 47companies; Survey coverage rate: Zyxel 99.19%/ ZNet 99.54% 	Information Security Management
	Customer relationship management		Customer Relations			
Customer	Sustainable supplier	<ul style="list-style-type: none"> Quarterly business meetings Customer online service system customer audit Email discussion 	Aperiodic	<ul style="list-style-type: none"> Online courses on legal regulations for the protection of business secrets Customer Satisfaction Survey Customer Service Online System Provide high-quality products Committed to the research and development of environmentally friendly products and technologies Cooperate with customers' specifications for environmentally friendly products Conflict Minerals Investigation 	<ul style="list-style-type: none"> Coverage Rate of Business Confidentiality Protection Law Course: 99.8% Customer satisfaction rating: MitaStar 9.49 out of 10 points, ZNet 4.28 out of 5 points Continuously optimize the customer service online system Conflict Minerals Investigation: MitraStar: 47companies; Survey coverage rate: Zyxel 99.19%/ ZNet 99.54% 	Supplier Sustainability Management
	Green product					Green Product


Stakeholder	Issues of concern	Communication channel	Frequency	Actions	Outcome in 2022	Disclosure chapter
Supplier/ Contractor	<ul style="list-style-type: none"> Business ethics Sustainable supplier Occupational Safety & Health 	<ul style="list-style-type: none"> Supplier survey Supplier on-site audit Provide supplier the training materials Green Management System 	Every year or aperiodic	<ul style="list-style-type: none"> Implementation of Systematic Counter-signing Documentation Mandating Suppliers to Adhere to Code of Conduct Supplier signs social responsibility statement and commitment letter Supplier signs the integrity commitment letter Supplier Social Responsibility Assessment Survey Conduct supplier on-site audits Supplier Conflict Minerals Investigation "Green product management system" to assist suppliers in complying with all green regulations 	<ul style="list-style-type: none"> Completion of Systematized Counter-signing Documentation Supplier Code of Conduct Adherence Advocacy Completion Rate/Signing Achievement Rate: 100% Suppliers signed the CSR statement and commitment letter: MitraStar 73.93%, Zyxel/ZNet 100% Suppliers signed the integrity commitment letters: MitraStar 74.38%, Zyxel/ZNet 100% Supplier Social Responsibility Assessment Survey Signing Completion Rate: MitraStar >80%, Zyxel/ZNet 100% Supplier On-Site Audit Completion Rate: MitraStar:13 companies, Zyxel/ZNet 100% 	<ul style="list-style-type: none"> Business Ethics Supplier Sustainability Management Workplace Health & Safety
Employee	<ul style="list-style-type: none"> Talent attraction and retention Talent cultivation and development Human rights management Occupational Safety and Health 	<ul style="list-style-type: none"> President's town meeting Labor-management meeting Internal staff website Welfare Committee website Company announcement Suggestion box Complaint mailbox Employee satisfaction survey 	<ul style="list-style-type: none"> Quarterly Periodic Aperiodic 	<ul style="list-style-type: none"> Communication Through Diverse Employee Communication Channels Online course Diversified courses for physical, mental and career development Subsidies for diverse club activities Diverse health promotion activities A working environment that meets labor regulations and standards Factory accident and disaster prevention 	<ul style="list-style-type: none"> 55 president's town meeting 23 labor-management meetings 517 questionnaires for employee opinion survey 100% completion rate of management function training 100% completion rate for High-Potential Talent Development Program The retention rate of potential talents is 96% Professional skills course completion rate 100% / course satisfaction 4.3 points Completion rate of human rights-related training courses for new recruits is 100% Sexual harassment prevention courses cover 99.8% Satisfaction with Hiking Activity: 4 or above out of 5, ≥95% 99.99% Occupational Safety Education Course Completion Rate 	<ul style="list-style-type: none"> Diversity and inclusion Recruitment B. Human Capital Development Human Rights Management Workplace Health & Safety Community Contribution
Communities	Social Participation	<ul style="list-style-type: none"> Internal association The Progressive Foundation of Education Zyxel Foundation News release Spokesman 	Aperiodic	<ul style="list-style-type: none"> Participate public activities Dr. Shu-i Chu Zyxel scholarship provides students with outstanding academic performance and low-income students 	<ul style="list-style-type: none"> "Love at Christmas: Shoebox Love" primary school Christmas charity activities, 172 colleagues participated in 2022 "Walk From Heart" charity walk step counting activity, reducing 19,559 kilograms of carbon dioxide. Industry-Academia Collaboration Project with National Central University 	<ul style="list-style-type: none"> Community Contribution

| Corporate Governance

A photograph of two men in a professional office environment. The man on the left is smiling broadly, wearing a grey blazer over a blue button-down shirt. He is shaking hands with the man on the right, who is wearing a blue shirt and glasses. The background is a blurred office space with bookshelves.

- A. Governance Structure
- B. Financial Performance
- C. Business Ethics
- D. Risk Management
- E. Information Security Management

Corporate Governance Strategies and Goals for Material Issues

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Corporate governance	The Company's sustainable management goals can be achieved	<ul style="list-style-type: none"> Development of an effective corporate governance framework and control mechanism to enhance the function of the governance framework 	Ranking in the corporate governance evaluation	Remain among the top 35% in the corporate governance evaluation	Remain/rank higher among the top 35% in the corporate governance evaluation	
Business ethics	To create a business environment with sustainable development, unethical behavior must be prevented from endangering customer trust and causing business loss	<ul style="list-style-type: none"> Formulation of business ethics policies and regulations Shaping the corporate culture on the basis of "integrity" and conducting ethical education and training Implementation of moral hazard assessment and monitoring through internal control, self-evaluation, and auditing 	<ul style="list-style-type: none"> Education and training completion rate Number of material business ethics violations 	<ul style="list-style-type: none"> Achieve a completion rate of > 99% for business ethics education and training Ensure zero material business ethics violation 	<ul style="list-style-type: none"> Achieve a completion rate of 100% for business ethics education and training Ensure zero material business ethics violation 	 Employment and economic growth
Legal compliance	Zyxel Group has locations across the world. Therefore, their business execution must be in compliance with the laws of the respective countries to avoid the risk of financial loss due to violations of the laws	<ul style="list-style-type: none"> Reinforce legal education and training and raise the employees' awareness of legal compliance Elaborate on the Company's philosophy of legal compliance Implement the legal management procedure in a rigorous manner 	Number of material violations of the laws	Ensure zero material violation of the laws	Ensure zero material violation of the laws	
Information security management	The confidentiality of the information assets is ensured in compliance with the laws to gain customer trust	<ul style="list-style-type: none"> Identify information security management risks to avoid the impact of information security incidents Improve the employees' awareness and knowledge of information security 	<ul style="list-style-type: none"> Number of material information security incidents Online course completion rate Certificate acquisition 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of >98% for courses on business secret protection regulations The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of 100% for online courses on business secret protection laws and regulations Acquire the ISO 27001 certificate every year 	

Near-term Goals and Achievements

Issue	Management Approach	2022 goal	2022 Achievement	2023 goal
Corporate governance	Ranking in the corporate governance evaluation	Participate in the corporate governance evaluation every year and implement required improvement measures to sharpen the Company's governance strategies	The Company ranked among the top 20% in the corporate governance evaluation in 2022	Participate in the corporate governance evaluation every year and implement required improvement measures to sharpen the Company's governance strategies
Business ethics	<ul style="list-style-type: none"> Education and training completion rate Number of material business ethics violations 	<ul style="list-style-type: none"> Education and training completion rate > 95% Number of material business ethics violations < 1 	<ul style="list-style-type: none"> An education and training completion rate of 99.8% was achieved No material business ethics violation occurred 	<ul style="list-style-type: none"> Education and training completion rate > 99% Number of material business ethics violations < 1
Legal compliance	Number of material violations of the laws	Ensure zero material violation of the laws	Ensure zero material violation of the laws	Ensure zero material violation of the laws
Information security management	Number of material information security incidents Online course completion rate Certificate acquisition	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of >98% for courses on business secret protection regulations The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 A completion rate of >99.8% for courses on business secret protection regulations was achieved The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of >99% for courses on business secret protection regulations The ISO 27001 certificate was acquired

Corporate Governance Policy

With integrity as part of its core values, Zyxel Group and its subsidiaries strongly observe this principle to abide legislations and business ethics.

Zyxel Group creates economic benefits to support the best interest of its shareholders. In terms of business practice, Zyxel Group defines its work ethic and company values in the "Employee Conducts and Directives" for everyone to observe. The company demands all colleagues and partners to obey the law, treat everyone fairly and to maintain proper attitudes when dealing with customers, suppliers and even competitors.

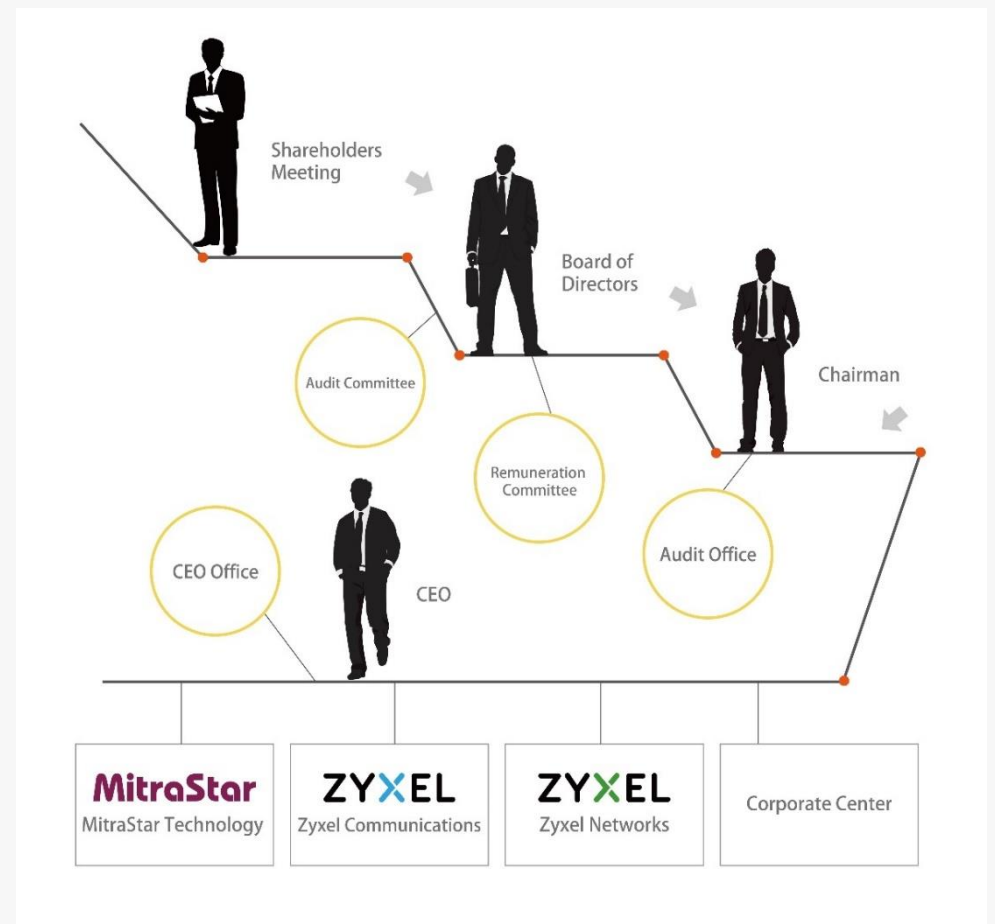
A. Governance Structure

"Integrity" is one of the core values of Zyxel Group and its subsidiaries. In terms of corporate governance, we emphasize the principle of integrity, and believe that good corporate governance allows us to have a firm foundation for growth and to offer all stakeholders with the best interest. As a responsible corporate citizen, it is our obligation to serve the community and the people relying on us.

We have an internal audit office and supervisors to ensure proper reporting and adequate internal controls. In addition, Compensation Committee and Remuneration Committee were also established.

In terms of financial operations, Zyxel Group has an auditing unit to ensure adequate reporting and internal controls. In addition to all measures towards safeguarding shareholders' interests, we disclose transparent and relevant information to stakeholders and investors in a timely manner. Zyxel Group reveals its financial status information such as annual reports and financial reports on the company Web site. Concerned parties are always assigned an official spokesperson to respond to queries and issues. For more Information about Zyxel Group's corporate governance and financial information, please visit the "Investor Relations" on Zyxel Group Global Website.

Corporate Governance Evaluation
Top 20%



1. Enhance the function of the board of directors

Zyxel Group has set up 9 directors, including 3 independent directors, and adopts the candidate nomination system. The shareholders' meeting shall elect a person with capacity for a term of 3 years and may be re-elected. The number of directors shall include independent directors, and the number of independent directors shall not be less than 3. In order to improve the supervision responsibility and strengthen the management mechanism, the Board of Directors of the Company has established the Remuneration Committee and the Audit Committee. In 2022, the board of directors has met 7 times and held an ordinary shareholders' meeting on July 15, 2022.

| Independence of the board of directors

The three independent directors account for 33% of all board members. The independent directors have to sign the independence statement every year during their terms of offices, to confirm that they comply with the requirements of the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies". Among the Company's directors, only two seats are spouses or relatives within the second degree of kinship. This complies with the Securities Exchange Act.

| Diversity of the board of directors

Zyxel Group's "Regulations for Election of Directors" has established the diversity policy and specific management targets of the Board members and has actually implemented them. The directors who serve as Zyxel Group's managerial officers are less than one-third of the whole directors for the time being. However, Zyxel Group values gender equality in the Board members. The 9 Board members include 1 female director, i.e., 11% of the whole directors.

Further, in terms of professional knowledge and skills, Zyxel Group's Board members are specialized in engineering, mechanical engineering, management science and finance and have the industrial experience needed by Zyxel Group's business. For the time being, Zyxel Group's Board is composed based on the policy and targets set forth by Zyxel Group. Directors who are also employees (33%), with one of them holding a managerial role as an executive director (11%), independent directors (33%), directors less than 60 years old (22%), directors aged 61 to 70 years old (33%), directors more than 71 years old (67%), directors whose term of office less than 3 years (44%), and directors whose term of office ranging from 4 years to 10 years (33%), 5 years average term of office.

The specific management targets of the diversity policy and achievement are as below:

Management target	Achievement
At least one seat of female director	Achieved
At least one director has a background in finance and accounting	Achieved
No more than one third of directors' concurrent serves as Zyxel Group's managerial officers	Achieved

| Objectives for Strengthening the Functions of the Board of Directors in 2022

- ▶ The Company's Chairman shall not serve as the CEO concurrently.
- ▶ Convene the meeting with independent directors, independent auditors and internal audit officers separately at least once per year.
- ▶ Zyxel Group's directors consist of professionals from diversified backgrounds, including civil engineering, electrical engineering, management and finance, and also include one female.
- ▶ Each year, each reappointed director must participate in training courses related to corporate governance and sustainable development for a minimum of six hours.
- ▶ Zyxel Group appointed the chief corporate governance officer per the resolution adopted by the Board of Directors, who shall be in charge of the corporate governance operations.
- ▶ Zyxel Group set forth the "Corporate Governance Best Practice Principles," "Ethical Corporate Management Best-Practice Principles," and "Corporate Social Responsibility Best Practice Principles" and had the same rules adopted by the Board of Directors, in order to improve the corporate governance operations.
- ▶ The Company perform the Board of Directors self-performance assessment periodically each year, and appoint an external independent organization to execute the external evaluation at least once per three years, the Company has appointed KPMG Advisory Services Co. to execute the Board of Directors performance assessment in 2021.

Board members self-improvement

Courses related to maintaining the professional knowledge of directors are also conducted irregularly. Zyxel Group will also provide relevant training information for reference from time to time, and regularly evaluate the independence of certified accountants. At the same time, courses related to corporate social responsibility are provided to help them understand the trend of corporate governance and sustainable development. For details of the course content, please refer to the 2022 Financial Annual Report.

Board Performance Evaluation

We have established the "Board Performance Evaluation Guidelines" to promote self-motivation among board members and enhance the effectiveness of board operations. Each year, we conduct performance evaluations of the board, individual directors, and functional committees at least once. Every three years, an external professional independent organization or a team of expert scholars executes an assessment. The board is responsible for driving the practice of sustainable development within the company. It continuously reviews implementation progress and strives for improvement to ensure the realization of sustainable development policies. We present a sustainable development mission or vision, develop policies, systems, or relevant management guidelines, integrate sustainable development into our operational activities and strategic direction, and approve specific implementation plans for sustainable development. We also ensure that the disclosure of sustainable development-related information is timely and accurate.

Five Aspects of Board Performance Evaluation

- Level of participation in company operations
- Improvement on quality of the Board decisions
- Board composition and structure
- Appointment of directors and directors' continuing education.
- Internal control

2022 Zyxel Group Annual Report: Please go to [Zyxel Group website](#): [Investor webpage](#) to download, or click [Zyxel Group 2022 Annual Report](#)

Executive Compensation

In accordance with Zyxel Group's Articles of Incorporation, Directors' remuneration shall not exceed 2% of current year's profits. The reasonable payment is determined by the board of directors, and personal performance, business result, industry business risks and market trends are used as evaluation criteria. The remuneration is also reviewed by Remuneration Committee and furthermore submitted to the Board of Directors for resolution. Subjects to actual business condition and related laws & regulations will be reviewed as well regarding the remuneration formulation procedure to seek the balance between Zyxel Group's sustainable operation and risk control. The compensation policy for the managers shall be determined based on the assessment of Zyxel Group's business performance, contribution, team's stability, future constructively, and social responsibility, as well as the level of remuneration to the same position prevailing in the same industry and the range of payment applicable to the authority of the same position in Zyxel Group. The remuneration is also reviewed by Remuneration Committee and then submitted to the Board of Directors, and shall be discussed the reasonable practice according to business conditions from time to time.

Board of Directors' Sustainability-Related Agenda Items in 2022

Category	Agenda Item
ESG Report	ESG Implementation Status in 2021
ESG Report	ESG Annual Plan for 2022
Sustainable Management	Stakeholder Concerns Survey Project Progress Report
Corporate Governance	Board and Functional Committee Performance Evaluation (Internal)
Corporate Governance	Intellectual Property Management Plan and Implementation Status
Risk Management	Risk Assessment and Risk Management Operations Status and Next Year's Goals
Information Security	Information and Communication Security Risk Management
Climate Change	Greenhouse Gas Inventory Progress
Climate Change	"Task Force on Climate-Related Financial Disclosures" Project

Functional Committee Operation

The Audit Committee and Compensation Committee are established to solidify the Board’s supervision functions. The functions and implementation are as follows:

Audit Committee

- **Purpose:** To improve corporate governance and solidify the Board’s supervision functions. The Audit Committee, acting professionally and independently, assist the board in decision-making.
- **Membership:** The Audit Committee shall be composed of the total number of independent directors who shall be no less than three persons, including one convener, and at least one member who shall have accounting or financial expertise. The Audit members shall hold the term of office for three years and can be reelected for a second term of office.
- **Meeting frequency:** As required, the Audit Committee shall convene the meeting at least once per quarter, and shall communicate with the internal auditing unit and independent auditors thoroughly.
- **Responsibilities:** Includes a review of Zyxel Group's internal control system, financial statements, significant acquisition or disposal of assets, derivatives trading, loaning of funds to others, making of endorsements or guarantees for others, appointment, dismissal or remuneration of independent auditors, and appointment/dismissal of finance, accounting or internal audit managers, etc.

Compensation Committee

- **Purpose:** To improve corporate governance, solidify the compensation system for directors and managerial officers throughout Zyxel Group, make the enterprise compensation system more transparent and impartial, and protect shareholders’ interest and right, Zyxel Group established the Remuneration Committee.
- **Membership:** The Remuneration Committee members shall be nominated by the Chairman and appointed upon resolution of the Board, consisting of three persons, including at least one independent director who shall serve as the convener and chairman of meetings.
- **Meeting frequency:** The Remuneration Committee shall convene a meeting at least twice per year and may convene meetings at any time whenever necessary.
- **Responsibilities:** The Remuneration Committee submit proposals to the Board of Directors for discussion: Stipulate and review regularly the compensation policies, systems, standards and structures, and performance of directors and managerial officers. Regularly review and adjust directors' and managerial officers' compensation.

2. Shareholder Rights

Protection to Rights

Designated personnel handle shareholder suggestions or disputes and engage Mega Financial Transfer Agency to assist with these matters. Stock personnel monitor the situation of major shareholders and disclose this information on the designated information disclosure website of the competent authority on a monthly basis, effectively managing the list of significant shareholders and ultimate controllers. Meanwhile, a risk control mechanism is established with related companies to formulate regulations regarding loans to others and endorsements and guarantees, preventing potential financial malfeasance and its cascading impact on related companies.

Shareholder Communication

An Investor conferences is held every quarter, and the executives at the management level directly explain the business overview, strategic planning and future development to the investment corporation and the media, and report the target plan and results of sustainable development.

Open Information

Open information on corporate operations and an inquiry/answer mechanism are provided to investors on the company Web site. Zyxel Group 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.

Zyxel Group website: <http://www.zyxelgroup.com>

3. Internal Audit

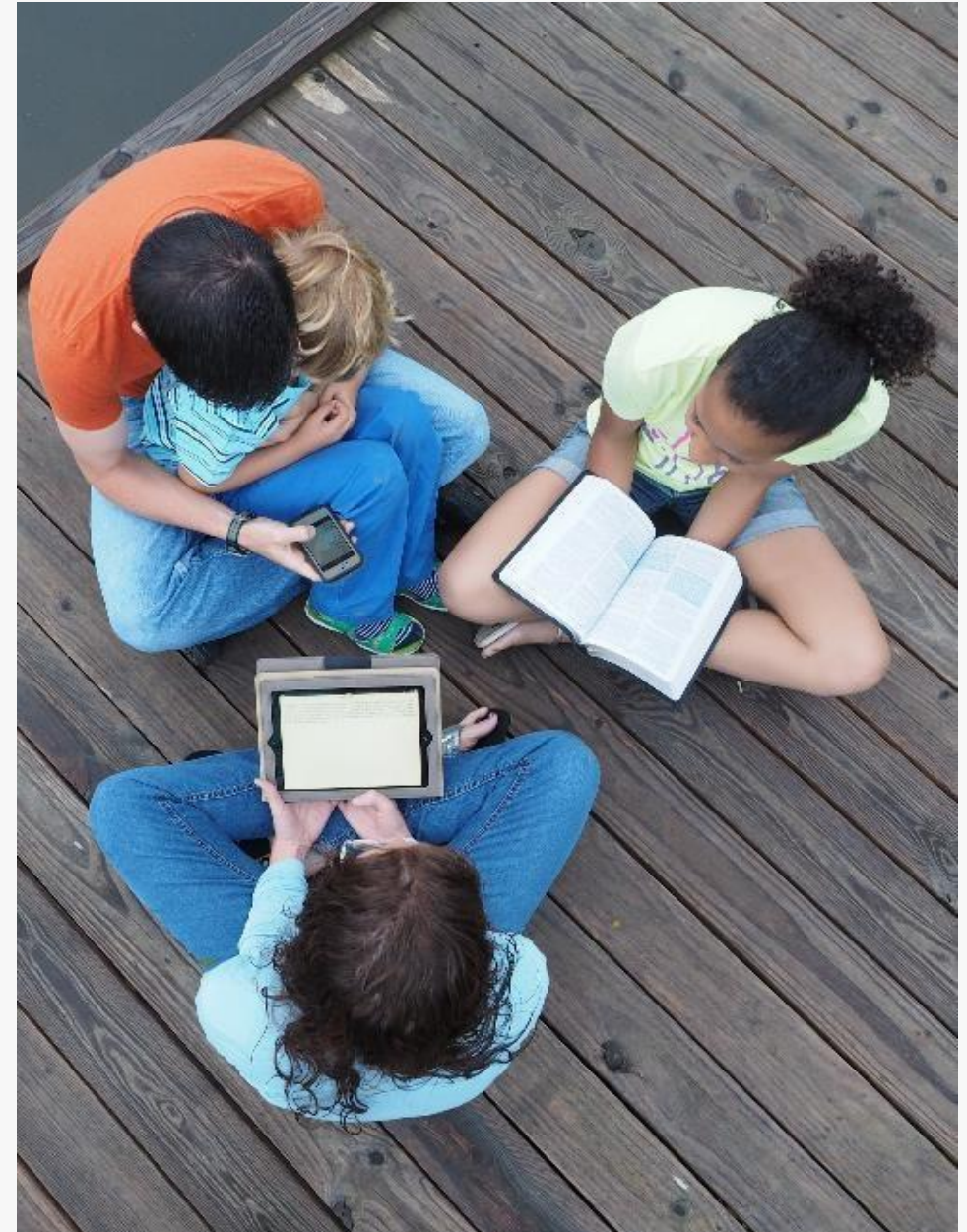
| Organization

Zyxel Group establishes an internal audit unit under the board of directors. In accordance with the company's scale, business conditions, management needs and other relevant laws and regulations, Zyxel Group has deployed several qualified and appropriate full-time internal auditors and deputies.

| Duties of Internal Auditor

The internal audit plan is a key work item of Zyxel Group's enterprise risk management. It audits the operation of each unit and subsidiary and proposes improvement measures to ensure the performance of enterprise operations.

- The internal audit unit considers the laws and regulations, establish internal audit procedures, and audit the integrity and compliance of Zyxel Group 's internal control to ensure the effective operation of the system.
- Zyxel Group carries out internal audits to assist the board of directors and managers in inspecting and reviewing defects in the internal control systems as well as measuring operational effectiveness and efficiency, and makes timely recommendations for improvements to ensure the sustained operating effectiveness of the systems and to provide a basis for review and correction.
- The internal departments and subsidiaries of Zyxel Group conduct self-assessments once a year in accordance with regulations, have its internal audit unit reviews the self-inspection reports prepared by all departments and subsidiaries, and submit the self-assessment reports, together with the reports on the correction of defects and irregularities of internal control systems discovered by its internal audit unit, to serve as the primary basis for the board of directors and the audit committee to evaluate the overall efficacy of all internal control systems and to produce Internal Control System Statements.



B. Financial Performance

1. Financial Performance Statement

Direct Economic Value Generated: Income

According to the 2022 consolidated income statements, the Company's operating income totaled NT\$ 30.516 billion; the gross profit amounted to NT\$6.988 billion; the gross margin was 22.90%; the operating expense came to NT\$5.141 billion; an after-tax profit of NT\$1.627 billion was made; and the EPS was NT\$3.87

Operating Results (Unit: NT\$ thousand)

Item	2022	2021
Net operating income	30,515,803	25,681,970
Gross profit	6,987,954	6,060,518
Net operating profit (loss)	1,847,262	1,425,434
Before-tax profit (loss)	1,992,303	1,438,064
Consolidated net profit (loss)	1,626,931	1,095,459



Profitability Analysis

Item	2022	2021	
Return on assets %	6.95	5.46	
Return on equity %	16.92	12.50	
Proportion to paid-in capital %	Operating profit	46.16	31.42
	Net profit before tax	49.79	31.70
Profit margin %	5.33	4.27	
EPS/NT\$	3.87	2.49	

Economic Value Distributed

Employee Remuneration and Welfare

Type	Total
Payroll expense	3,504,875
Labor and health insurance expense	346,076
Pension expense	185,676
Other employee benefit expenses	135,378

Payments to the Government: The total consolidated income tax paid in 2022 was NT\$ 308,851 thousand

2. Tax Policy and Risk management

Tax Policy and Risk management

Zyxel Group adopts a sustainable development tax management policy, being a multinational telecommunications company, it actively monitors tax regulations in various countries and periodically reviews its tax policies to ensure compliance with local laws and regulations.

The CFO of Zyxel Group serves as the top decision-maker for the group's tax policies. The accounting department is responsible for income tax reporting, and income tax declarations are processed only after appropriate approval. The accounting departments of subsidiary companies regularly report on tax management and results of each operational location to the management team, enabling the group's management to have a comprehensive understanding of the company's tax policies and execution status. To address tax risks arising from globally dispersed operational locations and the compliance complexities of various regulations, we continuously update our observation and assessment of relevant tax regulations. In addition to internal training, we also engage external professional tax advisors, when necessary, to assist in providing recommendations for significant transactions to mitigate potential tax risks.

Tax information

(Unit: NT\$ thousand)

Item	2022	2021
Revenue	30,515,803	25,681,970
Profit before tax	1,992,303	1,438,064
Current income tax payable	417,471	263,925
Effective tax rate	21.0%	18.4%
Income tax paid	308,851	85,843
Cash effective tax rate	15.5%	6.0%

Note: more information: [Zyxel Group consolidated financial report in 2022](#)

Economic Contributions by Region in 2022

Item	Asia	Europe	Other	Total
Operating Revenue	54%	31%	15%	100%
Profit before tax	87%	9%	4%	100%
Current income tax payable	79%	14%	7%	100%
Income tax paid	70%	20%	10%	100%

Note: Other Regions: United States, Brazil, and other countries.

In 2022, the effective tax rate and cash effective tax rate were 21.0% and 15.5%, respectively. Both figures were lower than the average effective tax rate of 22.50% and the average cash tax rate of 24.35% reported for the "Technology Hardware & Equipment" industry in the SAM CSA Companion. This is primarily due to Taiwan's Innovation Incentive Regulations for Industries and provisions for loss carryforwards, allowing for deduction of the current year's taxable income for profitable enterprises as per legal requirements. As a result, the effective tax rate is slightly lower than the industry average, and there is not a significant deviation from Taiwan's standard corporate tax rate of 20%.



3. Membership in External Organizations

The Company joins different industry associations and non-profit organizations, e.g., in industrial development, technological innovation, and sustainable corporate development sectors, in a proactive manner. The latest industry-related and technology-related information is acquired from the relevant industry associations and during their activities. We also maintain good relationships with companies and organizations in related sectors while facilitating more effective communication with our stakeholders. Maintaining a neutral political stance, Zyxel Group is not engaged in political election campaigns or political donations.

In 2022, about NT\$1,090,000 was paid for memberships in the associations and organizations

Public Affairs Engagement Expenditure

Category	2019	2020	2021	2022
Industry Associations or Non-Profit Organizations Involvement	601,336	606,490	991,959	1,088,115
Interest Group Lobbying	0	0	0	0
Political Campaign Organizations or Candidate Donations	0	0	0	0
Other expenditures, such as election or referendum spending	0	0	0	0
Total	541,336	583,014	991,959	1,088,115

Membership in Associations and Organizations in 2022

Industrial Development	<ul style="list-style-type: none"> • The Allied Association for Science Park Industries • Taiwan Association of Information and Communication Standards • Taipei Computer Association
Technological Innovation	<ul style="list-style-type: none"> • Telecommunications Industry Association • THE BROADBAND FORUM
Corporate Sustainability	<ul style="list-style-type: none"> • Taiwan Institute for Sustainable Energy • EECS Industrial Affiliates Program



C. Business Ethics

To establish Zyxel Group's globally applicable norms, employees, business partners, and suppliers should abide by the same standards in their work and business operations and ensure that we maintain fair and equitable treatment with customers, suppliers, and competitors.


Ethics, integrity, and compliance with local regulations are our highest business ethical standards. Based on the business philosophy of integrity, transparency, and responsibility, Zyxel Group has set out a policy based on integrity, approved by the board of directors, and established a corporate governance and risk control mechanism to create a sustainable business environment.

The mechanism not only focuses internally on setting up the compliance policies and procedures, providing training and promotion activities, and periodic assessments and declarations, but also externally through effective reporting channels and whistleblower protection for the participation of third parties.

Employees: For employees, the internal focus is on establishing policies and procedures that comply with the relevant laws and regulations, providing training, publicity activities and declarations, regular risk assessments, and internal control and auditing. While the external focus is on using notification channels and whistleblower protection mechanisms to protect third-party participants.

Suppliers: We also extend Zyxel Group's integrity management concept to review and assist suppliers in ethical management so they can understand the core value of Zyxel Group's integrity management and jointly establish sustainable business cooperation partnerships.

Material Issues Strategies and Goals

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Business ethics	To create a business environment with sustainable development, unethical behavior must be prevented from endangering customer trust and causing business loss	<ul style="list-style-type: none"> Formulation of business ethics policies and regulations Shaping the corporate culture on the basis of "integrity" and conducting ethical education and training Implementation of moral hazard assessment and monitoring through internal control, self-evaluation, and auditing 	<ul style="list-style-type: none"> Education and training completion rate Number of material business ethics violations 	<ul style="list-style-type: none"> Achieve a completion rate of > 98% for business ethics education and training Ensure zero material business ethics violation 	<ul style="list-style-type: none"> Achieve a completion rate of 100% for business ethics education and training Ensure zero material business ethics violation 	 <p>Employment and economic growth</p>

Near-term goals and Achievements

Material Issue	Management Approach	2022 goal	2022 achievement	2023 goal
Business ethics	<ul style="list-style-type: none"> Education and training completion rate Number of material business ethics violations 	<ul style="list-style-type: none"> Achieve a completion rate > 98% for business ethics Number of material business ethics violations < 1 	<ul style="list-style-type: none"> The completion rate for business ethics 99.8% Number of material business ethics violations 0 	<ul style="list-style-type: none"> Achieve a completion rate > 98% for business ethics Number of material business ethics violations < 1

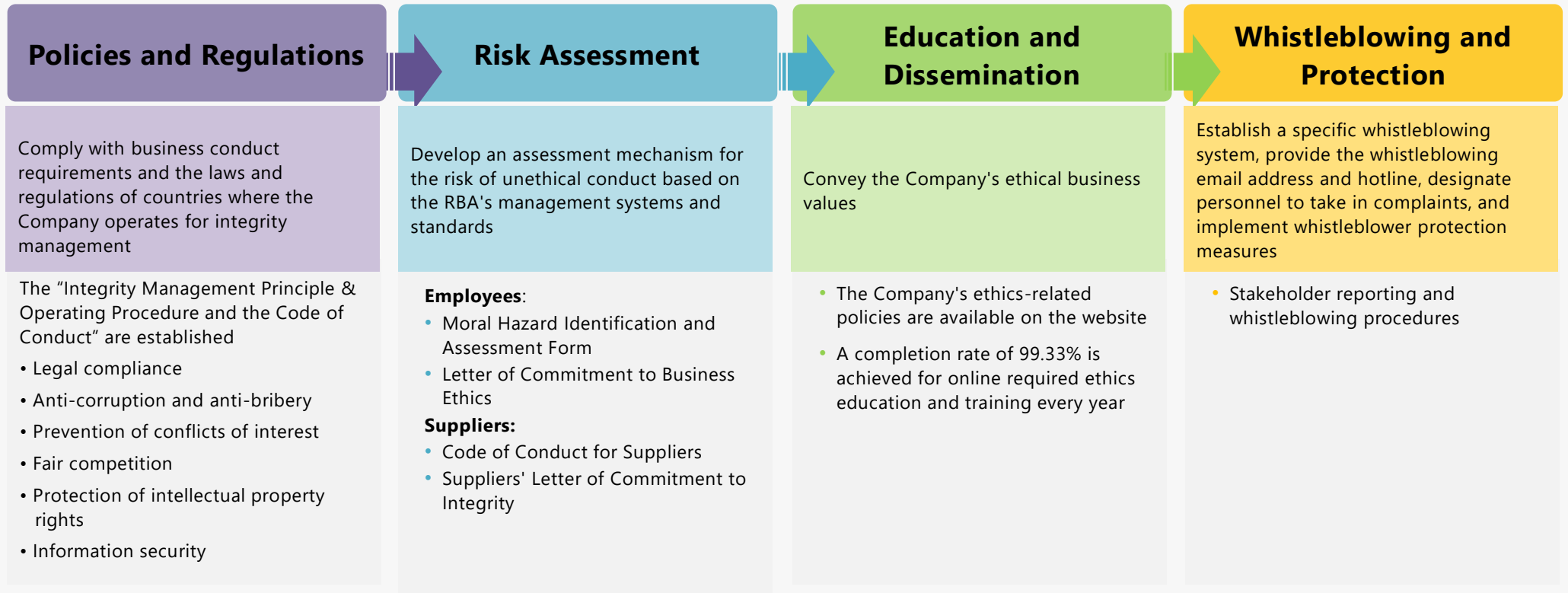
Management Procedure

The Company's management procedure for integrity management involves [policies and regulations](#), [risk assessment](#), [education and dissemination](#), and [whistleblowing and protection](#). We observe business conduct requirements and the related laws and regulations of countries where we operate, map out policies and procedures, develop an assessment mechanism for preventing the risk of unethical conduct based on the RBA's management systems and standards, and provide relevant dissemination and training courses to convey the Company's ethical business values. A specific whistleblowing system is established accordingly and the whistleblowing email address and hotline are offered. The Company also designates personnel to take in complaints and adopts whistleblower protection measures for preventive response.

Management Organization

Zyxel Group Sustainability Committee - Ethics Team: The team is a management organization for business ethics and integrity management. It is responsible for coordinating the development, monitoring and implementation of the Company's integrity management policies and regulations, regularly reviewing the promotion of and compliance with the policies and regulations every year, and making reports to the Board of Directors. The Group's subsidiaries draw up their own operating procedures and codes of conduct in accordance with Zyxel Group's policies, conduct internal implementation planning, organize dissemination and training courses, assess risks, and provide whistleblowing channels.

Internal Auditing Office's Internal Control, Self-evaluation, and Auditing: The office assesses moral hazards, monitors and audits the assessment process, maintains the whistleblowing channels, and frames review and corrective plans.



1. Policies and Specifications

Zyxel Group's ethical policies and norms are based on the basic premise of complying with business conduct standards and the relevant laws and regulations where it operates, and implementing honest business operations. The content covers: anti-bribery and corruption, prevention of conflicts of interest, fair competition, intellectual property protection, and information security.

The Board of Directors of Zyxel Group has passed the "Guidelines for Integrity Management and Operational Procedures and Conduct", which is formulated in accordance with the Code of Integrity Management of Listed OTC Companies and the relevant laws and regulations where the company operates, in order to implement the integrity management policy and prevent dishonest behavior.

The Staff Code of Conduct stipulates the basic code of conduct and ethical standards that all employees must abide by when performing their duties every day and expounds and reiterates the company's existing concepts, values, and spirit of relevant laws and regulations. The Employee Appointment Measures clearly stipulate employees shall not accept bribes, commissions, etc., so as to prevent employees from sacrificing the rights and interests of the company for personal interests.

Business ethics and Integrity related norms:

- Guidelines for Integrity Management and Operational Procedures and Conduct
- Procedure for Ethical Management and Guidelines for Conduct
- Sustainability Development Best Practice Principles
- Code of Business Conduct and Ethics
- Stakeholder Appeal and Prosecution Guidance
- Ethical Corporate Management Best Practice Principles
- Fair competition Management Procedures

The Ethics Policy and Code is geared towards:

Corporate Compliance

- Every employee should comply with local laws, rules, and regulations while conducting business.
- Our business partners must follow the regulations.

Anti-bribery and Corruption

- All employees including top executives shall not engage, directly or indirectly, in any bribery or other activities which may be construed as corrupt business practices.
- In all relations with governmental agencies, customers, and suppliers, we shall not, directly or indirectly, engage in bribery, kick-backs, payoffs, or other activities which may be construed as corrupt business practices.

Prevention of Conflicts of Interest

- The involvement of personal interests in the Company's overall interests is prevented to avoid conflicts of interest which may lead to the failure of the Company's personnel to handle business matters in an objective and effective manner

Fair Competition

- The Company conducts transactions with customers in conformity with fair business, marketing and advertising standards and adopts reasonable measures to ensure the safety and quality of the goods or services provided.
- The employees shall not bring in business from customers by offering improper benefits and shall be dedicated to improving the products and services that meet the requirements of the customers.

Protection of Intellectual Property Rights

- To respect the intellectual property rights of others, all our employees and senior management shall ensure the confidentiality of the confidential information of the Company and our customers.

Information Security

- Information on the Company and our customers and suppliers shall be kept confidential unless the Company is authorized or required by the laws to disclose the information.
- An effective mechanism shall be used to prevent improper use of the confidential information.

2. Risk Assessment

Zyxel Group has established an assessment mechanism for the risk of dishonest behavior according to the RBA management system and specification. In addition to employees, we also assess the integrity risk of external suppliers.

Employees:

Zyxel Group uses the "ethics risk identification and evaluation form" to identify risks. We require departments we identify as high-risk to fill in the business ethics checklist and sign the business ethics commitment letter. The risk team will conduct an audit meeting for evaluation.

Suppliers:

- Required to comply with the "Supplier Code of Conduct".
- Fill out the "Supplier Social Responsibility Assessment Questionnaire". We conduct on-site audits of suppliers using the "Supplier On-site CSR Assessment Checklist" as part of our due diligence on behavior integrity. We also require suppliers to fill in the "Suppliers' Corporate Social Responsibility Statement and Commitment Letter" and "Integrity Commitment", promising to abide by the relevant anti-corruption business ethics regulations.

3. Education and Promotion

To guide Zyxel Group's stakeholders to better understand our business ethics standards, Zyxel Group has released our ethical related policies on the company website. We also communicate our concept of business ethics through education, promotion, mandatory online training courses, and various other communication channel and methods.

Business Ethics Education and Training Completion Rate in 2022:

Business Ethics courses	Number of trainees	Training hours	Coverage %
MitraStar	918	459	99.5%
Wuxi MitraStar	7,989	3,995	99.7%
Zyxel	450	225	100%
ZNet	381	191	100%
Total	9,738	4,870	99.79%

4. Whistleblower Mechanisms and Protection

Zyxel Group has established internal and external whistleblower mechanisms to combat corruption. The cases handled by the personnel in charge will be transferred to the relevant internal authorities.

The company website has a link to a mailbox for reporting corruption and/or misuse of company resources. The anti-corruption review team will set up a case for each report and create a file. All reports will be kept strictly confidential. Zyxel Group will take all necessary steps to protect whistleblowers and those who are involved in the investigation from retaliation or unfair treatment.

- **Integrity Management Code and Operational Procedures and Behavior Guidelines:** Formulate specific whistle-blowing systems, including whistle-blowing mailboxes, dedicated lines, designation of whistleblowers, and measures to protect whistleblowers.
- **Stakeholders' Appeal and Prosecution Method:** Standardize all internal and external reports, which are handled by the appeal review team, establish a case for each complaint, and record or save it in writing, electronic files or system sign-off. Major violations found after investigation shall be reported to the independent directors or supervisors by the audit office, and appropriate rewards shall be given to the whistleblower upon verification. The company shall handle the whistleblower case in a confidential manner, and handle it in a prompt, fair and objective position, and make every effort to protect the absolute confidentiality of the identity of the complainant or whistleblower.

grievance mailbox

Internal stakeholders	External stakeholders
Human Resources Department	Audit Office
Whistleblower email address: Care@zyxelgroup.com	Whistleblower email address: audit@zyxelgroup.com

2022 business ethics report cases:

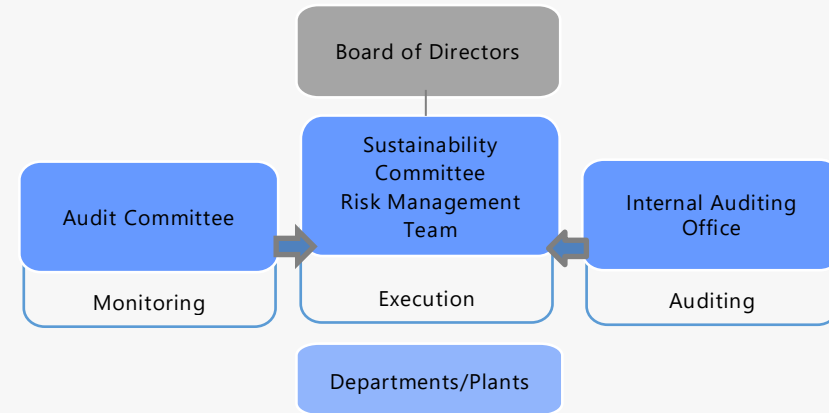
Material regulatory violation case	0
Incidents reported through the whistleblower system	0

D. Risk Management

Zyxel Group includes the risk management in its business strategies and corporate culture, in order to manage the exposure of various potential risks and hazards to operations and earnings. Through the top-down hierarchical organization, we establish systematic risk response policies and procedures in order to effectively identify, analyze and evaluate risk management mechanisms, control various risks, and establish corresponding mitigation policies to effectively control the enterprise's risk, and mitigate the effects posed by the risks to related stakeholders accordingly.

The "Risk Management Policies and Procedures" are adopted by the board of directors as the highest guiding principle for risk management. Meanwhile, we have set up a risk management policy group subordinated to the "Zyxel Group Sustainability Committee", which establishes the corresponding policies and procedures in accordance with ISO31000 Risk Management Guidelines, and is responsible for implementing the risk management policies authorized by the Board of Directors.

Risk Management Organization Structure



Responsibilities of the Risk Management Organization

- Board of Directors** → The Board of Directors serves as the top management and decision-making unit in the risk management organization and reviews the risk management strategies as a whole based on the overall business strategies and operating environment.
- Audit Committee** → The "Audit Committee" subordinate to the Board of Directors is responsible for reviewing the internal control system, ensuring compliance with related laws and regulations, and controlling existing or potential risks to the Company.
- Internal Auditing Office** → The office is an independent internal auditing unit that audits the Company's financial and business activities as well as the appropriateness of the design and implementation of the internal control system on a regular basis, supervises internal control, and accomplishes annual audit plans. It makes reports to the broad members at board meetings and conducts follow-ups on subsequent improvements.
- Risk Management Team** → It formulates relevant response policies and procedures according to the ISO 31000 Principles of Risk Management and executes risk management policies approved by the Board of Directors. A risk management meeting shall be held at least once a year to report the implementation of risk management to the Board of Directors.
- Departments /Plants** → The Strategy, Finance, General Counsel, Information, Human Resource, Environmental Safety, R&D, Manufacturing, and Sales Departments and other functional departments draw up policies in line with key strategic directions. All functional departments build good two-way lateral communication mechanisms with the subsidiaries through regular meetings to cope with potential risks.

Risk Management Policy

As the top guiding principle for risk management, the policy defines all types of risks based on the Company's overall management policy to establish a risk management mechanism enabling early identification, precise measurement, effective monitoring, and strict control. In this way, we can prevent possible losses within acceptable risk levels, respond to internal and external environmental changes, and make continuous adjustments and improvements in order to boost the shareholders' interests and the Company's value.

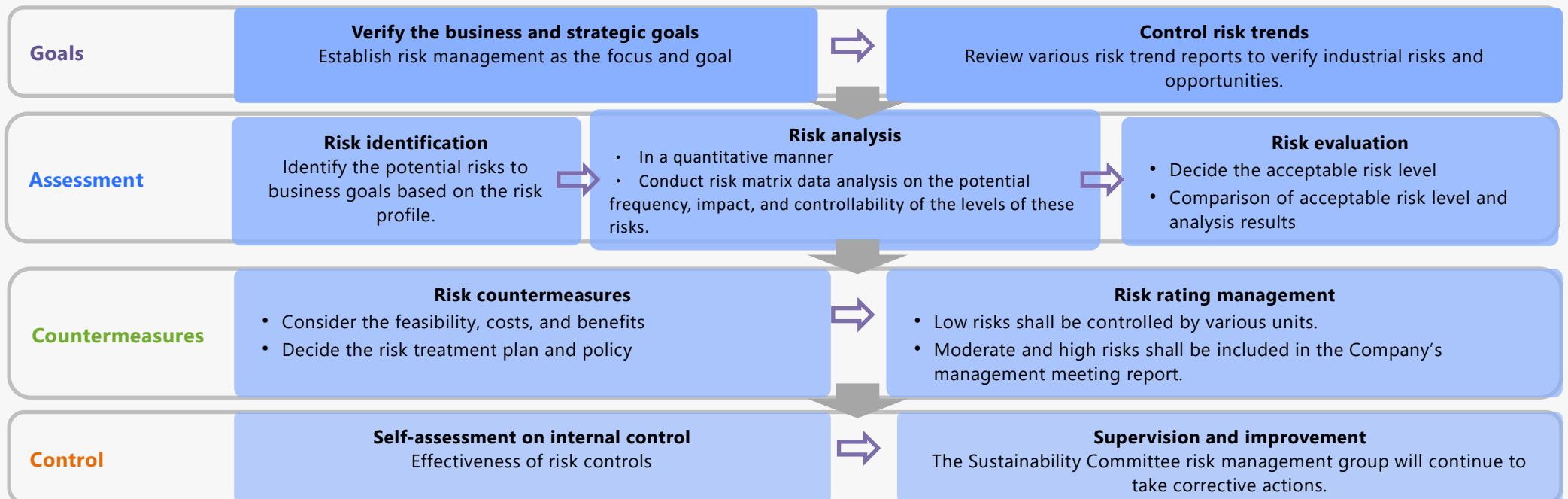
Risk Management Goal

Awareness of risk management is required for Zyxel Group's business management and must be ingrained into the management strategies and organizational culture. Through systematic and institutionalized management and effective risk identification, analysis, and assessment mechanisms, we can control risks, formulate corresponding mitigation measures, and keep track of corporate risks in an effective manner so as to mitigate the impacts of the risks on relevant stakeholders.

Risk Management Mechanism

According to the risk management procedure, it is necessary to first verify the business and strategic goals. It focuses on the establishment of risk management and then review various risk trend reports to verify the opportunities and risks within the industry and economic trends, and also combines its own risk profiles to identify the potential risk exposure to the business's goals.

Then conducts risk matrix data analysis on the potential frequency, impact, and controllability of the levels of these risks; rates and manages the risks by comparing with the acceptable levels of these risks and risk analysis results to decide the risk treatment plan and policies. Emphasis is given to recording, communicating, inquiring, controlling, and reviewing throughout the process.



Risk Assessment and Strategies

Departments of each Zyxel Group subsidiaries conduct detailed risk assessment through their professional services, and also prepare management strategies and response programs to mitigate, transfer, or evade risks, for the purpose of reducing the company's operational risk effectively.

Zyxel Group conducts self-assessments on internal control on a yearly basis. They judge the effectiveness of risk controls in the various risk scenarios likely to be encountered by related units and take stock of the effects posed by changes to Zyxel Group's external environment and business model. Zyxel Group also supervises the implementation of changes to continue managing Zyxel Group's risks.

In the event of emergencies and major events, e.g., to respond to emerging risks such as the outbreak of COVID-19, supply chain shortages, and the Sino-US Trade War, Zyxel Group activated the crisis management mechanism. The president of each subsidiary served as the commander dedicated to calling related units, organizing functional groups, preparing response policies, and releasing communications and messages to ensure the transparency of information. Zyxel Group continues to manage corporate risks effectively to keep the business uninterrupted and achieve the goal of sustainability.

Dimension	Risk type	Risk impact	Mitigation policy	Corresponding chapters
Economic dimension	Operational risk	Achievement of business goals	<ul style="list-style-type: none"> Management reports strategic issues to Board of directors periodically in order to mitigate the operational risk through directors' engagement, suggestions, and supervision. Manage the achievement of annual polices and goals via the management performance meeting. Strengthen the risk management mechanism, increase the diversified interactive opportunities and channels for stakeholders, and improve the quality of communications and disclosure. Set forth the "business plan management procedure" to ensure product quality and market competitiveness, customers' satisfaction, and financial performance results. Revise goals as needed for sustainability. 	Corporate governance: A. Governance structure
	Financial risk	Exchange rate fluctuations	In consideration of Zyxel Group's high proportions of export sales, the Company monitors market information and exchange rate trends from time to time and evaluates the risk of its foreign exchange position, in order to mitigate foreign exchange risks. Meanwhile, Zyxel Group hedges against risks in a timely manner, in hopes of mitigating any adverse effects posed to operations.	Annual report 2022: VII. Review and Analysis of Financial Conditions and Operating Results, and Risk Management
	Information Security Risk	<ul style="list-style-type: none"> Abnormality in the data system Information security attacks Disclosure of confidential information 	<ul style="list-style-type: none"> Establish the "Information Security Committee" inter-departmental unit Improve the employees' awareness and expertise towards information security Enhance information security management Assess our assets and verify threats and weaknesses to enable the management to have fuller knowledge of the risks and mitigate the risks to an acceptable extent. Acquire ISO 27001:2013 certification 	Corporate governance: E. Information Security Management

Dimension	Risk type	Risk impact	Mitigation policy	Corresponding chapters
	<p>Supply chain risk</p> <p>Emerging Risk</p>	<ul style="list-style-type: none"> Fluctuation in prices of raw materials and supplies Shortages of materials 	<ul style="list-style-type: none"> Establish sustainable supply chain partnerships Establish a risk management mechanism for prices of raw materials Evaluate carefully and use the best methods to develop new sources of materials to prevent the sources from being monopolized by a few suppliers Establish safe inventories Verify the market conditions through collection of business intelligence or market surveys in order to respond to changes as early as possible. 	Value chain: B. Supplier Sustainability Management
	Technology risk	<ul style="list-style-type: none"> Easy access to low-price product technology affects the market price. Increasing demand in the technology integration market 	<ul style="list-style-type: none"> Control the market trends, verify customers' needs, and layout the development of new products and core technologies as early as possible Launch the R&D of related technologies, and increase R&D strength and investment Set forth the "Regulations Governing Project Risk Management" and implement the risk management plan when planning new products in order to ensure the timely management of risk when developing any new products. 	Annual report 2022: VII. Review and Analysis of Financial Conditions and Operating Results, and Risk Management
	Business risk	Changes in the market affecting operations	<ul style="list-style-type: none"> Verify market conditions through the collection of business intelligence or market surveys in order to respond to changes as early as possible. In response to the changes in the US-Sino Trade War, Zyxel Group has enhanced our partnerships with our clients and supply chains to ensure optimal capacity. 	Annual report 2022: VII. Review and Analysis of Financial Conditions and Operating Results, and Risk Management
Environmental dimension	<p>Disaster risk</p> <p>Emerging Risk</p>	Given the COVID-19 epidemic, customers' demand is uncertain. Human resources, raw materials and supplies are in short supply.	<ul style="list-style-type: none"> Allocation of optimal capacity Enhancement of our partnerships with our clients and supply chains. 	Value chain: B. Supplier Sustainability Management
	<p>Climate change risk</p> <p>Emerging Risk</p>	<ul style="list-style-type: none"> Impact to the business posed by climate changes Reduction in GHG emissions Laws & regulations and other requirements 	<ul style="list-style-type: none"> Identify the risks and opportunities derived from climate changes, research and draft a risk response policy, evaluate the operational impact and financial effects, and disclose information about climate change concretely. Manage carbon emissions, and boost GHG (Green House Gas) inspection and energy-conservation policies 	Environmental protection: A. Climate change
Social dimension	<p>Human resource risk</p> <p>Emerging Risk</p>	<ul style="list-style-type: none"> Difficulty in soliciting talent Loss of key talent 	<ul style="list-style-type: none"> Effective HR management mechanism and implementation of performance evaluation procedures Improvement of talent recruitment and training channels The HR Management Procedure and Regulations satisfy the relevant laws and regulations. 	Friendly workplace: A. Diversity and Inclusion Recruitment B. Human Capital Development

E. Information Security Management

Zyxel Group is committed to optimizing cybersecurity, driving digital transformation, and creating a trustworthy and secure online world through technological innovation and close collaboration with key partners. As a major network communications company with information security software and hardware equipment and technical capabilities, we have an extensive and diverse information security solution portfolio and have obtained ISO 27001 information security certification in the face of increasingly severe information security threats. We continue to strengthen the integration of network and information security, ensure product information security, and at the same time enhance employee information security awareness, evaluate supplier information security, and protect the intellectual property security of customers and partners.

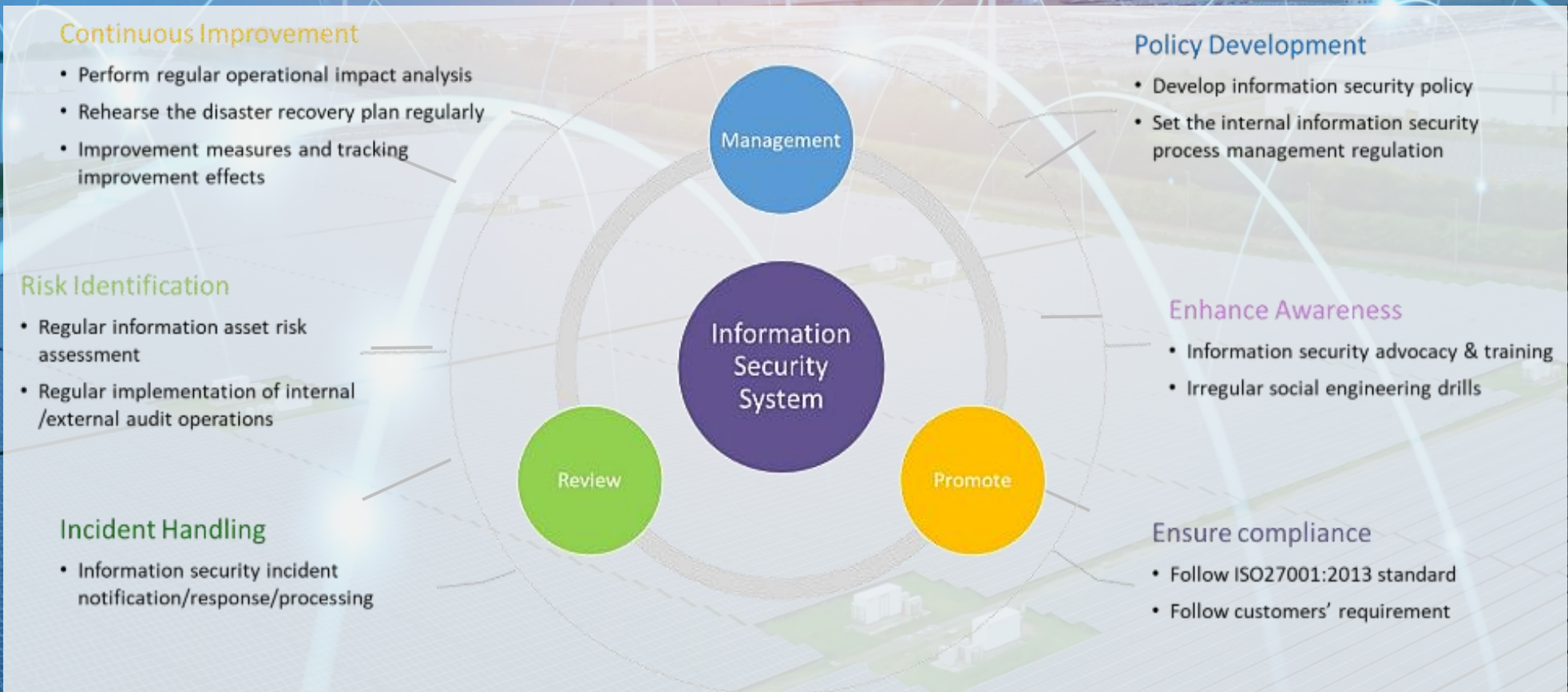
Material Issues Strategies and Goals

Material Issue	Operational Influence	Promotion Strategy	Management Approach	2022 Achievement	2025 Medium-term goal	2030 long-term goal
Information security	The confidentiality of the information assets is ensured in compliance with the laws to gain customer trust	<ul style="list-style-type: none"> Identify information security management risks to avoid the impact of information security incidents Improve the employees' awareness and knowledge of information security 	<ul style="list-style-type: none"> Number of material information security incidents Business Secrets Protection Legal Regulation Course Completion Rate Certificate acquisition 	<ul style="list-style-type: none"> Material information security incident: 0 A completion rate of 99.6% for online courses on business secret protection laws and regulations The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of >98% for online courses on business secret protection laws and regulations The ISO 27001 certificate was acquired 	<ul style="list-style-type: none"> Material information security incident: 0 Achieve a completion rate of 100% for online courses on business secret protection laws and regulations Acquire the ISO 27001 certificate every year



Information Security Management Framework

In order to strengthen information security management, Zyxel Group has set up a safe and reliable digital operation platform to ensure the sustainable operation of data, systems, equipment, and networks. We have implemented security control mechanisms for data processing, transmission, and storage while taking information security and work efficiency into account. We have set up a complete information security management framework, with governance, promotion, and inspection as the three management directions. As part of our information security policy we raise awareness about information security and undergo and pass ISO 27001 information security certification audits regularly to ensure our compliance measures and track improvements.



Information Security Organization

Dedicated Information Security Organization: Zyxel Group has a dedicated Chief Information Security Officer (CISO) responsible for coordinating information security strategy planning. In 2014, the company established an information security organizational framework based on ISO 27001 and formed a specialized Information Security Team under the leadership of the CISO. This team is responsible for formulating information security strategies and objectives, monitoring security incidents and activities, executing various information security tasks and projects, and conducting information security awareness and training programs.

Direct Subordination to the Chairman's Office: In response to the escalating threats in information security, the "Zyxel Group PSIRT Committee" (Product Security Incident Response Team, PSIRT) operates under the "Information and Product Security Management Division." This division comprises the Information Security and Product Security Management Departments, both of which are directly under the oversight of the Chairman's Office. They are responsible for continuous monitoring of potential external threats and providing immediate responses to security issues.

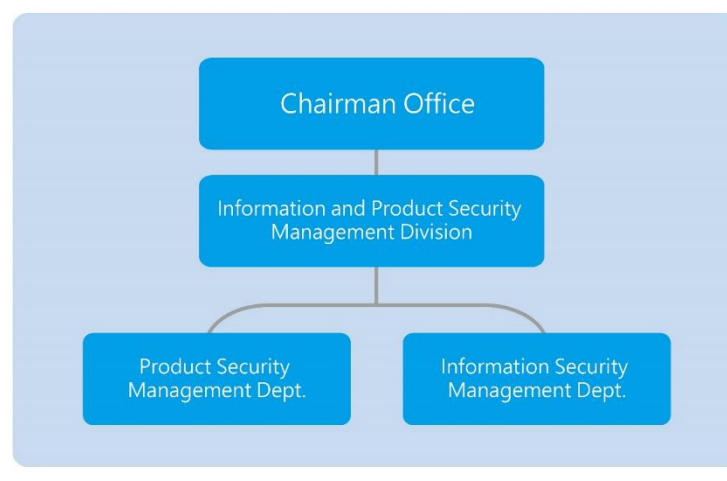
Monitoring by the Board of Directors: The implementation of information security is reviewed regularly on an annual basis. Management review meetings are also held in an effort to unceasingly promote and improve the information security management system. With the aim of ensuring the continuous and effective operation of the internal information security management mechanism, a report on information security work plans and their implementation is made to the Board of Directors at least once a year.

Information Security Workforce and Investment

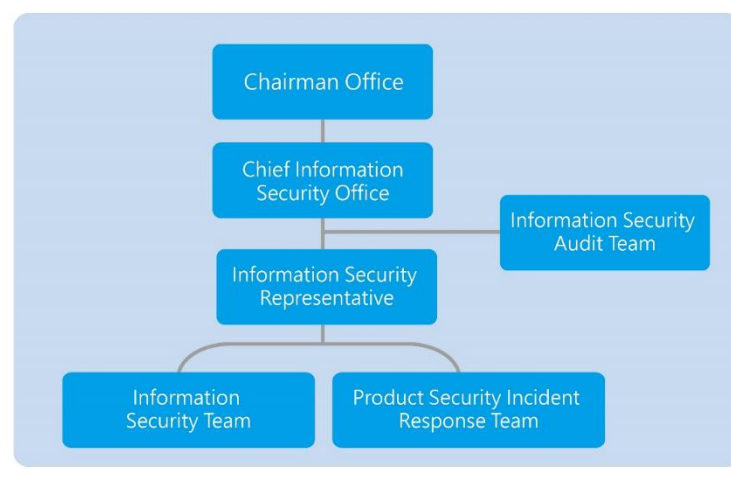
Zyxel Group has departments responsible for information and product security, which were formed in 2017, as well as 20 independent information security personnel, of which 40% are senior employees and 60% are newbies. Among the personnel, 6 have acquired professional information security certificates (ISO27001 Lead Auditor, CTIA (Certified Threat Intelligence Analyst) Certificate, CEH (Certified Ethical Hacker) Certificate, TCSE (Trend Certified Security Expert), CCNA (Cisco Certified Network Associate)). On top of that, continuous efforts have been devoted to ensuring our products acquire the information security certification of BSI Bund. Through technology utilization and the identification of information security risks and deficiencies, we can enable effective intensification, develop comprehensive information security protection capability, and build a rigorous and effective information security protection network.

To nurture information security professionals, our education promotion program, "Information Security Contest", has been initiated to arouse students' interest in information security. By bridging the academia-industry gap, we hope to encourage students who aspire to working in the information security field to enhance their information security skills and develop practical skills through information security contests.

Information Security Organization



Information Security Committee



Information Security Policy

Zyxel Group's security policy sets information security management regulations, guidelines, standards, rules, and codes of conduct to achieve our information security goals, ensuring the effectiveness of Zyxel Group's information security practices. We formulated information security management policies and codes of conduct including "Network Security Management Measures", "Software Asset Management Measures", "Personal Computer Equipment Services and Management Measures", and others in accordance with the ISO 27001 international standard.

Company employees, subsidiaries of online operations, and manufacturers providing information services get notified of the relevant security management information in writing or electronically.

Information Security Management Scope

Zyxel Group's information security management covers 13 management items to avoid misuse, leakage, tampering, and destruction of information due to factors such as human negligence and intentional or natural disasters that could bring various risks and hazards to the organization.

- Information Security Policy Formulation and Evaluation
- Information Security Organization
- Information asset classification and control
- Personnel safety management and education and training
- Physical and environmental security
- Communication and operation safety management
- Access control security
- System development and maintenance security
- Information security incident response and handling
- Operation continuity management
- Compliance with relevant regulations and policies of the implementing unit
- Information security of project management
- Supplier management

Information Security Management System

The Company has established an information security management system (ISMS) compliant with the international standard ISO/IEC 27001:2013 (including the national information security system standard CNS 27001:2014). The information security management system has acquired the information security management certificate and passed regular audits for six consecutive years since its first introduction and certification in 2015. Continuous information security management, the acquisition of the certificate through re-evaluation on a triennial basis, and the execution of regular audits in between ensure the unceasing improvement and optimization of our information security management and technology.

Information Protection System and Mechanism

Our Information Security Team has formed a security operations center (SOC) and built a safety intelligence database through data collection and big data platforms. Multi-dimensional association analyses are conducted in combination with user and entity behavior analytics and machine learning to detect information security incidents or anomalous connections. A real-time early warning mechanism is also in place to have a timely grasp of internal and external information security threats, deal with relevant incidents immediately, and minimize damage to information security.

ISO 27001

To ensure the confidentiality, integrity, and availability of all information, Zyxel Group passed the BSI verification agency review in 2015 and obtained the ISO 27001:2013 international standard certification. Zyxel Group continues to implement the PDCA (Plan-Do-Check-Act) Management spirit, continuous improvement of information security management and technology, to ensure the security of customer data.

We follow the ISO 27001:2013 version of the standard requirements to establish various management documents, conduct annual inventory and updates of information assets, and perform risk assessment, operational impact analysis, disaster recovery drills, account permission checks, vulnerability scans, penetration testing, and social networking engineering drills for various information security tasks. We perform internal and external audits regularly every year, and hold management review meetings to continuously implement various information security policies.

Information Security Maturity Indicator

The purpose of the information security maturity evaluation is to acquire the ISO 27001 certificate and gain a better understanding of the Company's control level of each dimension according to the information security requirements of the international standard. Diagrammatic quantitative indicators can help the management refine the adjustment of the information security management measures, thereby reflecting the adjustments on the information security policies and creating an effective organizational communication interface. Please note that information security maturity is evaluated based on the lowest score in sampling result for each control area (A5~A18) under the international standard.

Information Security Risk Management

To assure the sustainable business operations and prevent our important information systems from leading to the risk of unsustainable services due to major disasters or incidents, the Company regularly conducts information security risk assessment to adjust our sustainable management policies, reviews laws and regulations, and evaluates and revises the internal information security regulations in order to ensure their legal compliance and effectiveness.

Our employees also participate in information security awareness campaigns, education and training as well as social engineering exercises to raise their information security awareness and make sure that the concept of information security is ingrained into their routine at work. Information asset risk assessment, internal/external audits, and backup system switchover drills for keeping our information systems essential to the business running are implemented periodically to analyze operational impacts, carry out disaster recovery drills, perform improvement measures, and keep track of and evaluate the improvement on a regular basis.

- **Information Security Alert Notification and Incident Management**

In accordance with the information security incident management guidelines, the information security organization works to ensure the operational and systematic processes of reporting, categorizing, grading, processing, tracking, and analyzing statistics for the company's information security incidents.

When information security incidents occur, swift notification and responsive actions are taken to restore normal operations of various business functions as quickly as possible. Adopting advanced persistent threat (APT) monitoring and security operations center (SOC) operational mechanisms, in collaboration with external cybersecurity experts, the Information Security Operations and Response Team rapidly assesses information security alert notifications and incident intelligence, thereby enhancing and expediting the detection and response mechanisms.

- **Backup and Disaster Recovery Drills**

Zyxel Group conducts regular disaster recovery drills every year to ensure the company's ability to respond effectively during critical moments. The recovery mechanisms we employ in the event of a disaster swiftly restore business operations to a normal or an acceptable level, enabling essential application systems to continue functioning and ensuring uninterrupted business operations.

Backup administrators perform data recovery tests at least once a year. In 2022, 15 backup storage devices were selected for recovery testing across 6 key application systems, resulting in the successful recovery of the backed-up data.

The results of the 2022 disaster recovery drill revealed that the maximum tolerable data loss time in the event of a disaster (Recovery Point Objective, RPO) is 7 hours. Additionally, the maximum acceptable information service recovery time following a disaster (Recovery Time Objective, RTO) is 19 hours.

The results of drills in the past three years have all achieved the company's set objectives. Detailed statistical data is provided in the following table.

	Goal	2020	2021	2022
A critical annual practice involves conducting disaster recovery simulations for key application systems to ensure uninterrupted business operations.	RPO <= 10 hrs	8 hrs	9 hrs	7 hrs
	RTO <= 24 hrs	24 hrs	21 hrs	19 hrs

note1 : RPO: Recovery Point Objective note2 : RTO: Recovery Time Objective

- **Social Engineering Drill**

2 social engineering drills are implemented for information security education and awareness-raising to intensify our employees' awareness of information security and avoid email scams.

- **Information Security Education and Dissemination**

To improve the employees' cognitive ability for information security, enhance their information security awareness, facilitate all personnel's understanding of the importance of information security, provide them with knowledge of all potential security risks and response approaches, and thereby maintain overall information security, an internal information security website, "Information Security Website", is built to offer real-time information security news to the employees.

- **Information Security Education and Training**

Online required information security courses covering information security policies and usage guidelines are completed. All our employees are required to complete information security courses for personnel at different levels, allowing them to become aware of the importance of information security and any potential security risk, improving their information security awareness, and ensuring their compliance with related information security regulations.

Online information security courses in 2022: Courses titled "Information Security for Individuals; An Introduction to Information Security; An Introduction to Network Security" were provided. A total of 5,272 employees took the courses, with a training completion rate of 99.62%.

- **Cybersecurity Incident Status in the Past Three Years**

From 2020 to 2022, there were no significant cybersecurity incidents, and there were no instances of confidential information leakage impacting customer and employee personal data, as well as any occurrences of fines.

Information Security Management Achievements in 2022

Defense in Depth for Information Security

Network Security

- North-south and east-west firewalls and network control have been reinforced to prevent virus attacks from spreading.
- Advanced technology was introduced for computer scanning as well as system and software updating.
- We formed a security operations center and built a safety intelligence database through data collection and big data platforms. User and entity behavior analytics has been combined with machine learning to provide a real-time early warning mechanism.

Device Security

- Network visibility has been improved to identify and control network-connected devices.
- Multi-layered endpoint information security protection programs have been used to strengthen the detection and response to unknown attacks.
- Regular vulnerability assessment was performed for devices in internal user network segments on a weekly basis.

Application Security

- We established safety framework design principles and carried out source code security testing and product safety verification to integrate product design with information security.
- Regular vulnerability assessment was performed for systems and devices in the internal host network segment every week. Cyberspace security services were used to assist in external automated risk exposure evaluation to reinforce software asset and safety control.

Data Security

- The classification of confidential documents, authority control, and data backup and protection have been further ensured.
- The Company introduced document and data encryption as well as effective track records.

Enhanced Information Security Awareness

Education and Training

- 5,272 employees participated in information security education, training and tests, with a training completion rate of 99.62%. All participants passed the tests.
- An email-based social engineering drill was conducted on a half-yearly basis. High-risk employees identified in the drill received reeducation and retraining for information security to boost their information security awareness and vigilance.

Awareness Promotion

- An internal information security website was built to provide information security policies and share new information, thereby increasing information security risk awareness.

Regular Risk-related Drills

Operational Impact Analysis

- Backup system switchover drills for keeping our information systems essential to the business running were completed.

Improved Disaster Response Capability - COVID-19

Disaster Recovery Plan

- In response to the impact of COVID-19, we used highly secure equipment, adopted a multi-factor authentication mechanism, and regularly reviewed the authorization status to further secure the information system services and network connections, enabling the employees to work from home.

2. Product Information Security

In an effort to monitor potential external threats continuously and cope with security issues immediately, Zyxel Group has formed the "Product Security Incident Response Team" (PSIRT). The team maps out and executes product safety control measures, identifies procedures and guidelines required to be improved together with our product safety representatives, and makes flexible and continuous revisions. It has established safety framework design principles and carried out source code security testing and product safety verification to solve root problems and integrate product design with information security.

The Company joins the CVE Community as a CVE Numbering Authority (CNA) of the MITRE's Common Vulnerabilities and Exposures (CVE) Program to not only self-manage, but also analyze product vulnerabilities. We hope to facilitate the internalization of product safety and accelerate the achievement of security by design with an external force obtained by acquiring the international membership. Compliance with the safety design principles is required throughout the R&D process to ensure the confidentiality, integrity and availability of the Company's information security management system.



3. Intellectual Property Protection

With the evolution of network technology and the growth of market demand, Zyxel Group actively develops various network technology and other products. In order to maintain Zyxel Group's competitive advantage in innovative technology capabilities and protect the interests of all stakeholders, we prioritize the protection and control of intellectual property and confidential information.

Intellectual Property System

Zyxel Group has developed intellectual property management strategies and established a mechanism to improve the advantages and value created from intellectual property. Zyxel Group's "Procedural Management Guidelines for Intellectual Property" were formulated to set up the management objectives, application policies, and management maintenance of intellectual property rights. Zyxel Group has also adopted the Taiwan Intellectual Property System (TIPS) to strengthen Zyxel Group's intellectual property management system and enhance Zyxel Group's competitiveness.

Patent Protection

Zyxel Group attaches great importance to the development of various types of patents, and enhances Zyxel Group's competitiveness in intellectual property through the strategies of education, a rewards system, and a talent training management system.

Reward: Zyxel Group formulated the "Employee Creative Invention Proposal Reward Guidelines" and related patent invention bonuses to encourage R&D colleagues to actively engage in innovative R&D, provide creative proposals, apply for patents, and continue to accumulate patent rights, copyrights, trademark rights, trade secrets, and professional technique intellectual assets.

Training: The "Valuable Patent" course is held, with business and product managers and R&D colleagues as the main teaching target, to introduce the definition of valuable patents and Zyxel Group's patent proposal application process and improve the quality of patents.

Protection of Intellectual Property for Suppliers

We also request our suppliers to protect intellectual property and specify in the procurement contract with them that the subject matter delivered by the suppliers shall not infringe the patent right, trademark rights, copyright, or the rights of others.

Dissemination and Training Courses

To accumulate our R&D capacities, new employees are required to take courses on intellectual property rights. These courses cover an introduction to patent systems and the prevention of rights violations and focus on intellectual property management training. The Company promotes the responsibility and obligation to protect intellectual property with the employees and adopts non-disclosure agreements for the protection of the intellectual property. All our employees must also complete our CSR courses involving the protection of intellectual property rights every year. They are required to maintain the confidentiality of the confidential information of the Company and customers, are obligated to protect the information, and shall not communicate or obtain such information for internal and external individuals, companies or organizations unauthorized to access it.

completion rate for courses on business secret protection regulations in 2022:99.8%

|Value Chain

A. Customer Relations

B. Supplier Sustainability



A. Customer Relationship


Customer Service Policy

The Company is devoted to listening to the voice of customers, creating values with service quality, and satisfying the customers' needs. The customers' complaints are always prioritized. We take the customers' critiques and suggestions on the chin with a proactive and ethical attitude and strive to improve our product and service quality.

Customer Service Commitment

We offer innovative design, manufacturing and services and deliver competitive and high-quality products and services in time to ensure customer satisfaction.

Strategies and Goals for Material Issues

Material Issue	Operational Influence	Promotion Strategy	Management Approach	Achievement in 2022	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Customer relationship management	Customer satisfaction and trust can be built for higher profits	<ul style="list-style-type: none"> · Maintain smooth and effective communication with customers · Adopt a rigorous product quality control mechanism · Implement the customer information protection mechanism 	<ul style="list-style-type: none"> · Customer satisfaction: MitraStar perfect 10/10 score, ZNet 5/5 score · Business Confidentiality Training Coverage Rate 	<ul style="list-style-type: none"> · Customer satisfaction score: MitraStar 9.49, Znet 4.28 · Business Confidentiality Training Coverage Rate: 99.8% 	<ul style="list-style-type: none"> · Customer satisfaction score: MitraStar >9, ZNet >4.3 · Business Confidentiality Training Coverage Rate >99% 	<ul style="list-style-type: none"> · Customer satisfaction score: MitraStar >9.5, ZNet >4.5 · Business Confidentiality Training Coverage Rate >99.5% 	 Partnerships for the goals

1. Protection of Confidential Information

With the aim of protecting the interests of all stakeholders, Zyxel Group highly values the protection and control of confidential business information. Hence, the Company has developed the "Management Guidelines for the Classification of Confidential Documents" to specify appropriate methods to keep confidential documents secure and related protection measures and thereby facilitate the management of the Company's business secrets and internal confidential documents.

When entering into a contract with a third party, we request it to observe the information confidentiality rules and explicitly state that both parties shall be responsible for keeping the confidential information of the opposing party known or held thereby for performing the contract confidential and shall not divulge the confidential information of the opposing party to others, provide them with the information, or assist them in obtaining it, in any form. Both parties shall perform necessary measures to prevent the confidential information from being stolen or divulged, including reasonable measures for ensuring that employees having access to the confidential information of the opposing party do not disclose it.

2. Customer Communication Platform

Zyxel Group's subsidiaries have built their own customer relationship management systems to offer timely, effective, high-quality and interactive information exchange and problem-solving services to customers. The distribution partners of Zyxel Communications across the world serve as the best platform for us to communicate with global customers. We not only organize activities with the distribution partners to share product planning and after-sales services, but also provide online training courses and training completion certificates to allow the distribution partners to offer customers timely local services with higher quality.

eITS Customer Service System

Zyxel Group's professional customer service team uses an eITS system to provide product consulting services, problem-solving solutions, software updating information and product documents, product education and training courses, and education and training platforms for large brand customers to help boost their technical service capabilities for new products. Our eITS system enables the tracking and management of the progress of all customer support tasks.



Customer Complaint Platform

Our customer service system also provides a customer complaint platform to handle customer complaints.

In 2022, no material customer complaints were received via the platform.

Customer Service Knowledge Platform

To equip our customer service personnel with more comprehensive professional skills, a customer service knowledge platform has been built to gather technical product information, problem-solving records and other information for the personnel's reference and for the inquiry of our front-line employees or partners.

Social Media Platform

Enables users to interact and share knowledge and experiences. Offers features including a knowledge base, frequently asked questions (FAQs), and discussion forums. It provides users with an individual learning and communication platform while also offering us a swift means to receive feedback and enhance our products.



3. Customer Satisfaction Survey

We focus on the R&D and OEM of network communication technology and products and spare no effort to have a grasp of the needs and expectations of large brand customers. Our Customer Service Department is responsible for looking into, gathering data on, and analyzing customers' satisfaction with its after-sales services according to the ISO9001 procedures every year, notifying relevant departments of customer feedback for improvement and review, and informing the customers of the improvement.

Customer satisfaction surveys are conducted mainly by sending questionnaires to customers by email. The department has interviews with the contact persons of the customers, if necessary, after the initial analysis to ensure the correct interpretation of customer feedback.

Our subsidiary, Zyxel Networks provides high-quality products and services to small and medium-sized enterprises, along with real-time technical support. In 2022 Zyxel Networks achieved a 96.2% customer online system issue response rate and delivered satisfactory solutions to customers within the specified timeframe.

MitraStar Technology Customer Satisfaction Score (Perfect score: 10)

Year	2019	2020	2021	2022	2022Goal
Score	8.98	9.23	9.77	9.49	9.33
Survey response rate	66.7%	85.7%	70.0%	76.7%	74%

Zyxel Networks Technology Customer Satisfaction Score (Perfect score: 5)

Year	2019	2020	2021	2022	2022Goal
Score	-	-	4.64	4.28	4.46
Survey response rate	-	-	55%	94%	80%



B. Supplier Sustainability Management

In addition to suppliers' competitive quality, Zyxel Group expects to continuously improve the overall supply chain's resilience through the stable development of partnerships with its suppliers, and by implementing responsible procurement.

Zyxel Group assesses the overall sustainable value generated by the supply chain and places great value on suppliers' aspects of governance, environment, and society. The purpose is not only to treat suppliers as our business partners, but also as our partners in promoting sustainable development issues. Zyxel Group is committed to partnering with our suppliers to ensure that working conditions in our supply chain are safe, their workers are treated with respect and dignity, and that business operations are environmentally responsible and conducted ethically.

In recent years, in response to emerging risks in the supply chain, the identification and prevention of supply chain risks and the preparation of countermeasures have been strengthened to reduce the impact of supply chain disruption risks.

Supplier Sustainability Policy

Value supply chain sustainability values, improve the sustainable supply chain capabilities of our suppliers, cooperate with our suppliers in sustainable development and the creation of a responsible supply chain industry.

Supplier Management Guidelines

Training of suppliers' management staff



Supply chain sustainability management

Development of suppliers' sustainability capabilities

Supplier Management Strategies

Integrate the Group’s resources to achieve competitive costs through strategic collaboration	Take supplier relationships and harmonious partnerships seriously
Focusing on opportunities and risks, and creating the optimal interests of customers, shareholders, and employees.	Reinforce partnerships to increase the value of value chains
Realize a supply chain sustainability management model	Committed to adhering to regulatory commitments, and implementing international initiatives and standards.
Pursue corporate sustainability and focus on the Company's economic, environmental, and social operations.	Policy ensures that suppliers comply with ESG standards and do not use metals sourced from conflict minerals.
QCDS	Collaboratively building a green supply chain with suppliers
Regularly evaluate the suppliers in terms of their quality, costs, delivery time, and services.	A green product policy in compliance with international regulations and standards, focusing on the development of energy-efficient products.

Material Issues Strategies and Goals

Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Sustainable supplier	Sustainable supplier management can deepen the partnership with the supply chain and put into practice the Company’s sustainability values	<ul style="list-style-type: none"> Realize a supply chain sustainability management model Build sustainable supply chain partnerships 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment Suppliers’ acquisition of ESG-related certificates 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment: >80% for MitraStar Technology; 100% for Zyxel Communications/Zyxel Networks Percentage of key suppliers acquiring the ISO14064-1 certificate for their organizational GHG inventories: 75% for MitraStar Technology; 95% for Zyxel Communications; 75% for Zyxel Networks 	<ul style="list-style-type: none"> Percentage of suppliers signing a letter of commitment: MitraStar Technology: >90% Zyxel Communications/Zyxel Networks: 100% Percentage of key suppliers acquiring the ISO14064-1 certificate for their organizational GHG inventories: 80% for MitraStar Technology; 100% for Zyxel Communications/Zyxel Networks 	 <p>Employment and economic growth</p>  <p>Partnerships for the goals</p>

Near-term- goals and Achievements

Management Guideline	2022 Goal	2022 Achievement	2023 Goal	2025 Mid-term Goal
Supplier management training				
Conduct purchasing staff training	<ul style="list-style-type: none"> Completion rate of CSR training courses: 100% 100% completion rate of CSR audit/risk courses 	<ul style="list-style-type: none"> Completion rate of CSR training courses: 100% 100% completion rate of CSR audit and risk control course 	<ul style="list-style-type: none"> 100% completion rate of training courses 	<ul style="list-style-type: none"> 100% completion rate of training courses
Ethical Risk assessment for procurement personnel	Ethical Risk Assessment for Procurement Personnel <ul style="list-style-type: none"> 100% evaluation rate 100% signing rate of the letter of commitment 	<ul style="list-style-type: none"> Signing rate of Ethical hazard assessment for procurement personnel /Anti-Corruption and Anti-Bribery Commitment: 100% 	<ul style="list-style-type: none"> Signing rate of Ethical hazard assessment for procurement personnel /Anti-Corruption and Anti-Bribery Commitment: 100% 	<ul style="list-style-type: none"> Signing rate of Ethical hazard assessment for procurement personnel /Anti-Corruption and Anti-Bribery Commitment: 100%
Supply Chain Sustainability Management				
Require suppliers to adhere to a code of conduct	<ul style="list-style-type: none"> Advocacy completion rate: 100% Signing achievement rate: 100% 	<ul style="list-style-type: none"> Advocacy completion rate: 100% Sign-off completion rate: 100% 	<ul style="list-style-type: none"> Advocacy completion rate: 100% Sign-off completion rate: 100% 	<ul style="list-style-type: none"> Advocacy completion rate: 100% Sign-off completion rate: 100%
Suppliers sign CSR statement and integrity commitment	<ul style="list-style-type: none"> Created an online signing system Signing Completion Rate: MitraStar>80%, /Zyxel/ZNet 100% 	<ul style="list-style-type: none"> Completed an online signing system Signing Completion Rate: <ul style="list-style-type: none"> a. Corporate Social Responsibility Statement and Commitment Signing Achievement: Zyxel/ZNet 100% MitraStar 73.93% b. Integrity and Integrity Commitment Signing Achievement: Zyxel/ZNet 100% MitraStar: 74.38% 	<ul style="list-style-type: none"> Sign-off completion rate: MitraStar >80% Zyxel/ZNet 100% 	Supplier sign-off completion rate MitraStar >90% Zyxel/ZNet 100%
Supplier CSR assessment questionnaire	<ul style="list-style-type: none"> Completion Rate: MitraStar 80%, Zyxel/ZNet 100% 	Completion rate MitraStar 73.93% Zyxel/ZNet 100%	Completion rate: MitraStar 80% Zyxel/ZNet 100%	Completion rate: MitraStar 80% Zyxel/ZNet 100%
On-site audit of key suppliers	<ul style="list-style-type: none"> Completion Rate: MitraStar 12 companies, Zyxel/ZNet 100% 	Completion rate MitraStar 14 companies, Zyxel/ZNet 100%	Completion rate: MitraStar: 13 companies, Zyxel/ZNet: 100%	Completion rate: MitraStar 80% Zyxel/ZNet: 100%
Conflict minerals management	<ul style="list-style-type: none"> MitraStar completes the survey according to the customer's request Number of product surveys/coverage rate>90% 	MitraStar: 147 suppliers surveyed Product survey coverage rate: Zyxel 99.9%/ ZNet 99.19%	MitraStar completes the survey according to the customer's request Zyxel/ZNet product survey coverage rate >90%	MitraStar completes the survey according to the customer's request Zyxel/ZNet product survey coverage rate >95%
Supplier Sustainability Cultivation				
Key suppliers import ISO14064 carbon emission plan, attainment of ESG-related certification and ratings	<ul style="list-style-type: none"> Require carbon footprint assessments within 3 years. Require ISO 14064-1 greenhouse gas inventory verification completion rate: Zyxel 95%, ZNet 50%. 	<ul style="list-style-type: none"> Carbon footprint assessment completion rate: Zyxel/ZNet - 100% Greenhouse gas inventory verification completion rate: Zyxel/ZNet 100% Attainment rate for obtaining ESG-related certification and ratings: Zyxel100%, ZNet 50% 	<ul style="list-style-type: none"> Requires carbon inventory within 3 years Requires ISO14064-1 Greenhouse Gas Inventory Completion Rate: Zyxel: 95%, ZNet 50% 	<ul style="list-style-type: none"> Obtained ISO14064-1 inventory completion rate in 2024: MitraStar 75%, Zyxel/ZNet 100% Requirements to obtain RBA / EcoVadis / CDP and other certification evaluation rate: Zyxel: 95%, ZNet 75%
Key Supplier ESG education and training	<ul style="list-style-type: none"> Create video and audio versions of training materials Introduce systematic online promotion rate: MitraStar 80%, Zyxel/ZNet 100%. 	<ul style="list-style-type: none"> Completion of video and audio versions of training materials Online promotion completion rate: MitraStar 80%, Zyxel/ZNet 100%. 	<ul style="list-style-type: none"> Completion rate: MitraStar 80% Zyxel/ZNet: 100% 	<ul style="list-style-type: none"> 100% completion rate for key suppliers by 2025

1. Supply Chain Overview

Zyxel Group is a network communication equipment manufacturer. The Company and the subsidiaries thereof, MitraStar Technology, Zyxel Communications and Zyxel Networks, are based in Taiwan, have branches in America, China, Southeast Asia, and Europe, and serve 150 regional markets around the world. The Company has production bases in Taiwan and China. We continue the promotion of procurement localization to allow the suppliers to offer services in a more effective way, shorten the delivery time to reduce environmental footprints, and help the suppliers create more job opportunities while cementing our long-term partnerships with them. The types of procurements from the suppliers depend on the nature of the business of our subsidiaries. MitraStar Technology focuses on the R&D and OEM of products; Zyxel Communications offers brand products to telecommunications operators; Zyxel Networks is engaged in channel sales.

Main Types of Procurements from Suppliers

MitraStar: Key suppliers under the category of PVL in annual selection
Zyxel/ZNet: Key suppliers with annual transaction amount >80%

Main Types of Procurements from Suppliers

MitraStar Technology: The procured raw materials and parts/components mainly include integrated circuits, circuit boards, displays, electromechanical components, mechanical parts, and packaging materials. The consumable production materials are solder paste, solder wire and other consumable materials used for the processes. In 2022, 445 suppliers located in Taiwan, China, Hong Kong, Malaysia, South Korea, Singapore, and the United States, from which MitraStar Technology's locations sourced raw materials, parts/components, and consumable production materials, accounted for 80% of the locations' purchases.

Zyxel Communications: It mainly sources customer-end equipment, central office equipment, wired and wireless access network equipment, and mobile broadband solutions from 12 finished product suppliers, of which the top three suppliers account for 96% of the purchases. The suppliers are located in Taiwan, China and Thailand.

Zyxel Networks: It works with original design manufacturers (ODMs) in developing communications products and sources finished products from suppliers to offer customers valuable products, services and solutions through its sales channels. In 2022, Zyxel Networks traded with 16 finished product suppliers, of which the top four suppliers occupied 80% of the purchases. The suppliers are located in Taiwan and China. Zyxel Networks' production base is in China and can enable the flexible production of information security products in Taiwan at customers' request.

2. Electronic Supplier Management System

To effectively drive sustainable supply chain management, Heqin Investment and Control establishes the "Global Supply Chain Management Headquarters" and forms the "Heqin Investment and Control Sustainability Committee - Supplier Management Group." This committee integrates the supply chain systems of its subsidiaries and is responsible for coordinating, planning, and implementing project activities.

Supplier Electronic Management System

Through the Green System and Outsourcing on Web System, the system consolidates supplier ESG management-related activities, educational training courses, and information on advocating supplier code of conduct and other related data.



3. Training of Suppliers' Management Staff

| Moral Hazard Assessment for Suppliers' Management Staff

Every year, the "Zyxel Group Sustainability Committee - Risk Management Team" conducts a moral hazard assessment for employees according to the "Labor Risk and Moral Hazard Factor Identification and Assessment Form", identifies high-risk issues using the hazard level assessment method, and issues a "high-risk item assessment result report".

Procurement personnel considered to have high potential moral hazards under the item "improper benefits" according to the identification result and high-risk issues identified are listed in the report. A "business ethics checklist" is provided for the personnel to check any moral hazard that may be generated from trading with the suppliers. Control measures and rectifications made for the risk issues, as well as reviews verified subsequently, are recorded in the report. All procurement personnel are also required to sign the "Letter of Commitment to Anti-corruption and Anti-bribery" to ensure a fair, impartial and reasonable competitive environment.

In 2022, all the personnel signed the "Letter of Commitment to Anti-corruption and Anti-bribery".

| Supplier Whistleblowing Channels

We have a supplier whistleblowing channel in place and its email address is available on the Company's website. The recipients are the chief auditor and top management. All whistleblowing emails are anonymous. This channel can help the Company manage moral hazards generated during supplier management.

Reporting channel for violations of integrity management: audit@zyxelgroup.com

| Training of Suppliers' Management Staff

In terms of the development of the employees' supplier management capabilities, the Company actively offers education and courses on sustainability concepts and knowledge as well as supplier management capabilities, particularly to the on-site supplier audit team to enhance the formulation of on-site audit plans, audit techniques and approaches, and process management and assist the suppliers in improving their knowledge-based and experiential training. We also include the suppliers' management staff's implementation of sustainable procurement goals and strategies as a performance evaluation item, demonstrating our attention and determination to implement supply chain sustainability management.

CSR Education and Training: All management staff of the suppliers complete CSR training courses that all our employees are required to take on the online education and training platform every year.

Sustainable Procurement Training: New courses are launched for the management staff of the suppliers. The courses are classified into two categories, "ESG Education and Training Materials for the Group/Suppliers - Basic" and "ESG Education and Training Materials for the Group/Suppliers - Advanced". Relevant concepts are promoted through online education and courses in the hope of incorporating the concept of sustainable procurement into supplier selection and management.

Supplier Management Tools: The suppliers' management staff share their data management and visualization tools or collaboration tools to improve our procurement personnel's capabilities to handle and interpret data and boost communication efficiency. Different product departments are invited to introduce new products and their features to employees. The procurement manager regularly selects books and organizes guided reading circles to encourage the employees to be engaged in continuous advanced education. The Company's training programs are initiated with "change management" and "responsible supply chains" as the pillars.

Training for the Supplier Audit Team: For the training of the "Supplier Audit Team" for supplier audit capabilities, training programs have been implemented. Training meetings are convened for the Supplier Audit Team before on-site supplier audits to not only discuss SOPs for the on-site audits and appoint members who will be in charge, but also to conduct audit R&R drills and training.

4. Supplier Sustainability Management Approach

As part of the Zyxel Group procurement and supply chain development policy and commitment, we established a four-stage sustainability supply chain management process with requirements management, risk assessment, audit confirmation, and continuous improvement. We evaluate the performance of the supply chain with regards to the three aspects of economy, society, and environment. This helps ensure that suppliers meet standards and improve their sustainable performance.



Step 1: Requirement Management

To create a supply chain compliant with the RBA standards and evaluate the suppliers' capabilities to fulfill social responsibility, we set up the "Responsible Procurement Management Procedure" and the "Supplier CSR Audit Guidelines". The Procedure and the Guidelines are used as a basis for supplier sustainability management principles to urge the suppliers to meet the sustainability requirements. In addition, the suppliers are required to sign the "Ongoing/Product Procurement Agreement" to ensure the compliance of the products offered with environmental protection laws and regulations and product safety regulations. They must also make a declaration of the non-use of conflict minerals to achieve the goals of pollution prevention, environmental impact mitigation, and personal safety.

We follow the ILO's standards, the RBA Code of Conduct, and the self-requirements for best practices of benchmarks in the electronics industry are adopted as reference for the establishment of the "Code of Conduct for Suppliers" regulating labor, health and safety, environment, business ethics, and management systems.

Step 2: Risk Assessment

To gain a deep understanding of the suppliers' status, the suppliers are required to provide relevant information for CSR evaluation. We also conduct monitoring with risk management measures, evaluate the current performance of the suppliers according to the "Supplier Social Responsibility Evaluation Questionnaire", and validate it through subsequent "on-site audits". A formal audit report is then issued to identify supply chain sustainability risks

The Company uses "supplier social responsibility audit reports" as an indicator for supplier selection and evaluation and adopts multiple supplier risk management measures to cope with supplier risks that occur.

Our suppliers are required to sign the "Suppliers' Declaration and Letter of Commitment to Corporate Responsibility" to make sure they understand our conditions for sustainable collaboration and must live up to their commitments. As for business ethics, they shall sign the "Letter of Commitment to Integrity". In terms of environmental protection, the "Letter of Commitment to Non-Use of Environmentally Hazardous Substances" is required for the suppliers to ensure that they observe the code of conduct and take responsibility for social and environmental protection.

Suppliers' Signing of the Letter of Commitment to Social Responsibility / Commitment to Integrity

	Number of signed suppliers in 2022	Achievemnt rate	2023Signed Supplier Target
MitraStar	445	73.93% / 74.38%	80%
Zyxel	12	100% / 100%	100%
ZNet	16	100% / 100%	100%

A: Suppliers' Presentation of Their Material Supply Response Measures and Risk Management

For the risk management and response measures of key suppliers, the suppliers are required to present their material supply response measures and risk management practices by reporting or disclosing the information on their website or by email so that we can conduct risk identification for the suppliers to reduce risks.

B: Audits with the "Supplier Social Responsibility Evaluation Questionnaire"

Reviews using the "Supplier Social Responsibility Evaluation Questionnaire" are conducted for all our suppliers. The questionnaire covers labor, health and safety, environmental standards, business ethics standards, anagement systems, and other items. Through the audits, we can understand how well the suppliers are aware of sustainable management in order to identify supplier risks.

Subsidiary	Suppliers That Should be Evaluated	Number of Suppliers Evaluated	Completion Rate
MitraStar	445	329	73.93%
Zyxel	5	5	100%
ZNet	4	4	100%

(Note: The investigation covers suppliers with annual transaction amounts in the top 80%)

C: Identification of High-risk Suppliers

High-risk suppliers are identified with the "Supplier Social Responsibility Evaluation Questionnaire". These suppliers are required to present their improvement plans and their progress for us to formulate "on-site audit" plans for evaluating them on-site and checking the improvements made.

Definition of High-risk Suppliers

Stage 1	Suppliers first conduct self-evaluation to determine if they are high-risk suppliers through the "Vendor Audit Report & CSR Audit Evaluation and Report".
Stage 2	Supplier classification management is carried out according to the "risks" and based on the "supplier risk matrix".
Stage 3	For "key high-risk suppliers" in relatively urgent need of management in the "supplier risk matrix", the actual status of their risks is confirmed through on-site audits and continuous guidance is provided for them to mitigate such risks.

Sustainability Risk Assessment Factors



Step 3: On-site Audits

The Company performs on-site audits for our key suppliers for their compliance with the RBA Code of Conduct and laws and regulations in terms of labor, ethics, health, safety, and environment according to the RBA Validated Assessment Program (VAP) so as to identify and validate supply chain sustainability risks through the issued audit report. We also use “supplier social responsibility audit reports” as an indicator for supplier selection and evaluation.

Supplier ESG Audit Team

Consisting of the Supplier Quality Management, Human Resource, Environmental Safety and Health, and Procurement Departments, the “Supplier ESG Audit Team” is responsible for the evaluation, assessment and management of the suppliers’ social responsibility capabilities. The audit team shall receive training on the RBA standards and the Company’s system manual, as well as training courses for internal auditors.

The “Supplier ESG Audit Team” shall exert its influence on the suppliers to convey and disseminate the RBA standards and requirements to them, thereby encouraging all the suppliers to adopt measures to improve their social responsibility performance.

Moreover, the team creates supplier social responsibility files to keep the evidence and records of suppliers’ evaluation results and improvement measures on file.

Supplier Sustainability Rating Level

Suppliers who score 60 or higher in the supplier social responsibility evaluation are qualified to collaborate with the Company. They shall also present improvement plans for non-compliance items identified by the Company’s Supplier ESG Audit Team and improvement will be tracked and validated subsequently. Suppliers whose scores are 59 or below shall neither be listed in the approved vendor list nor considered for collaboration with the Company, unless they make improvements for non-compliance items identified by our Supplier ESG Audit Team in the evaluation, apply to the Company for an on-site re-evaluation in written form, and obtain a passing score in the re-evaluation.

On-site Supplier Audit Outcomes in 2022

MitraStar: Targeted audits for 14 Tier-1 suppliers (Key Suppliers), accounting for 15.7% of MitraStar's total key suppliers of 89. Conducted on-site audits for 14 suppliers, achieving a 100% audit completion rate in 2022.

Zyxel: Targeted audits for 3 Tier-1 suppliers (Key Suppliers). Conducted on-site audits for all 3 suppliers, achieving a 100% audit completion rate in 2022.

ZNet: Targeted audits for 4 Tier-1 suppliers (Key Suppliers). Conducted on-site audit for 1 supplier (jointly audited with Heqin), and conducted remote audits through video calls for the other 3. Achieved a 100% audit completion rate in 2022.

In 2022, MitraStar, Zyxel, and ZNet did not terminate any supplier relationships due to non-compliance with audit results or improvements.

	Number of Targeted Audits (Key Suppliers)	Number of On-site Audits	Audit Completion Rate	Note
MitraStar	14	14	100%	Accounts for 15.7% of MitraStar's Key Suppliers
Zyxel	3	3	100%	-
Znet	4	1	100%	The other three underwent video call audits.

Step 4: Continuous Improvement

We give continuous assistance to the suppliers in rectifying deficiencies and conduct evaluations and set standards for them in the hope of building long-term partnerships with them and jointly creating a responsible supply chain industry jointly. Partnerships with the suppliers will be terminated if their improvements fall short of the requirements. In 2022, the Company did not terminate partnerships with any suppliers for their audit results or improvements not meeting the requirements.

Zyxel Group's supply sustainability plan aims to improve the sustainable supply chain capabilities of our suppliers. Learning materials for the "Supplier CSR Education and Training" are designed according to the "Responsible Business Alliance (RBA) Code of Conduct" that we adhere to. In this way, we can disseminate labor rights, ethical, health, environmental, and management system standards and assist the suppliers in ongoing improvements. In addition, a supplier whistleblowing channel is in place with the chief auditor and top management as the recipients to avoid malpractice.

| Main Deficiencies and Improvement Actions of Zyxel Group's Suppliers in 2022

MitraStar: Conducted on-site ESG audits for 14 key suppliers, identifying a total of 105 deficiencies. Achieved a 100% audit improvement rate in 2022.

Zyxel: Conducted on-site ESG audits for 3 key suppliers, identifying a total of 29 deficiencies. Achieved a 100% audit improvement rate in 2022.

ZNet: Conducted on-site ESG audit for 1 key supplier and video call audits for 3 key suppliers, identifying a total of 60 deficiencies. Achieved a 100% audit improvement rate in 2022.

MitraStar		
Item	Number of Deficiencies	Improvement Completion Rate
Labor and Human Rights	30	100%
Health and Safety	68	100%
Management System	7	100%

Zyxel		
Item	Number of Deficiencies	Improvement Completion Rate
Labor and Human Rights	10	100%
Health and Safety	18	100%
Management System	1	100%

ZNet		
Item	Number of Deficiencies	Improvement Completion Rate
Labor and Human Rights	18	100%
Health and Safety	32	100%
Management System	10	100%

5. Sustainable Procurement

When selecting suppliers for cooperation, Zyxel Group strictly requires that the suppliers' materials ranging from components to accessory materials during product manufacturing, must comply with international environmental protection laws and regulations and set evaluation items for new suppliers based on the environmental issues identified by the RBA. In terms of conflict mineral management, our green product policies for the suppliers prohibit the use of conflict minerals and require the suppliers to make a commitment to not use the conflict minerals. Through the regulations and requirements, we are able to realize a supply chain sustainability management model.

Our brand subsidiaries, Zyxel Communications and Zyxel Networks, also identify conflict minerals as critical materials for the control of critical material risks according to the management procedure.

Compliant with international environmental regulations

- The Green Product Management - New Supplier Evaluation Operation process developed to select manufacturing suppliers that meet international hazardous substance management requirements to ensure all products comply with relevant regulations.
- The Supplier Green Product Purchasing Contract and Supplier Corporate Social Responsibility Statement formulated to standardize suppliers' compliance with environmental protection directives including "the Restriction of the use of certain hazardous substances in electrical and electronic equipment", the "Waste Electrical and Electronic Equipment Directive", the "Directive of Packaging and Packaging Waste", "Registration, Evaluation, Authorization and Restriction of Chemicals", the "Batteries and Accumulators and Waste Batteries and Accumulators Directive", the "Directive of Eco-design Requirements of Energy-using Products (ErP)", "US Conflict Minerals", the "Stockholm Convention on Persistent Organic Pollutants (POPs)", and "TSCA, the Toxic Substances Control Act", and address environmental issues of corporate social responsibility and other requirements.
- Suppliers are required to submit product-related component testing and verification reports during the product design stage, and the product development progress and implementation results are monitored through the review report.
- Green Management Platform: Aiming to implement "green management operational processes" among suppliers, the company established its green

management requirements to be communicated and enacted through an online platform (B to B mode). This platform facilitates the collection of relevant data, including surveys and test reports, to enable investigation into whether the components provided information by suppliers contain hazardous substances. It provides crucial information for supplier management and component approval processes. Simultaneously, it generates essential databases of green components and qualified supplier information.



Conflict Minerals Management

Conflict Minerals / Metal Management Policy

The subsidiaries of Zyxel Group promise not to accept metals sourced from non-compliant smelters in conflict areas and have published the "Prohibition of Conflict Minerals / Metal Statement" on the company's official website. We also ask suppliers to abide by the Prohibition of Conflict Minerals/ Metal procurement policy and communicate this requirement to their upstream suppliers for compliance.

Zyxel Group has established a conflict minerals procurement policy and management process. The prohibition of conflict minerals metals has been incorporated into the suppliers' green product policy. The company commits to not using conflict minerals or metals and refrains from accepting minerals from non-compliant smelters in the Congo and its surrounding countries and regions. Raw materials such as tantalum (Ta), tin (Sn), gold (Au), tungsten (W), cobalt (Co), mica, palladium (Pd), etc., sourced from the Congo and its neighboring countries and regions under the control of armed groups, will not be utilized in the manufacturing of products. The company has also issued a "Conflict Minerals Prohibition Statement" to communicate this commitment.

Our "Conflict Minerals Internal Flow Chart" is designed to ensure the suppliers' conflict minerals management process. MitraStar has adopted the RBA's "Conflict Minerals Reporting Template" (CMRT) to conduct a reasonable level of mineral source country investigation (Reasonable Country of Origin Inquiry, RCOI) which data provided by the

Responsible Minerals Initiative for suppliers to identify the sources of 3TG in their products and confirm whether it comes from conflict areas.

Zyxel Group's "Conflict Minerals Policy" covers procurement procedures. When the supplier signs the procurement contract, it also agrees to the prohibition of conflict minerals. Suppliers are required to abide by our procurement policy's prohibition of conflict minerals and comply with the "Conflict Minerals Reporting Template" and work together with us to do their best for corporate social responsibility.

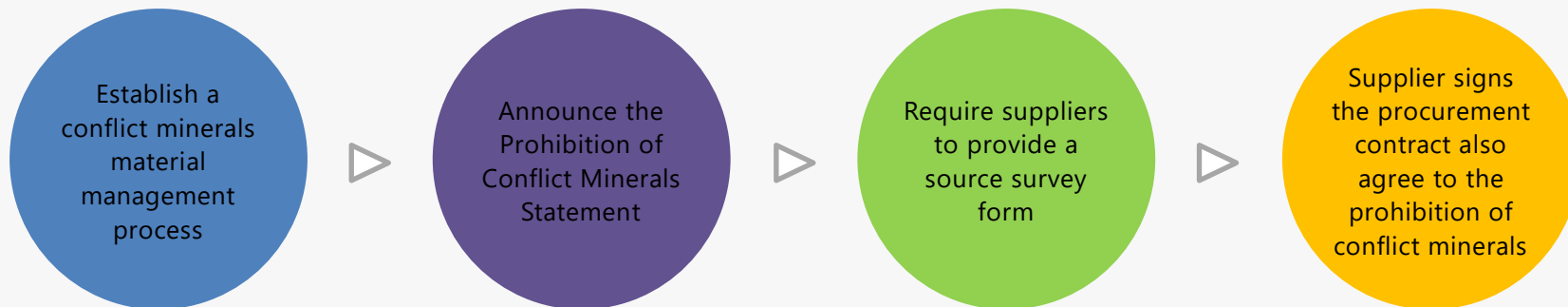
Product and Supplier Survey Coverage Rate

In 2022, Zyxel product survey coverage rate was 99.9%, ZNet product survey coverage rate was 99.19%. From 2015~2022, MitraStar Technology surveyed 147-part suppliers for the possible use of metal minerals for the product parts at customers' request.

Note 1: Zyxel/ZNet is an original brand manufacturer. The coverage rate for its product surveys for conflict mineral management in 2022 was calculated without taking into account its material suppliers and the other original brand manufacturers of the Group.

Note 2: As MitraStar is an ODM, the conflict mineral surveys for its suppliers are conducted mainly at customers' request. It was relatively difficult to calculate the percentage of suppliers surveyed due to larger changes in the supplier pool. Hence, the number of suppliers surveyed was disclosed instead.

Conflict Minerals Management Process



6. Development of Suppliers' Sustainability Capabilities

We actively collaborate with our suppliers, working together towards a sustainable environmental vision. In addition to providing ESG-related training to our suppliers, we assist them in continuous improvement initiatives. We engage in climate change cooperation by requiring our suppliers to adopt ISO 14064-1 greenhouse gas inventory plans. This serves as the foundation for future product carbon reduction efforts and the formulation of low-carbon management goals for our suppliers. We also offer incentive programs to encourage their participation.

We disclose the details of our collaboration with suppliers on the CDP Climate Change platform, where we have received an A- Leadership rating. This achievement showcases our determination and accomplishments in accelerating global climate action in collaboration with our suppliers.

Thorough Promotion of ESG Training for Suppliers

To disseminate Zyxel Group's sustainability philosophy to our suppliers and facilitate their ongoing improvements, Zyxel Group designs learning materials for the "Supplier CSR Education and Training" according to the RBA Code of Conduct. In this way, we can promote labor rights, ethical, health, environmental, and management system standards.

The training will be conducted in two stages. The first stage aims to provide an understanding of the importance and content of ESG, as well as to communicate Zyxel Group's ESG policies and directions. The 2nd stage will cover the relevant processes and methods for supplier CSR audits. Both phases will be introduced through video presentations on an online system.

ESG Training Goals for Key Suppliers in 2022: MitraStar: 80%; Zyxel /ZNet: 100%

Key Suppliers' Programs for the Introduction of ISO14064 for Carbon Emissions

Zyxel Group has set a goal for GHG emissions reduction, this initiative also seeks to understand the practices and implementation level of GHG inventories among suppliers. This information will serve as the foundation for future product carbon reduction efforts and the formulation of low-carbon management goals for our suppliers. We will initiate targeted assessments and initiatives with key suppliers, integrating ESG criteria into the supplier selection criteria. Key suppliers will be required to obtain certifications and awards related to CSR, as part of our effort to drive sustainable development within the supply chain. Leveraging successful experiences, we will assist suppliers that have yet to obtain certifications in advancing their sustainable supply chain initiatives.

Goals for Suppliers' Programs for Introducing the ISO 14064 Greenhouse Gas Inventory

	2022 Goal	2022 Achievement
Introduction of ISO 14064	Require implementation within 2022 to 2024.	Zyxel/ZNet: 100%
Acquisition of the ISO 14064-1 certificate	Acquisition rate: Zyxel: 95%, ZNet: 50%	Zyxel: 100% ZNet: 50%

Cooperation of Key Suppliers in Product Carbon Footprint Inventories

year	Goal
2024	Target completion rate in 2 years: 50%
2027	Target completion rate in 5 years: 75%
2029	Target completion rate in 7 years: 100%

Reward Programs for Outstanding Suppliers

To encourage the suppliers to advance sustainable development, and build sustainable supply chain partnerships, we not only require them to bring forth new ESG projects in the supplier evaluation, but also to evaluate the suppliers' CSR certification results from impartial third parties every year. Suppliers who make significant progress or have good performance and pass on-site audits are presented with awards and rewarded at the end of the year.



Environment Protection

- A. Climate Change**
- B. Energy Conservation**
- C. Water Management**
- D. Waste Management**
- E. Air Pollution Prevention**
- F. Biodiversity**

Factory locations disclosed in this environmental chapter:

MitraStar Hsinchu site: No. 6, Innovation 2nd Road, Hsinchu Science Park, Taiwan (office + manufacturing area)

Zyxel Hsinchu site: No. 2, Industrial East 9th Road, Hsinchu Science Park, Taiwan (office area)

Sustainable Environment Commitment

Climate change has been the environmental issue that most concerns the world. With the upcoming trend of a low-carbon and circular economy, we are deeply aware that marching towards environmental sustainability is the only way to achieve sustainable management in the competitive market in the face of the global trend.

Zyxel Group makes a commitment to take the impacts of climate change seriously, identifies a sustainable environment as one of the material issues for the Company's sustainable operations, and responds to the stakeholders' concerns about environmental issues and expectations of us.

For environmental strategies, three strategic pillars, "Supply Chain Carbon Reduction", "Climate Mitigation and Adaptation", and "Low-carbon Green Products" are developed based on three value chain aspects, "Green Supply Chain", "Green Operations", and "Green Products", respectively, to identify climate change risks and opportunities. We also implement mitigation and adaptation plans, set GHG reduction, water saving and waste reduction goals, and drive our employees' eco-friendly awareness and actions. A green product management system has been introduced to reduce the environmental impacts throughout the life cycle of our products. We respond to the demand of customers for information on the carbon emissions of the products by disclosing their carbon footprints. In addition, the suppliers are required to make plans for carbon inventories to be used as a basis for reducing the carbon emissions of the products and setting low-carbon management goals for the suppliers in the future. Comprehensive sustainable actions take place through collaboration with our employees, customers, and suppliers in the value chain. The Company also uses management systems to make ongoing improvements, actively supports international initiatives, and stays in line with global sustainable actions.

Three Environmental Strategy Pillars

Upstream Supply Chains	Company's Operations	Downstream Customers
		
Strategy		
<ul style="list-style-type: none"> • Setting of low-carbon management goals for suppliers • Require suppliers to conduct carbon inventory • Suppliers to establish carbon reduction plans 	<ul style="list-style-type: none"> • Net-zero carbon emissions • Energy management • Energy transformation • Life transformation • Support for international initiatives 	<ul style="list-style-type: none"> • Introduction of a green product management system to reduce the environmental impacts throughout the life cycle of the products • Disclosure of product carbon footprints in response to customers' demand for information on the carbon emissions of the products








Note: Actions for the three environmental strategy pillars: For Green Supply Chain, refer to Chapter "Value Chain: Supplier Management"; for Green Products, refer to Chapter "Green Products"; for Green

Operations, refer to this chapter: "Environment Protection".

Goals for Three Environmental Strategy Pillars

Pillars	Strategy	Corresponding Practice	2025 Short-term Goal	2026~2030 Medium-to-long-term Goal
Green Operations	Net-zero carbon emissions	Set carbon reduction goals	<ul style="list-style-type: none"> Greenhouse gas inventory completed and third-party certification obtained Achieve the science-based targets (SBTs) by 2023 Submit our short-term SBTs by 2025 	Purchase Carbon Credits 50% Carbon Reduction by 2030 Deliver the commitment to net zero in 2050
	Energy management	<ul style="list-style-type: none"> Set energy saving goals Implement electricity saving measures Replace energy-consuming equipment Establish the energy visualization system 	<ul style="list-style-type: none"> MitraStar Technology: Reduce the emissions by 300 metric tons CO2e Zyxel Communications: Reduce the electricity consumption of the cooling towers by 15,000 kWh per year (reducing the emissions by 8,310 tons CO2e) 	MitraStar Technology (manufacturing plant) Perform additional energy measures to achieve a reduction of 20 million kWh in the electricity consumption from 2015~2030
	Energy transformation	Use renewable energy	Assess the installation of additional photovoltaic power systems	Purchase Green Energy Assess joining RE100
	Life transformation	Update in-plant equipment	<ul style="list-style-type: none"> Use highly efficient cooled water chillers Replace outdated manufacturing equipment Introduce smart material racks 	2030 Purchase electric company cars
	Support for international initiatives	Support international initiatives and commitments and participate in the initiatives	<ul style="list-style-type: none"> CDP Carbon Disclosure Commit to the Science Based Targets initiative (SBTi) Support TCFD for the financial impact of climate change Initiate RE100 	Assess joining EV100
Green Supply Chain	Supply chain carbon reduction	<ul style="list-style-type: none"> Conduct supplier energy consumption diagnosis Require suppliers to conduct carbon inventory Suppliers to establish carbon reduction plans 	<ul style="list-style-type: none"> Key Supplier Carbon Inventory Completion Rate: MitraStar 75%, Zyxel 100%, ZNet 75% Complete energy consumption diagnosis for major energy-consuming suppliers Suppliers to achieve 50% carbon reduction by 2030 	<ul style="list-style-type: none"> 100% Key Supplier Carbon Inventory Completion Rate 100% Key suppliers carbon reduction by 2050
Green product	Low-carbon products	<ul style="list-style-type: none"> Reduce the environmental impact throughout the product lifecycle Disclose product carbon footprints 	<ul style="list-style-type: none"> Establish design guidelines to ensure eco-friendly packaging, product energy efficiency, easy disassembly and recyclability, and the use of sustainable materials and parts/components Use non-plastic bags, energy-efficient software and hardware that can be disassembled easily, PCR plastics, and 100% recyclable paper packaging materials for green products to be shipped Create a standardized product carbon footprint format Achieve ISO 14067 product carbon footprint verification 	Apply the green product design to all products to be shipped

Green operations near-term goals and Achievements

Issue	Management Guideline	2022 Goal	2022 Achievement	2023 Goal	SDGs
Strengthen climate resilience	Production interruption days	Climate disaster caused production interruption for 0 days	Climate disaster caused production interruption for 0 days	Climate disaster caused production interruption for 0 days	
Greenhouse gas reduction	Setting targets under the SBTi absolute emission reduction approach	Set goals according to the SBTi Absolute Reduction approach: By 2030, achieve a 50% carbon reduction. By 2050, commit to achieving net-zero emissions	Carbon intensity reduced by 15% (Note 2)	Set goals according to the SBTi Absolute Reduction approach: By 2030, achieve a 50% carbon reduction from 2022 levels. By 2050, commit to achieving net-zero emissions.	
Energy efficiency	Achieving energy saving goals	MitraStar Site: save 100,000 kWh of energy; Zyxel Site: save 15,000 kWh of energy	MitraStar Site: save 167,000 kWh of energy; Zyxel Site: save 21,295 kWh of energy A total reduction of 76,195.839 metric tons of CO2e emissions.	MitraStar Site: energy saving 100,000 kWh (reduce 50 tons CO2e emissions) Zyxel Site: energy saving 20,000 kWh (reduce 10.18 tons CO2e emissions)	
Water Management	Continue to implement daily water saving measures	MitraStar Site: Water saving rate >3% Zyxel Site: Water saving rate >3%	MitraStar Site: Water usage increased by 5.63% Zyxel Site: Water usage increased by 4.9%	MitraStar Site: Water saving rate >1% Zyxel Site: Water saving rate >3%	
Waste Resource Management (Note 1)	Waste recycling rate	Recycling rate >93%	Recycling rate: 94%	Recycling rate >93%	
Compliance with environmental regulations	Compliance with regulations	0 cases of violation of environmental protection laws and regulations	No violation of environmental protection laws and regulations	0 cases of violation of environmental protection laws and regulations	
Management system of external certification	Management system external certification	Various environmental management systems have passed external verification up to 100%	Passed ISO14001 external verification	Various environmental management systems have passed external verification up to 100%	

Note1: The scope of environmental strategy goals is defined as follows: Zyxel Group and its subsidiary MitraStar site in Hsinchu, as well as Zyxel's site in Hsinchu. Zyxel site has no manufacturing factories, therefore waste management details are not disclosed.

Note2: Carbon Emission Intensity = Carbon Emissions / Zyxel Group Consolidated Revenue

A. Climate Change

The earth’s climate and environment are gradually deteriorating due to the influence of greenhouse gases. As members of the earth’s citizens, we proactively deal with the problem of global warming, so that the earth can avoid the impact and danger caused by climate change. Establishing the ability to adapt to climate risks and reducing possible climate risks to business operations are important issues that must be faced and planned for early in the sustainable operation of enterprises. Therefore, we actively respond to international environmental initiatives, strive to set goals, and implement practical actions to show the strength of MitraStar’s determination to work together to care for our environment.

1. Participate in international climate initiatives

Climate Actions in Response to the SDGs

To respond to one of the UN’s Sustainable Development Goals, **Goal 13: Climate Action**, emergency measures are adopted to cope with climate change and its impacts.

We aim for GHG reduction, energy saving, water resource management, the incorporation of product R&D into the life cycle of our products, and the disclosure of product carbon footprints.

CDP (Carbon Disclosure Project) Platform

Subsidiaries Zyxel Communications and MitraStar Technology complete questionnaires about “climate change” and “water safety” on the CDP platform every year. For climate change, both of them were rated as **C**. In addition, MitraStar Technology received a **A-** rating for “value chain engagement”. Both of the companies made significant progress in terms of their ratings as compared to the previous year.

The two companies disclose on the CDP platform their climate change-related strategies, goals and actions, set improvement goals and plans for betterment according to the CDP’s evaluation requirements and results, and review their improvements based on the customers’ requirements for suppliers’ CDP performance with the aim of meeting their needs and global expectations.

Participation in the SBTi (Science Based Targets initiative)

The presence of international environmental initiatives on climate change drives the Company to actively commit to support and participate in related global initiatives. We have **submitted an SBT commitment letter, and will present our short-term SBTs** in 2 years to deliver our commitment to net zero in 2050.

We consider joining the **EV100** and **RE100** initiatives to declare the Company’s support for the international initiatives and launch carbon reduction actions.

TCFD for Climate Scenario Analysis and Financial Impact Estimation

Zyxel Group assesses the risks and opportunities of financial impacts from climate change and is scheduled to invite consultants to provide guidance for the departments in conducting further **climate scenario analysis** and **financial impact estimation** for the existing climate change policies and strategies in 2022. By doing so, we are able to grasp current and future risk factors as well as the actual financial impacts on the Company so that risk prevention and response measures can be implemented.

1. Climate-related Financial Disclosures (TCFD)

As an official supporter of the TCFD (Task Force on Climate-related Financial Disclosures), Zyxel Group integrates climate change into one of our assessment projects for significant risks to corporate sustainability. We follow the framework of the "Task Force on Climate-related Financial Disclosures" (TCFD) released by the Financial Stability Board to disclose information on climate governance, strategies, risk management, indicators, and targets, with annual updates. This information is disclosed in our sustainability report and financial annual report.

By adopting this approach, Zyxel Group identifies the risks and opportunities of climate change impact on the company. We oversee operational strategies and financial planning at the corporate governance level, minimizing the financial impact of climate risks on our operations. Furthermore, we analyze opportunities resulting from climate change and intensify our research and development efforts to continuously develop energy-saving products and solutions. In 2022, we initiated a project to assess potential financial impacts through climate scenario analysis.

| Strategies

- Identify risks and opportunities generated by climate change and carry out climate change mitigation and adaptation programs
- Mitigate potential climate change risks and develop capabilities to adapt to the climate risks
- Analyze climate change opportunities, accumulate and increase our R&D capacity, and develop green energy and energy-efficient products and solutions on an ongoing basis
- Set GHG reduction, water saving and waste reduction goals for energy management
- Drive the employees' eco-friendly awareness and actions
- Include climate change risks and the risks caused thereby to the operations in the corporate risk management system to identify, assess, and manage the risks with standardized procedures.

| Governance Organization

• Board of Directors

The chairman of the Sustainability Committee of the parent company Zyxel Group is concurrently the chairman of the board of directors and supervises the promotion and implementation of the sustainable development of the team, and makes decisions and reports directly to the board of directors. The Sustainability Committee reports to the Board of Directors on sustainable development plans and achievements every year. If there are major climate change issues, it will also submit special reports to the Board of Directors.

• Zyxel Group Sustainability Committee

Composed of high-level management, the MitraStar Sustainability Committee is the highest-level organization for sustainable development management. It is the decision-making unit for climate change and coordinates the operation of relevant departments.

• Climate Change Team

The "Environment, Safety, and Health Team" under the Zyxel Group Sustainability Committee is the main member unit of the Climate Change Team. It is responsible for issues related to climate change; including assessing its impact in terms of operational crises and financial impacts, evaluating related risks and opportunities, and the company's climate-related actions and results.

climate-related Financial Disclosures (TCFD)

	Disclosure matters	Response to management strategies and actions
Governance	The board's oversight of climate-related risks and opportunities.	The chairman of the Sustainability Committee of the parent company Zyxel Group is concurrently the chairman of the board of directors and supervises the promotion and implementation of the sustainable development of the team, and makes decisions and reports directly to the board of directors.
	Describe the role of management in assessing and managing climate-related risks and opportunities.	The "Environment, Safety, and Health Team" under the MitraStar Sustainability Committee is the main member unit of the Climate Change Team. It is responsible for issues related to climate change, assessing its impact in terms of operational crises and financial impacts, evaluating related risks and opportunities, and the company's climate-related actions and results.
Strategy	Identify short, medium, and long-term climate-related risks and opportunities	Through cross-departmental discussions, identify short, medium, and long-term climate risks and opportunities
	Impact of climate-related risks and opportunities on operations, strategies, and financial planning	Assess the actual and potential impact of major climate risks and opportunities on the company's business, strategy, and financial planning
	Consider the resilience of organizational strategies in different climate scenarios	Climate action linked to SDG goals
Risk Management	Process for identifying and assessing climate-related risks	Use the TCFD framework to establish a climate risk identification process, and actively identify risks through the climate risk matrix.
	Process for managing climate-related risks	According to the risk identification process, the identification results are collected and discussed in the "Sustainable Development Committee" meeting held every year to formulate management practices.
	Integrate the process of identifying, assessing, and managing climate-related risks into the overall risk management of the organization	Integrate the process of identifying, assessing, and managing climate change risks and various operational risks into the enterprise risk management (ERM) system.
Metrics and Targets	Evaluation of climate-related risks and opportunities followed by strategies and risk management process indicators	Use greenhouse gas reduction, energy conservation, and waste reduction as indicators to measure the degree of risk impact. Incorporate green product research and development into the product life cycle, disclose product carbon emissions, and set low-carbon product indicators
	Greenhouse gas emissions and related risks in all areas	Formulate targets for greenhouse gas reduction, energy conservation, and waste reduction; and set relevant response plans Regularly check greenhouse gas emissions and review the impact of the company's operations
	Targets for managing climate-related risks and opportunities, and the performance of corresponding targets	Expose climate action to meet SDG goals Participate in the SBTi scientific carbon reduction target initiative Implement a monitoring mechanism and set targets for climate risks with a high degree of impact Develop low-carbon indicators for product parts, analyze data on high-carbon parts, and provide relevant information on carbon reduction directions Link the internal system and the data stream of the carbon footprint platform Establish technical standards for the use of recycled plastics and carbon reduction assessment methods

2. The financial impact of climate change according to TCFD

Zyxel Group has incorporated climate change as one of our major risk assessments for corporate sustainability. We adhere to the framework provided by the Financial Stability Board's "Task Force on Climate-related Financial Disclosures" (TCFD), disclosing information related to climate governance, strategies, risk management, indicators, and goals. These disclosures are updated annually and presented in both our sustainability report and financial annual report.

By adopting this approach, Zyxel Group aims to identify the risks and opportunities associated with climate change impacts on our company. We oversee operational strategies and financial planning at the corporate governance level, mitigating the financial impact of climate risks on our operations. Furthermore, we delve into the analysis of climate change opportunities, intensifying our research and development efforts and consistently advancing energy-saving products and solutions.

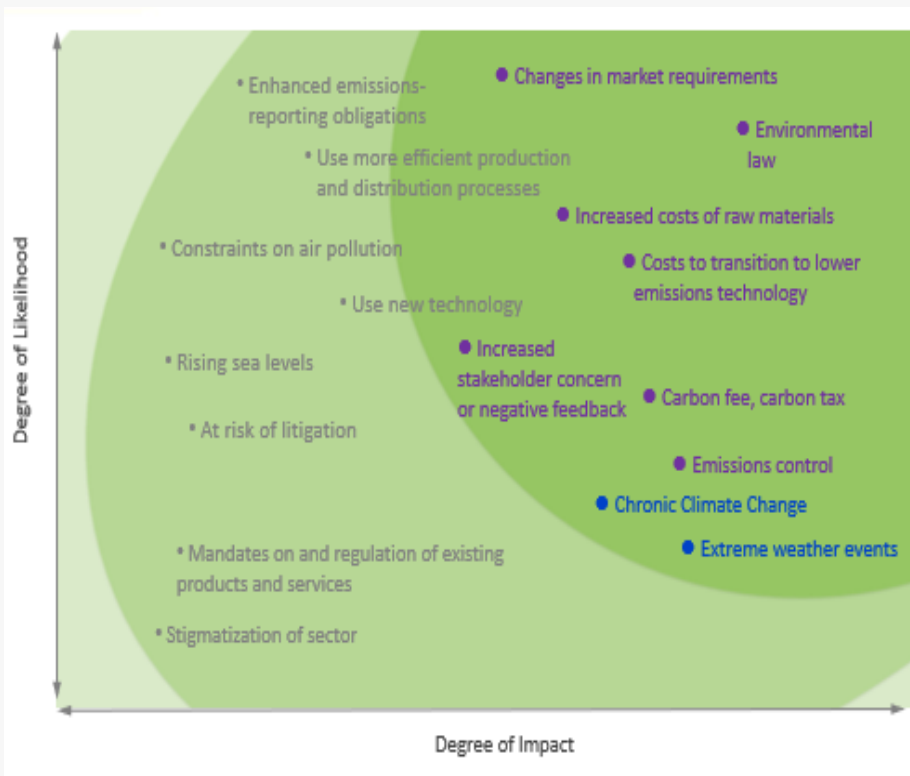
In 2022, we are extending our efforts by initiating a project focused on conducting "climate scenario analysis for financial impacts." This entails conducting risk analysis for ourselves in different climate scenarios and extending the analysis boundaries to include suppliers and customers within our value chain. This enables us to adopt adaptive strategies and response measures accordingly.



Climate Change Risk & Opportunity Classification

Based on the categories of climate-related risks and opportunities of TCFD, Zyxel Group’s relevant departments collect and analyze information on international climate-related trends, industry concerns, and Zyxel Group’s reply to the contents of the CDP (Carbon Disclosure Project) questionnaire and meet to evaluate and discuss them. The impacts of specific risk topics and scenarios on Zyxel Group’s organization and operations are identified and climate-related risks and opportunities are ranked according to the degree of impact to find out the potential crises and possible opportunities in response to climate change. Plans to follow TCFD recommendations are included in the annual financial report where Zyxel Group exposes the most important climate-related risks and opportunities.

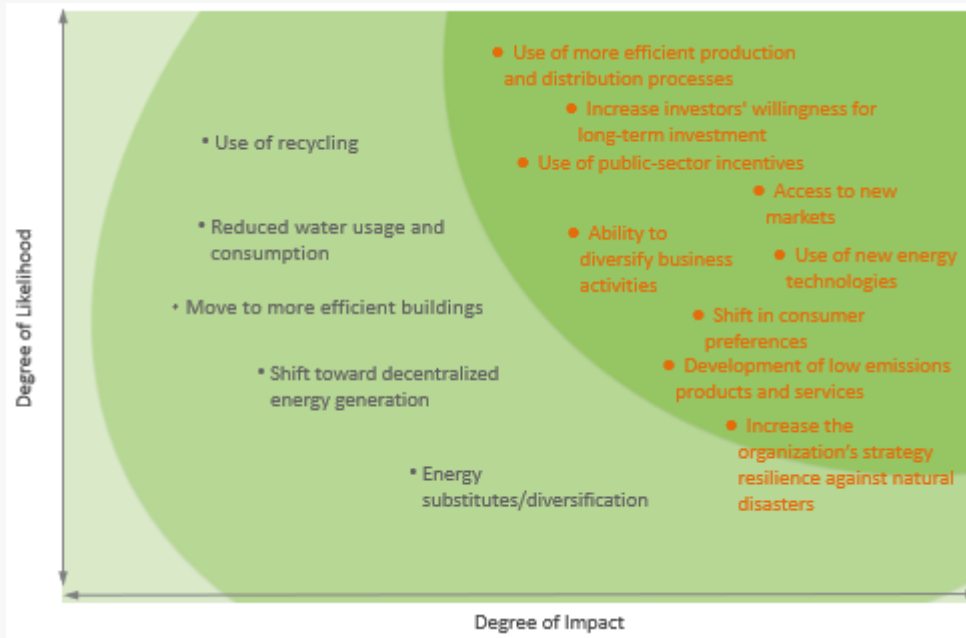
TCFD Climate-Related Risk Identification Matrix



Analysis of Potential Financial Impacts of TCFD Climate Change Risks

Type	Aspects	Major Risks	Analysis of Potential Financial Impacts
Transition Risks	Policy and Legal	Carbon fee, carbon tax	Increased Tax, Management, and Investment Costs
		Environmental law	Increased Costs to Comply with Environmental Regulations
		Emissions control	Increased Costs for Low-Carbon Equipment
	Technology	Costs to transition to lower emissions and effective technology	Increased Costs for Technology Development
	Market	Changes in market requirements	Consumer Behavior Impacting Market Share
Increased costs of raw materials		Increased Raw Material Procurement Costs	
Reputation	Increased stakeholder concern or negative feedback	Damaged Corporate Brand Image	
Physical Risks	Acute	Extreme weather events (ex: typhoons, floods)	Resulting in Power Outages, Factory Equipment Loss, and Supply Chain Disruption
	Chronic	Chronic Climate Change (average temperature rise)	Increased Electricity Usage, Rising Carbon Emissions, Leading to Cost Increases

TCFD Climate-Related Opportunity Identification Matrix



TCFD Climate-Related Opportunity Identification Matrix

Type	Major Opportunity	Analysis of Potential Financial Impacts
Resource Usage Efficiency	Use of more efficient production and distribution processes	Production Line Automation, Enhancing Production Efficiency
Energy Source	Use of new energy technologies	Reducing Energy Usage Costs
Products and Services	Development of low emissions products and services	Meeting Customer Demand for Energy-Efficient Products, Increasing Revenue
	Ability to diversify business activities	Exploring New Business Opportunities to Increase Revenue
Markets	Shift in consumer preferences	Prioritize Capturing Market Trends, Meeting Customer Needs, and Enhancing Satisfaction
	Access to new markets	Increase Revenue
Resilience	Use of public-sector incentives	Reduce Operational Production Costs
	Increase investors' willingness for long-term investment	Stabilize Shareholder Structure, Reduce Probability of Stock Value Volatility
	Increase the organization's strategy resilience against natural disasters	Reduce Probability and Impact of Operational Disruptions and Losses

Climate Change Risks and Opportunities Responses

Type	Aspects	Risks	Opportunity	Response plans and actions
Transition Risks	Regulations / Energy	<ul style="list-style-type: none"> Carbon fee, carbon tax Environmental law Emissions control 	<ul style="list-style-type: none"> Use of more efficient production and distribution processes Use of new technologies 	<ul style="list-style-type: none"> Set SBT carbon reduction targets Greenhouse gas reduction, water saving, waste reduction targets Continuous implementation of gas reduction measures Assess the use of renewable energy
	Technology / Product	Costs to transition to lower emissions technology	<ul style="list-style-type: none"> Development of low emissions products and services Ability to diversify business activities Shift in consumer preferences 	<ul style="list-style-type: none"> Introduce green product management system to reduce the impact of product life cycle on the environment Expose product carbon footprint and respond to customers' demand for product carbon emissions information Continue to invest in energy-saving product research and development
	Market	<ul style="list-style-type: none"> Changes in market requirements Increased costs of raw materials 	<ul style="list-style-type: none"> Access to new markets Use of public-sector incentives 	Develop low-carbon design products, improve product efficiency, and respond to market demand
	Reputation	Increased stakeholder concern or negative feedback	Increase investors' willingness for long-term investment	<ul style="list-style-type: none"> Continue sustainable environmental goals and actions to establish a sustainable corporate image Responding to international initiatives
Physical Risks	Acute	Extreme weather events (ex: typhoons, floods)	Increase the organization's strategy resilience against natural disasters	<ul style="list-style-type: none"> Conduct risk assessment and risk mitigation measures for typhoon and flood disasters in the manufacturing plant area Regular natural disaster emergency drills
	Chronic	Chronic Climate Change (average temperature rise)		

Financial Impact Analysis of Climate Change Scenarios

In addition to recognizing the financial impacts of risks and opportunities related to climate change, in 2022, we initiated a significant risk and opportunity scenario analysis project. This project involves a self-assessment of the impact of climate change risks under different climate scenarios, enabling us to adopt adaptive strategies and response measures. Qiantech Corporation not only conducts risk analysis for itself but also includes suppliers within the analysis boundaries of our value chain. Different scenarios are established based on physical risks and transition risks:

Physical Risks

Scenario Setting: We conducted climate change risk assessment for 41 analysis subjects located within Taiwan for Zyxel Group. This includes 2 owned assets and 39 suppliers. Utilizing severity, vulnerability, and exposure as the calculation template for risk assessment, we analyzed extreme rainfall with severity, flooding potential causing vulnerability, potential for landslides and debris flow causing vulnerability, as well as exposure of the assets located in Taiwan, by conducting scenario simulations.

The analysis method involves four scenarios described in the IPCC Fifth Assessment Report: RCP2.6, RCP4.5, RCP6, and RCP8.5, which outline future greenhouse gas emissions. Additionally, it encompasses Taiwan temperature and rainfall predictions for four periods based on government reports: short-term (2021-2040), mid-term (2041-2060), medium-long term (2061-2080), and long-term (2080-2100). This comprehensive approach involves climate simulation research up to the year 2100.

Physical Risk Analysis Findings: Zyxel Group's owned assets located in Taiwan do not have any significant physical risks. However, some of the suppliers operating in Taiwan, while not at risk of landslides or rockfalls, may face potential flooding risks in the future.

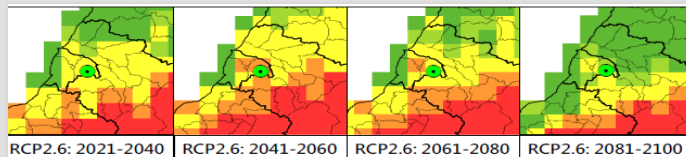
Transition Risks

Scenario Setting: Three scenarios were analyzed based on the Taiwan government's net-zero pathway, IPCC AR6's SSP1-1.9 scenario, and the SBT-NZ scenario, which requires achieving net-zero emissions before 2050 as stipulated by SBT. Three risk factors—regulatory, market, and reputation—were assumed as conditions for analysis. The financial impact estimation was projected until 2050. Regulatory risks primarily affect operational costs and capital expenditures, while market risks mainly influence potential revenue losses for the company.

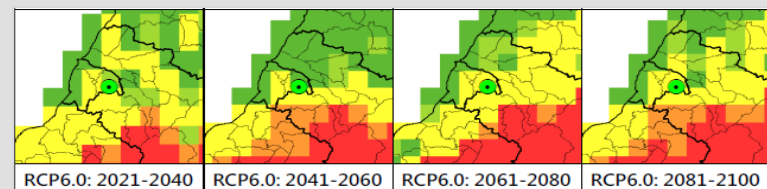
Transition Risk Analysis Findings: Under the scenario of achieving the government's net-zero target, Zyxel Group would require substantial investment in procuring renewable energy. The resulting financial impacts would mainly involve carbon taxes, with market and carbon penalty risks reduced to zero. In the case of achieving the SBT-NZ goal, compliance with SBT-NZ would commence around 2040. The primary cost driver would be the procurement of renewable energy. Additionally, the transition risk concerning customers would involve a decrease in market share for products.

Climate Risk Levels of Owned Asset Locations under RCP Scenarios - Scenario Simulation Chart Data

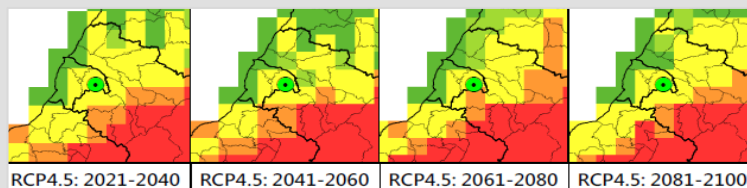
RCP 2.6



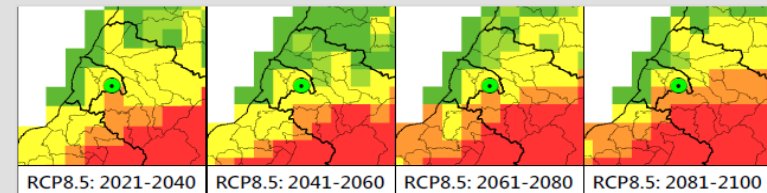
RCP 6



RCP 4.5



RCP 8.5



Transition Risk: Consideration Factors and Assumptions in Scenario Analysis

	Risk	Consideration Factors and Assumptions	Cost Categories
Regulations	Carbon Tax	Based on different scenarios, the company's unit carbon tax payment varies significantly due to substantial differences in taxation systems, leading to a high degree of uncertainty. The assessment primarily considers three levels of carbon tax: 1. Government Net-Zero Pathway: SSP2-4.5 (Approximately 2-10 USD/tCO2e from 2021 to 2050) 2. SSP1-1.9 and SBT-NZ: Carbon price under SSP1-1.9 (Reaching around 650 USD/tCO2e by 2050)	Operating Costs
	Emissions Cap and Carbon Penalty	Currently, international regulations and trends lean towards imposing carbon taxes rather than utilizing carbon penalties or emissions caps. Therefore, only under the Government Net-Zero Pathway would additional consideration be given to carbon penalties (within regulations not exceeding 1500 NTD/tCO2e).	Operating Costs
Technology	Renewable Energy Infrastructure Costs	The installation cost of setting up renewable energy generation facilities in-house is recognized as capital expenditure for the current year. The cost of renewable energy installations is obtained from the IRENA Renewable Energy Report 2022.	Capital Expenditures
	Renewable Energy Operational Costs	The operational costs of renewable energy are obtained from the IRENA Renewable Energy Report 2022.	Operating Costs
	Renewable Energy Procurement Costs	The procurement cost of renewable energy in Taiwan is calculated by adding the Taiwan Power Company's (Taipower) current average selling price of renewable energy to the public electricity fee (sourced from Taipower).	Operating Costs
	Cost of Purchasing Electricity from Taiwan Power Company	Procurement Cost and Benefits from Taipower are calculated at a rate of 2.55 NTD/kWh for industrial high-voltage electricity consumption.	Operating Costs
	Carbon Removal Costs	According to IEA data, the cost of Carbon Capture, Utilization, and Storage (CCUS) can vary depending on the specific circumstances. As this study considers carbon removal as the ultimate approach to achieving net-zero emissions, the most expensive direct air capture technology is used, which costs around 85-345 USD/tCO2e. Therefore, based on three scenarios, the assumptions are as follows: 1. Immature Technology: 340 USD/tCO2e; 2. Average Price: 235 USD/tCO2e; 3. Mature Technology: 130 USD/tCO2e	
Market	Risk of Decreased Market Share for Products	The estimation of market risk is based on the potential loss of customers who prioritize carbon reduction targets when a company does not achieve its transition goals. This could lead to an expected decrease in market share. 1. Government Net-Zero: 1% of revenue loss; 2. SSP1-1.9 and SBT-NZ: 25% of revenue loss	Projected Revenue

Financial Impact Analysis of Climate Change Scenarios

External Scenarios	Government Net-Zero Pathway	SSP1-1.9	SBT-NZ
Explanation	Based on the net-zero target currently proposed by Taiwan	Based on the SSP1-1.9 pathway outlined in the IPCC AR6 report	Estimated scenarios based on achieving the SBT Net Zero criteria
Assessment of Risks	Regulatory risk, market risk		
BAU situation: Financial Impact (No Implementation of Transformation Strategy)	Regulatory risk: Increasing cost of carbon penalties Regulatory risk: Relatively stable carbon tax fluctuation	Regulatory Risk: Short-Term Growth in Carbon Tax, Followed by Carbon Emission Reduction, Decreases by 2050 Market Risk: Potential Order Loss, Increased Financial Risk	Regulatory Risk: Short-term High Growth in Carbon Tax, Decreases After Carbon Emission Reduction, Lower by 2050 Market Risk: Potential Order Loss, Increased Financial Risk
Transition Scenario: Management Costs (Implementing Transformation Strategy)	Primary cost: Procurement of renewable energy	Primary Costs: Procurement of Renewable Energy, Carbon Tax	Primary costs: Procurement of renewable energy, carbon removal costs
Mitigation Measures	Procurement of renewable energy	Procurement of renewable energy	Procurement of renewable energy, Adoption of carbon removal technology

2. Carbon Management

Climate change has been a threat to global living environments. To implement sustainable development, we have set an annual carbon reduction target of 4.2% (corresponding to a temperature rise of 1.5 or below) and a long-term carbon reduction goal to achieve net-zero emissions in 2050, initiated carbon reduction plans, and developed implementation schedules and strategies.

| Decarbonization Pathway Planning and Strategy

Planning a decarbonization pathway is a crucial step towards achieving the goal of net-zero emissions. At Zyxel Group, we have embraced green operations as our strategic direction. In response to international initiatives and the pursuit of net-zero carbon emissions, energy management, and lifestyle transformation, we have set short, medium, and long-term reduction targets. Using the baseline year 2022, our aim is to achieve a 50% reduction in carbon emissions by 2030 and commit to Net Zero by 2050.

To achieve this, we first assess our own and our supply chain's greenhouse gas emissions. By conducting greenhouse gas inventories under three scopes of reporting, we evaluate areas and actions with significant carbon reduction potential. We assess the implementation of plans for establishing renewable energy sources and procuring green energy. This involves devising carbon reduction strategies, planning and executing actions, and continually improving our efforts. Regular reporting of our carbon reduction achievements and progress keeps us on track to realize our long-term decarbonization objectives.

Zyxel Group gains a grasp of information on in-plant GHG emissions and uses it as a basis for management of the in-plant emissions. Our GHG inventories are conducted in accordance with the ISO 14064-1 GHG Inventory Standard. The Company's GHG emissions are inventoried regularly every year to have a picture of the GHG use and emissions and take actions to reduce the emissions. The GHG inventory results verified by third parties are used to review our overall carbon reduction performance.

Material Issue	Management Approach	Goal in 2022	Achievement in 2022	Goal in 2023
Climate strategy	GHG reduction Setting of targets using the SBTi's Absolute Emissions Contraction approach	Setting of targets using the SBTi's Absolute Emissions Contraction approach 2030: 50% Carbon Emission Reduction 2050: Net Zero Commitment	15% Reduction in Carbon Intensity	Setting of targets using the SBTi's Absolute Emissions Contraction approach 2030: 50% Carbon Emission Reduction 2050: Net Zero Commitment

Note 1: The scope of environmental strategic goals is set for Zyxel Group and its subsidiaries, including MitraStar's Hsinchu site and Zyxel's Hsinchu site.

Note 2: Carbon Intensity = Carbon Emissions / Zyxel Group Consolidated Revenue

Greenhouse Gas Inventory

The organization boundary for the greenhouse gas inventory report for the Motech and Gintech facilities is established in accordance with ISO 14064-1:2018 and the requirements of the Greenhouse Gas Protocol. The operational control approach is adopted, as there are no emissions of carbon dioxide from biogenic sources related to biomass combustion or biodegradation within the scope of the Motech and Gintech facilities.

2017 was originally the base year for the Company's GHG inventories and a target of reducing the GHG emissions by 2,000 metric tons CO2e (during 2017~2021) was set. We have kept track of the annual emissions and set emission reduction goals. In 2021, in response to the addition of Categories 3~6 to the provisions of ISO14064-1:2018 and the changes in IPCC GWP values and relevant GHG emission factors, the Company redefined the boundary for inventory in 2021. In addition, we not only engaged external experts to assist in carrying out the GHG inventories, but also built a systematic mechanism for improving the accuracy of the quantitative data to ensure the credibility of the inventory data.

GHG inventories have been conducted pursuant to the ISO 14064 Standard. The emission sources include: (1) direct emissions (Scope 1), including those from emergency generators and company cars using fuel oil; (2) indirect emissions (Scope 2 and Scope 3), including those from the purchased electricity and other emission sources.

The MitraStar site and Zyxel site of Zyxel Group consist of MitraStar, Zyxel and ZNet. The carbon dioxide emissions in scope 1, 2, and 3 are 352.0324 metric tons CO2-e, 5869.4874 metric tons, and 1171.0510 tons, with a total emission of 7392.571 metric tons CO2-e in 2022.

Greenhouse Gas Emissions

Unit: Ton CO2-e		2020				2021				2022			
		Scope 1	Scope 2	Scope 3	total emissions	Scope 1	Scope 2	Scope 3	total emissions	Scope 1	Scope 2	Scope 3	total emissions
MitraStar site	MitraStar	199.6734	5007.7292	-	5207.4026	427.3398	4431.9420	814.8770	5674.1588	175.4766	4692.6446	813.1460	5681.267
Zyxel site	Zyxel	72.1493	1236.5407	-	1308.6900	76.8434	486.4968	136.6211	699.961	79.2234	483.6520	144.6343	707.510
	ZNet					86.8765	686.4961	208.9986	982.371	97.3324	693.1908	213.2708	1003.794
Total		271.8223	6244.2697	-	6516.092	591.0598	5604.9320	1160.4970	7356.489	352.0324	5869.4874	1171.0510	7392.571

Note: The emission factors are sourced from the Environmental Protection Administration's Business Greenhouse Gas Emission Information Platform, Greenhouse Gas Emission Factor Management Table (Version 6.0.4, June 108). Note: The Global Warming Potential (GWP) values are adopted from various greenhouse gases' GWP as per the IPCC Sixth Assessment Report (2023).

Greenhouse Gas Emission Intensity

Unit: Ton CO2-e /NT\$ M		2020				2021				2022			
		Scope 1	Scope 2	Scope 3	total emissions	Scope 1	Scope 2	Scope 3	total emissions	Scope 1	Scope 2	Scope 3	total emissions
MitraStar site + Zyxel site		0.01	0.28	-	0.29	0.02	0.22	0.05	0.29	0.01	0.19	0.04	0.24

Note: Carbon Emission Intensity = Carbon Emissions / Combined Revenue of Zyxel Group.

Note: In the year 2021, both MitraStar Factory site and Zyxel Factory Zone were included in the greenhouse gas Scope 3 inventory assessment.

Indirect GHG Emissions (Scope 3)

MitraStar’s and Zyxel’s Hsinchu site conducts emissions source identification based on organizational boundaries to confirm the inventory of direct and indirect greenhouse gas emission sources. However, it is not easy to classify and quantify the materiality of indirect greenhouse gas emission sources. Nor is it easy to confirm the accuracy of the results. Therefore, we use the "materiality assessment criteria table" to identify emission source projects with significant risks and opportunities.

After the management representatives held a meeting to discuss and consider the practical, technical, and economic aspects of the organization, the following table items were decided to be the plant’s major indirect emission source inventory items in the current year. The inventory data is as follows. Third party verification has been completed and an ISO 14064-1 verification certificate has been obtained.

The main sources of greenhouse gas emissions in Scope 3 are energy and commodity procurement. To address the reduction of Scope 3 greenhouse gas emissions, we are conducting greenhouse gas inventories for our suppliers and initiating collaborative carbon reduction actions.



MitraStar HsinChu site: MitraStar

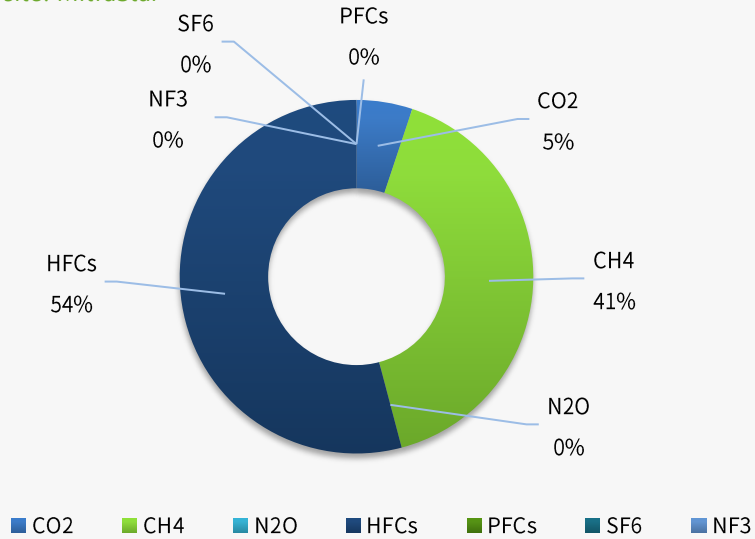
Sources of emissions	Emissions (tCO ₂ e)
Category 4: indirect GHG emissions from products used by organization	
4.1 Emissions from Purchased goods	813.1459

Zyxel HsinChu site: Zyxel, ZNet

Sources of emissions	Emissions (tCO ₂ e)		Total
	Zyxel	ZNet	
Category 3: indirect GHG emissions from transportation			
3.1 emissions from upstream transport and distribution for goods	5.1039	26.8444	31.9483
3.5 emissions from business travels	19.5433	7.4426	26.9859
Category 4: indirect GHG emissions from products used by organization			
4.1 Emissions from Purchased good (Only assessing the use of resources)	86.3203	122.8726	209.1929
4.3 Emissions from the disposal of solid and liquid waste	33.6667	56.1112	89.7779

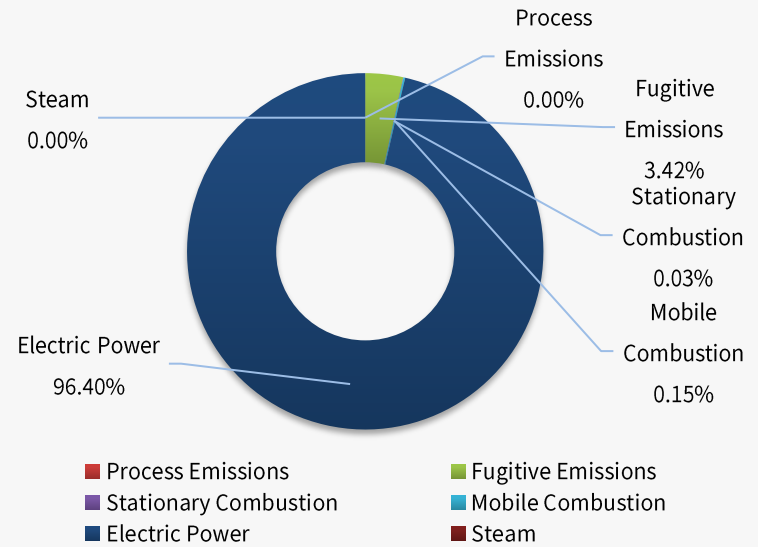
Scope1 Gas Emission Proportion

MitraStar site: MitraStar

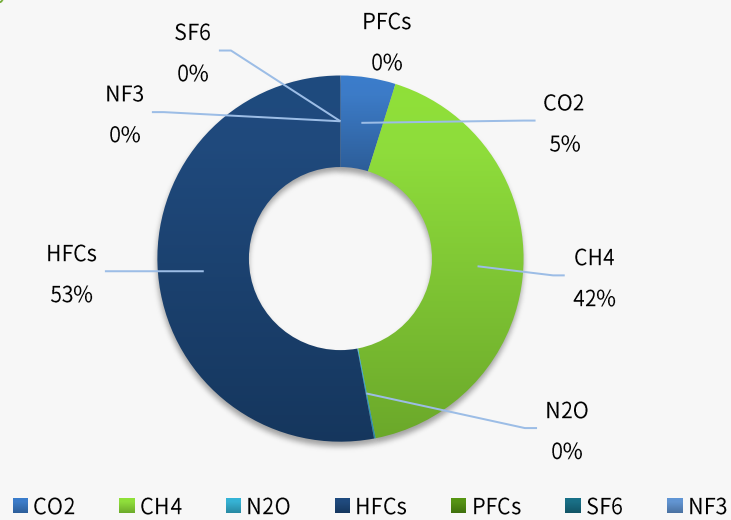


Scope1, Scope2 Emission Proportion

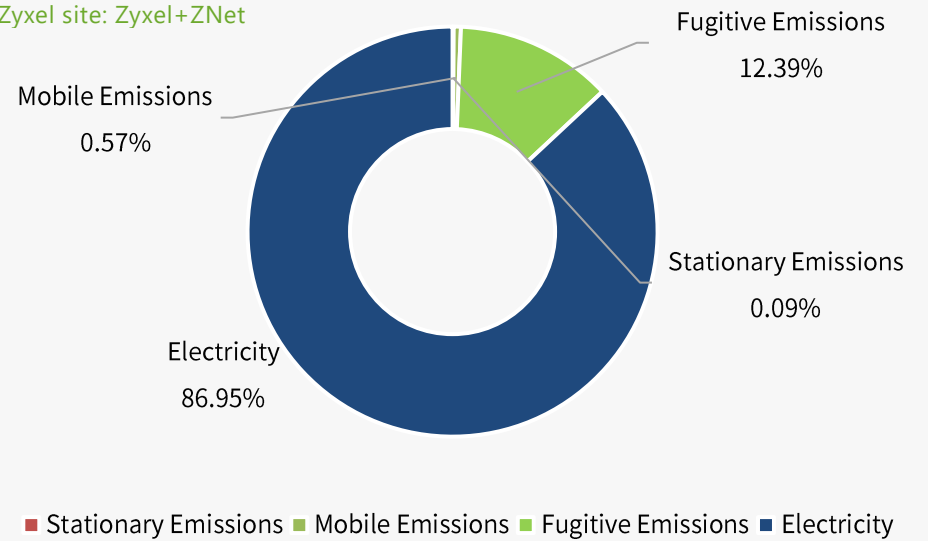
MitraStar site: MitraStar



Zyxel site: Zyxel+ZNet



Zyxel site: Zyxel+ZNet



Actions for the Reduction of Carbon Emissions

For the Company’s operations, our environmental strategies adopt green operations as the strategic pillar. Aiming to achieve climate mitigation and adaptation, Zyxel Group has set short-term and medium-to-long-term carbon reduction targets for net-zero emissions, energy management, energy transformation, life transformation, and support for international initiatives. We have signed up to the SBTi and set an annual carbon reduction goal of 4.2% (corresponding to a temperature rise of 1.5°C or below). Our actions for reducing the direct carbon emissions (Scope 1), including emissions from emergency generators and company cars using fuel oil, and the indirect emissions (Scope 2 and Scope 3), including emissions from the purchased electricity and other emission sources, to achieve our GHG reduction targets are as follows:

Participation in SBTi

To help meet the carbon reduction targets in the IPCC’s “Special Report on Global Warming of 1.5C”, the Company has set short-term, medium-term and long-term carbon reduction goals. We are scheduled to support the SBTi by putting forward a SBT commitment letter in 2022 and submitting our short-term SBTs in 2024 to deliver on our commitment to achieve net-zero emissions in 2050.

To achieve the Science-Based Targets initiative (SBTi) science-based carbon reduction goals, we have reset 2021 as the baseline year. Based on the carbon emissions identified through our assessment, we have utilized the SBTi carbon emissions calculation platform to set annual carbon reduction targets aligned with limiting global warming to within 1.5 degrees Celsius. Starting from 2021, we have initiated greenhouse gas inventory for Scope 3 emissions. By integrating the principles of the SBTi science-based carbon reduction initiative, we aim to establish clear carbon reduction objectives and timelines, strengthen our carbon reduction actions and achievements, fulfill our commitment to achieving net-zero emissions, and demonstrate our determination as an international corporation to contribute to global sustainable development.

Carbon Management Platform

In order to proactively integrate the greenhouse gas emission information of Hetong Investment and Control with the supply chain, enhance monitoring, and improve carbon reduction operational efficiency, we plan to establish digital management systems for "Carbon Management" and "Energy Management" starting from 2023. These systems include the "Supply Chain Digital Low-Carbon Transformation Service Platform" and the "Energy Management Digital Platform." They will be interconnected with the "Green Product Management System" to support low-carbon product development, providing data visualization for management, tracking reduction achievements and goals, utilizing analytical indicators for decision-making.

Simultaneously, for carbon tracking, we will gradually establish a carbon footprint management platform through a questionnaire module and document survey module. We will adopt an energy monitoring and management system to acquire real-time information on our production and manufacturing processes. This will help manage various CSR/ESG-related dynamics and data from our supply chain vendors.

Actions for the Reduction of Carbon Emissions

	Scope 1	Scope 2	Scope 3
MitraStar	<ul style="list-style-type: none"> Assess the electrification of the company cars Purchase constant temperature and humidity equipment with low refrigerant content Optimize the septic tank system to reduce anaerobic bacteria generated 	<ul style="list-style-type: none"> Install photovoltaic power generation systems Use highly efficient Cooled Water Chiller Promote an energy-saving responsibility system 	<ul style="list-style-type: none"> Reduce indirect GHG emissions generated from the purchased electricity Reduce GHG emissions generated from the use of the production products Cut waste generated from the operational activities
Zyxel	<ul style="list-style-type: none"> Newly purchased air conditioners and air conditioning systems must use environmentally friendly refrigerants. Use lawnmowers with a lower frequency to reduce gasoline consumption. Reduce the time for diesel generator commissioning tests, if appropriate, when the generators are maintained in good order and the tests go well to cut the use of diesel fuel. 	<ul style="list-style-type: none"> Encourage the employees to use the stairs instead of elevators Implement nighttime light control to have guards turn off unused lights and air conditioning units during inspection tours The parking lot will be converted to sensor-based lighting, retaining only essential illumination. Nighttime operation of the ice machine will be reduced by 30 minutes to decrease energy consumption. Keep the energy-consuming equipment maintained to prevent increasing the energy consumption due to poor operating efficiency. 	<ul style="list-style-type: none"> Reduce business trips and hold online meetings Upstream transportation is mainly conducted by sea freight, with potential adjustments based on special circumstances. Cut the water/electricity consumption of the plant and reduce GHG emissions from the organization’s purchase of raw materials

B. Energy Management

The Company has been dedicated to environmental protection and energy saving for a long period of time. In addition to improving energy and resource efficiency during product design, R&D, and manufacturing processes, in terms of environmental management, we are certified for the ISO 14001 Environmental Management System Standard and create a pollution prevention and improvement mechanism with systematic management approaches to keep our energy management goals in line with the implementation strategies. Zyxel Group is a company with low energy intensity. Our energy and resource management involves electricity, water consumption, and waste management. Our electric energy resources are mainly used for office lighting and air conditioning.

Energy Conservation Target

Material Issue	Management guideline	2022 Goal	Achievement	2023 Goal
Energy efficiency	Achieving energy saving goals	MitraStar Site Energy saving target: 100,000 kWh Zyxel Site Energy saving target: 15,000 kWh	MitraStar Site Energy saving target: 167,000 kWh Zyxel Site Energy saving target: 24,359 kWh Total energy saving: 192,663 kWh	MitraStar Site Energy saving target: 100,000 kWh Zyxel Site Energy saving target: 20,000 kWh

Power consumption

Unit: gigajoules		2020	2021	2022
MitraStar site	MitraStar	35,425	36,224	35,705
Zyxel site	Zyxel	8,746	2,791	2,802
	ZNet		4,612	4,670
Amount		44,171	43,627	43,177

Power usage intensity

Unit: gigajoules	2020	2021	2022
MitraStar site + Zyxel site	2.14	1.73	1.41

(Power usage: gigajoules /Zyxel Group revenue: million NTD)

Other energy consumption (diesel/gas usage)

Unit: gigajoules	Type	2020	2021	2022
MitraStar site	Diesel	566	600	21.12
	Gas	3581.42	4048.07	115.14
Zyxel site	Diesel	60.4	280	11.77
	Gas	5664.92	3736.81	111.22

Energy Conversion: According to the energy product unit calorific value table, the calorific value of diesel is 8,400 kcal/L, and the calorific value of gasoline is 7,800 kcal/L.

1 kcal = 4.184 kJ. Gasoline/diesel conversion coefficient: 【Consumption (L/year) * Calorific value (kcal/L) * 4.184 kJ/kcal】 /1,000,000

Energy Intensity

Unit: gigajoules	2020	2021	2022
MitraStar site + Zyxel site	2.15	1.75	1.42

(Electricity Consumption + Other Energy Usage / Combined Revenue of Zyxel Group) (Gigajoules / NT\$ million)

Enhancement of Energy Efficiency

System	Projects in 2022	Electricity Saved (kWh)	Money Saved (NT\$/Year)	Carbon Reduction (KG)
MitraStar site				
Lighting system	Replacement of the 8 mercury-vapor lamps (250W) (on the high ceiling) in the lobby on the 1st floor with LED lamps (32W)	3,561	10,683	1,813
	Replacement of the PL tubes (26W) of the 43 downlights installed in the canopy outside the lobby on the 1st floor with LED tubes (11W)	824	353	419
	Replacement of the PL tubes (26W) of the 75 downlights installed in the corridors on the 3rd and 4th floors with LED tubes (11W) fit into E27 lamp holders	7,391	22,173	3,762
	Replacement of the PL tubes (26W) of the 25 downlights installed in the lobby on the 1st floor with LED tubes (16W) fit into E27 lamp holders	563	1,689	286.5
	Replacement of the PL tubes (26W) of the 25 downlights installed in the lobby on the 1st floor with LED jewelry bulbs (20W) fit into E27 lamp holders	338	1,013	171.7
	Replacement of the 8 mercury-vapor lamps (400W) installed in the garden in MitraStar Park with LED lamps (50W)	2,100	6,300	1,068.9
	Replacement of the 22 light steel frame lamps with T8 tubes (80W) installed in the (2) training rooms on B1 with LED lamps (40W)	1,650	4,950	839.8
	Replacement of the 495 light steel frame lamps with T8 tubes (4ft*1ft) (80W) installed in the production line area on the 2nd floor with LED lamps (40W)	96,360	289,080	49,047
	Replacement of the 105 mountain-shaped lamps with T8 tubes (2 tubes for each lamp) (80W) installed in the mechanical room (with Cooled Water Chiller, air compressors, substations) on B1 with LED lamps (40W)	11,088	33,264	5,643.7
	Replacement of the 35 batten lamps with T8 tubes (40W) installed in the lecture hall on B1 with LED lamps (20W)	770	2,310	391.9
	Replacement of the 27 outdoor staircase landscape lights on MitraStar 1 st floor (27w) with LED lamps (10w)	527.4	1,581	268.4
	Replacement of the 15 PL downlights tubes (26w) with E27 lamp heads, and LED bulbs (12.5W) installed in the Staff leisure area on the 3rd floor	211	632	107
	Replacement of 420 T8 lamps (36W) installed in the B1F parking lot with LED microwave induction lamps	30,967	92,898	15,762
	Replacement of the 141 T8 lamps (72W) installed in the production lines areas and warehouses on the 1st and 2nd floors with LED lamps (40W)	2,436	7,308	1,240
	Replacement of 100 PL downlights tubes (26w) installed in the walkway of the 4F office area with E27 lamp heads, and LED bulbs	2,160	6,480	1,099
Replacement of the 207 T8 tubes (80W) installed on the DIP and PK lines on 1F with LED lamps (40W)	7,358	22,074	3,745	
Zyxel site				
Air conditioning system	Replacement of the cooling tower fins to reduce the fan motor load	21,295	63,885	10,839
	Having the cooled water chillers run half an hour less at night to save electricity	3,064	9,192	1,560
Total		192,663	575,865	98,063

Note 1: The electricity emission factor was 0.509 kg CO2e/kWh

Note 2: The amount of electricity saved was calculated based on an electricity price of NT\$3/kWh

Note 3: The figures disclosed in the table were based on the official reported data in 2022

C. Water Management

Zyxel Group’s subsidiary MitraStar’s production process is based on assembly and does not use water so the company does not consume a lot of water resources. We mainly use water for basic factory facilities and people’s daily life needs and the sources are all tap water. With limited water resources in Taiwan, Zyxel Group also actively promotes various water-saving measures to reduce water use.

Due to the easing of the pandemic starting in 2022, employees have resumed physical office attendance, leading to an increase in water consumption within the facility. Additionally, the adoption of hygiene practices, such as frequent handwashing, as a part of the epidemic prevention measures, has contributed to the paradoxical rise in water usage.

| Water resource management target

Issue	Management Guideline	2022 Goal	Achievement	2023 Goal
Water Management	Continue to implement daily water saving measures	MitraStar site: Water saving rate >3% Zyxel site: Water saving rate >3%	MitraStar site: Water usage increased 5.63% Zyxel site: Water usage increased 1.54%	MitraStar site: Water saving rate >1% Zyxel site: Water saving rate >3%

1. Water Resources Management Policy

The water resources management policy aims to achieve the results of saving water resources through water-saving facilities, water-saving measures and education promotion.

| Water risk assessment

According to the assessment of the Water Aqueduct developed by the World Resources Institute (WRI), Mitrastar site and Zyxel site is located in a low pressure area (<10%).



| Water saving measures

- Cherish water resources, specific measures include:
- Employee hand washing facilities are fully equipped with water-saving faucets
- Install water-saving toilets
- Control of external wall cleaning and water use for irrigation
- Adjust the ratio of the make-up of the discharge water from the cooling tower
- Promoting the concept of water conservation

| Wastewater Management

Sewage from MitraStar and Zyxel sites are included in the waste water plant of the Hsinchu Science Administration Bureau for treatment. The sewage treatment fee is paid quarterly according to the water quality and volume, so it has not caused damage or impact to the surrounding ecology of the operating base.

Simultaneously, regular outsourced wastewater testing is conducted on the sewage discharged into the drainage system of the Hsinchu Science Park to ensure compliance with standards. The industrial wastewater discharge from the Hsinchu Science Park is coordinated and managed by the Park Administration’s wastewater treatment plant, eliminating the need to apply for pollution facility installation permits or pollution emission permits in accordance with regulations.

2. Water Management

Historical Water usage

Unit: M Liters		2018	2019	2020	2021	2022
MitraStar site	MitraStar	38.17	41.63	39.81	38.39	40.56
Zyxel site	Zyxel	15.15	14.57	13.76	4.32	4.48
	ZNet				7.13	7.47
Amount		53.32	56.20	53.56	49.73	52.51

Historical Water discharge

Unit: M Liters		2018	2019	2020	2021	2022
MitraStar site	MitraStar	26.04	27.27	25.28	24.06	25.42
Zyxel site	Zyxel	8.71	6.3	4.2	2.68	2.52
	ZNet				4.42	4.20
Amount		34.75	33.57	30.21	31.16	32.14

Historical Water consumption

Unit: M Liters		2018	2019	2020	2021	2022
MitraStar site	MitraStar	12.13	27.27	14.52	14.33	15.14
Zyxel site	Zyxel	6.45	8.27	8.83	1.64	1.96
	ZNet				2.71	3.27
Amount		18.58	35.54	23.35	18.57	20.37

Water usage in 2022

(Discharge source by intake volume)

(M Liters/year)	MitraStar	Zyxel
Surface water	-	-
Underground water	-	-
sea water	-	-
Third-party water (total)	40.56	11.95

Water discharge in 2022

(Discharge source by destination)

(M Liters/year)	MitraStar	Zyxel
Surface water	-	-
Underground water	-	-
sea water	-	-
Third-party water (total)	25.42	6.72

The MitraStar site and Zyxel site are located in a low-pressure area (<10%).

D. Waste Management

We continue to improve our production equipment to meet international environmental protection requirements and help protect our environment. MitraStar’s Hsinchu site includes a manufacturing plant. In terms of environmental considerations, the main environmental pollution sources that may arise are reflow ovens and wave soldering ovens for soldering operations. The exhaust gas contains trace metal fumes and volatile organic compounds.

Waste Management Target (MitraStar’s Hsinchu site)

Issue	Management Guideline	2022 Goal	2022 Achievement	2023 Goal
Waste Management	Waste recycling rate	Recycling rate >90%	Recycling rate: 94%	Recycling rate >90%

Note: Waste generation in the Zyxel site includes general household waste and recyclable materials, which are collected and processed by the Hsinchu Science Park Administration. Therefore, there is no recorded weight for waste collection and disposal.

Most wastes produced on the MitraStar Hsinchu site 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.

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.
- The packaging material for heat sinks has been changed from wooden boxes to cardboard boxes. The discarded wooden boxes are provided to farmers for use as chicken breeding boxes.



2. Management and recycling of wastes

During the manufacturing processes we employ workflow improvement and material recycling to cut both acquisition costs and pollution to the environment. Under the strict supervision of MitraStar, qualified processing service providers separate and categorize all recyclable or reusable materials and report them online as required by the Environmental Protection Administration.

In 2022, the MitraStar Hsinchu factory campus produced 39.85 tons of general commercial waste, 24.382 tons of hazardous waste, and recycled 94% of waste resources. All wastes were confirmed to meet the Environmental Protection Administration’s standards. The wastes are managed with the following principles:

- Experts from the Environmental Protection Administration are invited to instruct us on 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 melted to make blocks.
- Inseparable metal wastes are recycled to become raw materials or even works of art.

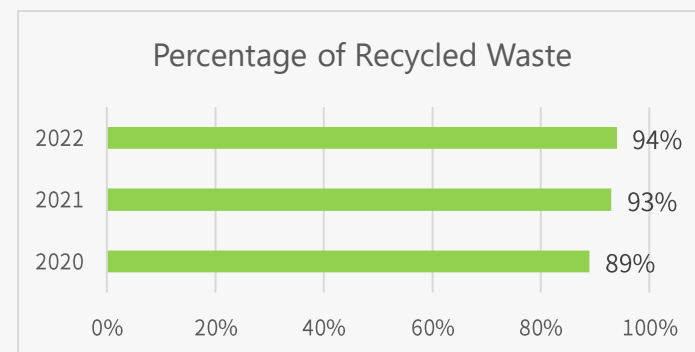
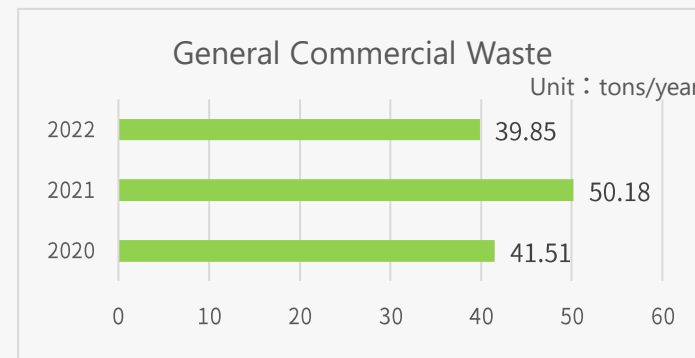
The rest of the waste shall comply with environmental protection laws and be entrusted to qualified removal and treatment manufacturers for physical or other forms of treatment.

Zyxel/ZNet only generate "general household waste" and "recyclable materials," which are collectively managed and transported for disposal by the Hsinchu Science Park Administration. Therefore, there are no records of the weight of waste collection and disposal.

	2020	2021	2022
Total Waste Generation (Metric Tons)	378.19	620.37	700.1
Waste Recycling Rate (%)	89%	93%	94%
Waste Intensity	0.03	0.04	0.03

Waste Intensity: Waste Amount (grams) / Unit Revenue (currency)

Waste Weight and Recycling Rate (MitraStar site)



E. Air Pollution Prevention

Zyxel Group and all its affiliates produce no ozone-harming substances, NOx, Sox, or other air pollutants. Only volatile gas and Nitrogen Oxides from organic materials are emitted and the total emissions in 2022 were 7,400 kilograms and 38 kilograms. To ensure the gas doesn't cause any damage, Zyxel Group reports its usage of such materials and pays the associated fees every quarter.

The Zyxel site is a non-manufacturing area and does not emit any air pollutants.

F. Biodiversity

In response to the TNFD (Task Force on Nature-related Financial Disclosures) biodiversity initiative, Zyxel Group has established the "Zyxel Group Biodiversity and Non-Destruction of Forests Commitment," ensuring biodiversity preservation. Furthermore, biodiversity considerations have been integrated into risk assessments for ongoing operational management, identifying any risks unrelated to biodiversity that may impact the company's operations.

Our Actions for Biodiversity

- Both the MitraStar site and Zyxel site are equipped with parks, with the goal of preserving biodiversity. These parks also provide spaces for employee relaxation and serve as educational environments for promoting environmental diversity.
- The greenery surrounding the factory premises adheres to the "Landscape Maintenance Guidelines for Science Industrial Parks" and has earned recognition through the "Factory Green

Beautification Competition and Environmental Maintenance Competition Awards" presented by the Science Park.

- Ecological experts have been invited to organize biodiversity and ecological conservation guided tours within the company's parks.
- Awareness initiatives have been conducted to educate about the impact of climate change on the environment and biodiversity.

The MitraStar Park

We built the 5140m² Park to improve the working environment with a selection of plants such as Large-leaf Banyans, Acacias, Flame Trees, Liquidambar, Red Cedars, Formosan Michelia, Mexican Frangipani, Hong Kong Orchid Trees, and China Berries.

The Zyxel Park

The green area of the park reaches 9,533 m².



Zyxel Group Biodiversity and No Deforestation Commitment:

Situated within an urban density development area, characterized by high-density buildings and roads. These zones are not located in or adjacent to ecological conservation areas. Due to their location, the construction and operation of company facilities have not significantly impacted the surrounding ecology during their operational lifetimes. To ensure that our operations do not adversely affect biodiversity, we commit to the following:

- Compliance with all international and local forest and biodiversity laws and regulations relevant to our operations.
- Avoiding or minimizing the impact of Zyxel Group's value chain operational activities on biodiversity.
- Operating under the principle of Zero Net Deforestation, avoiding excessive deforestation.
- Collaborating actively with non-profit organizations to support initiatives and efforts related to forest and biodiversity conservation.
- Promoting biodiversity awareness among stakeholders such as employees, suppliers, etc., and organizing actions that contribute to ecological conservation.

|Green Product

- A. **Green Collaboration System**
- B. **Green Design**
- C. **Green Manufacturing**
- D. **Green Packaging & Shipping**
- E. **Disposal and Recycling**
- F. **Carbon Footprint Disclosure**
- G. **Green Channel**



Green Product Policies

The era of green consumption is approaching as the world’s awareness of environmental protection and concern about climate change is raised. We, as an international network communication company, are deeply aware that developing green industries and following international green regulations will help sharpen our global competitive edge. Zyxel Group formulates green product policies, works together with the employees, suppliers, and customers in confronting the impacts of climate change on the world, commits to the minimization of the environmental impacts throughout our products’ life cycle, and supports the net-zero emission initiative with them.

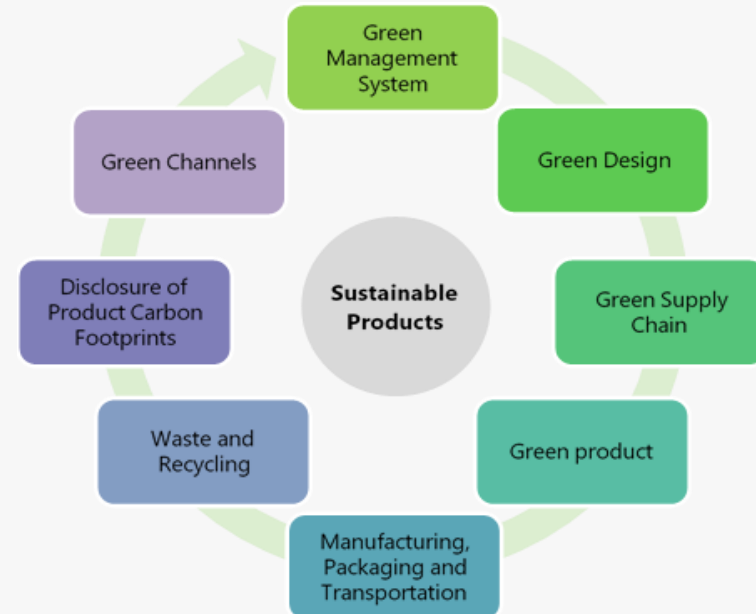


Green Product Management Strategies



Zyxel Group’s subsidiaries, MitraStar Technology, Zyxel Communications and Zyxel Networks, strictly control their product quality and obtain the ISO 9001 & TL 9001 quality management system certificate on an ongoing basis. Different green management systems are introduced based on the business nature, e.g., R&D and OEM of products, brand management, and channel sales, for the product life cycle involving product design, supply chains, green products, manufacturing, packaging and transportation, and waste and recycling, thereby monitoring the environmental impacts of the products throughout all stages, from raw materials, production, transportation, use to disposal.

The products of our subsidiaries are sold through the green channels of e-commerce platforms to mitigate the environmental impacts of the sale. In addition, marketing programs are developed for green products to motivate customers to buy the products and to give green education.

We launch a product carbon footprint label project to answer the customers’ demand for information on the carbon emissions of the products and achieve green marketing for consumers by disclosing the carbon footprints of the products.



Strategies and Medium-to-long-term Goals

Issue	Operational Influence	Strategy	Management Policy	2022 Achievement	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Green Product	Increase the sustainable value of our products and stay engaged in the R&D and design of green products to develop a capability to design products with less environmental impact	Create of green product design guidelines and inspection forms	<ul style="list-style-type: none"> · Create of documents for product carbon footprint procedures · Set short-term, medium-term, and long-term green design goals 	Launch the first green product with a housing made of PCR recycled plastic	<ul style="list-style-type: none"> · Establish design guidelines to ensure eco-friendly packaging, product energy efficiency, easy disassembly and recyclability, and the use of sustainable materials and parts/components · Use non-plastic bags, energy-efficient software and hardware that can be disassembled easily, PCR plastics, and 100% recyclable paper packaging materials for green products to be shipped · Create a product carbon footprint format · Apply the green product design to all products to be shipped 	Apply the green product design to all products to be shipped	 Affordable energy  Responsible consumption and production

A. Green Collaboration System

We launch excellent products and provide customers with high-quality services with the concepts of leading technology, excellent quality, customer satisfaction, and sustainable development. They follow the Hazardous Substances Restriction Directive, Waste Electrical and Electronic Equipment Directive, Packaging and Waste Packaging Materials Directive, EU Chemical Registration, Evaluation, Authorization, Restriction Regulations, Batteries, Waste Batteries and Waste Batteries Directive, Energy consumption related products Ecological Design Directive (ErP), Conflict Minerals, Stockholm Convention Persistent Organic Pollutants (POPs), EPA Toxic Substances Control Act, and other requirements to prevent pollution and reduce impact on the environment. These policies help minimize impact on sustainable development and achieve the goal of sustainable cooperation with suppliers.

Combining relevant instructions and requirements with the ISO9001&TL9000 Quality Management System and ISO14006 Environmental Management System - Ecological Design through the PLMS (Product Life Management System) gives us systematic and structured methods that are effective throughout the entire product development and life cycle. We implement control and supervision to reduce the impact on the environment and we continue to obtain the ISO14001 environmental management system verification certificate.

In order to fully implement green business management, we have built a "Green collaboration information system" to control each stage from the suppliers of raw materials, production, manufacturing, transport, to usage and disposal to ensure all meet green requirements in every aspect. It is jointly implemented by MitraStar's factories in Hsinchu and Wuxi China, and continues to obtain QC 080000 hazardous material process management certification.

Through use of the "Collaboration Information System" including "Green Product Database", "Life Cycle Analysis System", "3R and disassembly Report Database" and "Restriction of Hazardous Substances Management System", MitraStar 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", we become the first in the industry to implement many green development initiatives.

B. Green Design

The goal of Zyxel Group's green products is to minimize the impact of products on the environment. Zyxel Group is committed to optimizing product energy efficiency and reducing materials used to cope with climate change. We comply with international regulations and requirements, including but not limited to: 2009/125/EC and amending Regulation (EC) No 1275/2008, ENERGY STAR - Small Network Devices, and the European Union Code of Conduct (CoC).

In addition to optimizing product energy efficiency, ZyXEL green products use low-power external power supplies, all of which comply with the European Union's ErP Regulation (EC) No. 278/2009, the US CEC of the United States, and Canada's CSA C381.1-08 to reduce product usage energy loss.



Three Principles of Green Product Design:

1. Material Selection for Products: Based on three criteria:

"Reduced Usage," "Utilization of Recycled Materials," and "Consideration of Material Suitability."

- **Reduced Usage:** In response to the circular economy, from the beginning of the product's lifecycle, reduce the use of native materials and simplify material consumption for shared components.
- **Utilization of Recycled Materials:** Depending on product mechanism design and heat dissipation requirements, incorporate up to 97% PCR recycled plastic materials. By the end of 2022, the first product casing made from PCR recycled plastic will be launched as a green product. It is anticipated that by the end of 2024, all Zyxel green products will feature casings made from PCR recycled plastics.
- **Consideration of Material Suitability:**
 - **Selection of components with green certifications:** IC chipsets and power supplies are certified through RoHS, Energy Star, ErP, CoC, and other standards.
 - **Implementation of hazardous substance management:** Prioritize user safety and health in product design and development. All products adhere to RoHS, WEEE, ErP, and REACH standards. The 2022 report from the European Rapid Alert System for Dangerous Products (RAPEX) states that there were zero instances of unsafe products produced by Zyxel Communications.

2. Product Structural Design: Consideration of "Simplification," "Standardization," and "Modularity" by eliminating unnecessary hardware designs to reduce energy consumption, shrinking product size, and consequently lowering carbon emissions. Utilizing cloud-based Computer-Aided Design (CAD) tools with embedded cloud computing capabilities for product casing design, in order to achieve product ID designs that require the least amount of plastic material.

3. Product Usage Design: Guided by the principles of "High Efficiency," "Energy Savings," "Low Impact," and "Extended Product Lifespan," aiming to enhance the practicality and satisfaction of consumers with the product.

- **Energy-saving Design:** Software Energy-saving Design
 - **Power-saving Mode:** Automatically enters power-saving mode when Ethernet connection is inactive.
 - **Wake-up Mechanism:** Continuously maintains power-saving mode until network activity resumes.
 - **Scheduling Mode:** Schedules WiFi connection status based on user habits. Hardware Energy-saving Design
 - **LED Indicators:** Use highly efficient LED bulbs; reduce default LED brightness; adjust brightness through buttons or software.
 - **External Power Supply:** Choose power supplies certified by RoHS, Energy Star, ErP; high-efficiency energy conversion: >90% DC/DC conversion; optimized energy supply for Type C power supply.
- **Easy Refurbishment:** Casing design facilitates easier maintenance and refurbishment, meeting low-impact requirements.
 - Snap-fit Design to replace Adhesives and Hot-melt
 - Adhesive-free Assembly: Back and front covers are assembled without adhesives, allowing technicians to disassemble the product casing during refurbishment without special tools.
 - Textured Design: Special embossed texture design on the back cover prevents scratches during refurbishment.
- **Durability:** Prolongs the product's lifespan.
 - **Meets IP68 Standard:** Our high-end outdoor routers comply with the IP68 standard, ensuring the product can operate in extreme environments.
 - **Built-in SFP/SFP+:** Incorporates SFP/SFP+ casing, supports various network architectures and aiding service providers in seamless upgrades using the same product, thereby avoiding wastage during technological upgrades.

C. Green Manufacturing

We focus on the inputs and processes during manufacturing, including source management of raw materials, clean production efficiency at the supplier end, output from the manufacturing process, the product itself and its provided services, and the byproducts of production and the related processes. All material flows, including energy and resource flows, related to these inputs and outputs are the environmental footprint concerns we have for the manufacturing process. Through a comprehensive assessment of environmental performance indicators, we consider the results and impacts, quantitatively analyzing the value created for society and its correlations.

We are verified by ISO 14001:2015 Environmental Management System and ISO 45001:2018 Occupational Health and Safety Management System, aiming to maintain the effectiveness of the environmental health and safety management system. We continue to promote continuous improvement activities, develop improvement plans, assess their effectiveness, and undergo annual external audits conducted by verification bodies.

Additionally, we have obtained IECQ QC080000:2017 certification for hazardous substance process management, ensuring that all products comply with customer and relevant regional requirements for hazardous/substance restrictions and recycling directives. We go beyond standard requirements to establish internal requirements for green products, environmental protection, safety, health, and the manufacturing environment and processes.



D. Green Packaging & Shipping

1. Product Packaging

Suppliers are required to adhere to the EU "Packaging and Packaging Waste Directive," with "Reuse," "Recycle," and "Reduce" as the primary guiding principles.

*Note

Green Packaging Design Principles:

- Ensure materials are recyclable and biodegradable.
- Avoid the use of single-use plastics.
- Optimize product-to-packaging ratio.
- Clearly label recycling and disposal information.

Reuse/Recycle

- Plastic-free packaging design, avoiding the use of plastic film or coatings.
 - No toxic inks, adhesives, or hazardous substances, using halogen-free or soy-based inks for printing.
- FSC-certified packaging is available upon request.
- Use recyclable single packaging material.
- Utilize post-consumer recycled fibers.



Labeling Materials and Recycling Symbols



Design of Single Recyclable Corrugated Cardboard Packaging Box

Reduced

While prioritizing product protection, design packaging with minimal materials to minimize the packaging size for optimal design. This not only reduces manufacturing and transportation costs but also lowers carbon dioxide emissions.

- Avoid over packaging and minimize packaging volume and weight.
- Printed in monochrome using black ink in a minimized area.
- Reduce unnecessary printed materials.



Monochromatic Printing in Minimal Area



Minimize unnecessary user manuals and documents with downloadable digital files.

2. Product Shipping

Maximizing pallet utilization and product loading efficiency is a crucial aspect of transportation design, as it contributes to carbon reduction benefits. Through optimizing the product casing design, we managed to reduce the packaging box volume by 36.7%. Additionally, we standardized pallet specifications, adjusted packaging dimensions, and designed for higher payload. This approach has increased the quantity of products loaded onto each pallet by 47.7%, significantly reducing greenhouse gas emissions during transportation, aligning with the concepts of carbon reduction and environmental protection.



Before optimization



After optimization

*Note: The Zyxel Group's Sustainability Committee's Green Product Team has established the Group's Green Product Design Guidelines. Due to differences in business sales scope and customer attributes among the various subsidiaries under the Group, product designs need to adhere to local regulations and customer requirements. Therefore, actual designs for green products may differ from the general principles mentioned above.



E. Disposal and Recycling

In addition to requiring suppliers to consider 3R (Reuse, Recycling, and Recovery) and disassembly processes in product design, we also actively guide suppliers to complete WEEE questionnaires and manufacturing 3R reports on a regular basis. This is to establish a "product recycling library" for recycling companies and consumers in various countries to refer to when recycling and dismantling. This is in line with the obligation to actively provide information. At the same time, we participate in WEEE registration and/or WEEE collective registration programs in various European countries, and take direct financial and managerial responsibility. We actively report based on the actual information and sales volume of the products, to ensure that there are sufficient measures in place and that the national WEEE legislation and distributors are in compliance.

F. Carbon Footprint Disclosure

Product Carbon Footprint Inventory Plan

The Company's "Product Carbon Footprint Inventory Plan" adopts the concept of source management, where life cycle thinking is introduced at the initial design stage of products. Thus, by initiating the plan, we incorporate the product design process into the environmental impact assessment and take every possible chance to minimize the direct and indirect environmental impacts of the products so as to achieve the aim of the Product Carbon Footprint Inventory Plan, i.e., implementing the eco-friendly/ecological/sustainable design and manufacturing of our products.

Product Carbon Footprint and Environment Carbon Footprint Calculation Platform

Starting 2021, in Zyxel Group undertook the initiative of independently developing a product carbon calculation platform and implementing a life cycle assessment software database. Through these efforts, Zyxel Group present the environmental impacts caused during product design, development, and manufacturing in various indicator forms such as carbon footprint, water footprint, ozone depletion, etc. We transform these environmental impact indicators into further analytical indicators for human health and natural resource consumption. This empowers us to provide assessment data on the environmental friendliness level to end customers during service delivery, and helps us fulfill our commitment to achieving net-zero emissions.



G. Green Channel

1. Green Marketing

Zyxel Networks use virtual websites in conjunction with physical stores to sell their products via online e-commerce platforms. Despite having no warehouses and shelves, the companies can, with the Internet enabling two-way interaction with consumers, not only cut their marketing costs, but also greatly reduce the environmental impacts caused by the sale of the products through physical channels.

In addition, ZNet has offered an online security license subscription service for its B2C service platform, Zyxel Marketplace, and further planned to release its own e-commerce platform allowing the direct purchase of its hardware equipment in Europe in Q4 2022 to expand its online marketing services.

2. Green Education

Through the quick after-sales services and systems, Zyxel Communications and Zyxel Networks carry out a series of educational green product marketing campaigns and selling programs for service providers and consumers to raise their awareness of green products and motivate them to purchase the products. Green education and products can thus be promoted by changing the consumers' awareness/attitude and buying behavior on an experiential basis.

Zyxel Group spares no effort to disseminate eco-friendly concepts. Internally, the Company actively implements green product design and encourages the employees to take part in environmental protection events. Externally, we are dedicated to proactive interaction and cooperation with government agencies, communities, and industries in the hope of ingraining the concept of a green environment and fulfilling corporate responsibility with our influence as an international enterprise.

Promotion of Green Design

Zyxel products are designed to be highly efficient and energy-efficient, to cause less pollution, and to have longer lifespans. Our designers are also required to view consumer value, practicality, and satisfaction as considerations when designing the products. Related energy-saving technologies have been put into practice as follows:

- Automatic power consumption adjustment based on the status of the connected household appliances
- Automatic power consumption adjustment based on the length of network cables
- Wireless network connection timing
- Automatic device hibernation
- Smart energy-efficient fans
- Smart Ethernet energy-saving function

Improvement of Employees' and Consumers' Green Awareness

- Encourage the employees to participate in internal environmental protection and energy-saving campaigns such as electricity saving in offices, waste battery recycling, etc.
- Actively join environmental protection activities in the community, e.g. the science park's Industrial Safety and Environmental Protection Month events
- Organize environmental protection experience sharing sessions
- Post articles with green topics
- Employee Carbon Footprint Label Design Competition

| Friendly Workplace



- A. Diversity and Inclusion Recruitment
- B. Human Capital Development
- C. Human Rights Management
- D. Workplace Health & Safety

Talent is the most valuable asset supporting the continuous growth of the company. In addition to fostering an innovative and diverse company culture, we are committed to providing employees with a challenging, enjoyable, and fairly rewarding work environment.

We prioritize the hiring of local employees at our operational sites around the world, encouraging contributions from marginalized groups. In addition to establishing comprehensive management systems to safeguard employee rights, providing smooth labor-management communication and complaint channels, we also offer competitive compensation and benefits, launch a variety of work-life balance programs, and ensure a safe and healthy working environment, all aimed at nurturing the holistic well-being of our employees.

Through a comprehensive education and training system and employee development planning, we assist employees in enhancing their professional skills and personal growth, making them a crucial driving force for the company's sustainable development.

Achievements

Diversity and Inclusion	Ratio of female supervisors	28.6%
Create job opportunity	Number of employees worldwide	+3,944 employees
Talent education	Training hours	15,4,200hours
Salary and welfare	Employee activity satisfaction	≥92%
Human rights protection	Completion rate of new human rights courses	100%
	Sexual Harassment Prevention Course Completion Rate	99.8%
Healthy workplace	Case of occupational accidents	1

Commitment

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.

- 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.

- 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.

Policies








Build a friendly workplace

Provide a good working environment, pay attention to employees' physical and mental health and career development

Protect the rights and interests of employees

Diversity and inclusion, human rights protection, no discrimination, bullying, harassment

Friendly Workplace Major Issues Strategy and Goals

Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Talent attraction and retention	Attraction and retention of outstanding employees can help boost operating performance	<ul style="list-style-type: none"> Gain a grasp of the current salary trends in the market to offer overall competitive remuneration Provide multiple and smooth communication channels 	<ul style="list-style-type: none"> Employee turnover rate Complaints made through the employee communication channels 	Indirect employee turnover rate: < 20%	Indirect employee turnover rate: < 20%	 Gender equality  Decent work and economic growth
Talent training and development	A wide range of talent training programs will attract outstanding employees to stay	Offer diverse talent training programs	<ul style="list-style-type: none"> Completion rate of personal development programs for potential talent Completion rate and satisfaction of professional skill training programs 	<ul style="list-style-type: none"> Completion rate of 80% for personal development programs for potential talent Potential talent retention rate of 90% Completion rate of 100% and a satisfaction score of 4 or higher for professional skill programs 	<ul style="list-style-type: none"> Completion rate of 90% for personal development programs for potential talent Potential talent retention rate of 90% Completion rate of 100% and a satisfaction score of 4.3 or higher for professional skill programs 	 Quality Education
Human rights management	Human rights can be maintained to create a sustainable workforce	<ul style="list-style-type: none"> Human Rights Protection Promote the concept of human rights 	<ul style="list-style-type: none"> No material regulatory violation Completion rate of human rights-related courses 	<ul style="list-style-type: none"> No material regulatory violation Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 95% for courses on sexual harassment prevention 	<ul style="list-style-type: none"> No material regulatory violation Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 97% for courses on sexual harassment prevention 	 Gender equality  Decent work and economic growth
Employee care	High-quality working environment and care can enhance staff centripetal force	<ul style="list-style-type: none"> Provide comprehensive staff facilities Provide a variety of employee activities 	<ul style="list-style-type: none"> Activity planning employee satisfaction % 	<ul style="list-style-type: none"> Activity implements in time Activity questionnaire return rate \geq 50% At least 4 points in the satisfaction survey \geq 85% 	<ul style="list-style-type: none"> Activity implements in time Questionnaire return rate \geq 60% At least 4 points in the satisfaction survey \geq 90% 	 Decent work and economic growth
Occupational safety and health	The Company can ensure continuous operations and steady growth in a work environment with safety as a priority	<ul style="list-style-type: none"> Promote an occupational safety culture Give safety awareness education Implement preventive management 	<ul style="list-style-type: none"> Occupational safety course coverage Number of occupational accidents Frequency of occupational injuries Management system verification 	<ul style="list-style-type: none"> Occupational safety course coverage > 95% Occupational accidents = 0 Frequency of occupational injuries = 0 Pass the ISO45001 certification process 	<ul style="list-style-type: none"> Occupational safety course coverage > 98% Occupational accidents = 0 Frequency of occupational injuries = 0 Pass the ISO45001 certification process every year 	 Decent work and economic growth

Near-term goals and achievements

Issue	Management guideline	2022 Goal	Achievement	2023 Goal
Talent Development	<ul style="list-style-type: none"> Management competency rate Strategic cultivation of potential talent Professional skills training 	<ul style="list-style-type: none"> 90% completed rate of Management Competency 80% completed rate of potential talent development plan 90% talent retention rate The completion rate of professional skills courses is 100% & satisfaction scores above 4 	<ul style="list-style-type: none"> Completed rate of Management Competency=100% Completed rate of potential talent development plan=100% Talent retention rate= 96% The completion rate of professional skills courses is 100% satisfaction scores above 4.3 	<ul style="list-style-type: none"> 100% completed rate of Management Competency 90% completed rate of potential talent development plan 90% talent retention rate The completion rate of professional skills courses is 100% satisfaction scores above 4.3
Human Right Protection	<ul style="list-style-type: none"> Material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation
Human rights advocacy	<ul style="list-style-type: none"> Human rights related courses Provide online courses on sexual harassment prevention 	<ul style="list-style-type: none"> The completion rate of human rights related courses is 100% The completion rate of online courses on sexual harassment prevention > 95% 	<ul style="list-style-type: none"> The completion rate of human rights related courses is 100% The completion rate of online courses on sexual harassment prevention=99.8% 	<ul style="list-style-type: none"> The completion rate of human rights related courses is 100% The completion rate of online courses on sexual harassment prevention> 97%
Work-life Balance	<ul style="list-style-type: none"> Activity planning employee satisfaction % 	<ul style="list-style-type: none"> Activity implements in time Questionnaire return rate≥80% At least 4 points in the satisfaction survey≥90% 	<ul style="list-style-type: none"> Questionnaire return rate≥85% 4 points in the satisfaction survey for Family Day activity≥95% 	<ul style="list-style-type: none"> Activity implements in time questionnaire return rate≥80% At least 4 points in the satisfaction survey≥90%
Occupational safety, health and environmental management system	<ul style="list-style-type: none"> Management System certification 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001
Occupational Safety and Health Management	<ul style="list-style-type: none"> Coverage of occupational Safety education courses Number of occupational injury incidents Occupational injury frequency Verification through management systems 	<ul style="list-style-type: none"> Occupational safety education course coverage >98% Number of occupational injury incidents: 0 Occupational injury frequency: 0 ISO 45001 verification passed annually 	<ul style="list-style-type: none"> occupational accidents: MitraStar site: 0; Zyxel site: 1 	<ul style="list-style-type: none"> Occupational safety education course coverage >98% Number of occupational injury incidents: 0 Occupational injury frequency: 0 ISO 45001 verification passed annually
Safety equipment management	<ul style="list-style-type: none"> Rate of fire equipment improvement 	<ul style="list-style-type: none"> Rate of fire equipment improvement 100% 	<ul style="list-style-type: none"> Rate of fire equipment improvement 100% 	<ul style="list-style-type: none"> Rate of fire equipment improvement 100%
Prevention of professional diseases	<ul style="list-style-type: none"> Cases of occupational disease 	<ul style="list-style-type: none"> Cases of occupational disease=0 	<ul style="list-style-type: none"> Cases of occupational disease=0 	<ul style="list-style-type: none"> Cases of occupational disease=0

A. Diversity and Inclusion Recruitment

Human resource structure

At the end of 2022, Zyxel Group had around 4,000 employees, made up of 78.5% full-time employees, 0.8% temporary staff, and 20.7% contract workers. Male employees account for 56.6%, and female employees account for 43.4%. Due to the characteristics of the technology industry and job market factors the proportion of male employees is greater than that of women, but the overall gender ratio is still quite balanced. Managers account for 16.3%, professionals 54.9%, administrative staff 9.1%, and direct personnel 15.5%. 64% work at the headquarters in Taiwan. The average age of our employees ranges from 31 to 50 years old and an average seniority of 6.5 years. The human resource’s structure helps the company to grow steadily.

Categories		Zyxel Group			MitraStar			Zyxel			ZNet			Subtotal			%
		Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	
Employment Type	Full-time	48	84	132	865	828	1,693	421	216	637	422	211	633	1,756	1,339	3,095	78.5%
	Contract Employee	0	1	1	0	0	0	4	3	7	12	12	24	16	16	32	0.8%
	Temporary	0	0	0	462	355	817	0	0	0	0	0	0	462	355	817	20.7%
Subtotal		48	85	133	1,327	1,183	2,510	425	219	644	434	223	657	2,234	1,710	3,944	-
%		36.1%	63.9%	100.0%	52.9%	47.1%	100.0%	66.0%	34.0%	100.0%	66.1%	33.9%	100.0%	56.6%	43.4%	100.0%	-

Categories		Zyxel Group			MitraStar			Zyxel			ZNet			Subtotal			%
		Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal	
Job	Manager	21	20	41	265	67	332	97	32	129	72	25	97	455	144	599	19.4%
	Professional	23	37	60	789	234	1,023	309	140	449	330	147	477	1,451	558	2,009	64.9%
	Administration	4	27	31	36	111	147	15	44	59	20	39	59	75	221	296	9.6%
	Direct Employee	0	0	0	77	416	493	0	0	0	0	0	0	77	416	493	12.5%
Working Location	Taiwan	48	84	132	761	494	1,255	301	169	470	268	158	426	1,378	905	2,283	73.8%
	Asia	0	0	0	290	334	624	4	3	7	34	24	58	328	361	689	22.3%
	Americans	0	0	0	46	0	46	46	21	67	13	1	14	105	22	127	4.1%
	Europe	0	0	0	70	0	70	70	23	93	107	28	135	247	51	298	9.6%
Age	≤30	2	15	17	198	215	413	66	32	98	53	33	86	319	295	614	19.8%
	30-49	35	56	91	836	559	1,395	286	160	446	324	165	489	1,481	940	2,421	78.2%
	≥50	11	13	24	133	54	187	69	24	93	45	13	58	258	104	362	11.7%

Note 1: The employee numbers for the respective companies include their overseas subsidiaries, with the exception of Zyxel Communications, which does not include the subsidiary Black Cat Information, and Mengchuang Corporation, which does not include the subsidiary Qinchuang Communications.

Note 2: Full-time employees are permanently hired full-time staff, while temporary employees are staff with no guaranteed hours.

Note 3: Employees classified as dispatched workers primarily provide production line support.

1. Diversity and Inclusion

Zyxel Group has complied with the RBA Code of Conduct and local laws and regulations and formulated the "Management Procedures for Recruitment and Employment", "Code of Conduct for Employees", and "Regulations for Staff Employment" to strive to create a diverse and inclusive workplace with equal opportunities.

- Excellent talent is drawn in through a diverse range of channels in an open and fair manner.
- We offer a work environment of equality: All employees are treated equally without discrimination on the basis of race, skin color, religion, nationality, gender, age, disability, sexual orientation, pregnancy, political affiliation or marital status.
- We do not hire children
- Comprehensive interview training is provided for the recruitment personnel and hiring managers in order to select the right talent and ensure fair recruitment and talent quality.
- Our Regulations for Staff Employment specify and ensure that all our job applicants and employees receive reasonable treatment in terms of recruitment, employment, development, evaluation, and reward.

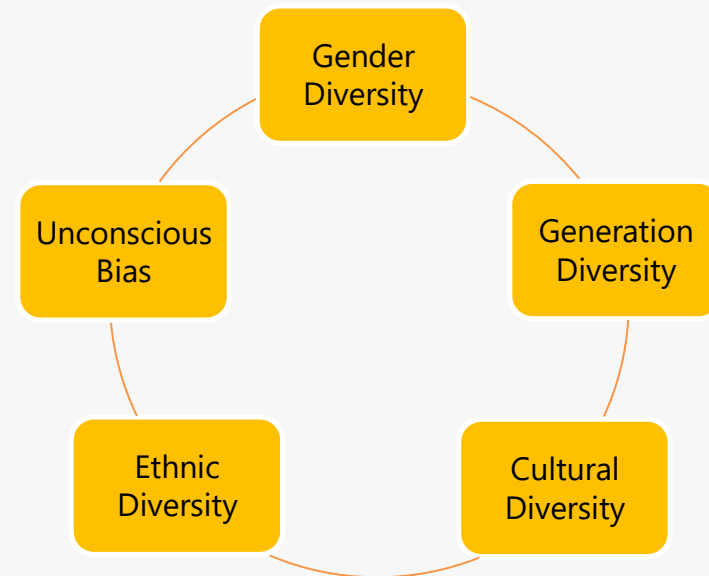


Diversity and Inclusion Policy

Zyxel Group provides a friendly workplace of gender equity, generational inclusion, and cultural diversity. Our employees with different cultures and experiences around the world learn from and communicate with each other to form collaborative cohesion and contribute to the Company in their own ways.

The "Zyxel Group Diversity and Inclusion Policy" has been established to implement relevant action plans. Different action plans in line with the policy aiming for diversity and inclusion are developed according to the definitions of diversity.

Diversity and Inclusion Policy Key Categories



2. Channels for Recruitment

In an effort to promote all-round talent solutions, the Company ensures a good work environment and integrates the resources from industry, academia and the government for organizing various recruitment campaigns, developing online exposure, and engaging in interactions on social media.

Talent is recruited through physical channels, including employee reference programs, campus recruitment, campus internship programs, industry-academia cooperation, and R&D substitute services. Newsletters are used for internal marketing. We also run the Company's website, social media, Facebook page, LinkedIn page and YouTube channel to increase reach.

Young Talent Cultivation

In order to cultivate young talent for the future, sharpen our competitiveness, and facilitate the development of network communication R&D technology, MitraStar trains talent from schools. In 2022, we trained talent for the network communication R&D technology through "internship programs" and "industry-academia cooperation" in a proactive manner.

Campus Recruitment: We dispatch our staff, which are HR personnel and engineers, to campus recruitment campaigns between March and April every year in the hope of giving a brief introduction of MitraStar and in-depth information on our expertise in network communication to the participants. Our staff interacts with the participants through different games, if appropriate, to give the public a stronger impression of Zyxel Group's corporate image in the network communication sector. In 2021, we scheduled five campus recruitment campaigns, of which three were canceled due to the pandemic.

Internship Program: Our university internship programs have face-to-face interviews with students and provide internships last from one semester to a year. We offer interns salaries that are higher than the statutory basic wage and lunch and designate the department staff to provide guidance. By doing so, the interns are able to not only know how our information service department works, but also apply what they have learned at school and thereby gain practical experience. Internships in our production line department are now available for students who wish to acquire hands-on experience in Hsinchu.

Social media management

FB: [link!](#) LINKEDIN: [link!](#)



Campus recruitment publicity



3. Diverse and Inclusive Workplace

Zyxel Group is an equal opportunity company that opens all positions to every talented individual within or outside the organization with fair, consistent standards.

We follow local regulations and the RBA code of conduct, and do not hire employees based on race, color, creed, nationality, religion, gender, age, disability, sexual orientation, pregnancy, political affiliation, or marital status. We do not employ child labor or forced labor. We protect the rights and interests of vulnerable groups such as minorities, persons with disabilities, women, migrant workers, and contractors.

New recruits

In 2022, Zyxel Group had a total of 726 new indirect employees. Subsidiaries MitraStar and its Chinese subsidiary, Wuxi Technology, have direct employees. They had a total of 1,092 new direct employees.

Indirect Employees				
	Male	Female	%	Number of New recruits
Taiwan	20.2%	51.9%	32.2%	520
Asia	14.8%	36.3%	23.9%	134
Americas	13.6%	45.5%	22.2%	18
Europe	11.9%	64.7%	23.7%	54
≤30	55.2%	143.0%	88.5%	331
31-49	11.9%	32.3%	19.6%	361
≥50	8.1%	22.4%	12.5%	34
total	17.9%	48.4%	29.2%	726
Direct Employees				
	Male	Female	%	Number of New recruits
Taiwan	59.7%	42.1%	45.8%	169
Asia	442.0%	320.2%	379.8%	923
≤30	513.6%	188.9%	301.3%	705
31-49	138.4%	91.4%	106.2%	378
≥50	33.3%	42.1%	40.9%	9
Total	291.8%	125.0%	178.4%	1,092



Note: New recruit ratio = number of new recruit employees in the category at the end of the year / total number of employees in the category.

Local Employment

Our overseas business and sales locations engage local talent. Most of the top management of our overseas subsidiaries are locals. We use the local talent to fully understand the local market situation and thereby adopt management approaches in line with local customs.

Recruit rate of local Management

	Number of Local Managers	Percentage of Local Managers
Taiwan	326	99.1%
China	92	94.8%
America	21	100.0%
Europe	47	97.9%

Note: Local employment refers to employing people with the nationality of the country where the business location is located.

Employment of Minorities

We respect the unique cultures of minorities and do not hire talent on the basis of race or ethnicity. As the Company has respect for personal privacy, the information of our minority employees is not disclosed.

Percentage of Local Minority Employees

	Number	%
Taiwan	6	0.3%
China	47	5.8%
America	42	51.9%
Europe	0	0.0%

Note: Ethnic minorities in Taiwan refer to the indigenous peoples and new immigrants; ethnic minorities in China refer to non-Han ethnic groups.

Employment of People with Disabilities

In line with the principle of equal employment, the Company offers job opportunities to people with disabilities and provides accessible facilities such as wheelchair ramps, elevators and accessible toilets. In 2022, pursuant to Taiwan's laws and regulations for the employment of people with disabilities, we hired a total of 20 physically or mentally challenged people in Taiwan, accounting for 1.01% of the total employees.

Percentage of Local Employees with Disabilities

	Number	%
Taiwan	20	1.01%
China	10	1.2%
America	0	0%
Europe	0	0%

External Workers

Non-employee workers include temporary staff, as well as contractors engaged in security, cleaning, and catering services, and on-site medical personnel. In 2022, due to manpower shortages caused by production adjustments and the pandemic, MitraStar Technology continued to collaborate with high-quality intermediary companies to allocate a portion of the work to temporary employees. By offering employment conditions that exceed labor law standards and providing company meals, we attracted talent to join our workforce. Additionally, we regularly offer opportunities for temporary employees to transition into permanent positions, aiming to establish long-term and stable working relationships with our staff.

Percentage of External Workers

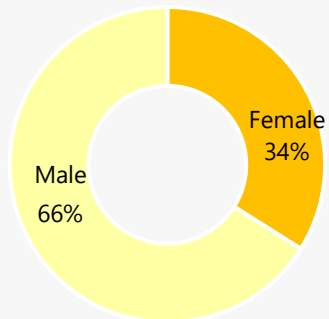
	Number
Taiwan	254
China	852
America	23
Europe	0

Percentage of Female Employees

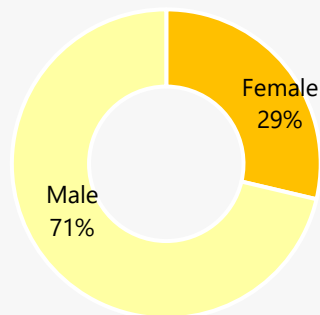
The Company ensures the right to work on the basis of gender equality and the employment, salary, and promotion of the employees are not affected due to their genders. As the Company is in a technology industry, males occupy most of the management and professional engineering positions and most of our female employees serve as administrative personnel and direct technicians. In 2022, our female employees constituted 34% of the total employees and the female employees holding managerial positions, serving as specialists, and in STEM positions accounted for 28.6%, 20.3%, and 26.9% respectively. Female employees consistently make up a stable proportion each year. Simultaneously, we prioritize the promotion and development of our female colleagues, and the ratio of female workers in management positions has also remained relatively stable without significant fluctuations.

Categories	Total	%
Number of female employees	1,339	34.0%
Number of female managers	144	28.6%
Number of female junior managers	70	47.0%
Number of female senior executives	15	20.3%
Number of women in production and revenue-related departments	629	57.7%
Number of female managers in production and revenue-related departments	62	27.3%
Number of women in STEM positions	300	26.9%

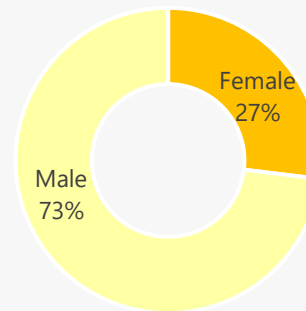
Employee by Gender



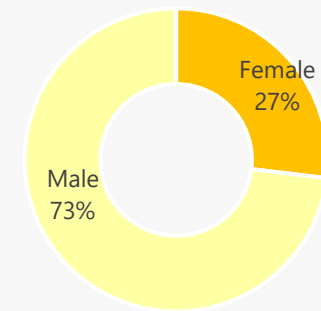
Management Level by Gender



Professional Level by Gender



STEM Position by Gender



Employee Turnover Analysis

Zyxel Group’s indirect employee turnover in 2022 was 23.8% in Taiwan, 71.8% in Asia, 0.4% in America, and 4.0% in Europe. After comparing the employee turnover in Taiwan to that of companies in the same industry, it was shown that the turnover rate analyzed was relatively stable, considering that the appropriate flow of talent is helpful to the health development of Zyxel Group’s human capital. For the direct employees, the turnover in Taiwan and China was 29% and 121%, respectively. As analyzed, it was found that in addition to external economic and environmental factors, China was affected by drastic seasonal demand and capacity changes and relatively significant fluctuations in the local labor market, leading to relatively high employee turnover.

Turnover Mitigation Strategies

We have always valued talent retention. Through the integration of the Group’s resources, Zyxel Group takes active actions to retain talent as much as possible, such as fixing our organizational weak spots, reinforcing our talent development and management mechanism, ensuring career development, and providing all kinds of benefits.

- Talent Exit Interview Mechanism:** The manager and the HR personnel who is familiar with the organization host exit interviews to understand the situation and make a report to the organization in order to reduce turnover.
- Key Talent Database:** Talent development is kept track of and evaluated on a regular basis to retain our key talent as much as possible. We may assess related risks first and implement control measures for employment termination to prevent the divulgence of our business secrets.
- Internal Transfer Opportunities:** The individual employees’ expertise is evaluated to adjust their jobs and work environments. Internal transfer opportunities may be provided to retain the employees.
- Talent Rehiring:** The Human Resources Department works with the department heads to regularly review the list of employees whose employment was terminated and actively consider rehiring former employees who are willing to come back.

Mitigation of Direct Employee Turnover

As our direct employee turnover is on the high side, multiple mitigation plans have been launched to prevent the Company’s demand for human resources from being affected. As analyzed, we found that the high direct employee turnover results from the employees’ misperception of their work conditions and environments as well as internal communication. Therefore, our efforts to mitigate the direct employee turnover focus on two areas: “helping new hires better adapt to their jobs” and “improving the managers’ communication skills”. The Company carries out several mitigation programs, including “promoting the recruitment and employment procedures”, “introducing new employees to their new roles and work environments”, and “actively communicating with the production line managers”. These programs involve “optimizing the job applicant interview process”, “improving the employee onboarding process and work environment”, and “providing expression skill courses” to mitigate the employee turnover through sufficient and effective communication.

Turnover rate

	Male	Female	<=30	31-49	>=50
Number of turnovers	38.38%	37.64%	108.39%	22.24%	10.58%
Voluntary turnover rate	36.33%	34.88%	106.09%	20.05%	6.83%

IDL Employee

	Male	Female	%	Total
Taiwan	12.0%	13.9%	12.7%	205
China	11.7%	8.9%	10.5%	59
America	6.8%	0.0%	4.9%	4
Europe	12.4%	17.6%	13.6%	31
≤30	20.3%	25.4%	22.2%	83
31-49	10.8%	10.6%	10.7%	197
≥50	7.5%	5.9%	7.0%	19
%	11.8%	12.5%	12.0%	299

DL Employee

	Male	Female	%	Total
Taiwan	15.6%	6.8%	8.7%	32
Asia	279.0%	267.7%	273.3%	774
≤30	421.0%	144.4%	240.2%	562
31-49	100.9%	53.3%	68.3%	243
≥50	0.0%	5.3%	4.5%	1
%	175.5%	84.6%	113.7%	806

Note1: The definition of departing employees: Full-time regular employees who have completed a minimum of 3 months of employment.

Note 2: Total employee turnover: the sum of voluntary employee turnover and involuntary employee turnover.

4. Talent Retention

Our employees are a valuable asset to us. To retain our employees for a long time, Zyxel Group creates a good work environment that attracts talent with well-developed management systems and incentive measures.

| Compensation

We determine each individual Zyxel Group employee's compensation with the best interests of both stakeholders and employees in mind, and we have established "salary and allowance management procedures" to ensure that the company's salary and subsidy methods comply with legal regulations and effectively protect the interests of employees.

The starting salary of new employees is determined based on factors such as the employee's educational background, professional knowledge and skills, and professional years of experience. In addition to the basic salary, the salary structure includes: job allowance, class allowance, overtime hours, and payment of expenses. In Taiwan, it complies with the local "Labor Standards Act". In order to have a competitive overall salary, in addition to providing a complete promotion system and meeting the requirements of local laws and regulations, every April, depending on price levels and operating results, the local base salary level of the factory area is reviewed and adjusted to ensure that the overall salary of employees is competitive in the market.

Employee salaries are not differentiated by factors such as gender, age, race, nationality, religion, political stance, or gender orientation, etc. An individual employee's salary fully reflects their work performance and achieves incentive effects according to the contribution of individual work, and strives to be fair and reasonable. We also fulfill the responsibility of personal information protection for employee compensation.

Comprehensive Talent Retention Program

Salaries and Bonuses	<ul style="list-style-type: none"> • Salary structure adjustment • Performance bonus system • Employee stock ownership • rewards for creative and inventive proposals
Incentive and Praise	<ul style="list-style-type: none"> • Recognition programs for valued and excellent employees • Praise for senior employees
Employee Welfare	<ul style="list-style-type: none"> • Employee care • Off-work activities • Employee welfare programs superior to what is required by the laws
Good Communication	<ul style="list-style-type: none"> • Various communication channels
Career Planning	<ul style="list-style-type: none"> • Internal job transfers • Promotion policies • Insurance and retirement systems
Competency Improvement	<ul style="list-style-type: none"> • New employee orientation • Dual career path development • Courses on professional and management skills

Bonuses and Employee Rewards

Reward and incentive programs are in place to encourage employees and departments with excellent performance and share with our employees the Company's operating outcomes. These programs include festival bonuses, year-end bonuses, performance bonuses, bonuses for remarkable performance, and stock options for employees with outstanding performance.

Festival Bonus: Festival bonuses are given at Lunar New Year, Dragon Boat Festival, and Moon Festival every year

Performance Bonus: According to the "Performance Bonus Guidelines", quarterly bonuses, annual bonuses, and special bonuses are granted based on Zyxel Group's revenue achievement rate. We also give performance bonuses to our indirect and direct employees to share with them the Zyxel Group's earnings.

Employee Stock Ownership: The "Guidelines on the Issuance of Employee Stock Warrants and Stock Ownership" are established to offer employee stock ownership plans to employees with outstanding employees, thereby attracting excellent talent to stay in the Company for a long time, encouraging our employees, fostering cohesion among them, and boosting their sense of belonging to the Company.

Rewards for Creative and Inventive Proposals: With the aim of encouraging employees to be engaged in innovative R&D, Zyxel Group has developed the "Guidelines on Rewards for Creative and Inventive Proposals" to offer rewards for creative proposals, patent application proposals, and invention patents.

Incentive Projects: A wide range of incentive projects is provided to motivate our employees to give suggestions for job improvements and praise employees for their remarkable performance by posting their contributions on the internal website. In doing so, an incentive and a role model are provided for the employees. Cohesion among the employees can thereby be improved to boost the corporate competitiveness.

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". Zyxel Group 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 Zyxel Group.

The ratio of the minimum wage for entry-level personnel to the local statutory minimum wage

work area	category	gender	
		male	female
Taiwan	indirect employees	1.36	1.30
	direct employees	1.00	1.00
China	indirect employees	1.32	1.32
	direct employees	1.20	1.20

Note: Due to the significant differences in minimum wage standards among the subsidiary companies in Asia, Europe, and the Americas, they are not included in the disclosure. Each table only discloses the Taiwan and China regions.

Gender ratio of average basic salary

work area	category	job level	Gender	
			male	female
Taiwan	indirect employees	supervisory position	1	0.79
		non-supervisory position	1	1.07
	direct employees	1	0.97	
China	indirect employees	supervisory position	1	0.77
		non-supervisory position	1	0.77
	direct employees	1	0.98	

Note: Basic wages include base salary and other allowances but do not include overtime pay.

Gender ratio of average total compensation

work area	category	job level	Gender	
			male	female
Taiwan	indirect employees	supervisory position	1	0.79
		non-supervisory position	1	0.80
	direct employees	1	1.15	
China	indirect employees	supervisory position	1	0.8
		non-supervisory position	1	0.8
	direct employees	1	0.98	

Note: Average total compensation is the total annual salary, including the average of base salaries, allowances, and bonuses for full-time employees for the entire year.

Parental Leave and Retention

Zyxel Group creates a work environment where employees are treated with care and respect. This allows employees to take care of their families while contributing their expertise at work.

When family members require personal attention, employees can apply for "Family Care Leave". In response to childcare and nursing issues encountered by employees in Taiwan, employees can apply for parental leave of up to 2 years. Before the expiration of the leave period, Zyxel Group will plan for their return. In addition, when personal factors require long-term leave, employees can also apply for unpaid leave.

Parental Leave and Retention Numbers in 2022

	Male	Female	Total
Number of individuals eligible for parental leave (A)	58	69	126
Actual number of individuals applying for parental leave (B)	6	31	37
Parental leave application rate (B/A)	10.3%	46%	29%
Number of employees qualified to return to work after parental leave (C)	5	24	29
The number of people returning to work after parental leave (D)	1	22	23
Rate of employees returning to work after parental leave (D/C)	20%	92%	79%
Number of employees returning to work after parental leave in 2021 (E)	1	19	20
Number of people who have returned to work after parental leave and worked continuously for one year in 2021 (F)	1	16	17
Retention rate of employees after parental leave (F/E)	100%	84%	85%

Note: These statistics only include employees in Taiwan.

Insurance & Pension

Zyxel Group provides employees with social insurance that is superior to what the law requires to enhance and protect the basic rights and benefits of employees. In addition to statutory labor insurance and national health insurance, it also provides free group insurance for employees and their spouses and children, including life insurance, accident insurance, critical illness insurance, hospitalization medical insurance, injury medical

insurance, cancer medical insurance, and occupational accident insurance. The insurance company's on-site service was also provided: employees can directly conduct insurance consultation and application services inside the company.

The Committee of Employee Pension Reserve Administration has been established in accordance with the Labor Standards Law to supervise the deposit process of pension funds into the Central Trust Bureau. 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.

Benefits Superior to Statutory Regulation

Flexible working hours	We provide one hour of flexibility for the work day's starting and ending times to help colleagues deal with commuting.
Employee Benefits	The Welfare Committee holds events including family day, an annual dinner party, sports activities, art and cultural activities, and employee travel activities. They also provide a Dragon Boat Festival, Mid-Autumn Festival, and birthday welfare points program as well as emergency assistance, and EAP employee assistance programs. Group Insurance: We provide group insurance for colleagues and their dependents.
Work environment facilities	The gymnasium includes a multi-sport court, rhythm classrooms, fitness center, and leisure room. We also provide a convenience store, staff canteen, staff dormitory, coffee bar, female breast pumping room, and free parking for colleagues On-site services including banks, insurance services, shuttle bus are also available.
Health improvement	Health inspection services are provided for general employees, supervisors, new employees, and high-risk employees. The inspection items and frequency exceed regulatory requirements. For employees who need medical treatment, Zyxel Group provides one-day medical leave and medical subsidies.
Probationary leave	We exceed the labor law requirements by offering three days of leave during probation.

B. Human Capital Development

Cultivating talents and learning culture

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. For our efforts in nurturing talents, we won the bronze medal in the "Talent Development Quality Management System (TTQS)". We believe that good training quality will help our colleagues continue to grow and become an important driving force for the company's continuous advancement.


Policy

- Consolidate human capital and improve the efficiency of core talent assets
- Cultivate corporate human resources and improve employee performance
- To meet the needs of organizational development, improve the company's productivity and competitiveness

Comprehensive Talent Retention Program

- Establish a training system for multi-career planning and development
- Provide customized learning consultation and multiple learning channels
- Form an expert network system to provide knowledge inheritance and skill teaching

Target & Achievement

Issue	Operational Influence	Management Approach	2022 goal	2022 Achievement	2023 goal	2025 Mid-term goal	SDGs
Talent development	A wide range of talent training programs will attract outstanding employees to stay	<ul style="list-style-type: none"> • Management competency rate • Strategic cultivation of potential talent • Professional skills training 	<ul style="list-style-type: none"> • 90% completed rate of Management Competency • 80% completed rate of potential talent development plan • 90% talent retention rate • The completion rate of professional skills courses is 100% & satisfaction scores above 4 	<ul style="list-style-type: none"> • Completed rate of Management Competency=100% • Completed rate of potential talent development plan=100% • Talent retention rate= 96% • The completion rate of professional skills courses is 100% & satisfaction scores above 4.3 	<ul style="list-style-type: none"> • 100% completed rate of Management Competency • 90% completed rate of potential talent development plan • 90% talent retention rate • The completion rate of professional skills courses is 100% & satisfaction scores above 4.3 	<ul style="list-style-type: none"> • 95% completed rate of Management Competency • 90% completed rate of potential talent development plan • 90% talent retention rate • The completion rate of professional skills courses is 100% & satisfaction scores above 4.5 	 Quality Education

Talent Development Policy

Talent Development Strategy I:

Create a training system for diverse career planning and development

Rich learning resources

With our systematic management and training plan, we have also expanded our courses through use of on-line e-School learning. Along with internal/external training, all employees have many opportunities to improve their professional skills and their interaction with others. The courses include: new employee training, management courses of all levels, industrial safety, environment protection, marketing, quality assurance, research and development as well as other general and advanced sessions. In addition to regular training courses, Zyxel Group also helps employees developing themselves in terms of collaborative ability and personal specialties. The in-depth, all-aspect development projects in turn make it possible for Zyxel Group to benefit from the talents.

Dual-Ladder Career Development

Provide a dual-ladder career roadmap which consists of both management-level and professional-level career training.

Multiple Career Plans and Development

- Development Facet:** Job rotation helps provide comprehensive training for Zyxel Group personnel.
- Product Facet:** Zyxel Group has a great variety of product lines and cross-product development.
- Global Facet:** Co-work with our subsidiaries and branch offices for a broad international point of view.

Categories Covered by the Education and Training System

Our education and training system covers five categories: competence training at all levels, competency training, general education training, on-the-job training (OJT), self-development (SD)

Corporate University

Founded in 2006 with the aim of training all types of required talent and fostering their core competitive edges. We develop a competency-based training system, offer customized learning consultations and a diverse range of learning channels, and form an expert network system enabling the internal lecturers and consultants to be trained to pass their knowledge on and teach skills.



Education and Training Focus

Key Talent Development

Select key talent for the organization to carry out training and development plans based on the needs and future development of the organization.

Management Competency Training

Develop indicators for the leadership competencies required for the Group’s management, utilize 360-degree competency assessment tools to identify deficiencies in their management competencies in an objective manner, and continuously enhance the competencies through training.

Professional Competency Training

Set up a department responsible for training and development to draw up a wide range of competency-based talent development programs and training blueprints comprehensively and systematically.

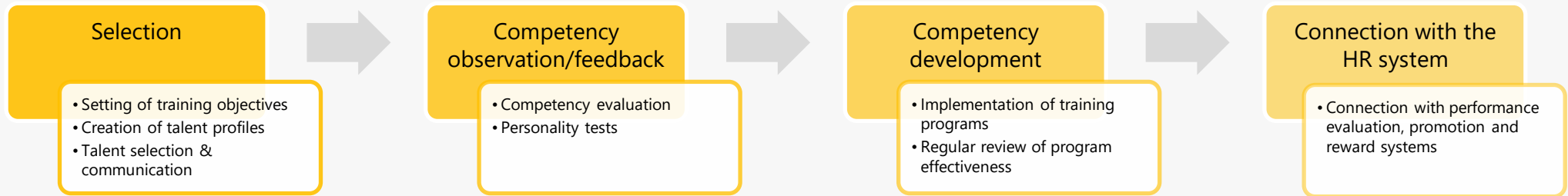
Education and Training system Blueprint

Job Position	Training by Job Level	Training by Competency	General Education and Training	OJT	SD
Strategic level	Leadership competency training for top management	Management strategy, market analysis, competitive edge, international management	Visions and values Core competency courses Quality awareness		Further education courses for self-development
Operating level	Training for new management Leadership competency training for entry-level and middle management	R&D positions: Innovative thinking, problem analysis and solving	Occupational safety awareness Information security awareness CSR awareness	Job instruction	
Management level		Sales positions: Customer orientation, project management	Customer satisfaction Service quality	Training programs	
Individual contributor	Basic job management and team communication training	Marketing positions: Project management	Interpersonal communication and coordination Microsoft Office utilization	Daily guidance	
		Customer service positions: Customer orientation, problem analysis and solving	Knowledge on network communication products Employee health management		
New employee	New employee training	Education for new employees’ transition to their departments	Self-encouragement Stress/emotional management		

Key Talent Development

Zyxel Group always values talent training and development. As the industry advances and changes, we put our focus on the department's needs for key talent development and transformation training and develop a comprehensive talent development process model. A diverse range of training programs is also formulated to ensure that the competencies of the key talent meet the organization's needs and thereby allow them to confront future challenges jointly with Zyxel Group.

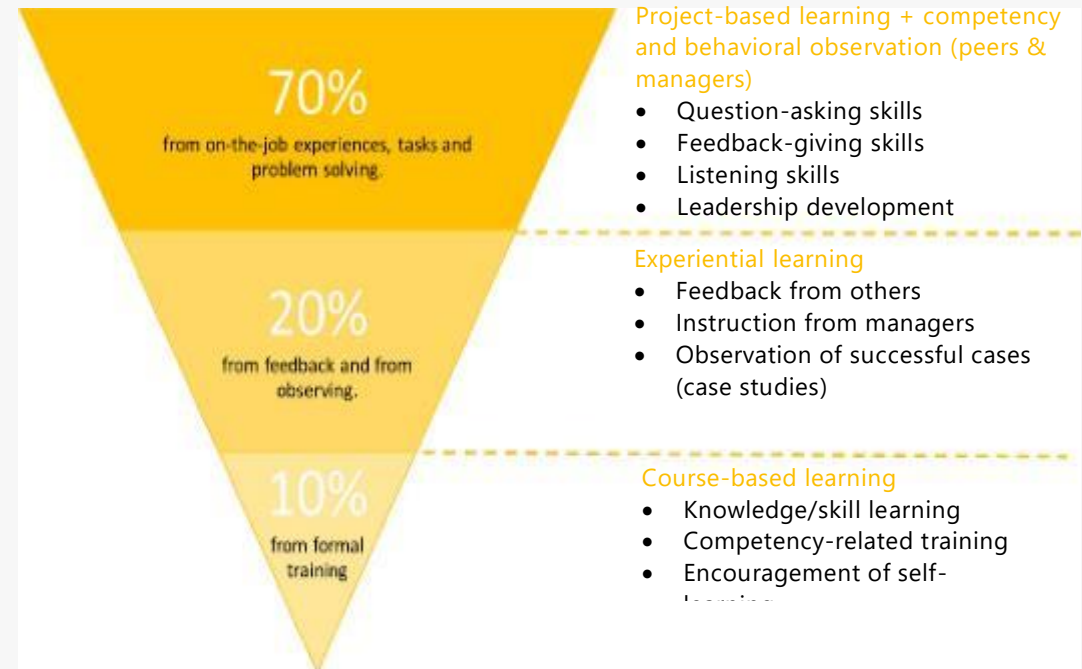
Talent Development Process Model



Selection of R&D Talent for Transformational Development

The R&D of hardware requires collaboration between R&D, mechanism, and verification departments. To ensure quality and efficiency in meeting the needs of customers, the organization needs integrated leadership roles with technology backgrounds to effectively connect the lateral resources. Therefore, we initiate an HPL (H/W Project Leader) training and development program to follow the talent development process model involving creating a talent profile for a role, selecting key talent with a certain level of R&D experience, and formulating training plans based on the 70-20-10 rule. The hardware R&D engineers are thereby allowed to step out of their field of expertise to learn the competencies of project management professionals (PMPs) and gain knowledge and skills in project management. With the help of project-based and experiential learning, they can also enhance their eight competencies required for being an HPL and make corrections through actual practices during their gradual transition to an HPL. A total of 17 R&D engineers have participated in the training program in Taiwan and China.

HPL Cultivation Program



Internal Transfer and Rotation Policy

Cultivating high-quality and high-potential talent has always been the core philosophy and goal of our organization. For individuals who have demonstrated excellent performance, as well as those who have been assessed by their supervisors as having the potential for growth but still requiring development, our training and development department will engage in discussions with them to formulate IDPs (Individual Development Plans).

These IDPs are designed to address the suitability and needs of these individuals regarding their developmental areas. We arrange short-term rotations or job transfers to help them accumulate diverse experiences, broaden their perspectives, and encourage innovative thinking. Our ultimate aim is for them to bring back their newfound experiences to their original positions, where they can cultivate their expertise and spark new innovations.

Foreign Assignment Training Mechanism

In the context of international talent development, our organization strategically nurtures international talents. We have a planned recruitment approach that involves talent acquisition from local sources or from within our parent company. This strategy aims to enrich our company's expanding global footprint and rapidly build a pool of elite professionals in various locations.

Our strategic executives collaborate closely with the training and development department to facilitate the development process. After identifying potential candidates, we communicate with them to design training programs that align with the company's future organizational development and strategic goals. We then create Individual Development Plans (IDPs) for these promising individuals, focusing on expanding their international mindset.

This development process may include project-based assignments and cross-cultural management training, integrating them into local daily management activities. This approach effectively transfers and replicates successful experiences to the local context, ensuring a strong fit for our potential talents.



Talent Development Strategy II:

Offer customized learning consultations and a diverse range of learning channels

Diverse learning channels

According to different job roles and development needs, we provide a variety of learning channels, combining a variety of the most suitable teaching methods, tools and activities, and design a diversified and systematic step-by-step development plan to help with different learning needs. We work to help employees grow their skills and abilities.

Internal training: internal e-school courses for professional skills, cultural and general knowledge along with management training.

External training: we provide subsidies for external training courses or conferences to offer employees with more opportunities to learn and to expand their professional knowledge.

Online learning: our online platform provides digital learning courses and experience sharing. Comprehensive learning resources are open anytime for employees anywhere.

Supervisor's guidance: cultivating the necessary skills in each team member for their job roles

Help from mentoring: each new employee has a mentor to help he or she understanding Zyxel Group's company culture as well as to offer advice.

International personnel cultivation: online English courses and international projects.

eSchool Online Academy

Integrate various learning resources of Zyxel Group with e-learning and establish an online learning platform eSchool Online Academy, which provides employees with a platform for querying and recording all-round learning resources. In addition to searching for the courses they want to learn on the platform, employees can also search for the courses they want to learn on the platform. The platform clearly grasps the learning process.



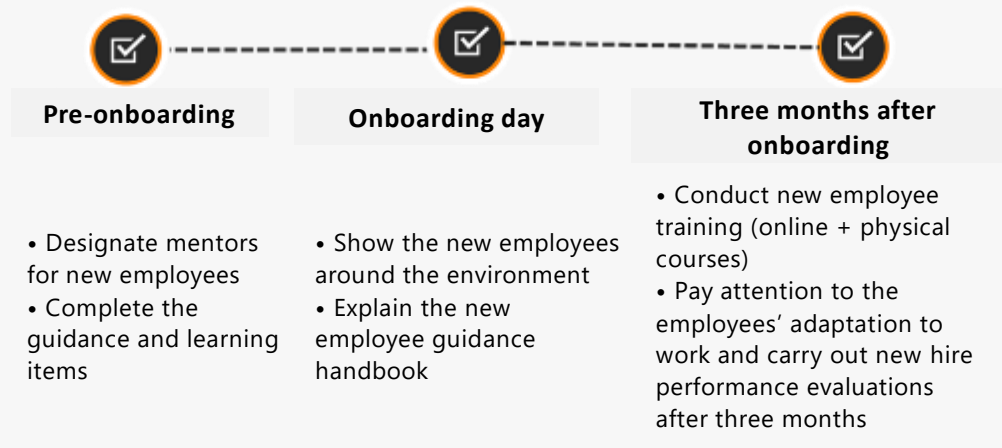
Talent Development Strategy III:

Form an expert network system for passing knowledge on and teaching skills

New Hire Camp

To help new employees quickly become accustomed to the organization and its culture, we develop individual guidance plans specifically for them before their onboarding and designate mentors to assist the new hires. The system gives the new employees a helping hand to shorten their learning curve and smoothly complete the required basic job training. A series of training courses on general knowledge, covering both online learning courses and physical courses, are also designed for the employees in order for them to more understand Zyxel Group's related systems and fit in with the corporate culture.

New Hire Guidance Procedure

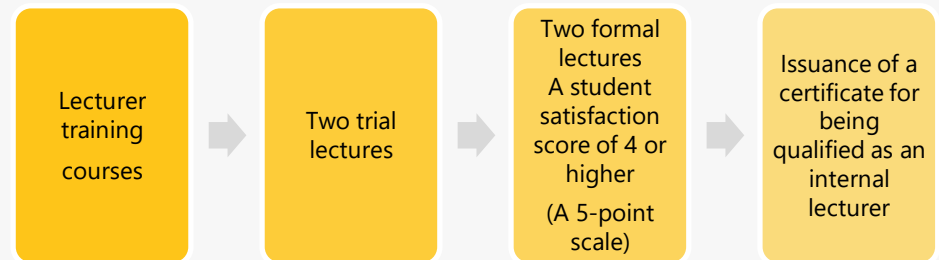


In 2022, 124 employees completed the online new employee training and only 115 employees completed the physical courses due to the pandemic.

Internal Lecturer Training

The internal lecturers and consultants are trained to pass their knowledge on and teach skills, which are two of the objectives of education and training. The Group has a well-developed internal lecturer training system to train talented trainee lecturers and accumulate our knowledge inheritance and training capacities.

Internal Lecturer Training System



As of 2022, 33 internal lecturers have been trained, with a total of 891.8 training hours.

Training hours/cost

In addition to traditional “Classroom Training” and “On-the-Job Training”, Zyxel Group also provides E-Learning Training Programs. In 2022, the total training hours exceeded 154,000 hours, nearly 22,000 trainees, and the average employee completed 66.2 training hours. The total training costs exceeded NT\$6.6 million, and the average training cost of employee is nearly NT\$18,000

From 2020 to 2021, due to the impact of the COVID-19 epidemic, courses have been converted to online formats, and the number of classes has slightly increased compared with previous year; In 2022, as the epidemic situation improved, in-person classroom courses gradually resumed, and there was a significant increase in both the average training hours and expenses for employees.

2022 Training hours					
Area	Category	job level	Gender		Total
			Male	Female	
Training Hours	Indirect employees	Management Hierarchy	4,912.4	2,559.8	154,200.9
		Non-Supervisory Positions	9,741.8	7,314.2	
	Direct employees	70,781.9	58,890.9		
Employees Trained	Indirect employees	Management	2,265	978	22,399
		Non-Supervisory Positions	9,028	5,708	
	Direct employees	793.0	3,627		
Average Training Hours Per Employee	Indirect employees	Management	98.7	125.8	66.2
		Non-Supervisory Positions	50.0	54.4	
	Direct employees	22.0	20.2		

Note: Training hours are calculated only for the Zyxel site and MitraStar site in Taiwan, and the Wuxi site in China.

2020~2022 Average training cost of employees (in NT)

	2020	2021	2022
Total training cost	2,174,836	2,131,939	6,726,476
Employee Number	2,104	2,251	2,329
Average training cost	1,034	947	2,888

Note: Training hours are calculated only for the Zyxel site and MitraStar site in Taiwan, and the Wuxi site in China

Course Satisfaction Survey

	2020	2021	2022
Total number of participants	384	404	517
Training Satisfaction Average Value (out of 5)	4.47	4.5	4.61

Note: The course satisfaction survey only covers MitraStar.



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, Zyxel Group has created the “Performance evaluation guideline” to coordinate targets and plans. The guideline will ensure that PDCA is implemented effectively for Zyxel Group 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. In 2022, The employee performance evaluation completion rate was 100%.

Training Effectiveness Evaluation

Zyxel Group adopts the Kirkpatrick Model for learning effectiveness evaluation in conjunction with Jack Phillips’ ROI training evaluation model to conduct training effectiveness evaluations with the aim of ensuring effective training as well as talent development and retention.



C. Human Rights Management

1. Human Rights Policy

Zyxel Group respects the human rights of stakeholders such as customers, employees, suppliers, communities, and investors. To safeguard the rights of employees, we align our management policies with relevant international standards and enforce our human rights policy in accordance with the United Nation’s Universal Declaration of Human Rights, the United Nations Global Compact, and the International Labor Organization’s (ILO) fundamental conventions. MitraStar also implements our human rights policy in accordance with the Responsible Business Alliance Code of Conduct (RBA), and has formulated the Supplier Code of Conduct to jointly implement human rights protection norms with supplier partners.

Implementation Guidelines

- Freedom of employment and equal job opportunities.
- Protection of the right to work of disadvantaged groups, e.g., minorities, people with disabilities, females, migrant workers, and contracted personnel.
- Legal and reasonable working hours and wages.
- Prohibition of child labor.
- Interdiction of forced labor
- Zero tolerance for harassment and bullying in any form.
- Elimination of illegal discrimination
- Provision of a work environment of safety, health, and zero harassment.
- Assistance to the employees in maintaining their physical and mental health.
- Continuous communication and respect for the employees’ opinions.
- Provision of anonymous reporting channels for the employees, suppliers and other stakeholders.
- Support for the employees’ freedom of and right to assembly and association.
- Regular review and evaluation of implementation effectiveness.
- Commitment to responsible mineral sourcing.



Implementation Results

In 2022, no incidents involving forced labor, human trafficking or other human rights violations occurred within the Group and no human rights-related complaints were received, handled and solved via the formal reporting mechanism.

The completion rate of **99.8%** for human rights-related training courses for new employees was achieved

A completion rate of **99.8%** for courses on employee sexual harassment prevention was achieved

Major Issues Strategy and Goals

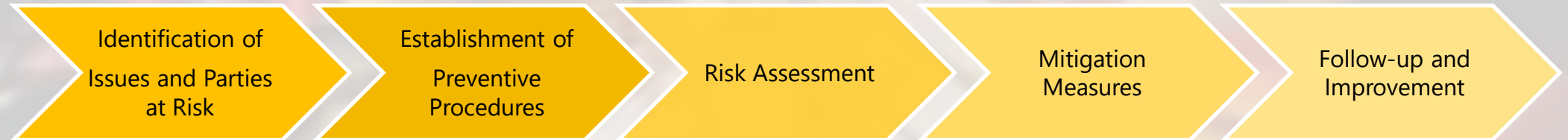
Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Human rights management	Human rights can be maintained to create a sustainable workforce	<ul style="list-style-type: none"> Human Rights Protection Promote the concept of human rights 	<ul style="list-style-type: none"> No material regulatory violation Completion rate of human rights-related courses 	<ul style="list-style-type: none"> No material regulatory violation Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 95% for courses on employee sexual harassment prevention 	<ul style="list-style-type: none"> No material regulatory violation Achieve a completion rate of 100% for human rights-related training courses for new employees Maintain a completion rate of > 97% for courses on employee sexual harassment prevention 	 Gender equality  Decent work and economic growth

Near-term goals and achievements

Issue	Management guideline	2022 Goal	Achievement	2023 Goal
Human Rights Protection	<ul style="list-style-type: none"> Material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation 	<ul style="list-style-type: none"> No material regulatory violation
Human rights advocacy	<ul style="list-style-type: none"> Human rights education and training Sexual harassment prevention training 	<ul style="list-style-type: none"> The completion rate of human rights education and training: 100% The completion rate of Sexual Harassment Prevention Training: > 95% 	<ul style="list-style-type: none"> The completion rate of human rights education and training: 99.8% The completion rate of online courses on sexual harassment prevention: 99.8% 	<ul style="list-style-type: none"> The completion rate of human rights education and training: 100% The completion rate of online courses on sexual harassment prevention > 97%

2. Human Rights Management Procedure

We draw up human rights management policies and conduct risk identification for the human rights issues encountered during the operations based on the implementation guidelines of the policies to identify the parties exposed to and the issues related to human rights risks. For the parties exposed to the risks, Zyxel Group establishes preventive procedures and conducts risk assessments using different approaches to assess the level of human rights risks. Human rights violations can thus be prevented by performing mitigation measures and offering reporting channels. Also, follow-ups and improvements are implemented on a continuous basis.



Identify issues and objects

Zyxel Group conducts internal and external stakeholder surveys by sending questionnaires by email and posting the questionnaires on the official website to gain a grasp of the issues of the stakeholders' concern, thereby identifying the parties exposed to high human rights risks, including the employees and suppliers. The issues and parties are then used as indicators for assessing the level of human rights risks and managing the risks.

For Employees: In addition to the "Work Rules", "Employee Handbook", and "Regulations for Staff Employment" specifying requirements for human rights protection, the "Regulations for Sexual Harassment Prevention Measures, Reporting and Punishment", "Management Procedure for Anti-forced Labor", "Procedure for Protection of Child and Underage Labor", "Management Procedure for Prohibition of Mental and Physical Abuse", "Anti-discrimination Management Procedure", "Religion and Belief Management Procedure", and other internal management regulations have been developed to explicitly affirm that we protect the rights of our employees and ensure they have access to appropriate care.

Establishment of Preventive Procedures

For Suppliers: To further ensure the human rights of all personnel in the supply chain, the "Code of Conduct for Suppliers" has also been instituted to, jointly with the suppliers, protect and take care of their employees.

Identification of Issues and Parties at Risk

Risk assessment is conducted using different approaches for the employees and suppliers with high human rights risks. High-risk human rights issues are identified according to the probability of risk occurrence and severity to set objectives and strategies for mitigation actions.

Employees:

“Labor Risk Factor Identification and Assessment Form”: The “Zyxel Group Risk Management Team” conducts a human rights risk survey for the employees using the “Labor Risk Factor Identification and Assessment Form” every year. The survey covers human rights topics such as “child labor”, “forced and compulsory labor”, “disciplinary measures and discrimination”, “working hours”, and “remuneration and compensation” and gives scores for the probability and frequency of occurrence and severity of the risk issues concerning the topics based on their descriptions. The risk level is then calculated using the hazard level assessment method to identify high-risk issues and a “high-risk item assessment result report” is issued. The report describes the control measures and the high-risk issues and rectifications made for the high-risk issues and records the reviews verified subsequently.

Internal Audit: Our subsidiaries carry out internal audits based on the RBA Code of Conduct. Document audits focusing on “child and underage labor”, “forced labor”, “discrimination and discipline”, “freedom of association and communication”, “working hours and wages”, and other human rights issues are executed. An audit report is then issued based on the audit result. The subsidiaries determine the required improvements and the deadline according to the level of the deficiencies and implement subsequent follow-ups while performing further on-site audits.

Suppliers:

With the “Supplier Social Responsibility Evaluation Questionnaire” designed in accordance with the RBA Standards and “on-site audits”, the suppliers are audited for human rights issues such as “child and underage labor”, “forced labor”, “discrimination and discipline”, “freedom of association and communication”, “working hours and wages” and an audit report is issued to identify the human rights risks that may occur to the suppliers.



Human Rights Issues Management

No discrimination, harassment or persecution in the workplace

Zyxel Group's "Employee Code of Conduct" expressly states that no discrimination, harassment, or persecution of any kind shall be tolerated in the work environment. We expressly forbid discrimination against employees based on race, color, creed, national origin, religion, gender, age, disability, sexual orientation, pregnancy, political affiliation, or differences in their marital status, etc. The "Anti-Discrimination Management Procedures" also regulate the management procedures and methods for preventing and combatting any form of discrimination.

No forced labor and prohibition of child labor

Zyxel Group supports the effective elimination of forced labor as defined by the ILO and pledges not to use child labor. In the "Procedures for the Prohibition of Child Labor and Underage Workers", necessary measures are taken to prohibit the employment of child labor and ensure the safety, health, education and development of children.

Gender Equity

Zyxel Group has "Sexual Harassment Prevention Methods" to prevent sexual harassment in the workplace and maintain equal job opportunities for both genders. Zyxel Group also has a sexual harassment complaint channel, and the complainant can make a complaint orally, by telephone, fax, letter, email, etc. We have also formed a Sexual Harassment Complaint Appraisal Committee which is jointly formed by the company and colleagues to deal with sexual harassment complaints and the punishment of confirmed cases. The company considers protecting employees from sexual harassment as a basic responsibility.

Religious Freedom

Zyxel Group respects the religious beliefs of employees of various nationalities and regularly organizes gatherings for employees with the same religious beliefs to find spiritual comfort through religious activities, such as English Bible study sessions.

Human Rights of and Care for Foreign Employees

There are 140 production line employees at the MitraStar Hsinchu site, most of which are foreign migrant workers. 80% of them are Filipino and 20% are Vietnamese.

Zero Payment from Migrant Workers

In compliance with the RBA Trafficked and Forced Labor – Definition of Fees, MitraStar ensures responsible employment and recruitment that prevent the employees from being exploited when being employed. It protects their labor rights by making sure that they do not pay any expense for application, recruitment, employment and placement and bears processing fees to enable its foreign employees to work in Taiwan without worry. MitraStar Technology pays in full the expenses and placement fee required for its direct foreign employees to work when they are hired and requests the recruitment agencies not to charge the employees the placement fee.

Care for Foreign Employees

Life: In the dormitories, there is a convenience store offering foreign employee's snacks from their countries/groceries to meet their needs.

Health: Brand-new en-suite dormitories are provided for the employees to ensure their health.

Mentality: During the pandemic, MitraStar has provided grocery buying assistance, offered special meals, and organized festival activities to enrich the lives of employees in the dormitories while they were advised against going out.

Privacy and Personal Data Protection

Regulations: Zyxel Group takes the employees' privacy and personal data protection seriously. Thus, the "Personal Data Protection Regulations" have been established to require our employees and suppliers to comply with Taiwan's "Personal Data Protection Act" and "Regulations for the Maintenance of the Safety of Personal Data and Files", the EU's "General Data Protection Regulation (GDPR)", and the laws and regulations concerning personal data protection of the countries where we operate in so as to regulate the protection, management, maintenance and treatment of personal data. We specify that personal data must be used in a legal and reasonable manner by personnel with particular permission to secure the storage and transmission of the data.

Dissemination and Education: Dissemination, education and training on the protection of personal data are implemented. All our employees are required to complete our CSR courses every year. These courses to the employees to respect any individual's private information during data processing. The Internal Auditing Office conducts irregular audits for personal data protection and management to ensure a thorough human rights-based management approach to privacy and personal data protection.

Supplier Management: Zyxel Group also audits the suppliers for their privacy and personal data protection and requires them to abide by the related laws and regulations to respect privacy and protect personal data together with them.

Mitigation Measures

In addition to the identified high-risk issues, we develop goals and strategies for the human rights issues of significant concern. The Company executes mitigation measures and actions and establishes a mechanism for continuing follow-ups and improvements to monitoring the implementation effectiveness. Our measures for mitigating the impact of the human rights issues focus on **diverse communication channels, dissemination campaigns, education, and training** to achieve the goals set according to the implementation guidelines under Zyxel Group's human rights policy.

Multiple communication channels

Zyxel Group not only have legitimate and competitive wages, working hours, benefits, vacation and retirement offerings, but also provide adequate channels for employees to communicate their thoughts and ideas with the management and to receive positive feedback through constructive interactions.

We strive to keep these communication channels open between 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, followed up on by responsible managers.

Internal communication channels



The number of cases reported through the communication channel

Labor management meeting (MitraStar, Zyxel, ZNet)	23
Employee opinion survey (MitraStar)	517
President's Town Meeting (MitraStar, Wuxi MitraStar, Zyxel, ZNet)	55
Employee congress (Wuxi MitraStar)	62

Campaigns

President's Town Meeting



Employee Newsletter



Labor-Management Committee

The "Labor-Management Committee," where the labor and management representatives are appointed by election, has been formed. Labor-management meetings are also held periodically. With the aim of reaching a consensus on the practices for different issues and building a harmonious relationship, the labor representatives give advice on labor-related matters and measures proposed by the management.

Minimum Notice Period Regarding Material Operational Changes

In accordance with Article 16 of the Labor Standards Act, where MitraStar terminates a labor contract pursuant to Article 11 or the provisions of Article 13, the provisions set forth below shall govern the minimum notice period:

- Where a worker has worked continuously for more than three months but less than one year, the notice shall be given ten days in advance.
- Where a worker has worked continuously for more than one year but less than three years, the notice shall be given twenty days in advance.
- Where a worker has worked continuously for more than three years, the notice shall be given thirty days in advance.

Human Rights Protection Training

Zyxel Group provides e-Learning courses to promote regulatory compliance, sexual harassment prevention and comprehensive occupational safety training in new employee orientation. The corporate social responsibility courses that all employees are required to take every year also include the following contents. In 2022, the number of trainees, hours and coverage rates of human rights-related courses are as follows:

Human Rights Protection Training	Trainees	Training Hours	Coverage %
MitraStar - Hsinchu site	918	459	99.5%
Wuxi MitraStar - Wuxi site	7,989	3,995	99.70%
Zyxel/ZNet - Hsinchu site	450	225	100%
Total	381	191	100%

Sexual Harassment Prevention Course	Trainees	Training Hours	Coverage %
MitraStar - Hsinchu site	918	459	99.5%
Wuxi MitraStar - Wuxi site	7,989	3,995	99.70%
Zyxel/ZNet- Hsinchu site	450	225	100%
Total	381	191	100%

Management Practices and Objectives for Human Rights Issues

Human Rights Issue	Target	Regulation and Practice	Risk Assessment	Mitigation Measures	Follow-up and Improvement	Planned Goal
Reasonable working hours and wages	All employees	Salary policies	<ul style="list-style-type: none"> · Labor Risk Factor Identification and Assessment Form · Internal audits based on the RBA Standards 	<ul style="list-style-type: none"> · Ensure a minimum salary level higher than the basic statutory wage for the employees · Flexible commuting system 	Create an overwork management and tracking mechanism were taking one day off is required for every seven days of work	Comply with the regulations for legal and reasonable working hours and wages
Interdiction of forced labor	All employees	<ul style="list-style-type: none"> · Management Procedure for Anti-forced Labor · Management Procedure for Prohibition of Mental and Physical Abuse 	<ul style="list-style-type: none"> · Labor Risk Factor Identification and Assessment Form · Internal audits based on the RBA Standards 	Provide multiple communication channels	Offer education and training on human rights protection	Ensure zero material violation of the laws
Zero tolerance of harassment and bullying	All employees	<ul style="list-style-type: none"> · Regulations for Sexual Harassment Prevention Measures, Reporting and Punishment · Written Declaration on Workplace Violence Prevention 	<ul style="list-style-type: none"> · Assessments for identifying violations · Labor Risk Factor Identification and Assessment Form 	<ul style="list-style-type: none"> · Implement a "program for the prevention of unlawful infringements in the execution of duties" annually · Provide multiple communication channels 	<ul style="list-style-type: none"> · Have the "Committee for the Prevention of Unlawful Workplace Infringements" convene every three months and prepare meeting minutes · Offer education and training on human rights protection 	Ensure no sexual harassment complaints are received
Non-discrimination	Female employees Foreign workers	<ul style="list-style-type: none"> · Regulations for employment · Anti-discrimination Management Procedure 	<ul style="list-style-type: none"> · Labor Risk Factor Identification and Assessment Form · Internal audits based on the RBA Standards 	Provide communication and reporting channels	<ul style="list-style-type: none"> · Offer education and training on human rights protection · Anti-sexual harassment courses 	Ensure no discrimination complaints are received
Physical/mental health and work balance	All employees	Regular labor-management meetings	Employee activity participation rate	<ul style="list-style-type: none"> · Provide wide-ranging employee facilities · Offer various clubs and employee activities 	Employee activity satisfaction surveys	Receive a satisfaction score of 4 or higher for $\geq 90\%$ of the activities
A work environment of safety and health	All employees	Environmental safety and health policies	<ul style="list-style-type: none"> · Identification and assessment of employees at high risk for abnormal workload · Annual medical check-ups · Annual employee musculoskeletal symptom questionnaire assessment 	<ul style="list-style-type: none"> · Ask the employees to follow the "Management Procedure for the Identification and Assessment of Safety and Health Hazards" 	<ul style="list-style-type: none"> · Pass the certification audit for the ISO45001 · Conduct regular follow-ups on groups with potential health risks 	<ul style="list-style-type: none"> · Ensure zero occupational accidents · Make sure no occupational diseases occur
Human rights protection by suppliers	Suppliers	Code of Conduct for Suppliers	<ul style="list-style-type: none"> · Supplier Social Responsibility Evaluation Questionnaire · On-site supplier audits 	Conduct annual audits for the suppliers to prevent human rights risks from occurring to them	<ul style="list-style-type: none"> · Require improvement measures for their human rights risks · Develop "Suppliers Code of Conduct" 	Ensure 100% dissemination
Responsible mineral sourcing	Suppliers	Declaration on the Prohibition of the Use of Conflict Minerals	Carry out surveys on the prohibition of the use of conflict minerals	Disclose the "Declaration on the Prohibition of the Use of Conflict Minerals"	Ask the suppliers to complete the "Survey on the Source of Metal Minerals"	MitraStar Technology: Complete the survey at the customers' request, Zyxel/ZNet product survey coverage > 90%

D. Workplace Health and Safety

Our employees are our most important asset as well as the foundation of corporate sustainable development. Zyxel Group promises to offer the employees a workplace of **well-being, health** and **safety**. Through a diverse range of welfare measures and activities, every employee receives proper care. The physical and mental health of our employees are maintained with comprehensive health management and care in order for them to achieve work-life balance. In accordance with the ISO 45001 Occupational Health and Safety Management System, we provide our employees with a safe work environment and maintain the rights and interests as well as safety of the contractors, thereby building a workplace of well-being, health, and safety.

Commitments

Workplace of Well-being

- Activities for happiness
- Work environments and facilities
- Heartwarming benefits
- Female-friendly workplace
- Freedom of association

Work-life Balance

Healthy Workplace

- Health management
- Health promotion
- Medical services
- Health care services
- Pandemic prevention measures


Health Care for Employees

Safe Workplace

- Environmental safety and health policies
- Management system verification
- Safety and Health Risk Management
- Safety and Health Management for Contractors

Workplace Safety and Health

Major Issues Strategy and Goals

Issue	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Occupational safety and health	The Company can ensure continuous operations and steady growth in a work environment with safety as a priority	<ul style="list-style-type: none"> Promote an occupational safety culture Give safety awareness education Implement preventive management 	<ul style="list-style-type: none"> Occupational safety course coverage Number of occupational accidents Occupational injury frequency Management system verification 	<ul style="list-style-type: none"> Occupational safety course coverage > 95% Occupational accidents = 0 Occupational injury frequency = 0 Pass the ISO45001 certification process 	<ul style="list-style-type: none"> Occupational safety course coverage > 98% Occupational accidents = 0 Occupational injury frequency = 0 Pass the ISO45001 certification process every year 	 <p>Decent work and economic growth</p>

Near-term goals and achievements

Issue	Management guideline	2022 Goal	Achievement	2023 Goal
Work-life Balance	<ul style="list-style-type: none"> Activity planning employee satisfaction % 	<ul style="list-style-type: none"> Activity implements in time Activity questionnaire return rate \geq 80% At least 4 points in the satisfaction survey \geq 90% 	<ul style="list-style-type: none"> Family Day activity questionnaire return rate \geq 80% 4 points in the satisfaction survey for Family Day activity \geq 95% 	<ul style="list-style-type: none"> Activity implements in time Activity questionnaire return rate \geq 80% At least 4 points in the satisfaction survey \geq 90%
Verification of Management System	<ul style="list-style-type: none"> Management System certification 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001 	<ul style="list-style-type: none"> Obtain Management System certificate ISO45001
Occupational Safety and Health Management	<ul style="list-style-type: none"> Occupational safety course coverage Number of occupational accidents Occupational injury frequency 	<ul style="list-style-type: none"> Case of incident < 1 Disabling Injuries Frequency Rate (FR) < 0.67 Disabling Severity Rate (SR) < 1 	<ul style="list-style-type: none"> Case of incident: MitraStar: 0; Zyxel site: 1 case of Recordable Occupational Injury 	<ul style="list-style-type: none"> Occupational safety course coverage > 98% Case of incident = 0 Occupational accidents frequency = 0
Safety equipment management	Improve fire equipment to resolve any deficiencies	Make improvements to resolve 100% of fire equipment deficiencies	Made improvements to resolve 100% of fire equipment deficiencies	Make improvements to resolve 100% of fire equipment deficiencies
Prevention of professional diseases	<ul style="list-style-type: none"> Cases of occupational disease 	<ul style="list-style-type: none"> Cases of occupational disease = 0 	<ul style="list-style-type: none"> Cases of occupational disease = 0 	<ul style="list-style-type: none"> Cases of occupational disease = 0

1. Workplace of Well-being: Work-Life Balance

LOHAS Diverse Activities

Employees are the most valuable assets of our company. Zyxel Group has established the 'Zyxel Group Welfare Committee' dedicated to creating a high-quality environment that best suits our employees. Through a variety of activities and measures that surpass legal requirements, we aim to ensure that our colleagues can balance their work and life, ultimately achieving their happiness. We have also set up a Welfare Committee website to provide various employee information and services.

- **Company-wide events:** Family Day and annual evening banquets etc. Over 2,500 employees and their family participated these events.
- **Sports season event:** In the 2022 Sports Season Event, there were approximately 310 participants.
- **Art :** Music concert, installation art
- **Clubs:** Over 17 clubs such as ball sports, yoga, belly dancing, illustration and oil painting, etc. and have over 10,000 attendances.
- **Travel :** Sponsorship for employee travel groups and activities
- **Discounts in designated shops:** Corporate agreements with stores all over Taiwan for colleagues to enjoy discounts for food, clothing, housing and travel.
- **Others:** Subsidies for holiday/birthday, assistance for emergency and EAP (Employee Assistant Program)



Family Day



Lunar New Year Event

Welfare Committee Website



Working place

Zyxel Group aims to promote work-life balance among its employees. We have various welfare facilities, including a gymnasium, recreation room, convenience store, employee cafeteria, coffee bar relaxation area, a lactation room for nursing mothers, and on-site services such as banking and group insurance.

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 2022, over 20,000 people used the Gymnasium.

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.

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.

Group Insurance: Provide group insurance for colleagues and dependents, and arrange insurance company personnel to provide insurance consulting and claim application services for colleagues.

Employee Organizations

All employees are free to establish clubs or groups of common interest within Zyxel Group and we will even subsidize such activities organized by these groups. Currently, there are over 18 active clubs/groups in the company including:

Ball Games: basketball, volleyball, badminton, table tennis, golf, softball

Outside Activities: swimming

Dancing: belly dancing, dance club

Exercise: yoga, Chinese shadow boxing, physical training, Aerobic exercise

Art: oil painting, table game

Public service: charity

Music: folk pop guitar

Formed by employees from all levels, Employee Welfare Committee organized the ball games. 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.

Cafe



Yoga room



Gymnasium



Sport court



Female-friendly Workplace

Zyxel Group cares about the relationship between the employees and their children as well as the female workers' needs at work and values gender equality at work. Therefore, a work environment offering diversely comprehensive protection and assistance in terms of systems/regulations, welfare measures, and employee facilities is provided.

- Discrimination and Harassment Management Standards and Regulations:** The "Code of Conduct for Employees" stipulates that the employees must not be discriminated against, harassed or persecuted on the basis of gender, sexual orientation, pregnancy or marital status. The "Regulations for Sexual Harassment Prevention Measures, Reporting and Punishment" specify that the complaints made through the sexual harassment reporting channels and sexual harassment investigations shall be kept under wraps to protect the right to privacy and personality rights of the persons involved.
- Flexitime making juggling family and work possible:** This system allows the employees to arrive or leave one hour early or late to meet their needs for picking up their young children, taking care of their families, or dealing with personal matters.
- Unpaid Parental Leave and Resumption of Work:** The employees may apply for "family leave" when they need to take care of their family members. If the employees have a need to take care of their newborn family members, they may apply for "unpaid parental leave" in accordance with the laws. We make plans for their resumption of work on our own initiative before the end of their unpaid parental leave.
- Health Protection of Female Workers:** Follow-ups are conducted using the "Maternal Health Protection Survey" to assist the Company and the employees in jointly assessing hazardous health risk factors and relevant protection measures.

Various Benefits for Female Workers: We set up breastfeeding rooms equipped with heartwarming amenities and facilities and provide car and motorcycle parking spaces for expectant mothers to create a work environment friendly to female workers.



2. Healthy Workplace: Health Care for Employees

Zyxel Group cares about the physical and mental health of the employees and aims to boost their performance in all fields and promote their health. In addition to driving the employees' productivity at work, we hope that they can have a better quality of life and achieve work-life balance.

Thanks to our efforts, we were certified as a "Sports Enterprise" and received the "Workplace Health Promotion Certificate" from the government, stiffening our positive stance on the importance of health management for the employees.



Health Management

For general employees, management, and new employees, medical check-ups superior to those required by the laws in terms of examination items and frequency are provided every year. Medical check-ups involving advanced health management and examination items are also available for the management. The production line employees at high risk receive lead ion and ionizing radiation tests and all the examination expenses are paid by the company.

Employee health check-ups: Every year, Zyxel Group Hsinchu site provides 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, Zyxel Group also provide one- day sick off and medical subsidy.

Health Management Information Dissemination: We post health-related information on the bulletin board and offer scales and blood pressure monitors for the employees to understand their health status at any time.

Health check hierarchical management results

	A	B	C	D
Zyxel Group	14%	48%	16%	3%
MitraStar	13%	48%	27%	12%
Zyxel	16%	46%	29%	8%
ZNet	12%	47%	31%	10%
Average	14%	47%	26%	8%

2022 Annual Health Checkup

	Zyxel Group	MitraStar	Zyxel	ZNet
Number of people	81	622	398	376

Occupational Disease Prevention

- In addition to regular annual health check-ups, physical examinations are also arranged for employees to assess their physical health, which serves as a reference for work arrangements. To prevent occupational diseases, basic health data for workers are established. Examination items include general physical check-ups as well as specific occupational hazard checks (lead, ionizing radiation) conducted in conjunction with the annual health checks.
- No records related to occupational diseases have been identified currently.

Abnormal Workload

Every year, processing the high-risk group identification and evaluation, keep tracking the abnormal working load employees and provide them with the health education. According to the advice of our occupational medicine physician, we conduct follow-ups on and take care of the employees who are identified as having abnormal workload classified as Level 2 or higher, have medium risk of cardiovascular comorbidity, and are under Level D health management according to the "Workload Scale".

Workload Assessment Items

Annual workplace health scale	Overload score	Work pattern
Personal overload score	Monthly overtime hours	-

Musculoskeletal Injuries

Every year, we conduct the "Employee Musculoskeletal Symptom Survey" to ensure that our colleagues do not suffer musculoskeletal injuries due to work-related factors. The survey involves scoring pain in different body parts, and if the score exceeds four points, we first investigate the cause of the pain. If the discomfort is attributed to work, we collaborate with occupational specialists, nursing staff, department supervisors, and occupational health and safety management personnel to assess and improve the working conditions of the employee, ensuring their safety and health in the workplace.

Multiple health promotion activities

We collaborate with government agencies to organize 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. We also open the AED training classes to create a health working environment for employees.

Health Promotion Activities

Activity Type	Main Activity
Physical activities	<ul style="list-style-type: none"> • Body-moving activities • Fast-walking activities
Health maintenance	<ul style="list-style-type: none"> • Massages for stress relief • Cancer prevention activities • Smoking cessation • Blood pressure measurement activities • Vaccination services • Health promotion activities at Mother’s Day (measurement of calcaneal bone density/eye pressure/BMI) • Away from Metabolic Syndrome: Health Promotion Series Events
Health resources	<ul style="list-style-type: none"> • Health lectures • AED training courses • Health information dissemination • COVID-19 pandemic prevention newsletters

Employee Assistant Program, EAP

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, etc. All personal information and records are under strict protection and supervision.

Following the program, various seminars including tax and living issues are provided. 90% employees are satisfied with the seminars according to the questionnaire. In 2022, a total of 33 cases sought counseling services through the use of the EAP (Employee Assistance Program) employee assistance service program.



Health Protection of Female Workers

•Various Benefits for Female Workers

Zyxel Group cares about the relationship between employees and their children and values gender equality at work. Breastfeeding rooms equipped with heartwarming amenities and facilities, including breast milk bags, nursing pads, and emergency hotline phones, are set up and serve as comfortable spaces for our female employees. The employees are provided with satisfaction questionnaires to get their feedback and opinions.

Multiple welfare measures for female employees are also implemented, such as car and motorcycle parking spaces for expectant mothers, to offer a friendly and quality work environment.



•Electronic Maternal Health Protection Survey

To effectively enhance the efficiency of health management for our female workers, we, through an online cloud management system, develop a "Female Worker Health Management Assessment Form" for follow-ups to manage the health of the workers in a real-time manner. The occupational health and safety personnel and medical personnel are then conduct job suitability assessments and classification management to smoothly assist the Company and the workers in jointly assessing hazardous health risk factors and relevant protection measures in accordance with the "Regulations of the Maternity Health Protection at the Workplace".

In 2022, all our female workers were under Level 1 risk management (meaning that their jobs or health issues did not cause harm to them as mothers and their fetuses or babies).

Assessment Procedure:

Starts		Generate a "Maternal Health Protection Assessment Form" through the online information system
Stage 1	Stage 1	Fills in the form with the basic information, perceived job limits, and identified risks at work
Stage 2	Stage 2	Conducts an assessment to see if work adjustments are required
Stage 3	Stage 3	Issues a health check-up report
Stage 4	Stage 4	Conducts an assessment to determine if the work continuations are to be changed or if control and management measures are to be adopted
Stage 5	Stage 5	Assigns a health management level based on the assessment result, gives comprehensive advice on job suitability, and sets a time for the next follow-up
Stage 6	Stage 6	Checks the assessment result with the physician

Health care center

We have the nurse and doctor to provide the health consultation. Invite the blind masseuse to provide the stress relieving service for employee, and also taken care of disadvantaged people. In 2022, over 2,450 people used this free service and the satisfaction percentage is 95%.

The service including:

Medical professionals' consultation service	Medical transfer service
Prevention of professional diseases	Cooperate with the government's four major guidelines for management
Provide employee the consultation service in service hours	

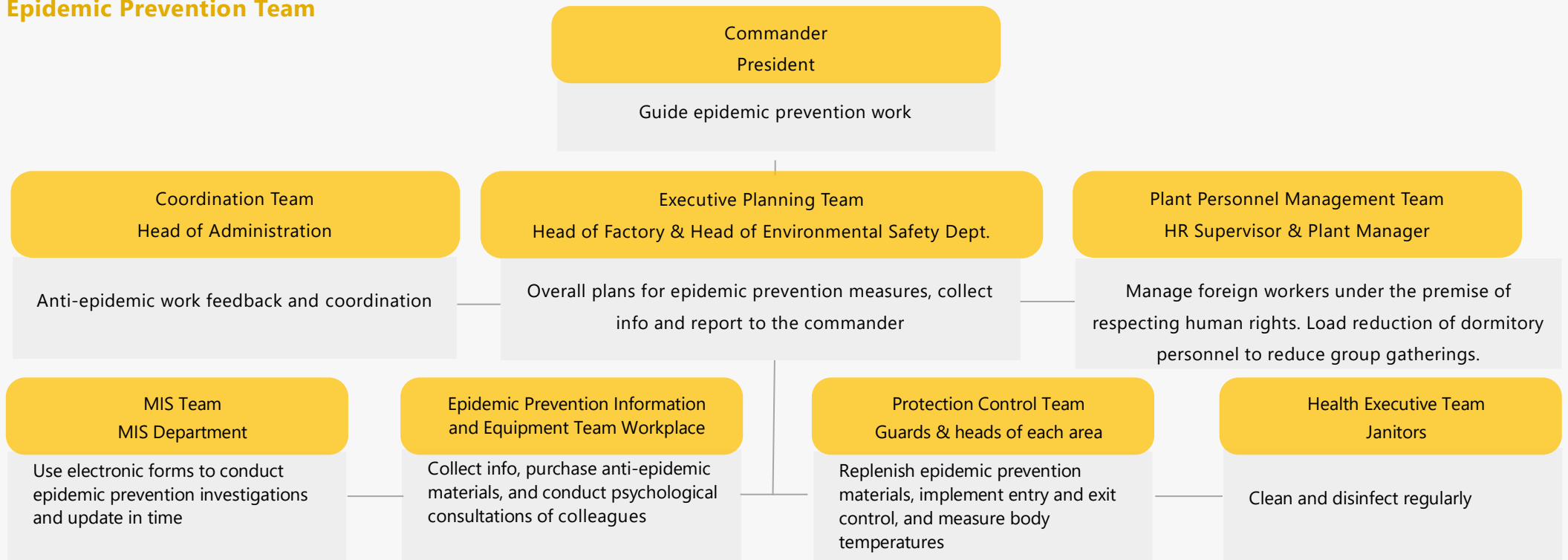
COVID-19 Epidemic Prevention Management

Facing a great threat of COVID-19, Zyxel Group established an epidemic prevention team, with the general manager of each subsidiary as the commander, continued to grasp the latest epidemic information, and fully cooperated with government policies. We continue providing colleagues with the best epidemic prevention and protection measures in a timely manner to fight the epidemic together with the world.

While there was a mask shortage, employees were provided with masks in response to the epidemic. When the government opened up the administration of vaccines, leading the industry, Zyxel Group provided employees with the vaccination subsidy projects to encourage the vaccination. In the face of sudden changes in the epidemic, the epidemic prevention team meets regularly every day to monitor the development of the epidemic in the surrounding counties and cities, discuss new policies and countermeasures, track the daily health of colleagues, confirm the adequacy of epidemic prevention materials, control personnel entry and exit, and strengthen the cleanliness of the environment disinfection, division of employees to go to work, online meetings, etc., to respond to management and control in a rolling manner.

At the same time, in the face of the impact of the epidemic on the business, in addition to explaining about the epidemic situation to customers, it also actively tracks the supply of materials in the supply chain to reduce the impact of the epidemic on the company's operations. In addition, the newly added "Management Measures for Employee Infectious Diseases" clearly defines the authorities responsible for epidemic prevention, epidemic investigations, epidemic prevention audits, and work environment disinfection.

Epidemic Prevention Team



Key Epidemic Measures

Epidemic info collection and promotion

- Notification of immediate epidemic and epidemic prevention regulations
- Fill in the self-health management form daily
- Daily temperature measurement report
- Regularly investigate the situation of employees' vaccination
- Providing employees with epidemic prevention information

Continuous operations planning

- Proactively communicate with customers the company's situation and response measures affected by the epidemic
- Understand the situation of customers and suppliers affected by the epidemic
- Coordination of orders and shipments with customers
- Track the supply chain of the material supply status
- Measures to respond to material shortages

Measures to avoid group infection

- Restaurant seat adjustment
- Individual dining seats
- Elevator maximum capacity limit
- Visitors prohibited from entering the factory
- A temporary open meeting area is provided
- Cluster venues (e.g., gymnasiums) are closed
- Group activities suspended
- Commuter colleagues work from home (WFH)
- Work diversion mechanism, WFH supporting measures started simultaneously
- Online or phone meetings
- Entrance and exit are controlled by time zone
- Reduce domestic travel; prohibit foreign travel



Incentives

- The project to subsidize colleagues to receive vaccines
- Provide vaccination leave and recuperation leave
- Adjust personnel attendance regulations for epidemic prevention
- Initiation of epidemic prevention and care leave for families with children under 12 years old, authorized supervisor WFH to implement flexible implementation

Personnel epidemic prevention measures

- Mandatory wearing of masks in public areas
- Free masks are provided regularly every week
- Body temperature measurement requested before entering the factory
- Provide body temperature measurement cards

Environmental facilities and cleanliness

- Increase the frequency of disinfection in public spaces
- Regular disinfection of the whole workplace every week
- Install sensor faucets
- Epidemic prevention materials and cleaning supplies ready

3. Safe Workplace: Workplace Safety and Health

3.1 Environmental, Safety & Health Policy

By way of defining and publicizing the environment and safety-related policies, Zyxel Group 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 Zyxel Group’s genuine commitment. It observes all government regulations and enforcing policies relevant to the environment, HSF and safety.

The Safety and Health Committee:

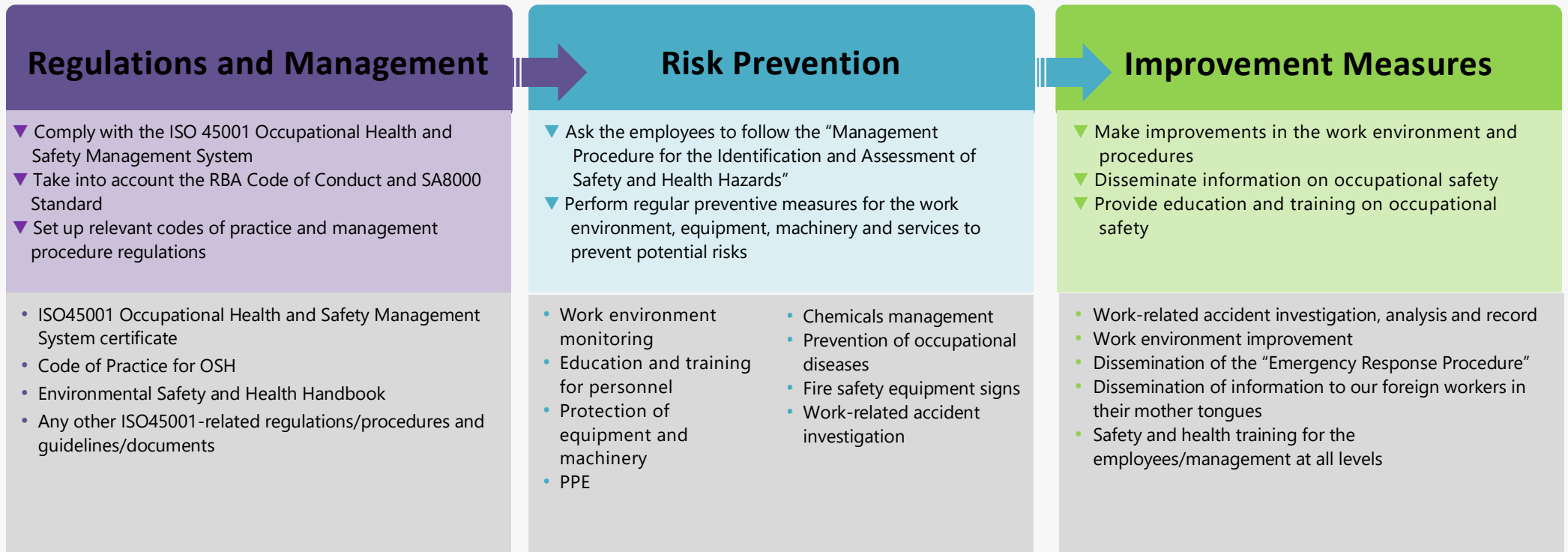
The committee is formally composed of both labor and management representatives. It meets quarterly, and the meeting content is reviewed by the General Manager. Committee members include occupational health and safety personnel, department heads, supervisors, commanding officers, occupational health and safety-related engineering professionals, healthcare personnel involved in workers' health services, and labor representatives.

Environment, Safety, Health & HSF Policy

-  Meeting environmental, safety and healthy regulations and standards
-  Establish environmental, safety and healthy cultures
-  Build safe, healthy workplaces to prevent occupational diseases and protect employees' health
-  Control greenhouse gas emissions and consumption of energy resources to mitigate climate change
-  Develop and produce green products that comply with the international standards, including Hazardous Substance Free(HSF), and clients' requirement to environmental protection
-  Introduce energy-efficient products and equipment while improving product design for better energy performance

3.2 Safety and Health Management Procedure

Zyxel Group implements environmental safety management in accordance with the “ISO 45001 Occupational Health and Safety Management System”, with the RBA Code of Conduct as well as the SA8000 Standard taken into account. Three sequential implementation guidelines, namely regulations and management, risk assessment, improvement and guidance, are developed to ensure the safety of our employees and contractors in the work environment and achieve the goal of zero incidents.



Step 1: Regulations and Management

The subsidiaries of Zyxel Group, MitraStar, Zyxel and ZNet in Hsinchu Taiwan sites, currently passed the certification audit for the ISO45001 Occupational Health and Safety Management System. We continue to actively ensure their compliance with the latest standard in the country to sharpen their competitive edges.

Step2: Risk Prevention

Environment, Safety, and Health Risk Management

In terms of the manufacturing processes, preventive guidelines, such as the safety design of machinery, operating procedures, training, automatic inspection, safety auditing, management of chemicals, environmental assessment, 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.

Working environment inspection

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

Improvement of working environments

- Proactively implement the “6S” principles in the factories.
- The warehouses are kept bright and spacious and materials are stored in proper order.
- The airflow in factories along with the entire environment conditions is inspected and recorded every six months; all anomalies will be corrected immediately.

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.

Personal protection

Employees who may come into contact with hazardous substances are required to use personal protective equipment, and the wearing instructions are clearly labeled and provided.

Temperature and humidity, noise, and vibration control

- The humidity of the job site and electronic warehouse is 35%~60%, and the temperature of the parts is controlled to 15~30 degrees.
- MitraStar entrusts a qualified testing agency to visit the factory to monitor the operating environment every six months. On-site operators issue earmuffs or disposable earplugs for hearing protection to people working in noise-producing areas.

Management of dangerous and harmful materials

- The electronic files of the latest Chemical Material Safety Datasheet, renewed every year, are provided for download.
- 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.

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.



Emergency response measures

We revise the "Safety and Health Hazard Identification and Assessment Management Procedure" and "Emergency Response Procedure" every year or regularly according to the current situation, and teach employees to follow them.

In addition to implementing emergency response training courses such as personnel firefighting, notification, and evacuation training every six months, we conduct emergency evacuation drills such as those for fire, earthquake, and chemical leakage regularly.



Day and night emergency response team

Site	Function Group	Total
MitaStar site	six functional groups such as Operation Center, Reporting, Fire Extinguishing, Evacuation Assistance, Safety Assurance and First Aid	36 people
Zyxel site	five functional groups such as Reporting, Fire Extinguishing, Evacuation Assistance, Safety Assurance and First Aid	33people

Investigation, analysis and record of occupational 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 guidelines

- 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.
- Zyxel Group generates monthly statistics of cases, types and causes of employee injury to report on the web for analysis and thus prevention guidelines of frequent accidents
- there's no case of dispute, penalty or indemnification in recent years.
- As required by the law, Zyxel Group reveals its monthly report on occupational accidents.

2022 occupational injury statistics

	Zyxel Group	MitraStar	Zyxel	ZNet
Total work hours (hours)	260,912	1,386,016	893,952	768,160
Occupational Injury Fatality Rate	0	0	0	0
Rate of Severe Occupational Injuries	0	0	0	0
Recordable Occupational Injury Cases	0	0	1	0
Recordable Occupational Injury Rate	0	0	0.23	0
False Alarm Incident Rate	0	0	0	0
Occupational Disease Fatality Rate	0	0	0	0
Recordable Occupational Disease Cases	0	0	0	0

Note 1: Statistics are limited to Taiwan and China regions.

Note 2: Total Work Hours = Number of employees in that category at the end of the year × Total working days × Daily working hours.

Note 3: Calculate the injury rate (IR) based on 200,000 working hours, where IR = (Total injury cases / Total working hours) × 200,000.

Note 4: When calculating the quantity and rate of recordable occupational injuries, include the number of fatalities caused by occupational injuries.

Note 5: Only include injuries caused by commuting accidents involving transportation arranged by the organization.

Step3: Improvement Measure

| Safety and Health Education Training for Employees and Management at All Levels

- Safety and health education and training is required for our employees and management at all levels. According to the regulations, every employee must spend at least three hours for on-the-job in-plant safety and health education and training courses every three years.
- New and transferred employees are required to take a series of pre-service training on environmental safety as well as the ISO45001 management system. For the new employees, the training helps them understand all the systems, regulations, and skills required at work. For the employees transferred to new positions, they may perform tasks only after undergoing relevant training

2022 Occupational Safety Education Courses	Number of Trainees	Training Hours	Coverage Rate
General Employees	2,852	38,571	99.86%
New Hires	7,350	168,819	100%
Non-Employee Workers	288	1,180	100%
Total	10,202	207,390	100%

| Dissemination of Information to Foreign Workers in Their Mother Tongues and Education and Training

For our migrant workers, we design occupational health and safety slogans and posters in their mother tongues and provide education and training on the work environment and procedures.



3.3 Contractor Management

Zyxel Group's health and safety policy also covers the activities of contractors in the company, including contract workers, security personnel, catering, and cleaning staff. All contractors are required to observe our "Regulations for Security, Environment, and Hygiene of Contractors". Annual safety and health education and training are provided to contractors, in compliance with human rights-related regulations. Additionally, health care and management are extended to non-employee workers.

| 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.

| Contractor training on safety, hygiene, and human rights issues

Each year, contractors receive safety and health education and training to help them understand the risks and hazards in the company's environment and reduce the occurrence of accidents. All security personnel are contracted from reputable professional security companies, selected through rigorous screening and relevant certification training, ensuring the proper execution of security-related tasks. Their education and training for contractors comply with human rights-related regulations.

	Number of trainees	Training hours	Coverage rate
contractor	288	1,180	100%

| Health follow-ups for contractors

We review our subcontractors' health reports on an annual basis and keep track of and care about the contractors' health status. During the pandemic, our subcontractors and employees have been asked to complete a health management form for daily health management. Multiple food options ranging from healthy meals to vegetarian meals are also available to the subcontractors.

| Occupational injury statistics for contractors

Number of Deaths Due to Occupational Injuries	0
Number of Severe Occupational Injuries	0
Number of Recordable Occupational Injuries	0
False Alarm Incident Rate	0
Number of Deaths Due to Occupational Diseases	0
Number of Recordable Occupational Disease Cases	0



|Community Contribution

A. Cultivation of Talent

B. Care for the Community

C. Environmental Protection



Strategies and Goals

Topic	Operational Influence	Promotion Strategy	Management Approach	2025 Medium-term Goal	2030 Long-term Goal	SDGs
Social welfare expenditure conforming to the core elements of talent training	Social welfare activities help enterprises build good relationships with local communities and enhance their corporate images	Provision of scholarships, investment in industry-academia cooperation, and organization and sponsorship of activities related to talent training	Long-term continuity	Support talent training programs with social welfare donations every year	Support talent training programs with social welfare donations every year	 Quality education
Social welfare activities in line with Zyxel Group's long-term net-zero goal		Organization and sponsorship of social welfare activities related to environmental protection or carbon reduction in the Company or community	Number of participants in the activities	Have over 2000 people in the Company and community participate in carbon reduction and environmental protection campaigns or lectures hosted by the Company every year by 2025	Have over 5000 people in the Company and community participate in carbon reduction and environmental protection campaigns or lectures hosted by the Company every year by 2030	 Climate action

Near-term Goals and Achievements

Topic	Management Approach	Target KPI in 2022	Achievement in 2022	Target KPI in 2023
Scholarship donations	Ongoing for each year	Make ongoing scholarship donations every year	367 students benefited from the donated scholarships amounting to NT\$ 8.83 million	Make ongoing scholarship donations every year
Talent training activities			We sponsored a total of 4 activities	Sponsor or jointly organize relevant activities on an ongoing basis every year
Social care campaigns	<ul style="list-style-type: none"> Ongoing for each year Number of participants 	Sponsor or organize relevant activities on an ongoing basis every year	"Bring Love with Shoe Boxes at Christmas" Social Welfare Campaign A total of 140 boxes of shoes were donated and 172 employees took part in the campaign	
Environmental protection activities			"Walk From Heart" Charity Brisk Walking and Step-counting Campaign The campaign reached a total of 156,479,524 steps, reducing 19,559 kg CO2e. All the campaign earnings were donated to two social welfare organizations: Hsinchu Branch of Taiwan Fund for Children and Families, Hsinchu Branch of Children Are Us Foundation	



Philosophies

"Innovation" is the core value of Zyxel Group. We are constantly committed to reflecting the value and approach of innovation in our social welfare activities.

The senior managers of Zyxel Group take their own actions and encourage employees to participate in community care and give back to society. Zyxel Group emphasizes that enterprises should form a network that influences society and the environment, and expand their influence to achieve the effect of attracting others.

In terms of giving to society, we uphold the following philosophies:

Zyxel Group's "Corporate Social Responsibility Best Practice Principles" explicitly state that the Company shall fulfill social responsibility: The Company shall assess the impacts of the operations on the community and hire manpower in the area where the Company operates, if appropriate, to boost community recognition.

To facilitate community development, the Company shall participate in the activities organized by civil organizations, charity and social welfare groups, and local government agencies, which are engaged in community development and education, through commercial activities, physical donations, corporate volunteer services or other social welfare professional services.

The Company understands the needs of the schools, institutions, groups and relevant organizations in the area where the headquarters is located by getting into direct contact with them. After conducting internal capacity assessments and formulating plans, we started to engage in community care and aim for long-term delivery.

A. Cultivation of Talent

Zyxel Group 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.

1. 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 Zyxel Group, 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 this groundwork, the Foundation clearly defines its tasks and therefore the plans to sponsor the development of talented people.

- Research consultation and data services related to public affairs, commissioned, or receiving commissions or subsidies for research and promotion of public affairs, policies, and reform-related matters.
- Exchange with relevant domestic and international educational institutions and individuals, enhance international cooperation, and promote research and development of public policies.
- Publishing publications related to research and education, public affairs, and policies.
- Establishing scholarships to encourage students' pursuit of education.
- Sponsoring educational and cultural-related public welfare activities or clubs.
- Sponsoring, promoting, and organizing various activities in natural sciences, humanities and the arts, and technology education.
- Rewarding those who participate in education, culture, science, creative competitions, and excel.
- Other public welfare education matters related to the founding purpose.

2. Shun-I Chu Zyxel Group Scholarship

Founded in 1999, the "Shun-I Chu Zyxel Group Scholarship" has supported students for 24 years as of 2022. About 50 students with outstanding academic performances from National Tsing Hua University, National Yang Ming Chiao Tung University, and National Central University benefit from the scholarships every year. It is estimated that the high school scholarships provided for National Chutung Senior High School, National Chunan Senior High School, National Hsinchu Girl's Senior High School, and National Hsinchu Senior High School benefit around 300 students a year.

Since its foundation, the "Shun-I Chu Zyxel Group Scholarship" has awarded over NT\$154 million of scholarships to nearly 5,594 people. In 2022, a total of about NT\$8.83 million of scholarships were awarded to 367 people.

Chairman Shun-I Chu has supported and made a scholarship donation of NT\$200,000 in sponsorship to the Rising Sun Program of National Tsing Hua University since 2016.





3. ZYXEL Foundation

Starting from carrying forward the common philosophies of Zyxel Group and the subsidiaries thereof, Zyxel Communications, Zyxel Networks, MitraStar Technology, namely “promoting innovation and start-ups” and “being engaged in social welfare”, Our ZYXEL Foundation actively expands and develops its scope on a continuous basis. With its focus on “encouraging innovation and supporting start-ups”, “training excellent talent”, and “fulfilling social responsibility”, the foundation hopes to serve as the “kindling” to demonstrate the Company’s corporate philosophy of giving back to society to other companies.

More information: <https://foundation.zyxelgroup.com/>



Encourage innovation



Support entrepreneurship



Nurture talent



Implement Social Responsibility

Encouraging Innovation and Supporting Start-ups

ZYXEL Foundation hopes to start from schools to encourage students to actively take part in a variety of activities when they are at school. By offering its resources and assistance in support of on-campus lectures and campaigns related to innovation and start-ups, the foundation looks forward to further laying the foundation for young students in order for them to unlock more of their potential and find their own way.

Training of Excellent Talent

Sponsorship for the Venue of AIS3 Ministry of Education Cybersecurity Talent 2022 Event

Supporting the Ministry of Education's Cybersecurity Talent Development Program, promoting interdisciplinary education to cultivate versatile cybersecurity professionals, and endorsing practical AIS3 courses to train international cybersecurity competition participants and cybersecurity professionals. We also aspire to establish future industry-academia collaborations to nurture the talents required by the industry.

Industry-academia Cooperation

In an attempt to facilitate industry-academia cooperation, enhance the skills and practical capabilities of young talent, and foster corporate R&D potential and talent, the foundation has also sponsored and supported the industry-academia cooperation programs about networking and information security to bridge the gap between academia and the industry.

We also sponsor campus public policy lectures that address significant policy issues related to the business sector. These lectures feature leaders from industry, government, and academia as speakers.

School	Research Project	Period
National Yang Ming Chiao Tung University	AI-Empowered Wi-Fi Self-Optimization and User Association Scheme	2021-2022
	Wi-Fi Motion Sensing Technology	2021-2022
National Central University	AI Log-Based Anomaly Detection Framework	2022
	Machine learning applied to malicious/non-malicious file filtering systems	2022-2023

Fulfillment of Social Responsibility

As a starting point, the foundation fulfills corporate social responsibility by supporting and take parting in public forums, environmental protection activities, and charity and social welfare events in any form. It also encourages putting philosophies with regard to humanistic care, land care, and environmental protection into practice in the hope of using its resources to give back to society and contribute to social care and sound social development.



B. Care for the Community

We follow the philosophy and footsteps of Dr. Zhu Shunyi, our chairman, in giving back to society. We encourage and support our colleagues to participate in various charitable activities, aligning with societal needs, and internalize this as part of our corporate social responsibility culture to effectively contribute to society.

1. Engagement in Social Welfare Activities

Organizing A Christmas Social Welfare Campaign, “Bring Love with Shoe Boxes at Christmas”

Employees participate in the social welfare shoe box campaign at Christmas to raise brand-new and practical stationery, books, daily necessities, sports equipment, and educational toys in order to deliver warm blessings and encouragements to the children from Yushan Elementary School in Hsinchu County, Gang Kou Elementary School in Hualien County, Shangwu Elementary School in Taitung County, and the Yong Kang After-school Care Center of Tainan Olive Garden Care Association.

A total of 140 boxes of shoes were donated and 172 employees from Zyxel Group took part in the campaign.



Donation of Network Equipment for Charitable Purposes

Zyxel Networks has donated network communication equipment to charitable organizations, providing a higher-quality online learning environment for underprivileged children and students in rural areas, thereby narrowing the digital divide between urban and rural areas.

As a leading brand in the networking industry, we aspire to be a supportive force in the process of implementing and promoting charitable goals. In 2022, we donated 463 pieces of equipment to 37 organizations, including the Heart Road Foundation, Family Support Foundation, and the Horng Tao Foundation, among others.



2. Volunteer Service Club

Zyxel Group’s employees formed the “Zyxel Group Volunteer Service Club” on their initiatives. Over many years, the club has participated in social welfare or community events in Hsinchu, Taiwan, where Zyxel Group is based. As one of our employee clubs, the “Volunteer Service Club”, has been engaged in the following community care activities for a long period of time:

- Encouragement of the employees to donate invoices to organizations in need of help
- Provision of venues for social welfare groups to hold direct charity sales in the plants

In 2022, due to the impact of the COVID-19 pandemic, all activities involving close contact were suspended. We continued with static activities such as invoice donations, etc. Static activities such as invoice donation, stall sponsorship, the purchase of the creations of the children from Saint Joseph Social Welfare Foundation, etc., have continued.

Hosting Charity Sales in Support of Social Welfare Groups

We set up charity stands in the Company’s events every spring and work with in-plant 711 MitraStar Technology in purchasing bread from social welfare groups to allow our employees to help the groups by donating invoices or small change. In 2022, due to the impact of the COVID-19 pandemic, all activities involving close contact were suspended.



C. Environmental Protection

To raise the awareness of environmental protection, Zyxel Group frequently makes donations to or supports social groups and works with government agencies in organizing campaigns focusing on the conservation of natural ecosystems, afforestation, recycling, and so forth to serve as a role model for other companies and fulfill corporate social responsibility.

1. Organization of Eco-friendly Activities

“Walk From Heart” Charity Brisk Walking and Step-counting Campaign

A brisk charity walking and step-counting campaign that lasted eight weeks was organized to encourage our employees to make exercising a habit and instill the concept of low-carbon living in their daily life. To call for the participation of Zyxel Group's employees, Zyxel Foundation supported the campaign by donating NT\$5 for every 8,000 steps taken during the campaign. The campaign reached a total of 156,479,524 steps and all the donations were donated to two social welfare organizations: NT\$48,898 for the Syin-Lu welfare foundation; NT\$48,898 for the Genesis social welfare foundation. If converted to distance driven by family cars, the total steps accumulated in the campaign could contribute to a reduction of 19,559 kg CO2e, equivalent to those absorbed by 1,630 trees for a year!



Veggie Per Day Carbon Reduction Activity

In order to implement environmental education, we encourage our colleagues to reduce carbon emissions in their daily lives and invite them to take practical actions to realize environmental sustainability. This six-month campaign focused on an environmental theme each month, along with providing carefully selected delicious and low-carbon vegetarian meal boxes to colleagues for ordering. Colleagues were invited to share photos of their vegetarian meals on social media platforms, so that more people would understand the relationship between meat and climate, and thus encourage the public to adjust their dietary choices, and to contribute to the environment by using less meat and more vegetables. A total of 887 people participated. Based on the Environmental Protection Agency's calculation of 0.8 kilograms of carbon reduction per vegetarian meal, this is equivalent to a reduction of 710 kilograms of carbon dioxide!



Environmental Cup Promotion Campaign

In response to the Environmental Protection Agency's policy of providing a discount of five or more yuan for the purchase of drinks with self-brought beverage cups, which officially launched on July 1, 2022, we supported the 8/18~11/17 Coffee Bar Eco-Cup Promotion at the MitraStar site by sponsoring the event gifts



2. Industrial Safety and Environmental Protection

Battery Recycling

Since 2009, the Company has implemented waste battery recycling programs in support of the "Convention on Life Cycle Management for Waste Dry Cells" promoted by the Hsinchu County Environmental Protection Bureau to enable employees to understand the impact of improperly throwing away batteries on the environment.

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 2020 and 2021, we are recognized on "Mobile pollution sources Control Award" in Hsinchu county.



3. Community landscaping

MitraStar Park/Zyxel Park

Zyxel Group in Zyxel site and MitraStar site, the green space area is 5,140 and 9,533 square meters, not only greening the environment but also providing staff a place for work and recreation.



Index of GRI Standard Indicators

Statement of use: The period from Jan. 1, 2022 to Dec. 31, 2022.

GRI 1 used: GRI 1: Foundation 2021

Applicable GRI Sector: Not applicable

GRI Sustainability Reporting Standards 2021

Code	Disclosure	Chapter in the Report	Page	Description
1. The Organization and its Reporting Practices				
2-1.	Organizational details	About Zyxel Group	6	For details, please refer to the company's 2021 annual report p5.
2-2.	Entities included in the organization's sustainability reporting	About this Report Corporate Governance: B. Financial Performance	3 38	
2-3	Reporting period, frequency and contact point	About this Report	3	from Jan. 1, 2022 to Dec. 31, 2022.
2-4	Restatements of information	About this Report	6	No significant changes.
2-5	External assurance	About this Report	3	
2. Activities and Workers				
2-6	Activities, value chain and other business relationships	About Zyxel Group Value Chain: B. Supplier Sustainability Management	6 60	
2-7	Employees	Friendly Workplace: A. Diversity and inclusion Recruitment	114	The number of employees did not fluctuate significantly from the previous reporting period.
2-8	Workers who are not employees	Friendly Workplace: A. Diversity and inclusion Recruitment	114	No significant changes from the previous reporting period.
3. Governance				
2-9	Governance structure and composition	Corporate Governance: A. Governance Structure	33	
2-10	Nomination and selection of the highest governance body	Corporate Governance: A. Governance Structure	33	
2-11	Chair of the highest governance body	Corporate Governance: A. Governance Structure	33	
2-12	Role of the highest governance body in overseeing impact management	Corporate Governance: A. Governance Structure	33	
2-13	Delegation of responsibility for impact management	Corporate Governance: A. Governance Structure	33	
2-14	Role of the highest governance body in sustainability reporting	Sustainable Management: B. Sustainability Committee	18	
2-15	Conflicts of interest	Corporate Governance: C. Business Ethics	41	
2-16	Communication of critical concerns	Corporate Governance: A. Governance Structure	33	

Code	Disclosure	Chapter in the Report	Page	Description
2-17	Collective knowledge of the highest governance body	Corporate Governance: A. Governance Structure	33	
2-18	Evaluation of the performance of the highest governance body	Corporate Governance: A. Governance Structure	33	
2-19	Remuneration policies	Friendly Workplace: A. Diversity and inclusion Recruitment	114	
2-20	Process to determine remuneration	Corporate Governance: A. Governance Structure	114	
2-21	Annual total compensation ratio	-	114	not disclosed
4. Strategy, Policies and Practices				
2-22	Statement on sustainable development strategy	Sustainable Management: A. Sustainability Management Framework	13	
2-23	Policy commitments	Sustainable Management: A. Sustainability Management Framework	13	The policy commitments are also published on the Zyxel group website: link
2-24	Embedding policy commitments	Corporate Governance: C. Business Ethics		
2-25	Processes to remediate negative impacts	Corporate Governance: C. Business Ethics	41	
2-26	Mechanisms for seeking advice and raising concerns	Corporate Governance: C. Business Ethics Sustainable Management: D. Stakeholder Communication	41	
2-27	Compliance with laws and regulations	Corporate Governance: C. Business Ethics	41	
2-28	Membership associations	Corporate Governance: B. Financial Performance	38	
5. Stakeholder Engagement				
2-29	Approach to stakeholder engagement	Sustainable Management: D. Stakeholder Communication	21	
2-30	Collective bargaining agreements			The relationship between the company and labor is harmonious, and there is no need to organize a labor union, but the company attaches great importance to labor rights and holds regular labor-management meetings
GRI 3 : Material Topics 2021				
3-1	Process to determine material topics	Sustainable Management: D. Stakeholder Communication	21	
3-2	List of material topics	Sustainable Management: D. Stakeholder Communication	21	
3-3	Management of material topics	Sustainable Management: D. Stakeholder Communication	21	

Specific Topics Disclosures

Economic					
GRI 201: Economic Performance					
201-1	Direct economic value generated and distributed	Corporate Governance Talent attraction & retention	Corporate Governance: B. Financial Performance Friendly Workplace: A. Diversity and inclusion Recruitment	31 114	
201-2	Financial implications and other risks and opportunities due to climate change	Climate Strategy	Environment Protection: A. Climate Change Appendix: TCFD Index	78 168	
201-3	Defined benefit plan obligations and other retirement plans	Talent attraction & retention	Friendly Workplace: A. Diversity and inclusion Recruitment	114	
GRI 203 : Indirect Economic Impacts					
203-1	Infrastructure investments and services supported	Social Participation	Community Contribution: A. Cultivation of Talent	162	
203-2	Significant indirect economic impacts	Social Participation	-	-	no significant events
GRI 204: Procurement Practices					
204-1	Proportion of spending on local suppliers	Sustainable supplier	-	-	not revealed
GRI 205 : Anti-corruption					
205-1	Operations assessed for risks related to corruption	Business Ethics	Corporate Governance: C. Business Ethics	41	
205-2	Communication and training about anti-corruption policies and procedures	Business Ethics	Corporate Governance: C. Business Ethics	41	
205-3	Confirmed incidents of corruption and actions taken	Business Ethics	Corporate Governance: C. Business Ethics	41	There were no reported cases of corruption during the year.
GRI 206 : Anti-competitive Behavior					
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics	Corporate Governance: C. Business Ethics	41	no events occurred
GRI 207 : Tax					
207-1	Approach to tax	Corporate Governance	Corporate Governance: B. Financial Performance	38	
207-2	Tax governance, control, and risk management	Corporate Governance	Corporate Governance: B. Financial Performance	38	
Environmental					
GRI 302 : Energy					
302-1	Energy consumption within the organization	Energy Management	Environment Protection: B. Energy Management	93	The MitraStar and Zyxel sites did not use renewable energy, so the consumption was not disclosed this year.
302-3	Energy intensity	Energy Management	Environment Protection: B. Energy Management	93	
302-4	Reduction of energy consumption	Energy Management	Environment Protection: B. Energy Management	93	
GRI 303 : Water and Effluents (2018)					
303-3	Water withdrawal		Environment Protection: C. Water Management	95	
303-4	Water discharge		Environment Protection: C. Water Management	95	
303-5	Water consumption		Environment Protection: C. Water Management	95	
GRI 304 : Biodiversity					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas				none
304-2	Significant impacts of activities, products, and services on biodiversity				none

304-3	Habitats protected or restored			none
GRI 305 : Emissions				
305-1	Direct (Scope 1) GHG emissions	Climate strategy	Environment Protection: A. Climate Change	78
305-2	Energy indirect (Scope 2) GHG emissions	Climate strategy	Environment Protection: A. Climate Change	78
305-3	Other indirect (Scope 3) GHG emissions	Climate strategy	Environment Protection: A. Climate Change	78
305-4	GHG emissions intensity	Climate strategy	Environment Protection: A. Climate Change	78
305-6	Emissions of ozone-depleting substances (ODS)	Climate strategy	Environment Protection: F. Ecological Preservation	99
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant emissions	Climate strategy	Environment Protection: F. Ecological Preservation	99
GRI 306 : Waste (2020)				
306-1	Waste generation and significant waste-related impacts		Environment Protection: D. Waste Management	97
306-2	Management of significant waste-related impacts		Environment Protection: D. Waste Management	97
306-3	Waste generated		Environment Protection: D. Waste Management	97
GRI 308 : Supplier Environmental Assessment				
308-2	Negative environmental impacts in the supply chain and actions taken	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	60
Social				
GRI 401 : Employment				
401-1	New employee hires and employee turnover	Talent attraction & retention	Friendly Workplace: A. Diversity and inclusion Recruitment	114
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Talent attraction & retention Occupational Safety & Health	Friendly Workplace: A. Diversity and inclusion Recruitment Friendly Workplace: B. Human Capital Development	114 141
401-3	Parental leave	Talent attraction & retention	Friendly Workplace: A. Diversity and inclusion Recruitment	114
GRI 402 : Labor/Management Relations				
402-1	Minimum notice periods regarding operational changes	Human Rights Management	Friendly Workplace: C. Human Rights Management	132
GRI 403 : Occupational Health and Safety				
403-1	Occupational health and safety management system	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	141
403-2	Hazard identification, risk assessment, and incident investigation	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-3	Occupational health services	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-5	Worker training on occupational health and safety	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-6	Promotion of worker health	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-8	Workers covered by an occupational health and safety management system	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142
403-9	Work-related injuries	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142

403-10	Work-related injuries	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142	
GRI 404 : Training and Education					
404-1	Average hours of training per year per employee	Talent cultivation & development	Friendly Workplace: B. Human Capital Development	125	
404-2	Programs for upgrading employee skills and transition assistance programs	Talent cultivation & development	Friendly Workplace: B. Human Capital Development	125	
404-3	Programs for upgrading employee skills and transition assistance programs	Talent cultivation & development	Friendly Workplace: B. Human Capital Development	125	
GRI 405 : Diversity and Equal Opportunity					
405-1	Diversity of governance bodies and employees	Corporate Governance Talent cultivation & development	Corporate Governance: A. Governance Structure Friendly Workplace: A. Diversity and inclusion Recruitment	33 115	
GRI 406 : Non-discrimination					
406-1	Incidents of discrimination and corrective actions taken	Human Rights Management	Friendly Workplace: C. Human Rights Management	133	
GRI 407 : Freedom of Association and Collective Bargaining					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human Rights Management	Friendly Workplace: C. Human Rights Management	133	
GRI 408 : Child Labor					
408-1	Operations and suppliers at significant risk for incidents of child labor	Sustainable supplier Human Rights Management	Value Chain: B. Supplier Sustainability Management Friendly Workplace: C. Human Rights Management	61 133	no events occurred
GRI 409 : Forced or Compulsory Labor					
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Human Rights Management	Value Chain: B. Supplier Sustainability Management Friendly Workplace: C. Human Rights Management	61 133	no events occurred
GRI 410: Security Practices					
410-1	Security personnel trained in human rights policies or procedures	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142	
GRI 414 : Supplier Social Assessment					
414-2	Negative social impacts in the supply chain and actions taken	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	no events occurred
GRI 415: Public Policy					
415-1	Political contributions	Corporate Governance	-	-	No political contributions
GRI 416 : Customer Health and Safety					
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Green Product	-	-	no events occurred
GRI 418 : Customer Privacy					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Information Security Management Customer Relations	Corporate Governance: E. Information Security Management Value Chain: A. Customer Relations	49 58	no events occurred

SASB Standards Index

Electronic Manufacturing Services & Original Design Manufacturing (MitraStar Technology)

Topic/ Code	Accounting Metric	Category	Major Issue	Chapter	Page	Summary
Accounting Metrics						
Water Management						
TC-ES140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative		Environment Protection: C. Water Management	96	According to the assessment of the Water Aqueduct developed by the World Resources Institute (WRI), MitraStar is located in a low-pressure area (<10%).
Waste Management						
TC-ES150a.1	Amount of hazardous waste from manufacturing, percentage recycled	Quantitative		Environment protection D. Waste Management	98	
Labor Practices						
TC-ES310a.1	(1) Number of work stoppages and (2) total days idle	Quantitative	Human rights management	-	-	In 2022, Zyxel Group did not cause any shutdowns
Labor Conditions						
TC-ES-320a.1	(1) Total recordable incident rate (TRIR) and (2) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	Quantitative	Occupational Safety & Health	Friendly Workplace: D. Workplace Health & Safety	142	
TC-ES-320a.2	Percentage of (1) entity's facilities and (2) Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities	Quantitative	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	
TC-ES-320a.3	(1) Non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent and (2) associated corrective action rate for (a) priority non-conformances and (b) other non-conformances, broken down for (i) the entity's facilities and (ii) the entity's Tier 1 supplier facilities	Quantitative	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	
Product Lifecycle Management						
TC-ES-410a.1	Weight of end-of-life products and e-waste recovered, percentage recycled	Quantitative	Green product	-	-	Not applicable, MitraStar products belong to ODM, product recycling is handled by customers, so it is no statistical data.
Materials Sourcing						
TC-ES440a.1	Description of the management of risks associated with the use of critical materials	Discussion and Analysis	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	Because MitraStar is a ODM manufacturer, the materials used are mainly based on customer requirements, and the substances that will be used cannot be confirmed, so it is impossible to fully define and manage our key substances.
TC-ES-000.A	Number of manufacturing facilities	Quantitative		About Zyxel Group	6	There are two manufacturing sites, one is Hsinchu factory in Taiwan and the other is Wuxi factory in China.
TC-ES-000.B	Area of manufacturing facilities	Quantitative		-	-	Hsinchu: 8,950 square meters, Wuxi: 37,196 square meters
TC-ES-000.C	Number of employees	Quantitative		About Zyxel Group	6	2,510 employees

Hardware Standard (Zyxel Communication, Zyxel Networks)

Topic/Code	Accounting Metric	Category	Major Issue	Chapter	Page	Summary
Product Security						
TC-HW-230a.1	Description of approach to identifying and addressing data security risks in products	Discussion and Analysis	Information Security	Corporate Governance: E. Information Security	49	
Employee Diversity & Inclusion						
TC-HW-330a.1	Percentage of gender representation for (1) management, (2) technical staff, and (3) all other employees	Quantitative	Talent attraction & retention	Friendly Workplace: A. Diversity and Inclusion Recruitment	115	
Product Lifecycle Management						
TC-HW-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Quantitative	Green product	-	-	The regulations on the control of environmentally hazardous substances are regularly updated. This standard has covered the list of declarable controlled substances listed in IEC 62474, but is limited by the fact that some materials cannot be replaced by current industrial technology or a trace number of residues remains in it. product, so it will not be disclosed for the time being.
TC-HW-410a.2	Percentage of eligible products, by revenue, meeting the requirements for EPEAT registration or equivalent	Quantitative	Green product	-	-	Investigation will be carried out according to customer requirements
TC-HW-410a.3	Percentage of eligible products, by revenue, meeting ENERGY STAR® criteria	Quantitative	Green product	-	-	Investigation will be carried out according to customer requirements
TC-HW-410a.4	Weight of end-of-life products and e-waste recovered, percentage recycled	Quantitative	Green product	-	-	Relevant data has yet to be collected and will not be disclosed for the time being
Supply Chain Management						
TC-HW-430a.1	Percentage of Tier 1 supplier facilities audited in the RBA Validated Audit Process (VAP) or equivalent, by (a) all facilities and (b) high-risk facilities	Quantitative	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	In 2022, Zyxel Communications and Zyxel Networks' suppliers imply RBA audit rate (a) 100% for all suppliers (b) 100% for high-risk suppliers
TC-HW-430a.2	Tier 1 suppliers' (1) non-conformance rate with the RBA Validated Audit Process (VAP) or equivalent, and (2) associated corrective action rate for (a) priority non-conformances and (b) other non-conformances	Quantitative	Sustainable supplier	Value Chain: B. Supplier Sustainability Management	61	In 2022, Zyxel Communications and Zyxel Networks suppliers will achieve 100% pass rate of RBA audit
Materials Sourcing						
TC-HW-440a.1	Description of the management of risks associated with the use of critical materials	Discussion and Analysis		Value Chain: B. Supplier Sustainability Management	61	Follow the analysis of the top ten key materials issued by the competent authority in Taiwan, conflict minerals are defined as the company's key substances, and conflict mineral management methods are formulated for risk control.
Activity Metrics						
TC-HW-000.A	Number of units produced by product category	Quantitative		-	-	Business secrets not disclosed
TC-HW-000.B	Area of manufacturing facilities	Quantitative		-	-	Two companies have no manufacturing facilities
TC-HW-000.C	Percentage of production from owned facilities	Quantitative		-	-	Our company is a brand operator and does not have its own manufacturing facilities.

TCFD Index

Aspect/Disclosures	Major issue	Chapter	Page
Governance			
The board's oversight of climate-related risks and opportunities	Corporate Governance	Corporate Governance: A. Governance Structure	33
	Climate Strategy	Environment Protection: A. Climate Change	79
Management's role in assessing and managing climate-related risks and opportunities	Corporate Governance	Sustainable Management: B. Sustainable Committee	18
	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
Strategy			
The climate-related risks and opportunities the organization has identified over the short, medium, and long term	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
The impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning.	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
The resilience of the organization's strategy, taking into consideration different climate-related scenarios	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
Risk Management			
The organization's processes for identifying and assessing climate-related risks.	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
The organization's processes for managing climate-related risks.	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	Climate Strategy	Corporate Governance: D. Risk Management	45
		Environment Protection: A. Climate Change	79
Metrics and Targets			
Metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	Climate Strategy	Environment Protection: A. Climate Change	79
		Environment Protection: A. Climate Change	79
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Energy Management	Environment Protection: B. Energy Management	94
	Climate Strategy	Environment Protection: C. Water Management	96
Targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Energy Management	Environment Protection: C. Water Management	96
		Environment Protection: C. Water Management	96

Third Party Assurance Statement

GRI Standards & AA1000, SASB, TCFD Standard



Independent Assurance Statement

Scope and Approach

Zyxel Group Corporation ("Zyxel" or "the Company") commissioned DNV Business Assurance Co., Ltd. ("DNV" or "we") to undertake independent assurance over the 2022 Sustainability Report for the year ended 31 December 2022 ("the Report").

We performed our work using DNV's assurance methodology VeriSustain™, which is based on our professional experience and international assurance best practices, including International Standard on Assurance Engagements 3000 (ISAE 3000) and the Global Reporting Initiative (GRI) Sustainability Reporting Standards.

The Report also incorporated disclosures with reference to relevant sustainability reporting guidelines, such as the Sustainability Accounting Standards Board's (SASB) Sustainability Accounting Standard for the Electronic Manufacturing Services & Original Design Manufacturing and Hardware industry (version 2018-10), with respective consideration of the different value chains that the Company's subsidiaries relate to.

We understand that the reported financial data and information are based on the data from the Company's Annual Report and Accounts, which are subject to a separate independent audit process. The review of financial data taken from the Annual Report and Accounts and greenhouse gas emission data verified by other assurance engagements are not within the scope of the current engagement.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing the evaluation of reporting principles with a Type 1, Moderate level of assurance, according to the DNV VeriSustain™ Protocol and AA1000 Assurance Standard v3.

Responsibilities of the Directors of Zyxel Group Corporation and of the Assurance Providers

The Directors of Zyxel have sole responsibility for the preparation of the Report. In performing our assurance work, our responsibility is to the management of Zyxel, however, our statement represents our independent opinion and is intended to inform all of Zyxel's stakeholders.

DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. We have no other contractual relationship with Zyxel that constitutes a conflict of interest against the current assurance engagement.

DNV's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Basis of Our Opinion

A multi-disciplinary team of sustainability and assurance specialists performed work at the Company and site level. We undertook the following activities:

- Review of the current sustainability issues that could affect Zyxel and are of interest to stakeholders.
- Review of Zyxel's stakeholder engagement approach and recent outputs.
- Review of information provided to us by Zyxel on its reporting and management processes relating to the Principles.
- Interviews with selected managers responsible for the management of sustainability issues and review of selected evidence to support the issues discussed.
- Site visits to Zyxel's Headquarters in Hsinchu and data checks covering the three major subsidiaries and the two major production sites in Hsinchu, Taiwan and in Wuxi, China to assess processes and systems for preparing subsidiary- and site-level data and implementing sustainability strategies.
- Review of supporting evidence for key claims and 2022 data in the Report, as reported information beyond 2022 is not within the scope of the current engagement. Our checking processes were prioritised according to materiality, and we based our prioritisation on the materiality of issues at the consolidated corporate level.
- Review of the processes for gathering and consolidating the specified performance data and, for a sample, checking the data consolidation. Where data on financial performance and greenhouse gas emissions had been checked by other assurance providers or engagements, we tested the transcription from these sources to the Report.
- An independent assessment of Zyxel's reporting according to the Global Reporting Initiative (GRI) Sustainability Reporting Standards.
- The verification was conducted based only on the Chinese version Report.

¹ The VeriSustain™ Protocol is available on dnv.com



Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe Zyxel's adherence to the Principles.

In terms of reliability of the performance data, in accordance with Moderate level assurance requirements, nothing came to our attention to suggest that these data have not been properly collated from the information reported at the operational level nor that the assumptions used were inappropriate.

Observations

Without affecting our assurance opinion, we also provide the following observations.

- As the concept of impact has been reaffirmed, we encourage the Company to continue to develop due diligence mechanisms supported by coordinated annual targets and indicators to elucidate longer-term strategies.
- Considering the multinational operation of the Company, we encourage continued efforts to advance impact management to enhance the level of entirety and consideration of the different local contexts in which every subsidiary or site operates.
- While recommending further integration of existing policy commitments, we also encourage the Company to continue developing policies across its material sustainability topics and multinational operation.

Stakeholder Inclusiveness

The Company has identified the expectations of stakeholders through internal mechanisms in dialogue with different groups of stakeholders. The stakeholder concerns are well identified and documented, and the significant sustainability issues identified through this process are reflected in the Report.

Sustainability Context

The Report provides an accurate and fair representation of the level of implementation of related corporate sustainability policies and meets the content requirements of the GRI Standards.

Materiality

The process developed internally has not missed out any significant, known material issues, and these issues are fairly covered in the Report. A methodology has been developed to evaluate the priority of these issues.

Completeness

The Report covers performance data against the GRI Standards disclosures that are identified as material within the Company's reporting boundary. The information in the Report includes the Company's most significant initiatives or events that occurred in the reporting period.

Accuracy and Reliability

The Company has developed the data flow for capturing and reporting its sustainability performance. In accordance with Moderate level assurance requirements, we conclude that no systematic errors were detected which causes us to believe that the specified sustainability data and information presented in the Report are not reliable.

Impact

The Company presents the impacts related to its identified material topics by measuring and monitoring impacts through appropriate performance metrics demonstrating outcomes and outputs of its value creation processes. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Impact.

For and on behalf of DNV Taiwan

Date: 24 July, 2023

Yu Chung Chen

Yu Chung Chen
Lead Verifier
Business Assurance
DNV Taiwan

Statement Number: C608851-2022-AG-TWN-DNV

David Hsieh

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District Manager,
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