

# 2022 Sustainability Report



# CONTENTS

---

About this Report	3
A Message from our Chairman	5
About Ennostar	7
Ennostar Responses to United Nations Sustainable Development Goals in 2022	13

## CH1 Commitment to Sustainability.....16

1-1 Sustainable Development Strategies .....	16
1-2 Materiality Analysis and Stakeholder Communication .....	23
1-2-1 Identification of Material Topics .....	23
1-2-2 Impact Assessments of Material Topics...	24
1-2-3 Management Policies and Impact Descriptions of Material Topics .....	26
1-2-4 Stakeholder Identification and Engagement.....	28

## CH2 Corporate Governance .....31

2-1 Operational Performance .....	33
2-2 Governance Organizations.....	35
2-3 Ethical Management.....	38
2-3-1 Ethical Governance .....	38
2-3-2 Legal Compliance .....	40
2-4 Risk Management.....	41
2-4-1 Risk Management and Audit Systems .....	41
2-4-2 Information Security Management.....	45
2-5 Client Relations .....	47
2-5-1 Protection of Customer Privacy .....	47
2-5-2 Customer Relationship Management .....	48
2-6 Sustainable Supply Chain .....	49
2-6-1 Supplier Management.....	49
2-6-2 Supplier Evaluations and Engagement ....	52
2-6-3 Green Procurement .....	54

## CH3 Leading Innovation .....56

3-1 Innovation and R&D .....	56
3-1-2 Management of Intellectual Property Rights.....	64
3-1-3 Green Designs .....	66
3-2 Product Quality and Liability.....	68
3-2-1 Quality Assurance .....	69
3-2-2 Management of Hazardous Substances...	70

## CH4 Green Operations .....73

4-1 Climate Actions .....	73
4-1-1 Low-Carbon Transformation Blueprint.....	73
4-1-2 Task Force on Climate-Related Financial Disclosures (TCFD) .....	77
4-1-3 Management of Greenhouse Gases.....	80
4-1-4 Energy Management.....	81
4-2 Environmental Management .....	84
4-2-1 Water Resource Management.....	84
4-2-2 Waste Management and Circular Economy.....	90
4-2-3 Prevention of Air Pollution.....	96
4-2-4 Biodiversity .....	97

## CH5 Inclusiveness and Growth.....99

5-1 Talent Development .....	99
5-1-1 Talent Strategies .....	99
5-1-2 Industry-Academia Collaborations .....	100
5-1-3 Talent Cultivation.....	102
5-1-4 Development-Oriented Performance Management.....	107
5-2 Happy Workplace .....	108
5-2-1 Employee Rights, Remuneration, and Welfare .....	108
5-2-2 Diversity and Inclusion.....	114
5-3 Protection of Human Rights.....	114
5-3-1 Management of Human Rights Risks.....	115
5-3-2 Employee Communication.....	118
5-3-3 Equality and Inclusiveness for Foreign Migrant Workers .....	121
5-4 Occupational Health and Safety .....	124
5-4-1 Occupational Health and Safety Management.....	125
5-4-2 Employee Health Promotion .....	128
5-5 Mutually Beneficial Society.....	133
5-5-1 Community Investment .....	133
5-5-2 Public Welfare Footprints .....	133

## Appendix .....140

Appendix 1 : Data Overview .....	140
Appendix 2: GRI Standard Index.....	165
Appendix 3: Sustainability Accounting Standards Board Index .....	174
Appendix 4: ISO 26000 Guidance on Social Responsibility Index.....	177
Appendix 5: List of Affiliated Public Associations .....	179
Appendix 6: Reinvested Companies and Other Affiliated Businesses.....	181
Appendix 7: Independent Assurance Statement from TUV Rheinland .....	182

# About this Report

Ennostar Inc. (hereinafter referred to as “Ennostar,” “the Group,” “us,” “we,” and “our”) was founded on January 6, 2021. We began issuing annual sustainability reports in 2022. This is our second sustainability report disclosing our efforts and achievements in sustainable development indicators relating to environmental, social, and corporate governance aspects. We hope this report allows the general public and other stakeholders who care about us to gain a better understanding of the Group.

## Reporting Principles

The Ennostar Sustainability Report for 2022 (hereinafter referred to as “this Report”) is structured according to the content and quality principles of the GRI 2021 Sustainability Reporting Standards released by the Global Sustainability Standards Board. Compilation of this Report also referenced the three major principles (materiality, inclusiveness, responsiveness, and impact) of the Accountability Principles AA1000 Assurance Standards while incorporating material issues of concern to our stakeholders and highlighting our corporate sustainability efforts.

Our future long-term developments focus on and adhere to the principles of the Sustainability Accounting Standards Board, Task Force on Climate-Related Financial Disclosures, ISO 26000 Guidance on Social Responsibility, Earth Charter, OECD Guidelines for Multinational Enterprises, United Nations Global Compact, and United Nations Sustainable Development Goals.

## Reporting Scope and Source

The data disclosed in this Report cover our sustainability and ESG achievements and commitments from January 1 to December 31, 2022, and mainly encompass the sustainability achievements of Ennostar Inc. (Ennostar) and our main subsidiaries EPISTAR Corporation (hereinafter EPISTAR, including Taiwanese factories in Hsinchu, Miaoli, Taichung, and Tainan); Chinese subsidiaries Epicrystal (Changzhou) Ltd. (hereinafter Epicrystal), Episky Corporation (Xiamen) Ltd. (hereinafter Episky), and Jiangsu Canyang Optoelectronics Ltd. (hereinafter Can Yang); Lextar; Chinese subsidiary Lextar Electronics (Chuzhou) (hereinafter Lextar Electronics); and Unikorn Semiconductor Corporation (hereinafter Unikorn).

A sustainability editorial team composed of representatives appointed by functional units at Ennostar, EPISTAR, Lextar, and Unikorn compiled this Report based on stakeholder communications to disclose economic, environmental, and social issues arising from our operational activities. The team operated in accordance with Plan-Do-Check-Action concepts, investigating topics of concern to stakeholders, and requiring various points-of-contact within the team to evaluate and review implementation and response measures to these issues. The team was responsible for overall planning, communication and compilation, and goal setting. Following confirmation of these procedures, editing processes for this Report were implemented by the team convener. After compiling and editing, team members reviewed and revised the content and data contained within a preliminary draft before submitting a final draft to the highest authority at each unit for approval. Prior to release, this Report was verified by a third-party institute, reviewed by our president and chairman, and finally approved by our board of directors. Depending on materiality, discussions on relevant economic, environmental, and social issues were reported periodically or non-periodically to our chairman or board, and related resolutions were recorded in meeting minutes for tracking by administrative units for subsequent reporting at the next board meeting. The currency used for all financial data is New Taiwan Dollars, and the units for relevant statistical data adhere to internationally accepted standard indicators.

The financial information in this Report was sourced from financial statements certified by PwC. Assurance engagement for this Report was performed by TUV Rheinland in accordance with the AA1000 Assurance Standard (AA1000AS v3) Type 2 Moderate level of assurance. The Independent Assurance Statement is included in [Appendix 7](#).



External verification and boundaries of scope for the information in this Report are as follows:

Category	Management Systems	Ennostar	EPISTAR	Lextar	Unikorn	Epicrystal	Episky	Can Yang	Lextar Electronics
E	ISO 14001 Environmental Management System	N/A	V	V	V	V	V	V	V
	ISO 14064-1 Greenhouse Gas Emissions at the Organizational Level	V	V	V	V	V	V	V	V
S	ISO 45001 Occupational Health and Safety System	N/A	V	V	V	V	V	V	V
	CNS 45001 Taiwan Occupational Health and Safety System	N/A	V	N/A	N/A	N/A	N/A	N/A	N/A
G	ISO 27001 Information Security Management System	V	V	In progress	In progress	N/A	N/A	N/A	In progress
	IATF 16949 Automotive Quality Management System	N/A	V	V	N/A	V	In progress	V	V
	ISO 9001 Quality Management System	N/A	V	V	V	V	V	V	V

Note: Verifications denoted as “in progress” are scheduled to be completed in 2023.

## Issue Date

Ennostar regularly releases sustainability reports to promote the Group's sustainability implementations, which are also disclosed on our corporate website.

Previous issue: Released June 2022

Current issue: Released June 2023

Next issue: To be released June 2024

## Contact Information

If you have any suggestions regarding our sustainability reports, you can provide feedback to us via the following email address or the “[Contact Us](#)” section on our corporate website.

### Ennostar Sustainable Development Department

Contact number: +886-3-567-9000 #339073

Email: [ESG@Ennostar.com](mailto:ESG@Ennostar.com)

Corporate website: [www.Ennostar.com/ESG](http://www.Ennostar.com/ESG)

Responsible unit for ESG: Ennostar Sustainable Development Department

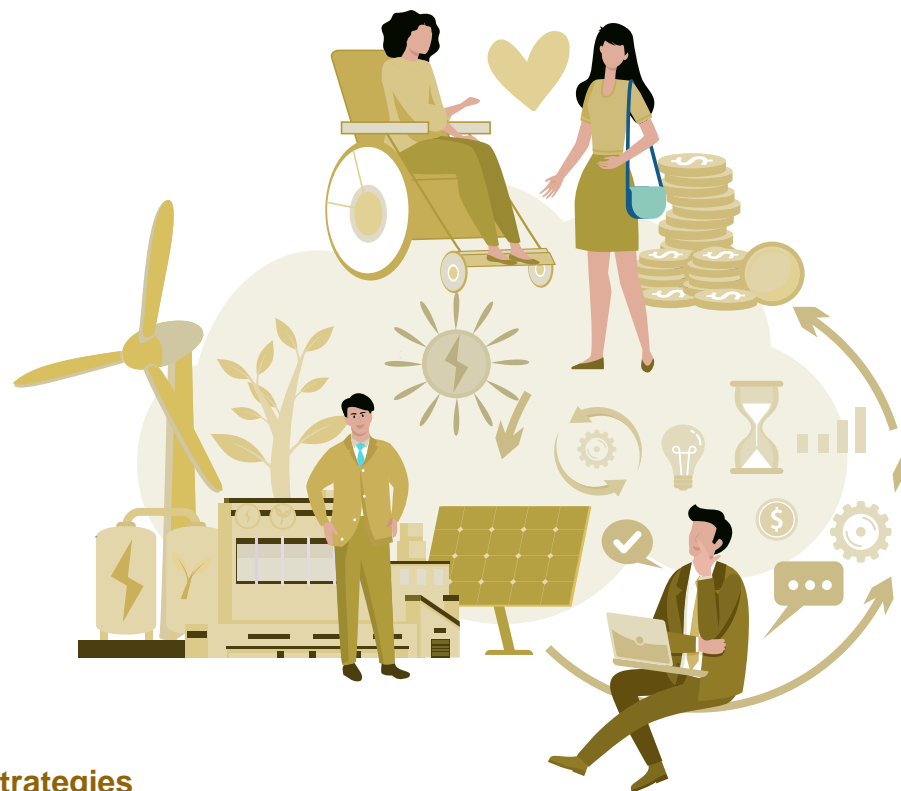


Ennostar ESG Website

## A Message from our Chairman

Looking back on 2022, restructuring of supply chains triggered by international geopolitical crises, post-pandemic recalibrations of industrial conditions, economic problems caused by high inflation and rising interest rates, as well as impacts from climate change, have drastically changed external environments, drawing attention to sustainability issues. Faced with these drastic changes to external environments, the Ennostar Group formulated market insights, continued to seek out opportunities, and established advance strategies to meet market needs, while also strengthening our corporate resilience to ensure that Ennostar can enjoy sustainable growth and operations.

2022 marks the first year of ESG implementations at the Ennostar Group. ESG Corporate Sustainability Committee under the Board so that the Board can directly supervise Group ESG targets, strategies, and implementations, thereby demonstrating our emphasis and commitment to ESG. Additionally, we have adopted the dual tracks of “vertical strengthening” and “horizontal integration” to accelerate ESG progress. In terms of vertical strengthening, we have set up ESG teams that coordinate ESG operations for each company and established ESG committees at our three main subsidiaries (EPISTAR, Lextar, and Unikorn) which are chaired by subsidiary presidents and are responsible for managing ESG advancement and progress at each subsidiary. In response to important cross-company ESG issues and task requirements, we have formed Eight ESG Task Forces that coordinate affairs for different ESG aspects, enabling us to take a comprehensive view, achieve horizontal integrations, utilize Group advantages, and maximize sustainability synergies.



### Proactively Implement Climate Actions to Realize Low-Carbon Strategies

Extreme climate conditions have made climate change a pertinent issue for both global economic and social environments, increasing the urgency of our climate actions. To strengthen climate resilience, we built upon our core capabilities to develop enhanced energy-saving products which helped our end clients reduce 546 million kWh in energy usage (equivalent to 278,000 metric tons CO<sub>2</sub>e) in 2022. In terms of external participation, Ennostar Group completed ISO 14064-1 greenhouse gas inventories and third-party external verifications in 2022, became a Task Force on Climate-Related Financial Disclosures (TCFD) supporter, joined the Taiwan Climate Partnership, and actively participates in domestic and foreign climate actions.

In response to the government's 2050 net zero emission pathway, the Ennostar Group initiated use of green electricity and launched a sustainable energy transformation plan which focuses on the two aspects of increasing green energies and reducing energy usage. We increase green energies by establishing green energy facilities and purchasing green energies, including through gradual installation of factory rooftop solar photovoltaic systems and composite purchases of renewable energies such as solar power, land-based wind power, and offshore wind power. We reduce energy usage and achieve energy conservation through four aspects: lighting management, air-conditioning management, equipment and system improvements, and process efficiency enhancements. We plan to realize our RE100 goal in non-production sites by 2030, and our RE100 goal across the entire Group by 2050. We also collaborated with First Bank on a syndicated loan which incorporates sustainability concepts and ESG sustainability indicators into loan conditions, thereby linking sustainability and technological operations to accelerate implementations of low-carbon strategies.

## Giving Back to Society to Create Mutual Societal Benefits

“Creating mutual benefits for people and society” has always been an important goal for the Ennostar Group. In 2022, Ennostar carried out structural and performance-based salary adjustments to enhance overall Group remuneration competitiveness. This year, we also established a share ownership trust for all employees, enabling them to become shareholders and enjoy the results of our operational performance. This also encouraged our colleagues to save money for their post-retirement lives, generating additional value for themselves and Ennostar, and creating mutual benefits. Employees who join the shareholding program can contribute different amounts based on their positions, and we match 100% of contributions, allowing our employees to retain flexibility in contributions.

“Giving back to society” is one of our core beliefs. Over the years, our subsidiaries have participated in various charity activities through in-kind donations and cash donations. In 2022, our total investments in social participation exceeded NT\$ 2.6 million. Most importantly, we encourage our employees to serve as volunteers and participate in various charity activities from care for stray animals, local beach clean-ups, education of rural schoolchildren, and care for the elderly to implement social participation from different aspects, converting their concerns into practical actions and generating positive social influence.

## Strengthen the Value of High-Tech Applications and Move Towards Excellence in Sustainability

Becoming the “Best compound semiconductor investment platform” is a consistent and clear goal for Ennostar. In order to strengthen Group advantages in highly competitive international markets and grasp market opportunities in promising next-generation applications, Ennostar continues to invest heavily in R&D resources; work with our partners on new-generation advanced display, automotive, sensor, and lighting technologies and high-value applications; and extend our core capabilities in epitaxial and manufacturing procedures for application in new-generation compound semiconductors so we can become the “best compound semiconductor investment platform.”

We still have a lot to learn on our path to sustainability. We continue to devote ourselves to the three major aspects of environmental protection, social participation, and corporate governance, cherish our land, actively generate positive influence for society, and fulfill our corporate social responsibilities. We hope to create a unique Ennostar sustainability formula as we continue to make our way down the long and arduous path of excellence in sustainability.



Chairman



# About Ennostar

Ennostar was founded on January 6, 2021 through a share swap involving two of the biggest LED corporate groups in Taiwan, EPISTAR and Lextar. We focus on technological development and manufacturing of compound semiconductors. Our products encompass epi, chip, packaging, and module materials, and we provide our clients with integrated supply chain services and solutions. Our products are used in displays, automobiles, sensors, professional lighting equipment, 5G communications, and power components. The name “Ennostar” is derived from the words “Innovation” and “Star.” We continue to enhance our technological innovations and work to become the best compound semiconductor investment platform.

We actively invest in technological development for Micro LEDs, and our subsidiaries EPISTAR, Lextar, and Unikorn work to exert their individual strengths, integrating supply chain resources and various technology solutions to fulfill client demands for Micro LED displays, including design of Micro LED epi wafers and chips, development of manufacturing processes, and production. We pair our capabilities with driver technologies to manufacture packaging and module products through mass transfer to create an innovative and comprehensive display system. Ennostar subsidiaries have all established close ties with strategic upstream and downstream supply chain partners. Joint development by teams on both sides have moved our scope of technology from traditional LED backlights to the increasingly popular Mini LED backlights, and now to the ultimate pinnacle in display technology represented by Micro LEDs. We and our strategic partners have formed a comprehensive supply chain in Taiwan that accelerates future integration of chips and panels, and we hope to mass produce Micro LEDs before 2025 following supply chain integration.







## Group Overview

Date of listing	January 6, 2021; ticker code 3714
Total number of employees	8,343
Group headquarters	7F.-5, No. 1, Sec. 3, Gongdao 5th Rd., Hsinchu City
Paid-in capital	NT\$ 7,547,840,000
2022 revenues	NT\$ 28,878,250,000

## Ennostar Value Chain

Ennostar's three main subsidiaries, EPISTAR, Lextar, and Unikorn, are focused on development and manufacturing of LEDs and new-generation compound semiconductors. We provide our clients with comprehensive products and services through vertical integration of resources.

Ennostar Inc.			
Products	Epi/chip products (LED upstream supplier)	Packaging/modules (LED downstream supplier)	Compound semiconductors
Business entity	 EPISTAR	 Lextar	 Unikorn
Description of business entity	 <p>EPISTAR focuses on development and manufacturing of upstream LED epi products and chips, and has accumulated professional expertise in development and manufacturing capabilities as well as competitive advantages across all LED products. EPISTAR works to fulfill all client needs and become a leading global LED chip supplier. In recent years, Epistar has made advance deployments in next-generation display technologies and micro LEDs, investing heavily in display, sensor, automotive, and metaverse applications.</p>	 <p>One of the few companies in the world with professional optical, mechanical, electrical, and thermal integration technologies and services, Lextar's abundant group resources, professional technical expertise, and comprehensive product portfolios act as the best bridge for integration of optoelectronics and semiconductors, providing customers both at home and abroad with the most professional integrated solutions and services. Lextar's main products encompass display backlights, mini LED light sources, automotive lighting, 3D/2D sensors, UV sterilization and curing, ergonomic products and special lighting, which are widely used in home applications, automobiles, and industrial applications.</p>	 <p>Unikorn was spin off from EPISTAR's internal foundry business unit, and is a professional foundry for compound semiconductor components, with services encompassing front-end and back-end processing of epi and chip products. Unikorn is the only professional foundry with advanced epi and chip manufacturing capabilities for optoelectronic and electronic components.</p>
Affiliated businesses	<ul style="list-style-type: none"> <li>• Episky</li> <li>• Epicrystal</li> <li>• Can Yang</li> <li>• Shenzhen Epikylin Optoelectronics</li> </ul>	<ul style="list-style-type: none"> <li>• Lextar Electronics</li> <li>• Yenrich Technology Corporation</li> <li>• Prolight Opto Technology Corporation</li> <li>• TrendyLite Corporation</li> </ul>	<ul style="list-style-type: none"> <li>• Hexawave</li> <li>• Vogito Innovation</li> <li>• Leadstar Micro-Crystal Display Corporation</li> <li>• WellyHertz Electronics</li> </ul>



## Global operations



### Distribution of Factories in China

Jiangsu	Yangzhou Factory, Changzhou Factory, Suzhou Factory
Anhui	Chuzhou Factory
Fujian	Xiamen Factory
Guangdong	Shenzhen Epikylin Optoelectronics(Sales Center)

### Main Operational Sites

Headquarters	Hsinchu Science Park, Taiwan
R&D Center	Hsinchu Science Park, Taiwan
Manufacturing bases	Taiwan -Hsinchu Science Park -Central Taiwan Science Park -Southern Taiwan Science Park

# 2022 Sustainability Performance Highlights

## Corporate Governance

**Ranked at top 5%**

Corporate Governance Evaluations System

**Silver Award**

TCSA Taiwan Corporate Sustainability Award-  
Corporate Sustainability Report Award

**1/2**

Independent directors make up more than half  
of board members

**0**

Zero information security incidents and invasions  
of customer privacy occurred

**0**

Zero legal proceedings associated with anticompetitive or antitrust  
behavior occurred

**1,409**

Cumulatively registered 1,409 trade secrets

**>5,600**

Received approval for more than 5,600  
patents worldwide

**5**

Collaborated with five universities on  
innovative R&D projects

**-546 million kWh of electricity usage**

Lighting, backlights, and automotive products reduced electricity usage by 546 million kWh and 277,000 metric tons of carbon emissions in 2022

## Leading Innovation

## Green Operations

**-10,040**  
**metric tons CO<sub>2</sub>e**

Reduced power consumption by 20.74 million kWh and carbon emissions by 10,040 tons CO<sub>2</sub>e in 2022

**84%**

Resource utilization rate for 2022 was increased to 84%

**100%**

Completed carbon inventories for the entire Group

**30%**

Reduced water consumption by 2,346 million liters in 2022; annual water conservation rates increased by nearly 30% compared to the previous year



## Inclusiveness and Growth

**4.63**

The Sustainability Academy hosted nine courses which achieved an overall employee satisfaction score of 4.63 out of 5

**100%**

Total 4,906 people attended human rights training, achieving a training completion rate of 100%

**20 students**

Worked with National Taiwan University, National Taipei University of Technology, National Yang-Ming Chiao-Tung University, and other universities on six industry-academia collaborations, and trained more than 20 graduate and doctoral students

**0**

No human rights violations occurred on Group operational sites

**NT\$ 2,609,000**

Social participation and investments



# Recognitions and Awards



Ennostar | 2022 TCSA Taiwan Corporate Sustainability Report Silver Award



Ennostar | 2022 TOSIA Industry Contribution Award



Ennostar | 2022 Ranked at top 5% of listed companies in Corporate Governance Evaluations



Ennostar | Obtained ISO 27001 Information Security System verification



Lextar | Obtained TIPS Taiwan Intellectual Property Management System certification



Epistar | 2022 Golden Merchant Award



Epistar | 2022 HangJia Aurora Award Mini/Micro LED Leadership Award



Epistar | 2022 HangJia Aurora Award top ten RGB and Mini LED chip revenues



Epistar | 2022 TOSIA Outstanding Product Award



Epistar | 2022 TOSIA Innovative Technology Award



Lextar | 2022 HangJia Aurora Award Excellent Product of the Year (Mini LED backlight application for notebook computers)



Lextar | 2022 HangJia Aurora Award top ten UV LED packaging revenues



Lextar | 2022 HangJia Aurora Award UV LED Outstanding Industry Product Award



Lextar | 2022 Silver Smart Display Industrial Alliance (SDIA) Award



Lextar | BenQ Qisda Group Excellence in Sustainability Award



Ennostar | Received B ranking from the Carbon Disclosure Project (CDP) in 2022



Epistar | 2022 Best Companies To Work For In Asia



The entire Group has obtained ISO 45001 verification



Epistar | Taiwan i Sports Enterprise certification

# Ennostar Responses to United Nations Sustainable Development Goals in 2022

## CH4 Green Operations

We use PDCA process to implement water resource management plans, and work with external vendors to identify possible reduction or reuse points for liquid waste within factories, thereby enhancing overall resource utilization ratios and reducing use of wastewater chemicals.



## CH4 Green Operations

We implement energy management and conservation through four major actions, including lighting management, air-conditioning management, equipment and system improvement, and process efficiency improvement, to enhance overall energy efficiency in the Group.



## CH4 Green Operations

We have established management regulations for climate change risks and opportunities, and incorporated talent cultivation plans into training courses and promotions for our sustainability blueprint to instill sustainability awareness in our employees.



## Environment

## Governance



## CH2 Corporate Governance

We have established a governance structure with clear division of responsibilities as well as ethical governance policies and corporate culture.



### CH5 Inclusiveness and Growth

We have established human rights policies to eliminate illegal discriminations and ensure that our personnel have workplace environments which offer equal opportunities.



### CH5 Inclusiveness and Growth

We work with multiple universities on research projects, scholarships, courses and curriculum, equipment donations, internships, and other industry-academia collaborations to cultivate young professional talent.

### CH2 Corporate Governance

We have established regulations for ethical reports and complaints as well as a dedicated complaint handling committee.



## Social

### CH2 Corporate Governance, CH5 Inclusiveness and Growth

We have established grievance and reporting systems, implement human rights policies, emphasize respect for diverse cultures, and prohibit discrimination.



### CH5 Inclusiveness and Growth

Provide long-term investments for education of children in rural areas, including by upgrading school facilities, supplying materials and funds, and offering companionship through volunteers.

## 1-2 Materiality Analysis and Stakeholder Communication



# CH1 Commitment to Sustainability

## 1-1 Sustainable Development Strategies

2022 is the Group's first year of implementing sustainability and ESG actions. Our vision in business is to become the "best compound semiconductor investment platform" through our focus on four core concepts (innovation, integrity, inclusivity, and sustainability) and six major sustainable development aspects. Our parent company has established a dedicated sustainability department which continues to plan and promote Group sustainability transformations; coordinate short, medium, and long term plans; and gradually achieve the two main missions of our sustainability strategic blueprint. We hope our proactive management of climate risks, strengthening of sustainable development, and consideration of investor ESG expectations and needs can reduce environmental impacts while enhancing quality of life for all, enabling us to continue generating profits. We utilize the advantages and resources of our subsidiaries to expand our social influence and create a virtuous cycle of sustainability.



### Blueprint

Innovative Growth  
Low-Carbon Manufacturing  
Sustainable Governance  
Talent Sustainability  
Social Inclusion  
Responsible Supply Chain



### Vision

Become the best compound  
semiconductor investor platform



### Mission

Optimize current operations and invest in businesses with good potential to create diverse growth drivers, and work with our industrial ecosystem partners to achieve sustainable growth through innovation and mutual prosperity.

Build agile organizations, strengthen corporate resilience, use digital transformations to create smart enterprises, and achieve excellence in sustainability through a lean culture.

## ESG Blueprint



Optimize current operations and invest in businesses with good potential to create diverse growth drivers, and work with our industrial ecosystem partners to achieve sustainable growth through innovation and mutual prosperity.

Build agile organizations and strengthen corporate resilience, using digital transformations to create smart enterprises, and achieve excellence in sustainability through a lean culture.

## Senior Executive Expectations for Group Sustainability



Ennostar Chairman's Office

**Paul Peng**

Chairman

ESG is a component of long-term corporate competitiveness. The Ennostar Group has long invested in development of various ESG aspects. We also work with all employees to achieve our strategic ESG goals.



Ennostar Finance & Accounting Management Office

**BY Chang**

Vice President

Ennostar is a company which emphasizes integrity, corporate governance, social investment, technological development, and environmental protection. We have already built a foundation for ESG developments over the years, and will continue to measure ourselves against higher standards and become a benchmark enterprise for ESG achievements in future.



Ennostar Corporate Development Office

**Dale Yang**

Vice President

We should establish ESG strategies and goals, incorporate ESG into Group strategies and operational activities, and shape a good corporate image of ESG.



Epistar Operations Center

**Roger Wu**

Vice President

**Environmental:** Promote products and services related to environmental business opportunities such as high-efficiency LEDs and UV-LEDs and encourage internal improvements by reducing waste and emissions to build potential business opportunities from provision of external services.

**Social:** Strengthen IT incorporation in actual operations, achieve improvements through IoT and automation, and reduce dependence on manpower and long working hours. IT, equipment, or factory affairs departments can even use these opportunities to start their own businesses, thereby earning profits and enhancing employee welfare.

**Governance:** Young employees in the 21st century have a much higher need for work that is interesting and has long-term prospects. Companies with good corporate governance are able to be pragmatic and open-minded, and can review and revise rules that are unnecessary and redundant while encouraging entrepreneurship at work and building employee relations that enable mutual growth such as sports team or bands.



Ennostar HR & Administration Office

**Jonah Tyan**

Special Assistant  
and Senior Division Director

1. Firstly, we should formulate clear ESG visions, strategies, and action plans based on Ennostar's corporate and product characteristics
2. We should view ESG as an important corporate development strategy rather than simply a way to comply with regulations or client requirements
3. We should strengthen senior executive (division directors and above) management responsibilities related to ESG



Epistar Operations Center

**CC Lai**

Vice President

1. Apart from our own efforts in ESG promotion, we should also require our supply chains to comply with relevant regulations for achieving sustainable operations
2. We should fulfill social responsibilities through regular activities organized by the Employee Relations Department and provide necessary assistance on social issues
3. We should continue to support green manufacturing



## Senior Executive Expectations for Group Sustainability



Epistar Chip R&D Center

**Crux Ou**

Vice President

Allow our colleagues to fully understand our governance commitments, and understand that we not only implementing actions in the interests of our corporate image.



Lextar Technology Center

**CN Huang**

Vice President

LEDs are in and of themselves a green industry. Our Lextar T01 factory has received Taiwan's first "Green Building Gold Level LED Factory Certification," and we hope to integrate business operations and sustainable development to achieve mutual wins for shareholders, employees, and clients.



Lextar Quality Management Division

**Wayne Lo**

Senior Division Director

ESG is not a zero-sum game but a mutual benefit. I hope that the Group's sustainability team can build a sustainable management structure for corporate development, and work with the supply chain team in making contributions to environmental sustainability



Unikorn Chairman's Office

**Wayne Shi**

Chairman

1. Organize regular long-term plans for charity activities
2. Set energy and water conservation goals, review progress through regular meetings
3. Manage industrial waste
4. Organize employee health activities, and implement employee education and training plans



Unikorn President's Office

**JS Wen**

President

I hope that the Group can lead ESG developments, minimize resource investments from subsidiaries, and achieve rapid growth and benefits in ESG. We should also estimate the ESG contributions of our products so that we can increase environmental benefits by selling more products such as power-saving LED and GaN products.



Unikorn Wafer Manufacturing Center

**Allan Wu**

Vice President

Corporate ESG investments and sustainable corporate operations go hand in hand. Initial investments definitely impact on operational performance, but it is also necessary to make medium and long term plans for investment, which should be done pragmatically in tandem with online, newspaper, magazine, and advertising promotions, so that we can shape our corporate image through small investments.

## ESG Committee

The Group was established in 2021 and formed an ESG Committee under the Board at the end of the year. The Committee is composed of the Group chairman, independent directors, and senior managers from our main subsidiaries (EPISTAR, Lextar, and Unikorn). The ESG Committee is a functional committee under the Board which convenes every quarter to coordinate and plan Group ESG policies, sustainability goals, and strategic blueprints; identify ESG risks and opportunities to determine relevant investment strategies; and monitor ESG performance goals and progress.



## Committee Operations

The Group's ESG Committee operates at four levels, with the Board of Directors serving as the highest governance unit. We believe that ESG actions should be implemented not only through top-down directives, but also through encouragement of bottom-up proposals. We have established an open bidirectional communication channel for joint achievement of goals and strive to achieve strategic sustainability targets in the Group.

### Operations and Responsibilities for Committees at All Levels



### Horizontal Integration: Cross-Corporation Sustainable Task Forces in the Group

Group subsidiaries EPISTAR, Lextar, and Unikorn (and all their factories in Taiwan and China) have established respective ESG committees which are chaired by the presidents of each subsidiary, convene every month to review progress on all management guidelines, and facilitate vertical communications. We officially formed eight Group ESG task forces in the third quarter of 2022 to accelerate horizontal integration of sustainability issues within the Group and jointly achieve low-carbon manufacturing, innovation and growth, sustainability governance, talent sustainability, mutual prosperity, sustainable supply chains, and other goals while linking our sustainability strategies to international net zero trends to ensure full integration of ESG strategies in daily operations.

## Strengthening Sustainability

The Group strengthens sustainability through six major actions (targets, projects, our Sustainability Institute, ESG reports, our corporate website, and activities). We firstly focus on Group targets, identify important projects, formulate related measurement indicators, and horizontally integrate subsidiary resources. Internally, we have established a Sustainability Academy which offers various ESG courses taught by professional external speakers, hosts related activities, and compiles ESG columns for internal subsidiary publications so that our colleagues can be immersed in an atmosphere infused with ESG concepts. Externally, continued exposure through the media and regular publication of sustainability reports help us communicate with our stakeholders.

In future, we will integrate ESG performance with our rewards systems to incorporate ESG concepts into routine tasks for all departments and make ESG a part of our corporate DNA. Please refer to [5-1-3 Talent Cultivation](#) for more information on our Sustainability Academy.



In 2022, we published a total of 38 posts on social media and 8 ESG articles on our corporate website.



Ennostar Facebook fanpage:



Ennostar LinkedIn:

## 1-2 Materiality Analysis and Stakeholder Communication

### 1-2-1 Identification of Material Topics

#### Process for Assessing Material Topics

A sustainability editorial team composed of representatives from all functional units, including our corporate promotion office and human resources, auditing, R&D, manufacturing, shareholder affairs, environmental health and safety, quality assurance, factory affairs, and materials departments helped to compile this Report. Each unit identified stakeholders based on unit characteristics, relevant industrial practices and principles, and AA1000 stakeholder engagement standards related to Dependency, Responsibility, Influence, Diverse Perspectives, and Tension. We collected information on industry-related issues and communicated with internal and external stakeholders. Following review by external experts and internal impact analyses, these issues were submitted to and confirmed by the ESG Committee before publication.

#### Continue to identify and assess impacts

1 Understand organizational context	8 types of stakeholders	<ul style="list-style-type: none"> <li>Stakeholder identification: We used the AA1000 SES Stakeholder Engagement Standard to identify our eight main types of stakeholders.</li> </ul>
2 Identify actual and potential impacts	19 sustainability issues of concern	<ul style="list-style-type: none"> <li>Collected issues of concern: We tracked global sustainability standards and relevant reports (such as the SDGs, ISO 26000, specific GRI disclosures, and SASB), industrial benchmark cases, as well as our sustainability report for the previous year to investigate and confirm organizational contexts, following which we compiled 19 sustainability issues of concern.</li> <li>Analyzed stakeholder levels of concern: We communicated with all stakeholders through online and paper questionnaires and received a total of 1,945 responses which were used to determine stakeholder levels of concern on the 19 sustainability issues.</li> </ul>
3 Assess significance of impacts	10 internal surveys	<ul style="list-style-type: none"> <li>Preliminary screening of issues: The sustainability editorial team conducted preliminary screening of issues after collecting stakeholder questionnaires and referenced suggestions from external experts to select the top three governance, environmental, and social issues with the highest levels of stakeholder concern, and then analyzed impacts.</li> <li>Analyzed significance of economic, environmental, and human rights (people) impacts on the Group: The sustainability editorial team distributed "ESG impact assessment surveys" to senior executives of related units, then analyzed the positive and negative impacts of operational activities associated with 9 material topics, as well as possibilities of occurrence under current conditions.</li> </ul>

#### Determine material topics to report

4 Rank reporting priorities based on significance of impact	9 material topics	<ul style="list-style-type: none"> <li>Confirmed 9 material topics: Following comprehensive evaluation, the sustainability editorial team referenced suggestions from our management team/ESG Committee to define issue materiality, with the lowest score being 260 points (based on positive and negative impacts as well as possibilities of occurrence for each issue) to determine our 9 material topics.</li> <li>Referenced specific GRI disclosures: We matched our 9 material topics to 15 GRI disclosures and 1 self-defined topic based on suggestions from external experts.</li> </ul>
5 Material topics		<ul style="list-style-type: none"> <li>Defined scope of operational impacts using value chains: We evaluated the scopes of impact for each topic based on our value chain and selected 9 material topics.</li> <li>Confirmation of information disclosures by senior management: Collected information for disclosures following confirmation by ESG Committee/Board.</li> <li>Continued reviews and improvements: We continued to collect suggestions from all stakeholders and external experts, reviewed actions related to material topics over the previous reporting period, and used these as a reference for disclosures for the next reporting period.</li> </ul>



## 1-2-2 Impact Assessments of Material Topics

The sustainability editorial team assessed economic, environmental, and human rights (people) impacts from the 9 material topics, and conducted comprehensive assessments based on positive/negative and actual/potential impacts as well as possibilities of occurrence.

### Process for Assessing Impacts

#### 1. Quantified impacts and possibilities of occurrence through questionnaires:

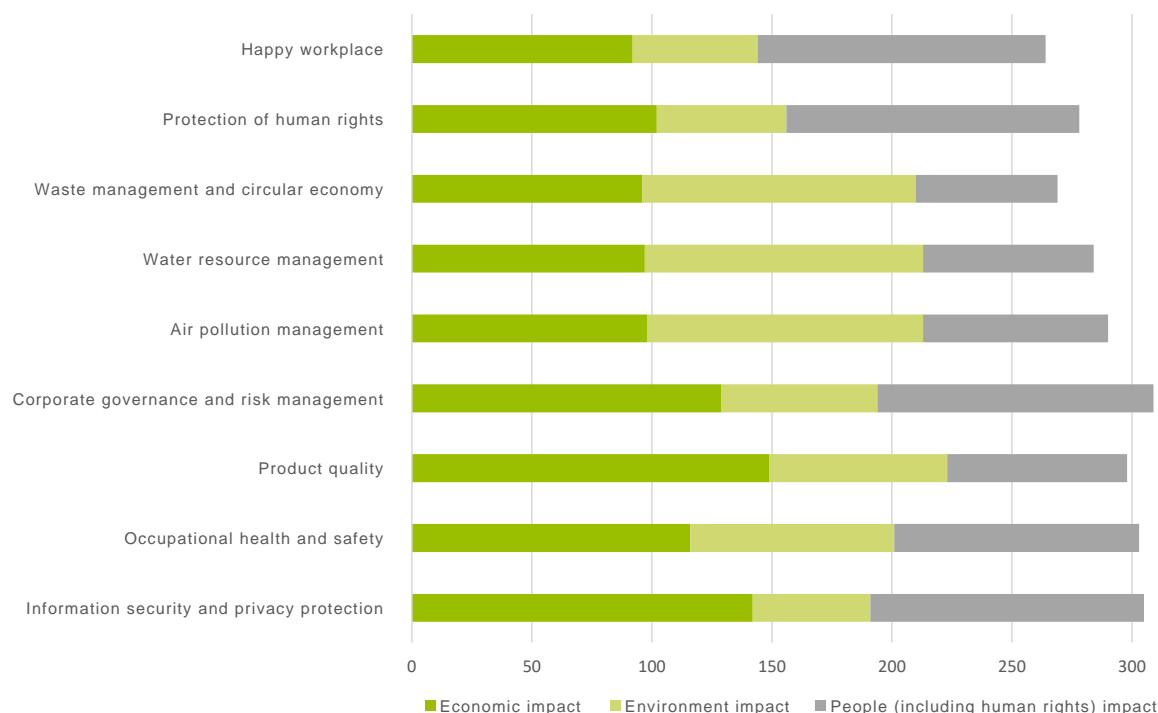
We graded the economic, environmental, and human rights (people) impacts as well as possibilities of occurrence using scores from 1 to 5 (with 1-4 representing increasing probabilities of occurrence and 5 denoting impacts that had already happened); score results were submitted to related units or senior managers of important subsidiaries for further assessment.

#### 2. Impact ranking:

After analyzing the impacts of the 9 material topics and comprehensive consideration of suggestions from the management team and external experts, our assessment results are summarized as follows:

- Impact assessment results showed that each issue had the highest probability and most significant impacts on corresponding aspects. Additionally, “information security and privacy protection” and “corporate governance and risk management” involved confidential customer information, personal privacy, internal management structures, and corporate culture, so these topics also had significant impacts on the human rights (people) aspect. Therefore, these two topics were our top two material topics for the year.
- Additionally, even though environmental topics such as “waste management and circular economy,” “water resource management,” and “air pollution management” have both economic and environmental impacts, the Group handles all environmental management topics with caution and has established comprehensive management mechanisms to prevent waste leakages, pollution of surrounding rivers from discharged wastewater, and air pollution, and therefore human rights (people) impacts are less likely to occur.

### Assessment Results for Material Topics



## List of Material Topics and Corresponding GRIs

The sustainability editorial team referenced suggestions from all stakeholders and external experts, as well as comprehensive considerations, to identify the material topics for the year with the top three economic, environmental, and social impacts. The following rankings are based on the results of “ESG impact assessment surveys” filled out by senior executives from related units and the positive and negative impacts of each topic.

#	Aspect	Topic	Impact Boundaries on Value Chain						Corresponding GRI theme
			Direct impacts	Business relations	Indirect impacts				
			The Group	Suppliers/Contractors	Clients	Shareholders/ investors	Local communities	Government	
1	G	Corporate governance and risk management	V	V		V		V	GRI 205 GRI 206
2	G	Information security and privacy protection	V		V				GRI 418
3	S	Occupational health and safety	V	V				V	GRI 403
4	G	Product quality	V	V	V				Self-defined topic
5	E	Air pollution management	V				V	V	GRI 305 <sup>1</sup>
6	E	Water resource management	V				V	V	GRI 303
7	S	Protection of human rights	V	V			V	V	GRI 402 GRI 406 GRI 407 GRI 408 GRI 409 GRI 411
8	E	Waste management and circular economy	V				V	V	GRI 301 GRI 306
9	S	Happy workplace	V					V	GRI 401 GRI 405

<sup>1</sup> This material topic only contains information related to GRI 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions, and therefore we have made no other disclosures related to other GRI 305-6 indicators

## 1-2-3 Management Policies and Impact Descriptions of Material Topics

Aspect	Material Topic	Commitments and Policies	Description of Impacts	Assessment Mechanisms	Corresponding Sections
G	Corporate governance and risk management	We focus on the importance of corporate governance and risk management, and have organized various training courses, formulated management regulations, and established reporting systems to help all employees understand the impacts of ethical violations. We have also established mechanisms to avoid conflicts of interest and protect corporate and investor interests.	The comprehensiveness of governance organizations and risk management structures directly impact on an organization's ethical management principles and stakeholder interests, and may cause severe damage to a company's corporate image.	<ul style="list-style-type: none"> <li>• Board diversity</li> <li>• Corporate Governance Evaluation results</li> <li>• International standards and certifications</li> <li>• Results on domestic and foreign sustainability evaluations</li> </ul>	<a href="#">2-2 Governance Organizations</a> <a href="#">2-3 Ethical Management</a> <a href="#">2-4 Risk Management</a>
G	Information security and privacy protection	We have established an "information security team" which is responsible for employee information security education and training, as well as enhancing employee responses to information security risks. We have also established a trade secrets committee and formulated comprehensive data management and protection mechanisms to reduce risks of commercial, technological, and corporate data leaks as well as reassure employees and clients.	Failure to protect confidential client information may affect our market operations, incur penalties, and damage our corporate reputation, causing us to lose clients.	<ul style="list-style-type: none"> <li>• ISO 27001 implementation status</li> <li>• Number of information security incidents</li> <li>• Deployment of dedicated information security personnel</li> </ul>	<a href="#">2-4-2 Information Security Management</a> <a href="#">2-5-1 Protection of Customer Privacy</a>
S	Occupational health and safety	We have established comprehensive occupational health and safety management processes and measures, and have further formulated the "EHS Management Manual" and established the "Occupational Health and Safety Administration risk evaluation technical guidelines to identify, assess, and control work environments and operational hazards. We have also obtained ISO 45001 verification and actively work to grasp potential hazards.	Frequent occupational injury incidents may affect factory schedules and increase personnel costs. Severe occupational injury incidents will affect public and client perceptions of the Group, and may even affect collaborative relationships.	<ul style="list-style-type: none"> <li>• Number of penalties incurred due to violations of occupational safety regulations</li> <li>• Number of severe industrial safety incidents</li> <li>• Number of penalties imposed by labor authorities</li> </ul>	<a href="#">5-4 Occupational Health and Safety</a>
S	Product quality	We are highly attentive of product quality and work to establish mutual trust with our clients. Our products adhere to green product labels, international eco-friendly regulations, and environmental protection requirements. We plan to utilize the technical momentum within the Group and aim to "achieve the infinite possibilities of LED applications" through active development of Micro LEDs, Mini LEDs, and compound semiconductors, and work to enhance our product innovative capabilities.	Failure to fulfill international and client product requirements may affect product exports to overseas markets, impacting product revenues.	<ul style="list-style-type: none"> <li>• Number of products that have not undergone hazardous substances inspections</li> <li>• Whether products adhere to international environmental regulations</li> </ul>	<a href="#">3-2 Product Quality Assurance</a>
E	Air pollution management	Apart from requiring all product manufacturing processes to comply with the emission requirements of air pollution regulations, we also continue to replace aged pollution prevention equipment. We utilize the 3R production model, incorporate the latest pollution prevention technologies, rigorously inspect all waste emissions generated through manufacturing processes, establish specific handling methods for different pollutants, and implement 24-hour monitoring to reduce environmental impacts from air pollution.	In recent years, domestic and foreign regulations on air pollution and greenhouse gas emissions have become more stringent. Additionally, severe air pollution may impact the health of factory employees and local residents, so should be managed properly to prevent incurring penalties from violations of environmental regulations.	<ul style="list-style-type: none"> <li>• Number of environmental regulation violations</li> <li>• Compliance with emission requirements of air pollution regulations</li> <li>• Number of replaced or upgraded equipment</li> <li>• Carbon emissions from each product unit</li> </ul>	<a href="#">4-2-3 Prevention of Air Pollution</a>

Aspect	Material Topic	Commitments and Policies	Description of Impacts	Assessment Mechanisms	Corresponding Sections
E	Water resource management	We strive to implement water resource management, properly manage water withdrawal, discharge, and reuse in factories. Our sewage treatment procedures adhere to the standards of local regulations, and we actively promote various water-saving programs, including discharge recycling, wastewater recycling, and wastewater reuse projects in factories. In addition to improving our facilities and equipment, we also encourage our employee to change their water usage behaviors to improve water conservation efficiency.	Failure to properly manage wastewater generated by factories may incur penalties, affect the physical and mental health of local residents, and damage our corporate reputation.	<ul style="list-style-type: none"> <li>• Diverse water resource assessments</li> <li>• Recycled water volumes and reduced water usage</li> <li>• Annual water conservation volumes (absolute reductions)</li> <li>• Reduced water usage from each product unit</li> </ul>	<a href="#">4-2-1 Water Resources Management</a>
S	Protection of human rights	We are attentive of possible human rights impacts from corporate operations. For employees, we work to create environments where employees can work with dignity. We have also formulated "Labor Policies" to serve as the highest governance principle for employee human rights issues, and established internal management regulations in accordance with the "RBA Code of Conduct." We also host internal training themed around protection of human rights. For suppliers, we include human rights requirements in our procurement contracts to ensure that our supply chain provides adequate protection for human rights.	Human rights issues have become an international trend. Failure to properly manage and control value chain human rights risks may result in negative media coverage and incur penalties due to violations of labor laws, damaging our corporate reputation and impacting collaborative relations with our clients.	<ul style="list-style-type: none"> <li>• Number of major human rights violations</li> <li>• Completion rates on human rights training courses</li> <li>• Establishment of human rights management structure</li> <li>• Proportion of female executives</li> <li>• Continued employment and retention rates of migrant workers</li> </ul>	<a href="#">5-3 Protection of Human Rights</a>
E	Waste management and circular economy	The various wastes generated through production processes are all handled by qualified disposal companies as part of our waste disposal plan. We seek out new vendors to aid development of waste recycling and reuse technologies, implement various waste reduction programs, increase recycling rates, reduce volumes of non-recycled waste, and promote a circular economy.	As an electronics manufacturer, failure to properly dispose of generated waste may have negative impacts on the health of local residents. Ability to enhance utilization rates of various raw materials can reduce unnecessary procurement costs and enhance product competitiveness.	<ul style="list-style-type: none"> <li>• Waste recycling ratios</li> <li>• Assessments of alternative materials for EU restricted hazardous substances (NMP)</li> <li>• Utilization of recycled gold</li> <li>• Recycling rate of waste photoresist</li> </ul>	<a href="#">3-1-3 Green Designs</a> <a href="#">4-2-2 Waste Management and Circular Economy</a>
S	Happy workplace	We believe that employees are the most important assets of a company. We work to build happy and friendly workplaces, and promote humanistic management measures that allow for full development of talent potential. We not only implement consistent and fair salary and remuneration systems, comprehensive retirement systems, and also provide comprehensive employee care to create a workplace environment that promotes health, inclusivity, work-life balance, and flexible working, thereby enhancing employee engagement.	Employee care directly affects personnel costs. Happy and friendly workplace environments can reduce turnover rates and recruitment costs.	<ul style="list-style-type: none"> <li>• Employee loyalty/satisfaction surveys</li> <li>• Closure rates on employee feedback</li> <li>• Satisfaction rates for multiple activities</li> </ul>	<a href="#">5-2 Happy Workplace</a>

## 1-2-4 Stakeholder Identification and Engagement

We attach great importance to stakeholder interests and strives to establish two-way communication channels through a variety of communication methods to ensure that we can obtain an accurate understanding on issues of stakeholder concern; we review these issues in a timely manner and prioritize responses. As part of our response to important ESG issues and related tasks, we established eight ESG task groups in 2022 to coordinate related matters in hopes of gaining a comprehensive perspective of the whole Group, utilize the advantages of our three main subsidiaries, and achieve synergies.

Stakeholders	Meaning to the Group	Major Issues of Concern	Corresponding Sections on Responses to Engagement Results	Engagement Methods and Frequency	Communication Results
Employees	Employees are the Group's most important assets and most important business partners. We continue to provide generous salaries and benefits, ensure safe workplace environments, attract outstanding talent, and work to grow together.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Happy workplace</li> <li>Information security and privacy protection</li> </ul>	5-4 Occupational Health and Safety 5-2 Happy Workplace 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Internal network messaging system [Real time]</li> <li>Strategic planning meetings [Annual]</li> <li>Bidirectional communications with executives [Monthly]</li> <li>Grievance channels [Real time]</li> <li>Labor-management meetings and employee welfare committee meetings [Quarterly]</li> <li>Employee suggestions and feedback [Real time]</li> <li>President's mailbox [Real time]</li> </ul>	<ul style="list-style-type: none"> <li>We received a total of 85 complaints in 2022</li> <li>We initiated investigation procedures for all complaints, planned relevant training and promotions, and also provided counseling, medical aid, and other required assistance to concerned parties</li> </ul>
Shareholders/ investors	Shareholders/investors are important pillars who support the sustainable operations of the Group. We disclose information in an open and transparent manner to ensure that all information and communication channels remain smooth and fair.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Information security and privacy</li> <li>Corporate governance and risk management</li> </ul>	5-4 Occupational Health and Safety 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy 2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Shareholders' general meeting [Annual]</li> <li>Investor conferences [Quarterly]</li> <li>Public financial reports and quarterly reports [Quarterly, annually]</li> <li>Investor section [Real time]</li> </ul>	<ul style="list-style-type: none"> <li>Hosted seven investor conferences</li> <li>Hosted one shareholders' general meeting</li> <li>Publish monthly operational overviews before the tenth of each month and release quarterly reports</li> </ul>
Clients	Transactions with clients are an important source of revenue for the Group. We continue to provide high-quality products and services to meet client expectations.	<ul style="list-style-type: none"> <li>Corporate governance and risk management</li> <li>Information security and privacy</li> <li>Product quality</li> </ul>	2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy 3-2 Product Quality and Liability	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Online customer service mailbox [Real time]</li> <li>Customer satisfaction surveys [Annual]</li> <li>Participation in product exhibitions [Non-periodic]</li> <li>Client visits initiated by business center colleagues [Non-periodic]</li> </ul>	<ul style="list-style-type: none"> <li>Use of the Score Card framework to conduct customer satisfaction surveys; survey results increased by 7.4% compared with the previous year</li> <li>Participation in forums such as 2022 Touch Taiwan and 2022 SEMICON Taiwan</li> <li>Weekly video conferences with important clients and non-periodic client visits.</li> </ul>



Stakeholders	Meaning to the Group	Major Issues of Concern	Corresponding Sections on Responses to Engagement Results	Engagement Methods and Frequency	Communication Results
Suppliers/ Contractors	Suppliers/contractors are important Group partners. Maintaining sound collaborative relations helps us enhance customer satisfaction and enables us to make timely responses when impacted by major incidents.	<ul style="list-style-type: none"> <li>Corporate governance and risk management</li> <li>Product quality</li> <li>Information security and privacy</li> </ul>	2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management 3-2 Product Quality and Liability 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Supplier audits and interviews [Annual, non-periodic]</li> <li>Contractor agreements and organizational meetings [Non-periodic]</li> <li>Correspondence between business departments [Non-periodic]</li> </ul>	<ul style="list-style-type: none"> <li>Formulated surveys based on supplier financial risks, local production ratios, and use of renewable materials</li> <li>Conducted on-site and written audits of 100 suppliers and scored each supplier</li> <li>Hosted more than 140 price negotiation meetings</li> </ul>
Government institutes	As a listed company with multiple factories located in science parks around Taiwan, we are required to adhere to and keep abreast of the laws and regulations of local competent authorities.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Air pollution management</li> <li>Corporate governance and risk management</li> </ul>	5-4 Occupational Health and Safety 4-2-3 Air Pollution Management 2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Public hearings [Non-periodic]</li> <li>Official correspondences [Non-periodic]</li> </ul>	<ul style="list-style-type: none"> <li>Identified 710 regulations related to occupational safety, only 1 of which may impact corporate operations</li> <li>Attended all competent authority meetings on environmental issues relating to Group factory operations</li> <li>Immediately responded to queries from competent authorities</li> <li>Actively participated in related meetings and courses</li> </ul>
Media	The media provides an important channel for bidirectional, timely communication between the Group and stakeholders.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Product quality</li> <li>Information security and protection</li> </ul>	5-4 Occupational Health and Safety 3-2 Product Quality and Liability 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Online customer service mailbox</li> <li>Spokesperson and deputy spokesperson [Real time]</li> </ul>	<ul style="list-style-type: none"> <li>Due to impacts from the pandemic, we did not host any press conferences or conduct any media interviews in 2022</li> <li>Released 174 posts on social media</li> </ul>
Insurance companies	The services provided by insurance companies offer additional protection for factory equipment and personnel.	<ul style="list-style-type: none"> <li>Air pollution management</li> <li>Corporate governance and risk management</li> <li>Occupational health and safety</li> </ul>	4-2-3 Air Pollution Management 2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management 5-4 Occupational Health and Safety	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Meetings, phone calls, and emails [Real time]</li> </ul>	<ul style="list-style-type: none"> <li>Communicated with insurance companies through 36 meetings.</li> </ul>
Banks	Sound interactions with banks enable us to establish better capital utilization plans and continue to grow corporate operations through investments or financing.	<ul style="list-style-type: none"> <li>Corporate governance and risk management</li> <li>Occupational health and safety</li> <li>Information security and privacy</li> </ul>	2-2 Governance Organizations 2-3 Ethical Management 2-4 Risk Management 5-4 Occupational Health and Safety 2-4-2 Information Security Management 2-5-1 Protection of Customer Privacy	<ul style="list-style-type: none"> <li>ESG questionnaires [Annual]</li> <li>Online customer service mailbox [Real time]</li> </ul>	<ul style="list-style-type: none"> <li>We have relations with more than 22 banks and maintain fixed communications around once a month to receive updates on market conditions/regulatory compliance and discuss future collaborations.</li> <li>Established sustainability-linked loans exceeding NT\$ 13 billion</li> </ul>

- 2-1 Operational Performance
- 2-2 Governance Organizations
- 2-3 Ethical Management
- 2-4 Risk Management
- 2-5 Client Relations
- 2-6 Sustainable Supply Chain

# Corporate Governance



7914 1305 5345 5951 1422  
4562 \*1243 1776 \*4861 1467  
ABM JRO OFV HEK LMD VAD

744 005 5175 5955  
1248 1396 9754 345 9612  
2785 3632 1542  
8462 6996 1550 4601  
2 8756 3221 8546 8964  
1466 9672 5541  
JRO OLV LWK XMJ  
6359 44 38 31 21 875

794  
456  
ABI

135 51 9 99511  
4566 212 156 4661  
WBM F RO OLV UK LMJH  
BGL GFK POL

1011 0103 3130 3143 0410 0100  
174 789 356 542 0101  
01010 10010 10010 010

744 005 5175 5955  
1248 1396 9754 345 9612  
2785 3632 1542  
8462 6996 1550 4601  
2 8756 3221 8546 8964  
1466 9672 5541  
JRO OLV LWK XMJ  
6359 44 38 31 21 875









## CH2 Corporate Governance



We have established an [investor section](#) on our corporate website which provides annual reports, financial reports, investor conference reports, and regular monthly review reports for download by our shareholders and stakeholders, facilitating open and transparent sharing of corporate information. Ennostar was ranked in the top 5% of listed companies and the top 11-20% of listed electronics companies with market values exceeding NT\$ 10 billion in the 9th Corporate Governance Evaluations for 2022. In future, we will continue to implement ethical and transparent governance models, and work to be ranked in the top 5% of companies.



## Material Topic: Corporate Governance and Risk Management | Base year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
1. Director diversity and continued management		1. Continue to implement director diversity and management	1. Continue to implement director diversity and management	1. Strengthen director diversity and management
2. Ranking in top 6-20% of Corporate Governance		2. Rank in top 6-20% in Corporate Governance Evaluations	2. Rank in top 5% in Corporate Governance Evaluations	2. Rank in top 5% in Corporate Governance Evaluations
3. TCSA silver award		3. Participate in Taiwan Corporate Sustainability Awards	3. Adopt the Dow Jones Sustainability Index (DJSI) evaluation framework for external disclosures	3. Inclusion in Dow Jones Sustainability Index (DJSI)
4. Incorporate enterprise risk management (ERM) methodologies		4. Build enterprise risk management (ERM) capabilities	4. Maintain enterprise risk management (ERM) capabilities	4. Maintain enterprise risk management (ERM) capabilities
5. Ennostar ISO 27001 Information Security System certification		5. Assist subsidiaries (Lextar and Unikom) in obtaining ISO 27001 Information Security System certification	5. Maintain TIPS intellectual property management system certification	5. Maintain TIPS intellectual property management system certification
6. Introduce TIPS intellectual property management system standards		6. Extend TIPS intellectual property management system validity at Lextar		

Responsible unit	Ennostar Finance & Risk Office.
Invested resources	External instructors for training courses, costs for ISO inspections and management systems for intellectual property rights, internal HR personnel and IT departments, ESG working teams. Manager performance is regularly tracked by implementation units and reported to the Board, and we plan to invite external consultants to guide DJSI implementation.
Grievance mechanism	<ul style="list-style-type: none"> <li>• Taiwan Stock Exchange</li> <li>• Financial Supervisory Commission</li> <li>• Insurance associations</li> <li>• Legal entities/shareholders and other stakeholders</li> </ul>

## 2-1 Operational Performance

### Create Value for Shareholders

Sustainable management is the Group's core mission. We hope to generate long-term and stable value for us and our stakeholders through continued R&D investments, deployment of upstream and downstream resources, and increased profitability. We continue to increase our investments in Mini/Micro-LED displays, smart sensors, and microelectronic components for III-V compound semiconductors, as well as other advanced technologies to stabilize our financial structure, build our R&D capabilities, and optimize resource utilization, thereby consolidating our value chain and industrial positioning, consolidating competitive advantages within our supply chain, and establishing a competitive ecosystem.

Revenues for 2022 declined compared with 2021, mainly due to macroeconomic impacts, though there are currently no risks associated with sales concentration.

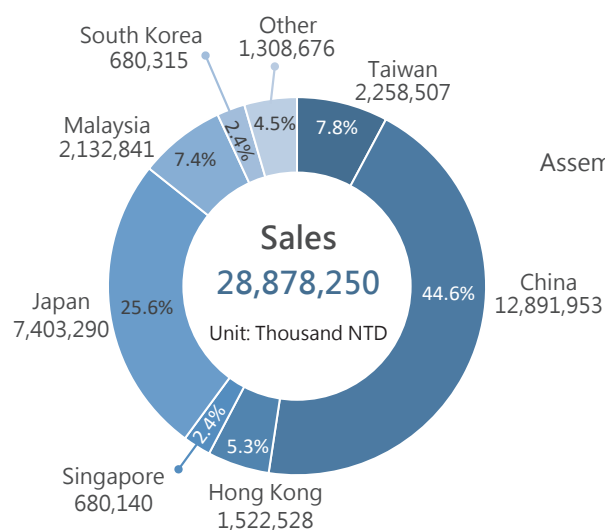
Please refer to the [Ennostar website \(Investors section\)](#) to view the Group's consolidated and individual financial reports for 2022.

### Condensed and Consolidated Income Statement for 2022

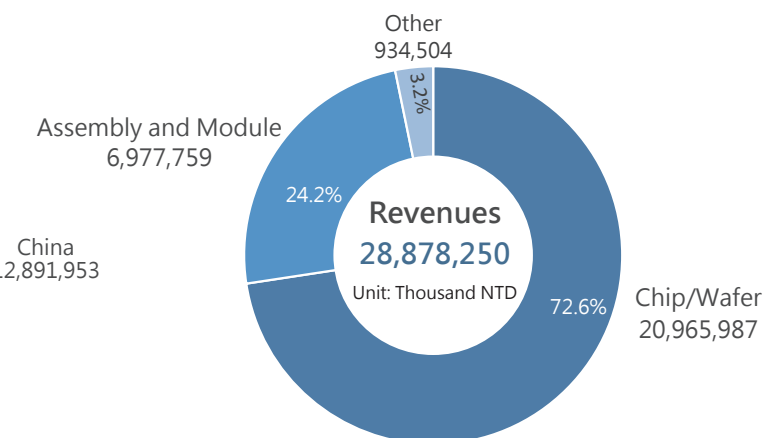
Unit: Thousand NTD

Item	Ennostar (The Group)
Revenues	28,878,250
Gross operating profit (retained economic value)	4,981,547
Operating profit and/or loss	-465,598
Net profit (loss)	-566,383
Payment made to investors	0
Earnings per share (NTD)	0.05
Employee compensation and benefits	7,808,368
Payments made to the government (taxes)	54,153

### Global Sales



### Proportion of Business



### Product Manufacturing and Sales

Units: Thousand pieces for chips, thousand pieces for packaging and module products, thousand NTD for output values

Year	Chip/Wafer		Assembly and Module	
	Output Volume	Output Values	Output Volume	Output Values
2022	1,177,406,814	22,887,599	3,295,307	9,874,313



## Tax Policies and Management

In response to international trends in tax governance and sustainability taxation, Ennostar implements rigorous management of tax proceedings in accordance with internal tax policies and pays all taxes in accordance with law. We conduct annual reviews of our tax policies to effectively control tax risks and ensure sustainable development. We have established a dedicated tax management unit staffed with professional and experienced tax managers as well as personnel who execute routine administrative and management tasks related to tax affairs and assist the head of the accounting division in planning and fulfilling tax duties. The chief financial officer assumes all ultimate responsibilities for tax management. Additionally, the Group's main operational sites are located in Taiwan and China, so are faced with rapid changes in domestic and foreign tax regulations. We are attentive of changes in tax-related policies, adopt appropriate responses and strategic adjustments, and strengthen our knowledge through professional services provided by external tax consulting agencies. The Group's tax policies are as follows:

- All operations are handled in accordance with relevant tax regulations
- Transactions between affiliated enterprises are handled in accordance with conventional transaction principles
- Enhance information transparency of financial reports and ensure that tax disclosures adhere to regulations and announced policies
- Avoid use of tax havens and tax planning measures for tax evasion purposes
- Avoid transferring corporate profits to countries with low tax rates
- Build mutual trust and respect with tax authorities
- Consider impacts from taxes when making all important corporate decisions
- Analyze operational environments and use management mechanisms to assess tax risks

## Sustainable Investment Strategies

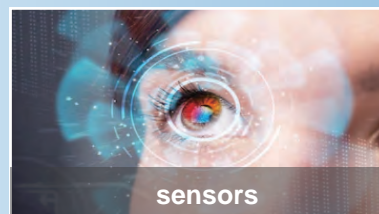
Our investment strategic blueprint adopts a dual-investment strategy which seeks to optimize existing operations and invest in high-potential businesses. We hope to build diverse drivers of growth over the long term, and have invested in the three aspects of sustainable environmental sustainability, smart health, and meaningful living, utilizing technology in continued investments and developments that improve public convenience and connections, enhance health and safety, reduce environmental impacts, and realize environmental sustainability.

Our market positioning is focused on next-generation displays, automotives, sensors, special lighting, and other high value-added applications. We have also extended our capabilities to III-V compound semiconductor epi wafers and manufacturing processes. Our industry investments are linked to sustainable development through environmental, social, and corporate governance aspects, and we achieve efficient manufacturing and effective component development through smart transformations that lower environmental and social impacts from our production processes. Additionally, we also set green economy technologies such as carbon capture, hydrogen power, water resource recycling, and other green technologies as key investment aspects to implement digital transformation and smart manufacturing while focusing on future developments and building long-term growth drivers for Ennostar to achieve our vision of sustainable development.

We reference changes to the United Nations Principles for Responsible Investment when formulating investment strategies, actively consider ESG issues when making investment decisions, and disclose ESG implementations and results achieved through current investments as appropriate. We continue to be attentive of sustainable investment standards formulated within the industry and related implementations as we gradually establish our sustainable investment strategies and standards. We also incorporate sustainable investment and ESG concepts in our policies and assessment standards to ensure that we are adhering to related principles.



## Five Drivers of Growth at Ennostar





Selected as a constituent of the

**TWSE RA Taiwan Employment Creation 99 Index**  
within second year of establishment



The “TWSE RA Taiwan Employment Creation 99 Index” is an index fund jointly created by the Taiwan Stock Exchange and an index fund company. The index is reviewed every July, and 99 listed companies in Taiwan with parent companies which have the highest

number of employees are included in the index. The weight of each stock is determined by the number of employees at each company. This is the first new-generation corporate social responsibility index in the world.

As a listed company with the largest number of employees in Taiwan, Ennostar was selected to be a constituent of the index within the second year of establishment. In future, we will continue to raise employment rates in Taiwan.



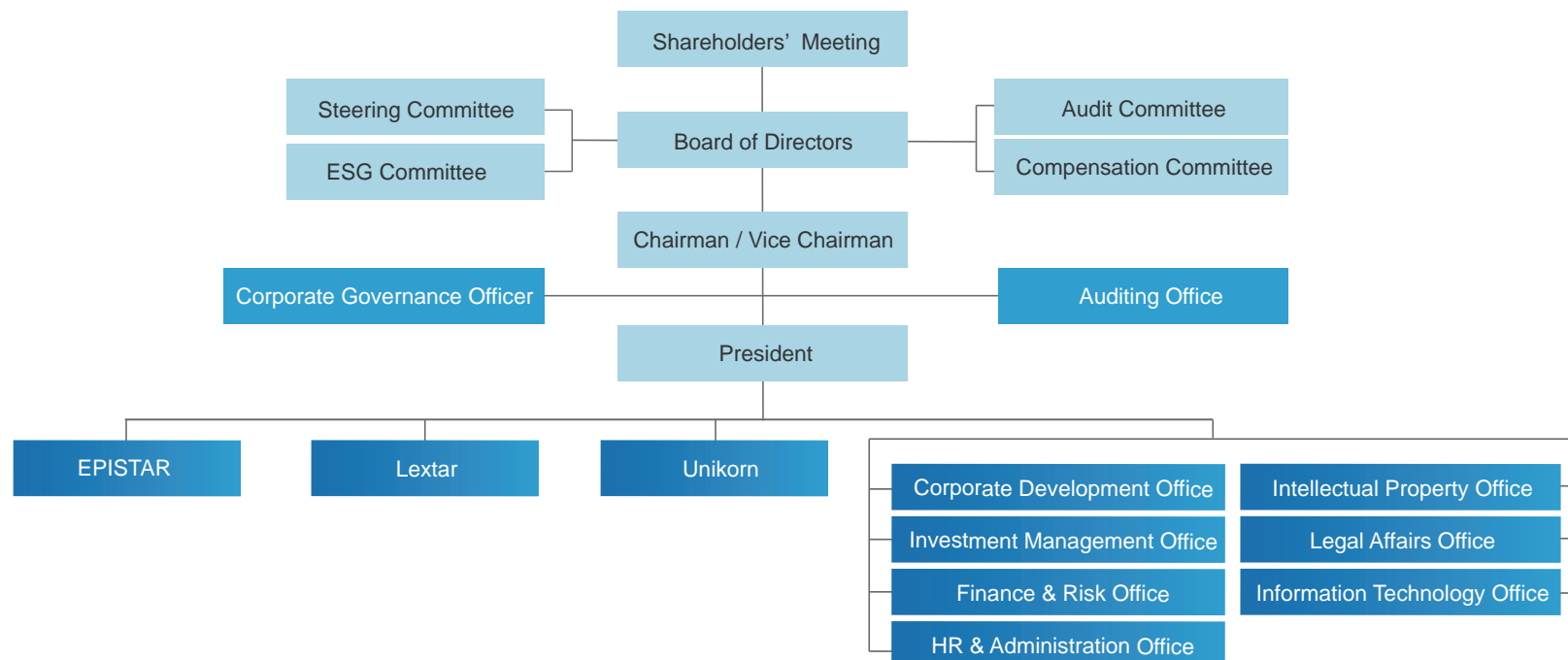
Ennostar and EPISTAR launched  
“Sustainable Performance Linked Loans”  
in collaboration with First Bank

To establish an exclusive sustainability formula for the Group, Ennostar and EPISTAR launched “Sustainable Performance Linked Loans” in collaboration with First Bank, offering preferential interest rates to

companies with improved environmental performance compared with the previous year. This project showcases recognition and support for our continued promotion of environmental sustainability. The funds from this syndicated loan are mainly used for repayment of loans from financial institutes, enriching the working capital of Ennostar and affiliated enterprises, and constructing Micro LED factories and purchasing machinery and equipment at EPISTAR. We hosted a contract signing ceremony for this project on December 26, 2022, where the chairman of Ennostar, the chairman of EPISTAR, and the chairman of First Bank signed and exchanged contracts.

## 2-2 Governance Organizations

Our Board of Directors is headed by Ennostar Chairman and President Paul Peng. The Board implements and supervises corporate matters, formulates various business plans, and facilitates coordination and collaboration between subsidiaries in accordance with market trends and competitive conditions.



## Board Operations

The Board is the highest governance unit of the Group. Board directors actively participate in internal and external training courses, and each director required to undergo continued training of more than six hours per year. Directors exercise their duties in accordance with law, our Articles of Incorporation, and the directives of the shareholders meeting; are responsible for establishing sound Board governance systems; implement supervision, designation, and guidance for Group executives; strengthen management functions; monitor overall economic, social, and environmental operations; and maximize stakeholder interests.

The Ennostar “Corporate Governance Best Practice Principles” stipulate that Board members should be diverse and that the Board should be composed of industrial and academic experts who have the ability to formulate practical management targets. Our first Board is composed of nine directors, one of whom is a corporate director, and we have five independent directors making up more than half of Board members. The Board is reelected every three years and an election is scheduled for 2023. We plan to nominate female directors and independent directors with legal backgrounds in accordance with our diversity goals.

✓ The Board convened a total of seven times in 2022 and the average director attendance rate was 98.4%.

For a list of Board members, academic experiences, and terms of office, please refer to [P6-7 of Ennostar's 2022 Annual Report](#).

## Director Nomination and Election Process

Director (and independent director) candidates are nominated according to our “Articles of Incorporation” and “Rules for Elections of Directors and Supervisors.” Shareholders holding more than 1% of publicly issued Ennostar stock can submit documents containing nominee names, education level, work experience, letter of commitment to serve as a director if elected, written statement guaranteeing no violations of Article 30 of the Company Act, and other relevant documents to the Ennostar Finance & Risk Office Shareholder Affairs Department, following which a list of independent director candidates are proposed for shareholder election.

The Board considers corporate operations and development needs as well as whether directors (and independent directors) possess necessary professional qualifications and other capabilities, including diversity, independence, future corporate development needs, and management goals such as professional ESG knowledge and experience, participation in corporate operations, and sustainable corporate management, thereby ensuring that director candidates adhere to industry needs, possess core capabilities, and can effectively shoulder responsibilities which include establishment of a sound board governance system; supervision, appointment, and guidance of corporate executives; and strengthening of management functions so we can exert our corporate influence and achieve corporate sustainability.

## Functional Committees

To ensure that the Board can effectively perform its duties, the following four functional committees have been established under the Board: the Audit Committee, Remuneration Committee, Steering Committee, and ESG Committee, which are respectively governed by the “Rules for the Procedures of the Board of Directors’ Meeting,” “Audit Committee Charter,” “Compensation Committee Charter,” and “Rules for the Procedures of Steering Committee Meetings,” as well as the operational plans for the “ESG Committee” submitted to the Board in December 2021.

Major Internal Policies





## Performance Evaluations of the Board and Functional Committees

In order to implement corporate governance and enhance the functions of our Board and functional committees, we have established performance targets to strengthen our operational efficiency. We conduct performance evaluations of the Board and related functional committees in accordance with our "Regulations for Performance Evaluations of the Board and Functional Committees," which stipulates that internal Board performance evaluations should be conducted annually, and external evaluations implemented by independent institutes or expert teams should be conducted at least once every three years. Evaluation results for 2022 were reported to the Board during the first quarter of 2023 and have also been published on our corporate website.

Please refer to the [Appendix 1: Governance Data](#) section for Board and committee self-evaluation survey results for 2022.

## Board Independence and Managing Conflicts of Interest

Our Rules for the Procedures of the Board of Directors' Meeting and Audit Committee Charter both contain provisions related to avoidance of conflicts of interest. If directors themselves or the juristic persons they represent hold interests in agenda matters, they should summarize said interests during associated Board meetings, must recuse themselves from discussion or voting on the item, and may not exercise voting rights as proxy for another director. The names of associated directors, descriptions of director interests, and recusals should be recorded in meeting minutes.

The Group has established the Ethical Corporate Management Best Practice Principles, Codes of Ethical Conduct, and Rules Governing Transactions Between the Group and its Affiliated Enterprises, which all contain provisions regarding recusals due to conflicts of interest. Additionally, the stakeholder section of our corporate website has detailed disclosures of relevant regulations and information, which serve as a channel for [stakeholder communication](#). We have also established a [spokesperson and a mailbox](#) staffed with dedicated personnel responsible for responding to stakeholder queries and suggestions. We report human rights, ethical management, and stakeholder communication implementations to the Board on an annual basis.

Please refer to our [P22-24 of our 2022 Annual Report](#) for details of director recusals on specific proposals.



## Remuneration Policies for the Board and Senior Managers

In terms of Board remuneration, the Board, individual directors, and functional committee members conduct annual self-evaluations, and individual remuneration also considers performance evaluation results. Independent directors should possess professional expertise in related fields or industries as well as professional experience in corporate governance or ESG which further development of business strategies. The Group provides fixed remuneration to directors/independent directors which reference standards adopted by industry peers and benchmark companies as well as individual involvement in and contribution to corporate operations. Variable director compensation is based on long-term business performance and shareholder benefits, and allocation ratios adhere to our Articles of Incorporation. Profitability for 2022 fell short of expectations, and therefore the Board decided not to distribute director compensation for 2022. Additionally, the Group does not provide retirement benefits or pensions for former directors. The Board approved the establishment of standards for calculating compensatory pension payments for senior managers who also served as directors to compensate employees for losses in retirement benefits during periods when they concurrently served as chairmen or presidents.

In accordance with our personnel affairs regulations, adjustments in fixed salaries for senior managers are based on budgetary considerations that reference personal performance, department operational performance, business strategies and capabilities, and corporate operations. The Remuneration Committee provides remuneration suggestions based on peer and market salary standards, which are submitted to the Board for deliberation. Bonuses for senior managers mainly encompass two categories, the first which references business and profitability performance, level of involvement in corporate operations, and corporate profits; the second references achievement of related KPIs. Bonuses are determined following review of performance indicator achievements, stipulations on activation of cancellation or clawback mechanisms in reward regulations, and links with business performance and ESG implementation results, which are used as a basis for ESG Committee promotions. Our regulations for employee retirement benefits adhere to the Labor Standards Act/Labor Pension Act, and employees can apply to receive pensions based on these regulations.

## 2-3 Ethical Management

### 2-3-1 Ethical Governance

#### Establishing an Ethical Policy and Culture

We abide by business principles of honesty, transparency, and responsibility. The Group has formulated the “Ethical Corporate Management Best Practice Principles” and “Ennostar Procedures for Ethical Management and Guidelines for Conduct” to establish sound business operations and we prohibit all forms of corruption and fraud. Substantiated violations of our corporate bylaws and ethical management policies are punished in accordance with relevant regulations, and we also disclose the positions and names of related personnel, violation details, and subsequent handling on our internal websites or bulletin boards. We take necessary legal proceedings for serious violations, and also dismiss and blacklist associated violators.

We have also formulated other prevention plans including operational procedures, codes of conduct, and training to communicate our ethical management policies to our stakeholders through our internal bylaws, [corporate website](#), and public documents. We assess the legality and past unethical behaviors of our distributors, suppliers, customers, and other business partners before conducting business transactions to avoid dealing with parties that have a record of unethical behaviors.

#### Grievances and Reporting Systems

To strengthen corporate governance and implement ethical management and codes of ethical conduct, the Group provides channels for reporting ethical and integrity violations, and we have also formulated the “[Whistle-Blowing Channel and Protection System](#).”

We have established a “[Reporting System for Professional Ethics Violations](#)” on our corporate website and internal networks which accepts anonymous reports. Informant identities and reports are protected and kept confidential. Our chairman has assigned responsibility of report handling to the manager of the audit unit, and external experts (such as lawyers and CPAs) can be invited to provide support or assist investigations as necessary. Investigation results are reported to the chairman, who can convene the highest-ranking managers of related units if necessary. Investigations involving major violations, severe damage to the company, or directors or senior executives should be reported to the Audit Committee or supervisors.

## Report Handling Process

- 1 Reporting system for professional ethics violations
- 2 Audit supervisors accept reported grievances and initiate investigations
- 3 Report investigation results and penalty regulations to the chairman or the highest authority of relevant units
- 4 Report to the Audit Committee or supervisors:
  1. Major violations or major damages
  2. Reports involving the chairman or senior executives

## Grievance Channels

Internal	The chairman appoints audit supervisors to handle reported grievances
	Internal reporting system for professional ethics violations
	Employee feedback hotline
	Exclusive employee suggestion box staffed by dedicated personnel from the employee relations unit of the human resources department
	Periodic hosting of labor-management meetings
	President's mailbox with all letters personally read and handled by the president
External	Grievances directly reported to audit units
	"Reporting System for Professional Ethics Violations" on corporate website
	Contact numbers and mailboxes (for ESG, HR or other units) on corporate website

Please refer to the [Appendix 1: Governance Data](#) section for data compiled from our Professional Ethics Reporting Platform for 2022.

## Anti-Corruption Education and Training

The Group strictly prohibits all acts of corruption, bribery, and extortion. To guide our employees in complying with ethical standards, we require all employees to be prudent in their actions, maintain ethical conduct, and avoid taking advantage of their positions to engage in malpractice or accept favors. We continue to provide relevant training for employees through online and physical classes, and also publish non-periodic newsletters throughout the year.

We and our directors, managers, employees, appointees, and substantive controllers are not allowed to directly or indirectly offer, promise, demand, or accept improper benefits in any form when conducting business. External donations and sponsorships are handled in accordance with relevant laws and internal regulations to prevent provision and acceptance of bribes, as well as other illegal political contributions.

- ✓ Ennostar did not lobby for any public policies or provide any political contributions in 2022.
- ✓ No corruption incidents occurred in 2022. A total of 6,344 Group and subsidiary employees participated in anti-corruption training over a total of 3,858 hours
- ✓ Please refer to the Appendix 1: Governance Data section to see the number of people who participated in anti-corruption training from all subsidiaries.

## 2-3-2 Legal Compliance

### Legal Compliance Management Systems and Regulations

We have established a Legal Affairs Office to provide legal training for employees, legal consultation, and review of stakeholder contracts. We have also established an internal audit office to ensure continued and effective implementation of our internal control systems, preventing corporate risks and enhancing our business performance.

✔ No Group subsidiaries incurred penalties from government sanctions, civil cases, or criminal proceedings related to major violations of social or environmental regulations in 2022.

### Fair Competition

All Group subsidiaries have clear regulations related to compliance of fair competition and internal management mechanisms. All employees undergo comprehensive education and training, and also receive information in the form of case studies. We periodically identify and review anti-competition laws and have established an open reporting system to effectively prevent violations of anti-competition laws by our subsidiaries, maintain fair competition and corporate commercial interests, protect legal consumer rights, promote social welfare, fulfill corporate social responsibilities, and move towards sustainable management.

✔ No Group subsidiaries incurred penalties from government sanctions, civil cases, or criminal proceedings related to major violations of anti-competition, anti-trust, or anti-monopoly laws in 2022.

## 2-4 Risk Management

### 2-4-1 Risk Management and Audit Systems

#### Risk Management Systems

In order to protect the interests of stakeholders including employees, shareholders, collaborating partners, and clients, the Group established the “Risk Management Policies & Procedures” to define various risks in accordance with overall corporate operational guidelines so as to formulate advanced identification, accurate measurement, effective monitoring, and rigorous control risk management mechanisms to prevent possible losses within the scope of manageable risks. We continue to adjust and improve optimal risk management practices in accordance with internal and external environmental changes to enhance corporate sustainability values and optimize allocation of corporate resources.

#### Risk Management Organizational Structure and Responsibilities



Management Organization	Description of Responsibilities
Board of Directors	Responsible for approving risk management regulations, overseeing existing and potential risks at Ennostar, and reasonable allocation of resources to ensure effective risk management.
Steering Committee	Review and confirm the Group's annual risk management reports, and report risk management implementations and achievements to the ESG Committee and Board each year.
Executive Office	<p>Composed of personnel appointed by the Risk Management Committee, who are responsible for assisting promotion of the Group's risk management system.</p> <ul style="list-style-type: none"> <li>(1) Establish and maintain risk databases, Group risk tolerance levels, and risk measurement standards</li> <li>(2) Regularly compile Group risk management implementations and achievements each year to create the Group's annual risk management report</li> <li>(3) Coordinate cross-departmental risk management interactions and communications, and provide necessary support</li> <li>(4) Formulate risk management training plans and courses</li> <li>(5) Collect, evaluate, compile, and report external risks</li> </ul>
Risk Management Team	<ul style="list-style-type: none"> <li>(1) Assist the "Executive Office" in promoting and implementing risk management actions</li> <li>(2) Risk management personnel include the highest-ranking managers of all operational units to ensure that all operational units are implementing risk management systems; appoint unit personnel to implement risk management; and work with relevant personnel at all operational units to implement risk management procedures</li> </ul>



## Risk Management Processes and Operations

Our senior executives identify key and emerging risks at least once a year, and discovered risks are communicated to all important subsidiaries. Additionally, the business units of all important subsidiaries conduct risk identification activities to provide transparent disclosures of risk identification results and management. Identification of risks at the corporate level are conducted by compiling past experiences and assessing possible risks in future business. Following risk identification and measurement, all business units adopt appropriate responses to relevant risks and establish prevention, warning, response, crisis management, and business continuity plans that mitigate, transfer, or avoid risks. These processes are recorded and compiled every six months by the ESG Committee Risk Management Team, and are reported to the executive office to enhance overall operational decisions.



We have gradually introduced comprehensive enterprise risk management (ERM) mechanisms and optimizations which are focused on the following aspects:

1. Establishment of a Risk Management Committee which facilitates smooth operations of all risk management teams
2. Optimization of risk management foundations and frameworks to enable practical implementation of risk management mechanisms
3. Use top-down methods to identify key risk items for the Group and use bottom-up methods to implement corporate risk management mechanisms
4. Enhance risk management awareness in all employees and establish a culture themed around risk management

When introducing enterprise risk management (ERM) mechanisms, our senior managers identified five common priority risk items for the Group: “Technological development, Supply chain, Talent shortages, Geopolitics, and Climate change (water/power shortage).” Following approval and confirmation by our highest risk governance unit (the Board) on November 3, 2022, we began implementing subsequent risk scenario analyses, risk assessments, response strategies, and action plans.

Targets for 2023:

- Complete establishment of Ennostar’s risk knowledge database, risk assessment standards, and methodologies starting with entry-level staff, and incorporate risk management in business strategies
- Adjust and optimize corporate risk management policies and procedures to gradually form a culture of corporate governance
- Complete top-down high-level risk assessments
- Complete bottom-up risk assessments
- Calibrate high-level risks and confirm risk items for the year

Our annual risk report meeting will be held in February 2024, where we will compile and report on risk management implementation results for the year.

## Internal Audits and Internal Controls

We established internal control systems (including internal audit implementation rules and self-evaluation procedures and methodologies) in accordance with the “Regulations Governing Establishment of Internal Control Systems by Public Companies.” We also adjust control procedures and oversee establishment of internal controls in accordance with the local laws and regulations, operational characteristics, and operating scope of each subsidiary.

The Group prompts all units and subsidiaries to conduct at least one self-assessment each year. Internal audit units review self-assessment reports from all units and subsidiaries, as well as improvements of internal control defects and abnormal items discovered by audit units, to conduct effective evaluations of risks associated with internal control systems, and to provide a reference for the Board and our president when evaluating the effectiveness of internal control systems, issuing statements on internal control, and reporting annual audit results.






In terms of internal audits, we conduct annual evaluations of internal control system effectiveness and risk assessments regarding transaction modes, potential fraud, and corruption at Ennostar and our main operating bases: EPISTAR and its subsidiaries Episky, Canyang, Epikylin, and Epicrystal; and Lextar and its subsidiary Lextar Electronics, making a total of seven companies. We draw up annual audit plans and conduct associated audits, then regularly report annual audit results to the Ennostar Board and Audit Committee.

✔ Audits of risk assessment results in 2022 did not reveal any major corruption incidents.

In 2022, we issued our first ESG report to strengthen our sustainability report quality and in adherence to TWSE regulations. The “ESG Report Compilation and Verification Procedures” were approved by the Board in May 2022 and are used to incorporate ESG Report compilation and verification procedures in our internal controls.

## 2-4-2 Information Security Management

Material Topic: Information Security and Privacy Protection | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
1. Promote ISO 27001 implementation ..... 2. Ensure that EPISTAR passes ISO 27001three-year renewal reviews ..... 3. Zero information security incidents resulting in property damages across the Group ..... 4. Zero property damages incurred from cyberattacks included in financial reports ..... 5. Establish dedicated information security personnel at subsidiaries Unikorn and Lextar .....	    	1. Assist all (100%) Group subsidiaries in obtaining ISO 27001 verification 2. Complete one information security risk assessment every six months 3. Complete one information security internal audit every six months 4. Zero information security incidents resulting in property damages across the Group 5. Conduct at least three social engineering and phishing email drills for all employees each year 6. Conduct at least one business continuity drill	1. Maintain ISO 27001 verification 2. Comply with new ISO 27001 requirements 3. Zero information security incidents resulting in property damages across the Group 4. Zero intrusions by hackers due to unpatched vulnerabilities in external websites 5. Ensure that ransomware attacks do not affect core systems and computers, and affect fewer than ten users	1. Maintain ISO 27001 verification 2. Zero information security incidents resulting in property damages across the Group 3. Zero intrusions by hackers due to unpatched vulnerabilities in external websites 4. Ensure that ransomware attacks do not affect core systems and computers, and affect fewer than three users
Responsible unit	All information technology offices within the Group.			
Invested resources	Verification fees, auditors, external consultants, and internal personnel (including information security department and auditing office) required for implementing ISO 27001 systems, as well as other software, manpower, and training costs invested in information security maintenance.			
Grievance mechanism	<ul style="list-style-type: none"> <li>Members of the public can report vulnerabilities in our systems through Taiwan Computer Emergency Response Team / Coordination Center and HITCON-Zeroday.</li> <li>"Contact Us" section on corporate website</li> </ul>			

Information security and privacy controls have become an essential part of business. Ennostar and all subsidiaries have formulated information security policies to protect client privacy as part of our responsibilities and to prevent unauthorized use of computer systems in accordance with the “Regulations for Protection and Management of Personal Information.” Users of all departments are required to apply for user codes and applications, and can only obtain formal access to computer systems following approval by unit managers and information technology office managers. Personnel not involved in operations are unable to obtain customer information.

Our parent company has established a dedicated information security management department responsible for information security maintenance, information security frameworks, [information security policies](#), and other information security projects and review procedures to lead our subsidiaries in joint realization of Ennostar information security goals.

We have also established an “Information Security Committee” under the ESG Committee to oversee the information security systems of our parent company and subsidiaries; the Committee meets stakeholder requirements and expectations for information through regular identification of external information security management risks.

✓ We received no complaints relating to infringement of client privacy rights or client information losses in 2022.

## Information Security Management Framework

We established an “Information Security Management and Review Committee” to review all information security implementation strategies, goals, and performance; enhance information security goals and management levels; and provide clear stipulations of information security policies and related regulations. To align with legal regulations, technical needs, stakeholder expectations, and operational strategies, all employees are required to undergo information security training, comply with the “Regulations for Information Classification, Protection, and Management,” and fulfill their responsibilities as a good-faith manager.

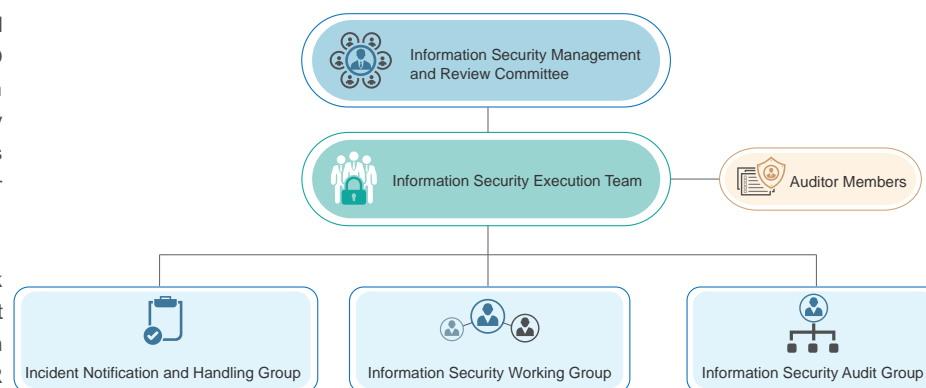
We have also established an “Information Security Execution Team” to disseminate information security concepts throughout the Group, as well as regular drills and information classification systems for incident management. We conduct annual drills for ransomware scenarios to strengthen employee understanding of incident responses and to speed decision-making and notification procedures during incidents.

## Information Protection Processes and Verifications

To ensure information security, achieve the quality expected by our customers, and protect customer privacy, the Group adhered to ISO 27001 requirements in formulating corporate information protection and management processes. Ennostar obtained ISO 27001 Information Security System verification in 2022 and established information security procedures which comply with international standards. Our subsidiary EPISTAR obtained ISO 27001 Information Security System verification in 2010 and our subsidiaries Lextar and Unikorn plan to obtain verification in 2023. We hope that these international verifications can reduce corporate information security threats, establish the highest standards for protection of confidential information, and constitute the most rigorous information security system to protect customer intellectual property rights, process parameters, and other confidential information.

To reduce possibilities and impacts of risk incidents, the Group actively implements management systems and risk response measures. We not only incorporate third-party information security risk assessments, but also conduct routine inventories of information assets, account checks, and internal audits each year, and convene information security management and review meetings attended by our president and managers from relevant units. EPISTAR and Lextar also conduct business continuity drills once every year. At present, all Group subsidiaries have received A ratings on third-party risk assessments, exceeding average industry ratings.

## Information Security Verification Framework



## Information Security Training

- Dedicated information security personnel are required to undergo more than 14 hours of information security education and training each year
- All new employees are required to complete corporate information security training before they can apply for access to external networks, ensuring that our colleagues clearly understand our information security policies
- We conduct non-periodic phishing email information security drills for all Group employees each year, and colleagues who have been taken in by phishing scams are required to attend phishing courses and pass course exams to reduce impacts of viral attacks and confidential information leakages on the Group and other colleagues. The training attendance rate for 2022 was 100%.

## 2-5 Client Relations

### 2-5-1 Protection of Customer Privacy

All Group and subsidiary employees strive to protect customer privacy and confidential information. We regularly review our corporate management mechanisms for privacy rights, issue relevant announcements, and implement training courses to enhance our corporate sustainability and demonstrate our commitment to sustainable management.

For example, Unicorn codes client operations to prevent leaks or unintentional disclosures of confidential client information. Emails sent to clients must be marked with client codes before they can be delivered. Our system ensures consistency between attached files and email content to prevent discrepancies between recipients and human errors that may result in competing clients receiving the same information. The system also prevents competing clients from being listed as recipients in the same email to prevent erroneous deliveries.

Additionally, to protect important client information, project managers are required to review all information access requests before relevant procedures can be initiated. Those who have business dealings with us that involve integrity and confidentiality of information assets are required to sign confidentiality statements and non-disclosure agreements regarding client information to ensure they understand that all information obtained during the course of their dealings with us are corporate assets which cannot be used for other purposes without authorization so we can maintain protection of customer privacy.

✓ We received no complaints relating to infringement of client privacy rights or client information losses in 2022.

For more information on our information security policies and actions, please refer to [2-4-2 Information Security](#).



## 2-5-2 Customer Relationship Management

All Group subsidiaries provide upstream and downstream LED products and integrated services to meet the different product design needs of our clients. We adopt an attitude of mutual assistance and advancement, and use our rich knowledge of the industry, precise insights, and innovative production technologies to support the diverse needs of our many collaboration partners. We provide the most appropriate collaborative plans based on different client needs, continue to enhance client satisfaction, and strengthen client partnerships.

To ensure effective communication and information exchanges between us and our clients, we have established internal “Client Communication Management Procedures,” “Client Satisfaction Investigation Procedures,” “Client Complaint Handling Procedures,” and other related regulations. We use systemic and unified communication modules and processes to enhance client services and serve as a reference for formulating production and marketing plans, product development and improvement, and promotion strategies.

### Client Satisfaction Surveys

To better understand client needs and problems for enhancement of service quality, we conduct annual client satisfaction surveys to understand customer perceptions, expectations, and suggestions for Group service and product quality. We also analyze survey data for follow-up and proposal of improvement plans from various internal units, following which the results of customer satisfaction surveys are used as a reference for corporate strategic plans.

#### Five Main Aspects of Client Satisfaction Surveys



#### Client Satisfaction Survey Processes

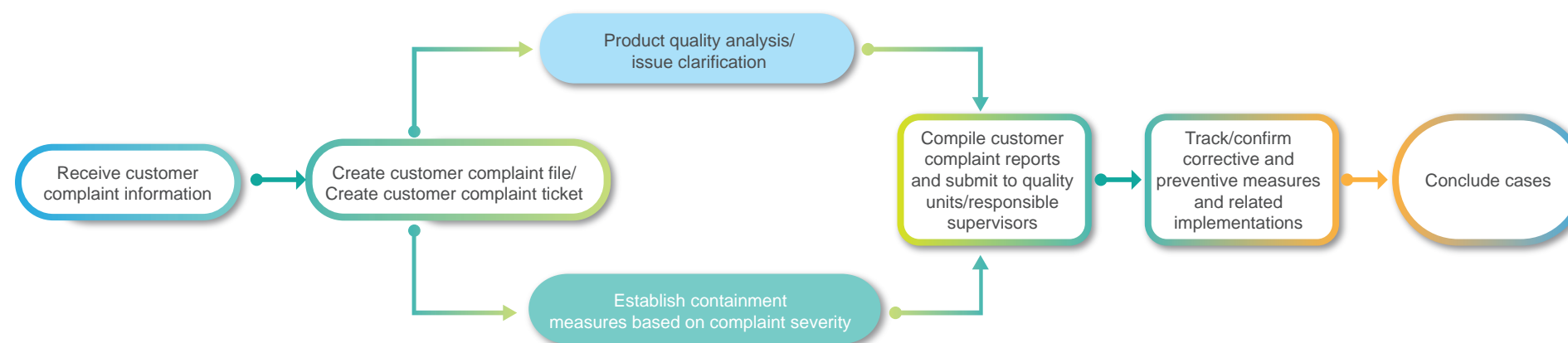


## Customer Complaints and Return Policies

We continue to promote quality improvements and innovative actions in accordance with our quality policies to meet client needs and enhance client satisfaction. Our business units immediately initiate internal processes after receiving client communications related to abnormal product quality. We arrange subsequent product returns and shipping after determining relevant responsibilities, and also provide analysis reports.

🔍 We provided timely responses and countermeasures to all product-related customer complaints received in 2022. The effectiveness of all countermeasures for customer complaints have been confirmed and abnormalities did not reoccur.

### Client Complaint Handling Process Diagram



## 2-6 Sustainable Supply Chain

### 2-6-1 Supplier Management

We hope to work with our suppliers and brand clients to become important partners in value creation, using different internal and external policies, risk assessments, and communication methods to promote business ethics and social responsibilities within our supply chain, reducing consumption of environmental resources and environmental impacts as we enhance our capabilities to create economic, social, and environmental value that enables industrial development and sustainable growth.

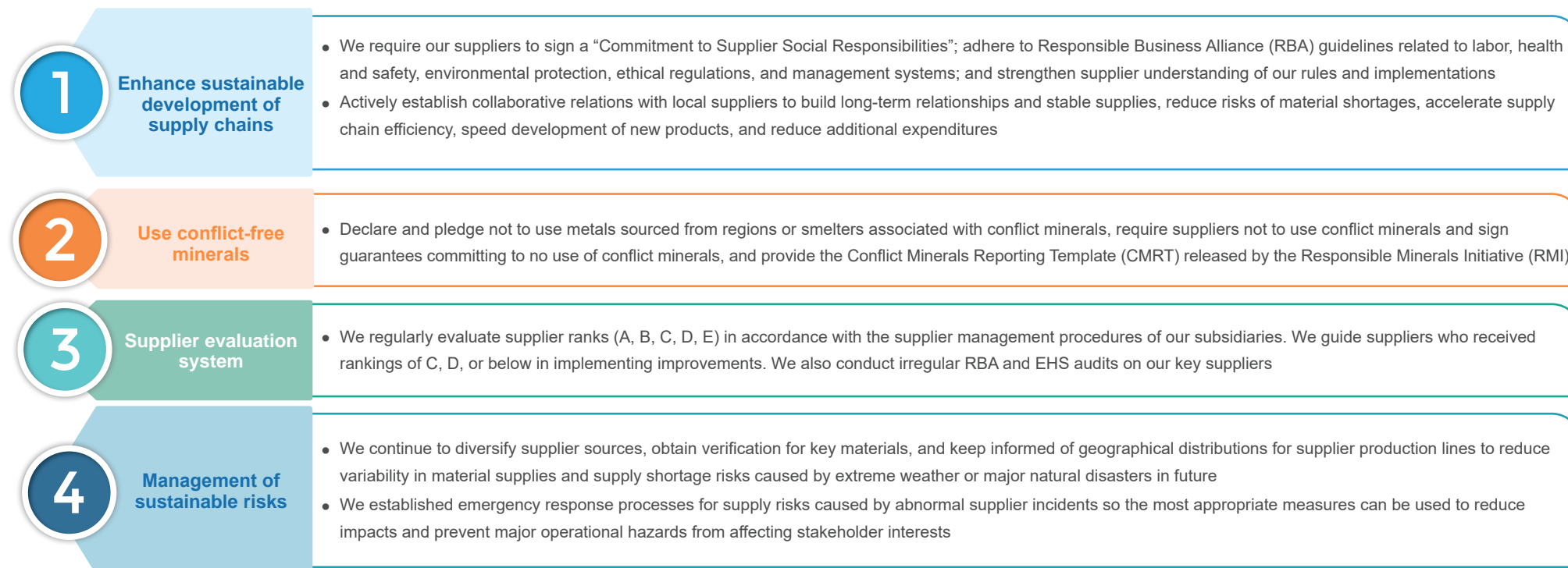
## Ennostar Supply Chain

The Group actively works to establish close ties with local partners, stabilize supply through long-term collaborations and strategic alliances, and reduce risks from supply shortages to enhance supply chain efficiency, accelerate development of new products, and reduce additional expenditures. We hope to build mutual trust and benefits with our suppliers through long-term collaborations, establish more competitive transactions and payment models for joint achievement of sustainable development targets, and work together to create mutually beneficial optimizations of costs and quality. For example, Lextar's main procurement categories from existing suppliers are equipment, components, raw materials, outsourcing, and factory affairs.

We are a professional manufacturer of LED products providing OEM services for epi wafers, chips, packaging, SMT, and compound semiconductors. Our main raw materials and components include sapphire substrates, gallium arsenide substrates, special gases, metals, brackets, and LED motherboards. All key materials and components are purchased from more than two suppliers to maintain procurement flexibility and reduce risks from over-concentration of raw materials.

## Supply Chain Management Strategies

EPISTAR works with supplier partners to achieve economic, social, and environmental goals associated with sustainable management through four main strategies.



The Group's two main subsidiaries (EPISTAR and Lextar) have taken the lead in implementing the RBA Code of Conduct in recent years. Apart from establishing corresponding factory regulations, we also implement these practices for related departments, all suppliers, and contractors. All raw material suppliers and contractors within the scope of RBA verification, including staffing agencies, waste disposal, and cleaning companies, are required to sign relevant documents required by RBA. The Group will continue to implement management, reviews, and improvements to ensure comprehensive management of sustainability responsibilities in our supply chain.

For more information on Group subsidiary RBA audits and training for internal personnel, please refer to [5-3 Protection of Human Rights](#).

## Selection of New Suppliers

When selecting new suppliers, we review various aspects of new suppliers, including operational services, quality systems, R&D capabilities, manufacturing, environmental management, labor rights (prohibition of child labor and forced labor), and ethics and integrity. Following this, we compile investigation reports on potential suppliers and contractors, written guarantees to avoid use of environmentally damaging substances, statements of commitment to supplier/contractor social and environmental responsibilities, quality assurance agreements, procurement agreements, and non-disclosure agreements. Only companies that adhere to specified standards can be listed as qualified suppliers for the Group.

## Management of Supplier Risks

To prevent sudden supplier closures from affecting material supplies and reduce supply shortage risks from extreme climate and major natural disasters, we conduct periodic and non-periodic checks on supplier operations and finances, diversify material sources, and keep informed of geographical distributions of supplier production lines to keep abreast of supply chain conditions. We have also established an emergency response team and emergency response processes for handling of abnormal supplier incidents. We conduct regular situational drills to ensure that we adopt the most appropriate prevention measures for supply chain risk management, thereby protecting stakeholder interests from operational hazards.

In terms of supplier risk assessments, the Group has established different risk assessment processes and assessment items based on the different business models adopted by new suppliers, existing suppliers, and our subsidiaries. We also require all collaborating companies to sign a "Integrity Commitment Statement." All Group subsidiaries will gradually incorporate sustainability concepts in risk assessment items. The following table depicts EPISTAR policies for 2022:

## Supplier Risk Assessment Processes and Items



✓ None of our suppliers were faced with major human rights risks related to freedom of association, collective bargaining, child labor, or forced or compulsory labor in 2022.

## Commitment to Conflict-Free Minerals

All Group subsidiaries practice responsible procurement and conduct reasonable due diligence as required for business dealings to ensure that no Group products use or contain conflict minerals (including gold, tantalum, tungsten, or tin) from the Democratic Republic of Congo (DRC) or surrounding regions controlled by military groups or non-governmental/illegal military factions. Suppliers included in our “qualified supplier list” are required to sign a “Supplier Commitment to Conflict-Free Minerals” to achieve joint fulfillment of social and environmental responsibilities.

## Contractor Health and Safety Management

We consider contractor health to be an important asset. To protect the safety of contractor personnel and equipment, we formulated the “Regulations and Procedures for Contractor Management” in accordance with the Occupational Safety and Health Act. We set aside a fixed portion of fees for health and safety management in project costs, and require that construction sites be equipped with labor health and safety supervisors who are required to patrol project sites during construction periods. Project contractors are required to submit applications for construction projects, high-risk operational control plans, and construction protection plans for all construction projects before project commencement. Contractors are also required to attend contractor hazard classes before entering factories, and must convene toolbox safety meetings on the day of construction commencement, as well as implement analysis of operational hazards.

✓ No contractor accidents occurred in 2022.

## 2-6-2 Supplier Evaluations and Engagement

### Supplier Audits

To ensure that our suppliers can clearly understand our procurement requirements, we conduct annual quality system, production process, and labor ethics system audits on key suppliers which encompass management of hazardous substances and conflict minerals. Suppliers are asked to fill out surveys in advance and our audit team conducts on-site audits and provide guidance.

After completing audits, our audit team compiles supplier self-assessment scores and the results of on-site audits, analyzes supplier management strengths and weaknesses, and provides reports to procurement units to serve as an annual supplier evaluation indicator. Our audit team provide guidance on major defects and non-conformities on supplier audit items, fully communicate with suppliers to determine the difficulty of implementation, and assist suppliers in implementing improvements. If suppliers are not willing to implement improvements, the team may decide to remove said supplier from the list of qualified suppliers. Lextar's mid-year evaluations for 2022 discovered two suppliers which did not meet the minimum qualification ranking (B). Despite the pandemic, the team at Lextar actively guided the suppliers in implementing improvements through video conferences and regular meetings. Both suppliers achieved Lextar's supplier requirements following the fourth evaluations conducted at the end of 2022, and received B rankings.

In 2022, EPISTAR launched cross-unit supplier quality and RBA audits for the first time. The cross-unit team was mainly composed of EPISTAR RBA VAP 7.1 training personnel, and audits encompassed labor, ethics, health and safety, environment, and management system aspects. During the audits, we discovered one labor item and five health and safety non-conformity risk items. Our suppliers have all proposed corresponding corrective measures and implemented improvements. Due to impacts from the pandemic, Lextar's RBA audits were mainly conducted by phone or questionnaires. No major defects were discovered. In terms of audit goals for 2023, EPISTAR, Lextar, and Lextar Electronics all plan to incorporate supplier greenhouse gas inventories and emission reduction performance.



## Supplier Evaluations

The Group has formulated “Supplier Management Processes” and “Supplier Evaluation Procedures.” Our procurement, quality management, and other related departments conduct annual and quarterly evaluations of supplier quality, price, services and technologies, delivery dates, and restrictions on hazardous substances. Our subsidiaries rank suppliers using 4 (A~D) or 5 (A~E) grades<sup>1</sup>. We prioritize negotiations and transactions with suppliers ranked as A or B, strengthen guidance for suppliers ranked as C or below, and require immediate improvements.

✓ In 2022, we completed evaluations for 217 suppliers; 154 were found to be excellent A-grade suppliers, 63 were found to be qualified B-grade suppliers, and 0 were found to be C-grade suppliers.

In 2015, EPISTAR began implementing “Supply Chain CSR Management Evaluations” which include procedures for evaluating four major aspects (environment, labor conditions, human rights, social impact) of new and existing suppliers. These evaluations enable continued improvement and fulfillment of corporate social responsibilities in our suppliers.

Please refer to the [Appendix 1: Governance Data](#) section for information on subsidiary supplier evaluation results for 2022.

## Supplier EHS Evaluations and Audits

To ensure appropriate management of EHS implementations and service capabilities, we formulated EHS evaluation systems which include general health and safety, emergency response, chemical management, contractor management, environmental management, fire safety, and health management. We screen suppliers for EHS evaluations based on the results of supplier self-assessments. If the results fail to meet qualification standards, or if a supplier has incurred a major industrial safety incident within the past year or is determined to be high-risk based on the results of our EHS evaluation form, said supplier will be listed as a target for on-site or mandatory audits.

Our subsidiaries may include specific material suppliers or waste disposal companies in annual supplier EGS audits based on the different business models of said subsidiary. For example, EPISTAR considers gas and chemical suppliers to have higher safety and environmental risks, and Lextar is focused on appropriate handling of waste. These specific suppliers and contractors are included in audits in accordance with relevant regulations.

✓ EPISTAR and Lextar audited 53 suppliers and contractors. Our EHS audits did not discover any major defects. Suggested improvements were tracked until completion.

## Supplier Communication

Supplier negotiations may be conducted in written form. All documents and commitment statements demonstrate our focus on sustainability, and our procurement personnel regularly communicate with suppliers. Due to impacts from the pandemic, we had few opportunities to strengthen supplier relations through in-person activities. In future, all Group subsidiaries plan to organize supplier training and supplier conferences which introduce experts and academics from different industries to enhance the sustainability of our supply chain.

<sup>1</sup>Ennostar's different companies adopt different supplier ranking systems. Ennostar plans to formulate a unified ranking standard for the entire group.

### 2022 EPISTAR Partner Seminar/Communication Ceremony



Solar Applied Materials Technology Corporation is an important supplier of raw materials for the Group and also a recipient of the 2021 TCSA Circular Economy Leadership Award for its “Gold Full Circular Economy Plan.” In July 2022, we invited Solar’s chairman to share and discuss the company’s ESG implementations with attending executives.

## 2-6-3 Green Procurement

### Procurement Policies

We uphold sustainable management concepts. Supplier localization is an important consideration for Group subsidiaries when seeking out supplier partners. In terms of procurement policies, all other conditions being equal, we prioritize local suppliers to support local economies and to advance local supplier technologies and quality.

In 2022, domestic suppliers accounted for more than 88% of all suppliers at our subsidiaries. However, it is necessary for Unikorn to procure expensive equipment and machinery from abroad to maintain operational competitiveness as the company is still in its initial stages of development and construction. Therefore, Unikorn's local procurement ratio is relatively low. In future, Unikorn plans to gradually raise local procurement amounts to reduce carbon footprints from procurement and to achieve our sustainability aims through green procurement.

Please refer to the [Appendix 1: Governance Data](#) section for information on subsidiary procurement ratios for 2022.

### Green Procurement Conditions

In addition to factory procurements, we also ensure that our suppliers and contractors understand our requirements for management of hazardous substances as well as international laws and regulations. In terms of office supplies and equipment, we strive to prioritize purchases of products with minimal environmental impact so we can continue to implement our green procurement philosophies and contribute to global sustainability.

📌 Ennostar's green procurements for 2022 amounted to NT\$ 420,000 (4.05% of total procurement amounts for the year).



**3-1 Innovation and R&D**

**3-2 Product Quality and Liability**

Leading  
Innovation



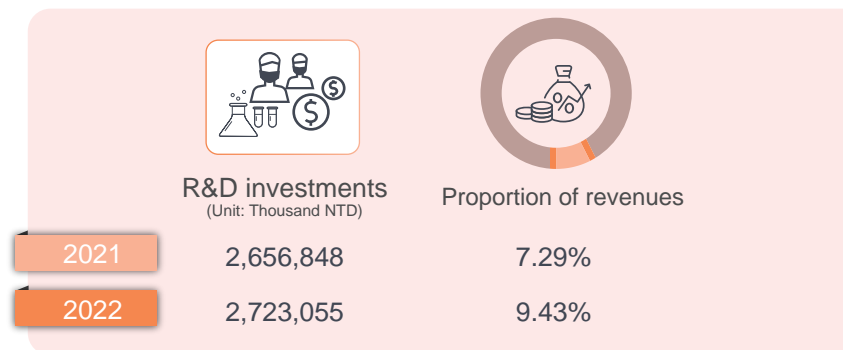
## CH3 Leading Innovation

Enhancing corporate competitiveness and advancing industrial technological innovations are the core driving forces for sustainable management at the Group. We have incorporated "innovation" in all stages of product and service production from development to manufacturing through full resource investment and rigorous quality management.

### 3-1 Innovation and R&D

We continue to invest in innovation and development while ensuring stable product and service quality, encouraging all personnel to explore the many possibilities of compound semiconductor technologies, and working to reduce environmental, health, and safety impacts from our products, making innovation a necessary component of sustainability.

We continue to increase our R&D resources. In 2022, the number of R&D personnel across the entire Group reached more than two thousand people, and we also increased our investments in product R&D to NT\$ 2,723 million in 2022.

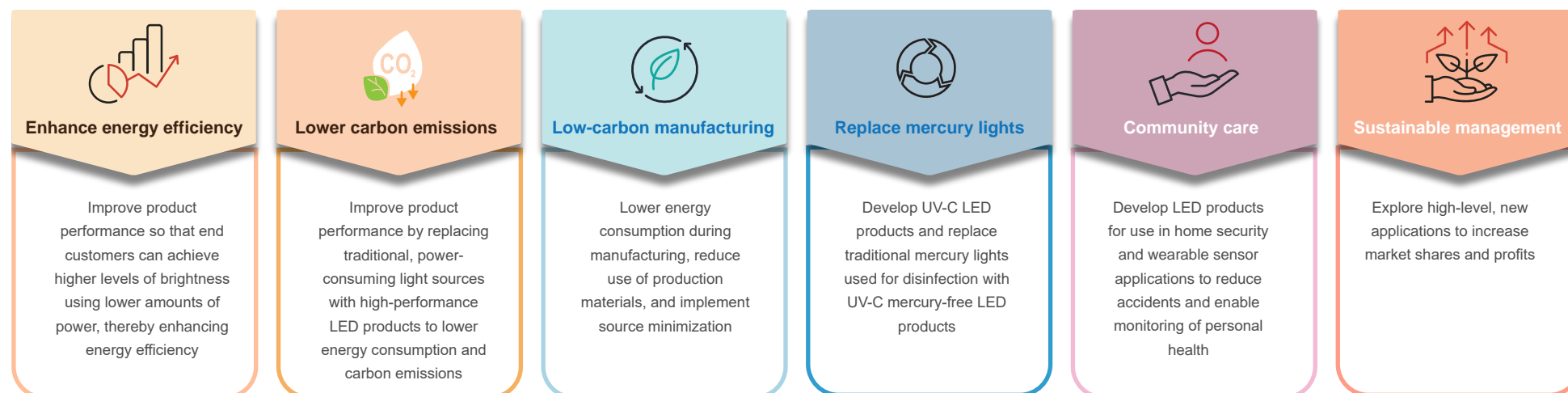


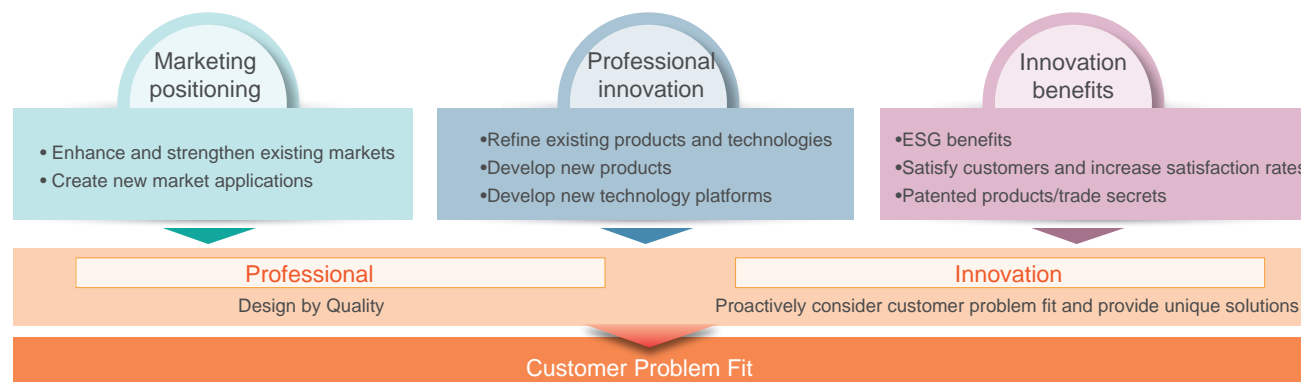
### 3-1-1 Developing

#### Innovation Visions and Strategies

We established six visions for innovation; set innovation as our corporate mission; adhere to the core philosophy of "providing clients with the most efficient integrated solutions through energy-saving, eco-friendly materials and processes"; and formulate innovation management strategies for customer problem fit based on "market positioning," "professional innovation," and "innovation benefits" as well as the two perspectives of "professionalism" and "innovation."

#### Six innovation strategies





## Innovation management strategies

The Group has established standardized technology development specifications for product development to shorten time to mass production. We have also increased development momentum and investments to maintain stable OEM revenues and market competitiveness, extend process platform technologies, meet client product requirements, and effectively reduce development costs.

## Respond to Diverse Needs of Global Clients

Apart from developing new products, we also use different business collaboration models to provide solutions that meet diverse client product design and engineering needs. We consider our clients to be important collaborative partners and work to “progress alongside our clients,” an attitude that motivates our use of innovative production technologies and advanced processes as well as our promotion of the “Co-Activation Service” joint development model which enables us to gain a deeper understanding of client needs through joint development and OEM processes as we evaluate product customization, work together to solve product and engineering problems, and develop and manufacture new products in response to specific needs.

## Pioneering Compound Semiconductor Advances

Our advanced LED technologies have won favor from international brands. Our Mini LED, Micro LED, and other advanced display technologies have been applied in diverse fields such as automotives, sensors, special lighting products, power components, and advanced compound semiconductors, and have become essential components within information technology product supply chains.

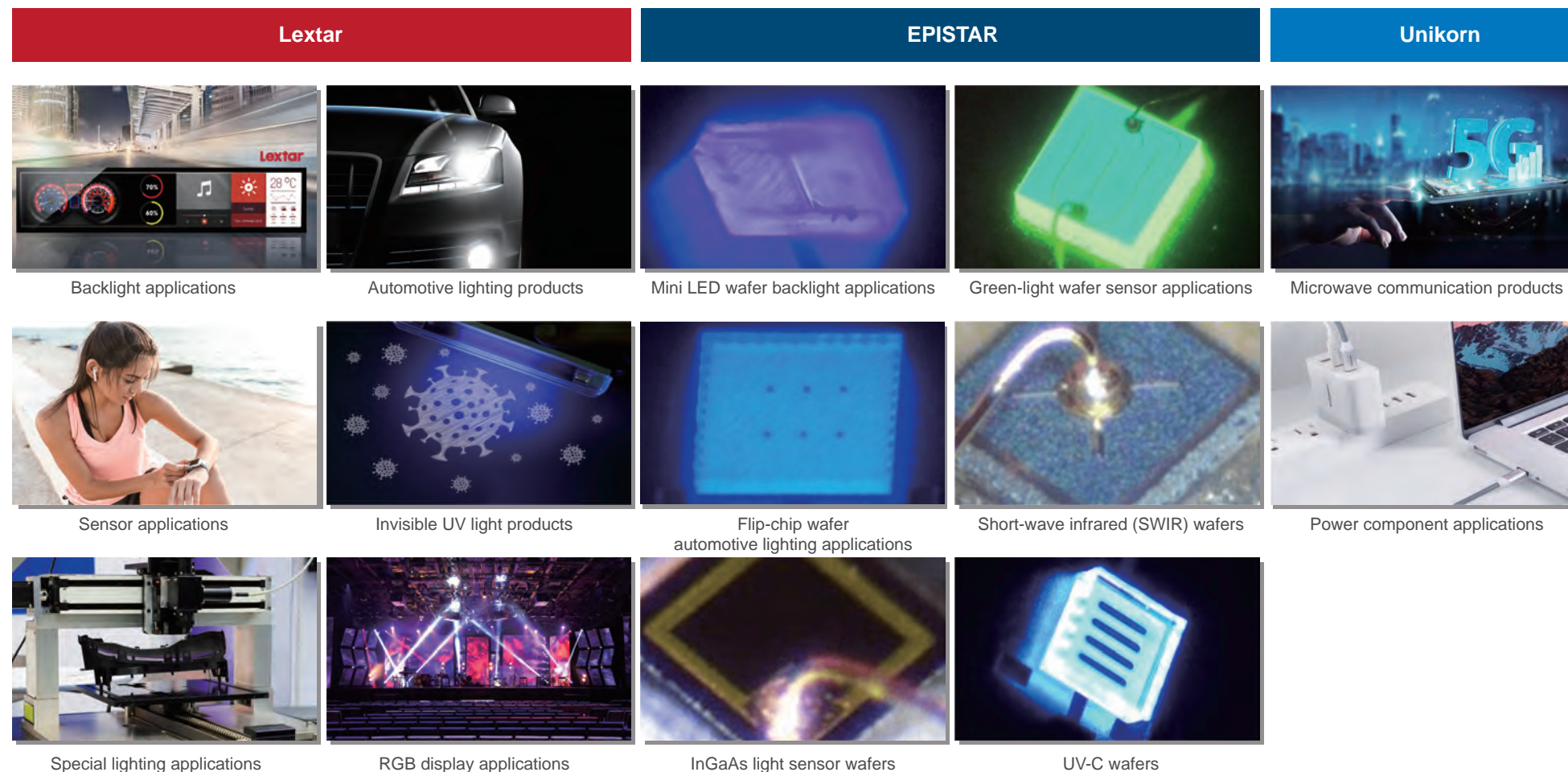
As a leading Mini LED company which has garnered industrial acclaim, we have gradually applied our mass-produced Mini LED chips and modules in multiple display and IT products manufactured by large brands, as well as expanded into diverse fields such as automotives, televisions, and IT; developed two different backlight applications, Mini LED COB (Chip On Board) and POB (Package On Board); and focused on development of ultra-fine-pitch direct view display technology flip-chip Mini LED in 0404 package and special module technology, making it possible to produce 5-meter giant displays with ultra-high color saturation and deep black. In future, we will lead market developments using the ultra-small flip-chip IC-inside Mini LED 1111 package, which offers ultra-high brightness and transparency ideal for window displays in shopping malls.

Our breakthroughs in Micro LEDs surpass our industry peers and move us closer to mass production in terms of our larger, high-uniformity RGB COW (Chip on Wafer) and 8" GaN on Silicon products. We have also developed a number of key technologies with our strategic partners to solve bottlenecks we may encounter during mass production processes. We premiered the world's first Micro LED technology with microchip in package and transfer technology in 2022, which includes the world's smallest micro-die package with R/G/B Micro LED and active driver, greatly reducing the complexity of module design and also reducing energy consumption by more than 20%. Our innovations in Micro LEDs are also demonstrated in our heightened visual performance. Our 5.1-inch transparent Micro LED display, which uses RGB Micro LED chips and Micro driver IC combined with a transparent glass substrate, has a transmittance rate greater than 70% and brightness levels can reach 3,000 nits.



## Focusing R&D on Prospective Key Products

In response to market needs and multidimensional developments, we have formulated prospective plans for new products and invested in R&D for new products related to backlights, lighting, automotives, grow lights, sensors, UVC products, and Micro LEDs:



### Episky

In 2022, we invested in R&D resources for reticle design, verification of new materials (IZO/ITO), and film design to create ant-UV DBR films which increase product reliability while minimizing impacts to brightness levels.



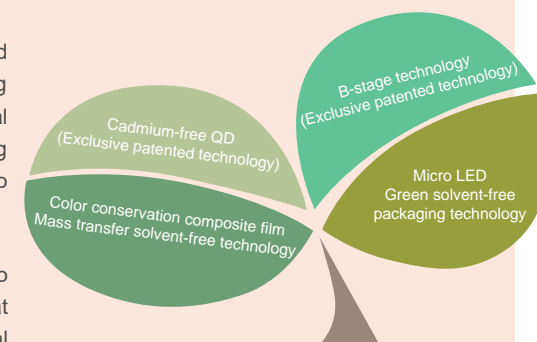
Apart from using innovative solvent-free green packaging processes, Lextar also worked with National Yang-Ming Chiao-Tung University and participated in the Hsinchu Science Park Bureau "Emerging Technology Application Program." To enhance optical characteristics, National Yang-Ming Chiao-Tung University conducted a series of simulations on light extraction efficiency, illumination angles, and uniformity. Apart from simulating the impacts of special package designs on light patterns and eliminating problems that could occur during actual production processes, we used two process and packaging designs to reduce module thicknesses and generate the best light extraction effects, thereby reducing product manufacturing costs while also working to find the best parameters for packaging designs and enhancing luminous efficacy.

Lextar's quantum dot project enhanced technological and product characteristics while also realizing environmental sustainability. We actively work to enhance luminous efficacy so that our clients can achieve appropriate brightness levels using small amounts of power, and also strive to ensure that our end products actually reduce energy and power consumption. In the current era where electronic products are used frequently, this technological achievement can help to reduce carbon emissions in Taiwan and all over the world.

## Process Innovations and Minimization of Source Emissions

The carbon emissions generated by a product during manufacturing processes are determined at the product design stage.

In order to mitigate environmental hazards from exposure and development processes, Lextar created the quantum dot (QD) film mass transfer technology using subsidies from the Ministry of Economic Affairs Industrial Development Bureau. Lextar's unique B-stage QD film production technologies were used to complete production of QD color conversion layers without organic solvents. Compared to general exposure and development processes, quantum dots used during production processes do not come into contact with solvents, so efficiency is not compromised. QD materials can therefore maintain optimal luminescence characteristics. This project not only ensured product functions, quality, and costs, but also used innovative solvent-free green packaging processes to manufacture Micro LEDs with minimal ecological and environmental damage and hazards, maximum resource utilization rates, and minimum energy consumption, thereby achieving our green manufacturing goals.



Project duration: 2021/01~2023/12

## Integrate Innovations, Find Optoelectronic Solutions, and Provide Value-Added Technological Services

Apart from product innovations, Lextar has also established a Technical Board (TB) to speed development of solutions that meet client needs by integrating internal corporate development resources. The TB integrates innovations using four main axes (process tools, optical simulations, electronic engineering, and advanced materials) and gathers momentum for development from multiple aspects to create optoelectronic solutions and provide clients with the best value-added technological services. We regularly report innovation achievements and ideas to senior managers, and also select and reward outstanding R&D personnel from the Technical Board each year.



2022 Lextar Technical Board Outstanding Personnel Award

## Industry, Government, and Academia Innovation Collaborations

The Group firmly believes that industrial innovation and sustainability requires collaboration between three parties (industry, government, and academia) to fuel innovation through mutual encouragement. Over the years, we have worked with the government and many universities on a number of projects to drive industrial technological innovations and cultivate industrial talent.

### Industry-Government-Academia Collaborations

Hsinchu Science Park Bureau Emerging Technology Application Program

(2022/1/1~2022/12/31)

#### Development of quantum dot white-light Mini LED backlight module with AI-optimized design

We worked with National Yang-Ming Chiao-Tung University on this project, which aimed to develop ultra-thin wide color gamut quantum dot white-light Mini LED backlight modules using AI optical designs. Mini LED displays are a type of next-generation display technology which uses straight-down designs that enable regional dimming. Multi-zone backlight control technologies allow for regional brightness adjustments on a screen and offer better uniformity, higher contrast, and better light and shade detail compared with side-lighting backlights. QD display technologies use high-saturation red-light and green-light quantum dots combined with blue-light LEDs to achieve BT 2020 90% color gamut performance. Combined use of these two technologies create higher color volumes under HDR (High Dynamic Range) mode, enhancing color volumes by at least 200% compared to OLEDs and enabling more realistic color presentations on screens.

Ministry of Economic Affairs Technological R&D Project-Taiwan Industrial Innovation Platform Program

(2022/1/1~2023/12/31)

#### Green manufacturing and development of ultra-wide color gamut Mini LED packaging with no spatial chromatic aberration

This project focuses on green manufacturing and actively promotes development of green products. We work to reduce energy consumption during production, implement diverse power-saving measures, and lower product carbon emissions, decreasing overall environmental damage from our entire LED product chain.

##### Product Development, Technologies, and Services

In order to mitigate environmental hazards from exposure and development processes, this project was the first to develop cadmium-free quantum dot (QD) film mass transfer technologies using Lextar's self-developed cadmium-free quantum dot technologies paired with unique B-stage QD film production technologies which achieved production of QD color conversion layers without use of organic solvents. Compared to general exposure and development processes, quantum dots used during production processes do not come into contact with solvents, so efficiency is not compromised and QD materials can maintain optimal luminescence characteristics.

##### Advantages for Project Execution

This project used innovative solvent-free green packaging processes to manufacture Micro LEDs with minimal ecological and environmental damage and hazards, maximum resource utilization rates, and minimum energy consumption while ensuring product functions, quality, and costs, thereby achieving our green manufacturing goals.

The Group's innovative R&D industry-academia collaborations in 2022:

## • EPISTAR

Project	Collaboration partners	Project description
Innovative flexible large-area Mini LED OPD proximity sensor patch (1/2)	National Yang-Ming Chiao-Tung University Wisechip Semiconductor Inc. (2021/7/1~2022/6/30)	Used mini-LEDs with different wavelengths to send test signals, and used OPDs to receive light sources with different wavelengths and collect physiological signals in combination with flexible patch measurement systems developed using PPG physiological signal measurement logic.
Innovative flexible large-area Mini LED OPD proximity sensor patch (2/2)	National Yang-Ming Chiao-Tung University Wisechip Semiconductor Inc. (2022/7/1~2023/6/30)	Used the optical system module developed during the first phase of the project to analyze human physiological signals, successfully measuring heart rate, blood pressure, and blood oxygen levels.
Development of high-efficiency quantum dot hybrid Mini LEDs	National Yang-Ming Chiao-Tung University (2020/3/1~2022/2/28)	InGaN material energy gaps shift according to internal material stresses, resulting in changes to luminous wavelengths. This project used a micron-scale ring pattern to release internal material stresses and achieved luminous wavelengths spanning from green to blue on a single chip by using ALD technologies to enhance the luminous efficacy of Micro LEDs. This project enabled development of Micro LEDs with high luminous efficacy and multiple colors on a single chip, driving development of new-generation high-resolution displays and reducing the power consumption and carbon emissions of displays.
Testing and optimizing UVC LED graphene material characteristics for mass production	National Taiwan University (2021/7/1~2022/6/30)	Single-layer graphene is highly transparent under UV-C wavelengths, so use of this material in UV-C LEDs can improve light extraction abilities and increase light intensities. By collaborating with National Taiwan University, which has a wealth of knowledge and practical application experience in graphene material development, we accelerated application of this material in UV-C LED products used to replace mercury lights, reducing mercury consumption and lowering environmental pollutions from waste mercury.
Quantitative analysis of semiconductor carrier concentrations using scanning capacitance microscopy	National Chung Hsing University (2022/9/1~2023/8/31)	Previously, scanning capacitance microscopy (SCM) was only used to measure surface capacitance of semiconductors. This project aimed to develop a theoretical model which used SCM technologies to measure semiconductor surface carrier concentrations. This collaborative project enabled accurate measurement of surface carrier concentrations for GaN and GaAs compound semiconductors, improving component characteristics and luminous efficacy, optimizing power consumption of LED components, and reducing carbon emissions.

## • Lextar

Project	Collaboration partners	Project description
Micro LED display research project: Color measurement and image quality	National Taiwan University of Science and Technology (2022/1/1~2022/12/31)	<ul style="list-style-type: none"> <li>• Color measurement and color calibration</li> <li>• Evaluation of display image quality</li> </ul>
Research on next-generation ultra-high resolution LED display image processing algorithms	National Yang-Ming Chiao-Tung University (2022/1/1~2022/12/31)	<ul style="list-style-type: none"> <li>• Research and integration of human visual systems</li> <li>• Establishment of verification processes</li> </ul>
Development of composite indium phosphide alloy core-shell quantum dots with high quantum efficiency and high stability for white-light mini-LED backlight modules	Feng Chia University (Collaborated on National Science and Technology Council project) (2021/6/1-2022/5/31)	<ul style="list-style-type: none"> <li>• Eco-friendly, non-toxic, and novel composite QDs</li> <li>• White-light mini QD-LEDs with integrated COB packaging technologies</li> <li>• Applied backlight modules to LCDs to create QD-LCDs</li> </ul>
Synthesis and anti-counterfeiting applications of infrared quantum dot materials	National Taipei University of Technology (Collaborated on National Science and Technology Council project) (2021/11/1~2022/10/31)	<ul style="list-style-type: none"> <li>• Mass production and synthesis technologies for infrared quantum dot materials</li> <li>• Strategies for improving polymer viscosity and stability</li> <li>• Dual anti-counterfeiting applications</li> </ul>
Research and development of composite LED perovskite quantum dot materials	National Taiwan University (2022/1/10~2023/1/9)	<ul style="list-style-type: none"> <li>• Perovskite quantum dot glass</li> <li>• Synthesis of red quantum dots</li> </ul>
Development of quantum dot white-light Mini LED backlight module with AI-optimized designs	National Yang-Ming Chiao-Tung University (Collaborated on Hsinchu Science Park Bureau project) (2022/1/1~2022/12/31)	<ul style="list-style-type: none"> <li>• Optical AI simulations and designs</li> <li>• Development of ultra-wide-angle W-Mini LED packaging design technologies</li> </ul>












## Improved optoelectronic efficacy through quantum dot research enabled by industry-government-academia collaboration

Lextar and Feng Chia University jointly worked on a National Science and Technology Council industry-academia research project to develop cadmium-free QD applications for white-light Mini LED backlight modules that enabled regional dimming, better luminous efficacy and contrast compared with OLEDs, and more superior optoelectronic efficiency, while also reducing costs by 20-30%, enhancing product competitiveness. This project achieved wide color gamut performance, energy efficiency, HDR, and costs similar to OLED technologies through use of regional dimming technologies.

This project aimed to directly package quantum dots on LED chips. Compared to the currently available QD displays produced by an internationally renowned brand, which use a multi-layer quantum dot composite film structure interface resulting in at least 20% of light loss, our equivalently sized modules use 1,000-2,000 times fewer quantum dots (reduced QD use by 1,000-2,000 times).







## Quantum dot technology achievements

A+ Industrial Innovative R&D program	Collaboration partners	 DOIT 經濟部技術處 Ministry of Economic Affairs	Developed items	Benefits	<ul style="list-style-type: none"> <li>Improved display brightness by 20-30%</li> <li>QD in PKG has high light conversion efficiency and no interface loss</li> <li>Received Department of Industrial Technology Outstanding Project Award</li> <li>Invited to participate in the 2021 "Taiwan Ennotech Expo" online exhibition as one of five companies invited by the Department of Industrial Technology</li> <li>Zero use of phosphor activators (which are made from mined rare earth elements)</li> </ul> <p>Note: Mining rare earth elements requires use of nitric acid and hydrochloric acid, which cause long-term environmental damage</p>	
	Phase	2018/4~2021/3				
	Development highlight	<b>First in the world</b> QD U-light LEDs				
Industry-Academia Collaborations	Collaboration partners	 NSTC 國科會 Feng Chia University	Developed items	Benefits	Received 2020 Ministry of Science and Technology Industry-Academia Collaboration Special Award	
	Phase	2020/6~2021/5				
	Development highlight	QD white-light mini LEDs				
Industry-Academia Collaborations	Collaboration partners	 NSTC 國科會 Feng Chia University	Developed items	Benefits	<ul style="list-style-type: none"> <li>Compared to QD film with gain layers:</li> <li>Reduced QD use by 1,000-2,000 times and reduced costs by 20-30%</li> <li>Reduced energy consumption by 20% compared to other wide color gamut technologies</li> <li>Zero use of phosphor activators</li> </ul>	<p>Annual carbon reductions of 7 million tons = 18 Daan Forest Parks</p> 
	Phase	2021/6~2022/5				
	Development highlight	QD white-light mini LEDs				
Emerging Technology Application program	Collaboration partners	 新竹科學園區 國立陽明交通大學	Developed items	Benefits	<ul style="list-style-type: none"> <li>Reduced use of LEDs and lowered product manufacturing costs</li> <li>Removed one layer of film compared to the 2021 iPad Pro, reducing thickness by 15%</li> </ul>	
	Phase	2022/1~2022/12				
	Development highlight	QD white-light mini LEDs				
Innovation Optimization Program	Collaboration partners	 IDB 經濟部工業局 Ministry of Economic Affairs	Developed items	Benefits	<ul style="list-style-type: none"> <li>Replaced yellow-light processes and reduced chemical usage</li> <li>Zero water consumption</li> <li>Ultra-high yields</li> </ul>	
	Phase	2022/1~2023/12				
	Development highlight	QD Micro LED				

## 3-1-2 Management of Intellectual Property Rights

The Group believes that protection of patents and trade secrets is a key corporate strategy. Protection of intangible assets not only helps to maintain our rights, but is also necessary for enhancing corporate competitiveness. To establish comprehensive protections for intellectual property rights, Ennostar established a dedicated unit which assists all subsidiaries in refining management mechanisms for intellectual property rights and adjusting intellectual property portfolios in line with Group operational plans while considering reasonable maintenance costs and utilization of new technologies. We have also established risk-avoidance measures to effectively respond to risks associated with intellectual property rights. Our subsidiary Lextar obtained A-level Taiwan Intellectual Property Management System (TIPS) certification in 2022. We will continue to lead all subsidiaries in strengthening protections for intellectual property rights in future.

The Group's management measures for intellectual property rights are as follows:

 <b>Due Diligence</b>	Gain an understanding of current technologies through associated databases and formulate innovative designs or design-around strategies during the product design stage
 <b>Work Log</b>	Our R&D personnel use work logs to fully preserve all documents and timepoint records associated with development processes, and these can be used for defense purposes if disputes arise around intellectual property rights
 <b>Protection of Associated Rights</b>	Developed products are protected using patents, trademarks, copyrights, trade secrets, and other intellectual property rights. Additionally, Ennostar inventories all intellectual property rights based on industrial conditions to track intangible assets, maintain and evaluate associated rights, and ensure payment of maintenance fees in accordance with the intellectual property regulations of different countries to maintain validity
 <b>Technical Collaborations</b>	Outsourced development and manufacturing processes, if any, are protected using contracts, confidentiality agreements, and ownership clauses for intellectual property rights. Contract content is checked by our legal department or external lawyers to ensure full protection of Group rights.
 <b>Management of Confidential Information</b>	IT/administration departments are required to comply with management processes for confidential information, strengthen management of information security and access mechanisms, and prevent leaks of R&D information or trade secrets. The Group also continues to strengthen employee awareness of confidentiality management through training to ensure protection of confidential information.
 <b>Management of Marketing Materials</b>	The marketing department checks whether promotional materials infringe upon the copyrights and trademarks of others when designing materials.

## Trade Secrets

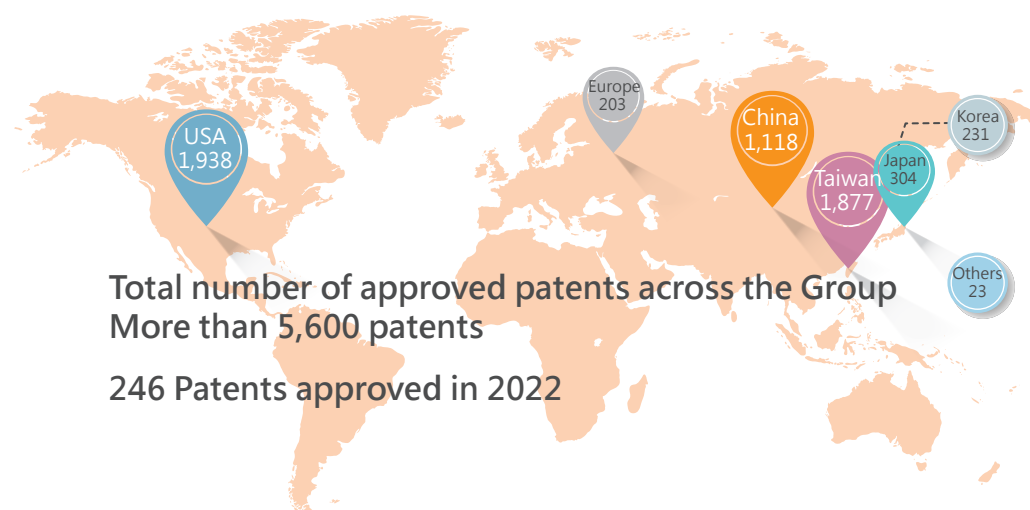
In order to protect the valuable efforts of all Group employees and maintain our corporate competitiveness, all Ennostar subsidiaries have formulated stringent regulations for protection of trade secrets and established a self-developed “trade secrets management system.” The Group has also established a “Trade Secrets Committee” which is composed of our president and the highest-ranking managers from our information technology, audit, human resources, intellectual property, legal, and R&D units; the Committee is responsible for supervising management of trade secrets and also convenes regular meetings with representatives from all subsidiaries. Additionally, we also provide all employees with education and training related to protections for trade secrets through trade secret competitions, internal newsletters, and online courses, ensuring that all employees are aware of our protections for intellectual property rights and trade secrets.

✓ As of year-end 2022, the Group has cumulatively registered 1,409 trade secrets. The number of trade secrets registered by each subsidiary are as follows:



## Global Patent Strategies

In 2022, we received approval for a total of 246 patents from various regions around the world. As of year-end 2022, the Group has received approval for a cumulative total of 5,600 patents. Our solid intellectual property portfolio serves to protect our corporate technologies and products so we can provide a comprehensive range of customer services and ensure quality assurance. Ennostar actively manages patent protections. After winning a lawsuit associated with our LED filament patent, our subsidiary EPISTAR continued to extend the focus of patent protections to television backlight products to build an environment that respects intellectual property rights.



### 3-1-3 Green Designs

We regard sustainable management as one of our core values, and implement energy and carbon reduction measures in our offices and factories. Our R&D team also works to develop energy-saving products that further reduce the energy consumption of our end clients and contribute to environmental sustainability.

Environmental changes have made remote business, home entertainment, sterilization applications, and electric vehicles important opportunities and advantages for Taiwanese companies and the LED industry. The LED industry continues to develop key industrial products relating to new-generation Mini/Micro LED display technologies, applications for optoelectronic components, UV sterilization and curing products, renewable energy vehicles, and intelligent health and lighting. To enhance long-term competitiveness and speed development in compound semiconductors, we gradually increased involvement in industries related to communications and power semiconductor components. The rise in stay-at-home economy needs, 5G network communications platforms, IoT needs, and GaN applications market all provide the Group with significant growth momentum.

Traditional LEDs used phosphor as luminescent materials and activators within luminescent materials required large amounts of rare earth elements. Mining rare earth elements requires use of nitric acid and hydrochloric acid, which cause long-term environmental damage. We have long worked to develop QD technologies and hope to replace traditional phosphor materials with quantum dots. In 2022, we worked with Feng Chia University on a National Science and Technology Council Department of Engineering and Technologies industry-academia collaboration project to develop cadmium-free QD applications for white-light Mini LED backlight modules, improving costs and efficiencies by 20% and 30% compared with peer products.

We also incorporate concepts related to low energy consumption in our product design stages and strive to reduce carbon emissions generated by our products. In 2022, our applications in lighting, backlight, automotive, sensor, and rapid-charging end products reduced power consumption by 546 million kWh and carbon emissions by 278,000 tons. In future, we will continue to develop quantum dot materials and green processes, formulate comprehensive patent strategies, and participate in industry-academia collaborations to develop eco-friendly LED products with the highest resource utilization and the lowest energy consumption, thereby enhancing quality of life.

● Carbon reductions from end applications and products in 2022:

End applications and products	Energy savings from end products (million kWh/year)				metric tons CO <sub>2</sub> e
	EPISTAR	Lextar	Unikorn	Total energy savings across the Group	
Lighting	144.60	5.14	-	149.74	76,218
Backlights	215.01	136.35	-	351.36	178,842
Automotives	18.62	-	-	18.62	9,478
Sensors	-	0.48	24.44	24.92	12,684
Rapid charging	-	-	1.28	1.28	652
Other	-	-	0.12	0.12	61
Total	378.23	141.97	25.84	546.04	277,934

Basis for calculations:

1. Annual energy savings were estimated based on actual shipment volumes and number of end products in the market in 2022.
2. EPISTAR and Lextar used product volumes in 2021 as a basis for determining energy savings in 2022; Unikorn compared products made using existing technologies with products developed in 2022.
3. The Ennostar Group adopts a one-stop shop production model where Lextar uses chips made by EPISTAR; purchases from Lextar account for 39% of total chip purchases at Epistar. Lextar's total energy savings in 2022 amounted to 233 million kWh. To avoid double counting, we deducted Epistar's energy savings (142 million kWh).
4. Electricity emission factors were calculated using the electricity coefficient of 0.509 kg CO<sub>2</sub>e/kWh for 2021 released by the Ministry of Economic Affairs Bureau of Energy on November 4, 2022.



Our subsidiary Lextar Electronics produced the “AM Micro LED Transparent Display” using our exclusive patented i-pixel +™ technology, and received the 2022 Silver Smart Display Industrial Alliance (SDIA) Award

We are fully aware that the road from product innovation to sustainability is long. In future, we will continue to work toward our dual goals of “innovation application” and “efficiency improvement,” enhance product applications, and strengthen product carbon reductions and energy efficacies.

Company	Product	Description of Actions
Unikorn	Micro LED	Micro LED products used in display devices reduce energy consumption, achieve energy savings, and reduce carbon emissions
Unikorn	VCSEL	VCSEL products used in smartphones (3D sensors) enhance component performance, reduce power consumption, achieve energy savings, and reduce carbon emissions
Unikorn	Power GaN	Power GaN products are used to make rapid chargers for consumer products, enhancing charging efficiency, shortening charging times, achieving energy savings, and reducing carbon emissions
Unikorn	BAW	BAW products are used in electronic communication products to enhance signal transmission speeds, shorten transmission times, achieve energy savings, and reduce carbon emissions
Lextar	PKG	Used in consumer displays, home security, freezer lights, and other products to improve light extraction rates, packaging efficiency, phosphor quantum efficiency, secondary optics and simulation designs, and beam angles. Use of Mini POB/COB technologies and QD technologies improve PKG brightness, reduce power consumption, and lower carbon emissions of end products
EPISTAR	Chip	LED chips are mainly used in lighting display backlights, automotive lighting, sensors, and security monitors. We continue to adjust semiconductor film characteristics, optimize process structures and designs to improve performance, achieve energy savings, and reduce carbon emissions

As environmental issues become more and more important, the EU and USA plan to tax imports and formulate energy saving standards to achieve energy conservation goals. The Group helps client products comply with EU energy-related product eco-design directives and USA Energy Star standards. We keep abreast of changes in international standards and work closely with clients to achieve energy and carbon reduction goals.

Power consumption and carbon emission reductions were calculated using the electricity emission factor for 2022 (0.509 kg CO<sub>2</sub>e/kWh) released by the Bureau of Energy.



Energy-related Product EU eco-design directives (ErP directives)



USA ENERGY STAR® Program Requirements for Computers



## 3-2 Product Quality and Liability

The Group adheres to quality management responsibilities during product development and manufacturing processes. We have established rigorous quality management mechanisms to ensure that all products and services comply with relevant laws and regulations. All of our subsidiaries have implemented the ISO 9001 Quality Management System. Epistar, Lextar, Epicrystal, Can Yang, and Lextar Electronics have further implemented the IATF 16949 Automotive Quality Management System to incorporate advance quality management concepts into automotive product design and manufacturing. Each year, we review our products using stringent management and review procedures to ensure that they comply with domestic and foreign product health and safety regulations.

✓ We incurred no penalties related to violations of health and safety laws relating to our products and services in 2022.

### Material Topic: Product Quality | Base year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
1. Hazardous substance inspections for all product series	✓	1. Hazardous substance inspections for all product series	1. Hazardous substance inspections for all product series	1. Hazardous substance inspections for all product series
2. Manufactured products comply with international environmental protection regulations	✓	2. Ensure that 100% of manufactured products comply with RoHS, REACH, Green Product, and other international environmental protection regulations	2. Ensure that 100% of manufactured products comply with RoHS, REACH, Green Product, and other international environmental protection regulations	2. Ensure that 100% of manufactured products comply with RoHS, REACH, Green Product, and other international environmental protection regulations
3. Achieve 100% implementation rate on continued improvement plan (CIP)	✓	3. Achieve 100% implementation rate on continued improvement plan (CIP)	3. Achieve 100% implementation rate on continued improvement plan (CIP)	3. Achieve 100% implementation rate on continued improvement plan (CIP)

Responsible unit

Quality assurance units at all Group subsidiaries.

Invested resources

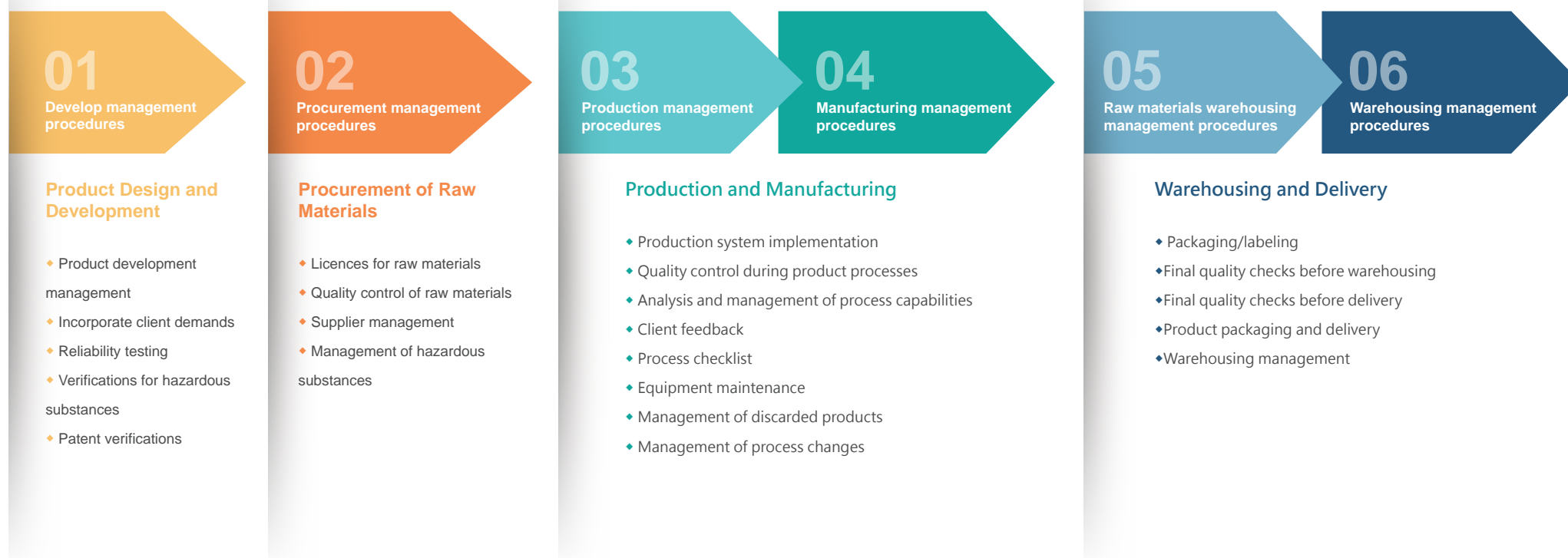
Fees for third-party verifications and manpower inputs.

Grievance mechanisms

- "Contact Us" section on corporate website
- Shareholders' Meeting

## 3-2-1 Quality Assurance

The Group believes that quality assurance of products and services is necessary for compliance with domestic and foreign regulations as well as client requirements, which makes competitiveness and social responsibilities important quality management considerations and a core concept. Our quality management processes mainly encompass four major stages: "Product design and development," "Procurement of raw materials," "Production and manufacturing," and "Warehousing and delivery." We have formulated management procedures for each stage which are supervised by the quality assurance, quality engineering, quality system, and customer service units under our quality assurance department, and our document management system synchronizes documents from all companies. Quality assurance is supported by monthly quality meetings, regular management review meetings, and regular training and appraisals of inspection personnel to ensure that product and service quality details adhere to requirements at all stages.



## Regular Training and Appraisals of Inspection Personnel

The Group attaches great importance to training for inspection personnel. We not only organize training for new employees, but have also established retraining times for other personnel which adhere to annual training procedures and plans. We regularly conduct training and examinations on theory and practical operations to re-certify personnel qualifications, and record all appraisal results.

## 3-2-2 Management of Hazardous Substances

Ensuring product and services health and safety is necessary to comply with laws and regulations, and is also part of our commitment to clients, the environment, and society. We use rigorous quality management processes to ensure that products and services adhere to regulations on prohibited and restricted environmentally hazardous substances (including but not limited to RoHS and REACH) and client Hazardous Substance Free (HSF) requirements. All Ennostar products have obtained verification for RoHS 10 restricted substances and REACH Substances of Very High Concern, and all products produced by subsidiaries Lextar, Lextar Electronics, Unikorn, and Can Yang have obtained halogen-free certifications.

The Group's management highlights for hazardous substances are as follows:

### Supplier Management

The procurement department reviews raw materials in accordance with supplier management procedures and raw material specification regulations. We require our suppliers to provide third-party HSF test results that comply with ISO 17025 requirements and sign a "Zero Restricted Substance Content Guarantee"

### Chemical Management Procedures

Including registration and management procedures for new chemicals, risk assessment and management, operational environment tests, and exposure tests

### Third-Party Testing

Periodically/non-periodically deliver products to ISO 17025 certified laboratories to undergo third-party testing, ensuring that our products comply with RoHS, REACH SVHC, and halogen-free international regulations and client requirements

### Information Updates

Continue to update and expand our list of restricted chemicals each year based on the latest environmental regulations and restricted substance requirements set by international brands

● Outsourced inspection items and pass rates for 2022:

Subsidiary	Category	Inspection Items	Pass Rate
Epicrystal	LED epi wafer/chip	RoHS2.0 (non-metals), REACH SVHC 224, Halogen	100%
	InGaN-PEC series		
Unikorn	TR_μLED Series	RoHS+HF	
	VCSEL Series		
	Power GaN Device Series		
	RF GaN Device Series		
	SMART BAW Filter Series		
Can Yang	Chips	RoHS 2.0	
		REACH SVHC 224	
		Halogen	
Episky	Annual tests	RoHS	
		REACH	
Lextar	Annual tests	RoHS+halogen	
		REACH	
		HBCDD	
EPISTAR	Annual tests	RoHS	
		Halogen	

Note: Product development at Lextar and Lextar Electronics mainly takes place at Lextar. Related materials and components are determined by Lextar, and therefore Lextar collects information on relevant materials for all products and then outsources inspections for hazardous substances.

## Product Labeling Regulations

Products sold by the Group to different regions undergo testing and are labeled in accordance with the requirements of their exporting countries and client requirements. We ensure that product information and labels adhere to electrical/optical/appearance/reliability property specifications, as well as relevant regulations and standards. The Group's requirements for product information and labeling mainly include:

1. Product name, model, part number, batch number, quantity, production date, and production location
2. Green product labels such as RoHS, Green Product, and HSF (text or graphics)
3. Safety precautions, including textual or graphical instructions to keep away from moisture, handle with care, do not invert, avoid rough handling, and so on

✓ Our products and services did not violate any regulations relating to product information or labeling in 2022, and none of our products were banned, recalled, or violated regulations relating to product marketing and communications (including advertisements, promotions, or sponsorships).



4-1 Climate Actions  
4-2 Environmental Management

Green Operations



# CH4 Green Operations

## 4-1 Climate Actions

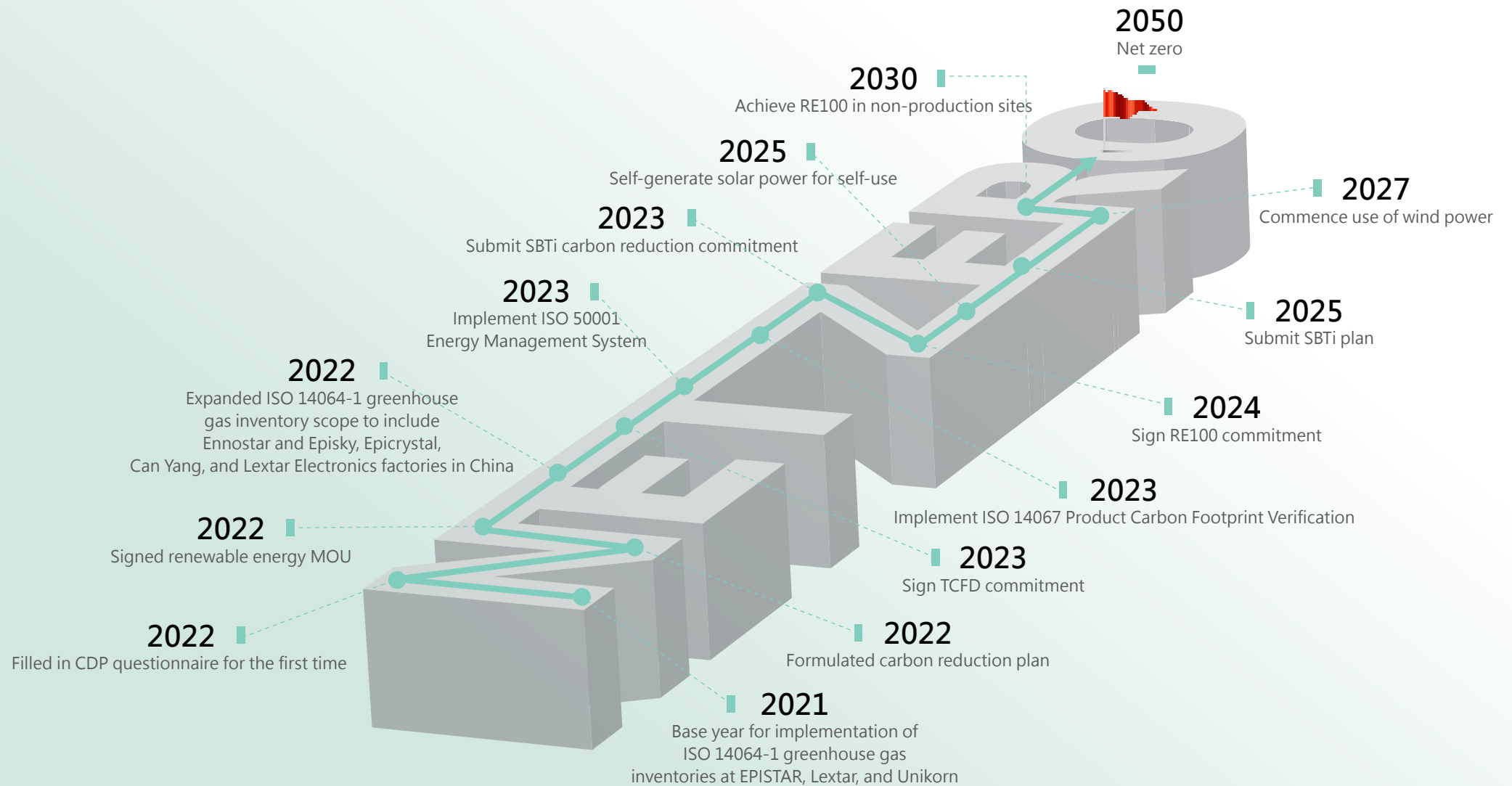
### 4-1-1 Low-Carbon Transformation Blueprint

The effects of global climate change and global warming are becoming more apparent day by day. In response to international net zero trends, Ennostar has established a stable net zero pathway and strategic blueprint which adheres to related laws and regulations as well as client requirements. We actively adopt climate actions to fulfill our corporate social responsibilities and contribute to environmental sustainability. We have formulated carbon reduction strategies that encompass innovative growth, low-carbon manufacturing, responsible supply chains, and sustainable governance so that energy and carbon reductions can be internalized to all Group processes. We have also established corresponding carbon reduction measures in combination with industrial, government, academic, supplier, and other external resources to facilitate our path toward net zero.

#### Climate Actions



## Pathway to Net Zero Emissions



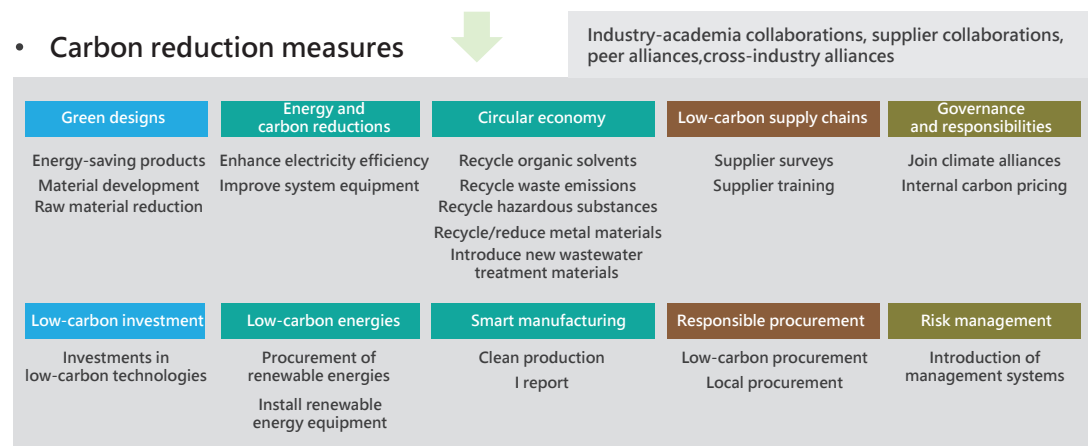
- Establish baseline



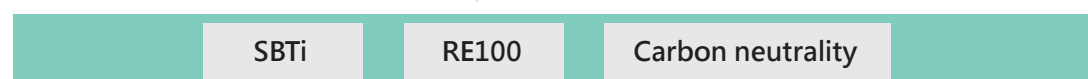
- Carbon reduction strategies



- Carbon reduction measures



- Goals



ESG Committee/Periodic tracking and review

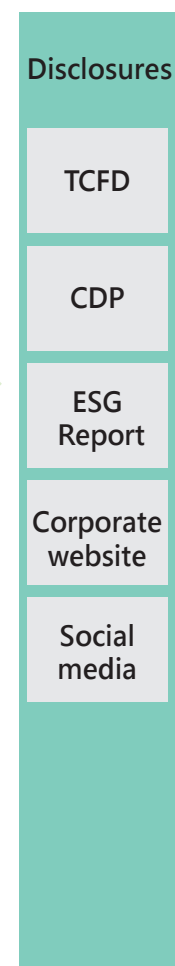


Figure 2. Carbon blueprint

Ennostar reduces carbon emissions and enhances corporate climate resilience through climate actions to prevent impacts and losses while working to gain a head start on market opportunities and making strides toward net zero. To achieve environmental sustainability, we implement environmental protection tasks related to waste emissions, water resources, and waste materials, and actively establish circular economy, diverse water resources, and energy management measures to ensure energy conservation, reduce resource waste, and achieve low-carbon transformation goals.

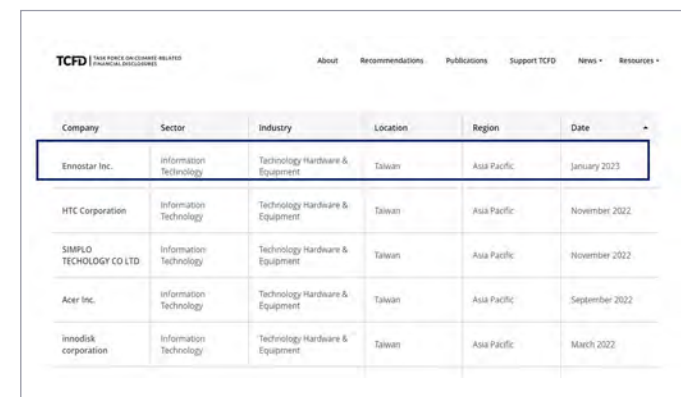
Ennostar has established energy and greenhouse gas management systems in accordance with international standards such as ISO 14064-1 greenhouse gas inventories, the ISO 14067 Product Carbon Footprint Verification System, and the ISO 50001 Energy Management System. We have established organizational and product baselines, analyzed hot spots, and formulated energy and carbon reduction measures based on analysis results. To reduce carbon emissions across the entire Group, we have expanded the scope of ISO 14064-1 greenhouse gas inventories. Apart from the original 14 factories and offices in Taiwan of our subsidiaries EPISTAR, Lextar, and Unikorn, we also incorporated Ennostar and 19 factories and offices in China in our greenhouse gas inventories for 2022, and obtained third-party external verification for all sites. In 2023, we began piloting ISO 50001 management methods and digital real-time management of energy performance indicators at our EPISTAR H1 factory in tandem with PDCA management cycles to enhance our energy efficiency, reduce energy costs, and improve energy performance.

To achieve circular economy goals and ensure appropriate and eco-friendly handling of waste, we work to recover organic solvents and waste ammonia for use by downstream suppliers, and recycle and reduce waste metals and hazardous substances, greatly decreasing waste discharged into the atmosphere, water, and soil, and reducing negative impacts on human health and the environment. We work with suppliers to assess the feasibility of recycling and reuse for waste materials, water, and emissions to raise the proportion of reused waste and reduce waste volumes. Ennostar works with ecosystem partners to create mutually prosperous and sustainable growth.

We ensure that we stand at the cutting edge of technology through green designs that continue to improve and enhance the efficiency, quality, and product life of developed products so our products can better adhere to energy and carbon reduction requirements. We also protect our corporate intellectual properties and maintain high levels of competitiveness through management of patents and trade secrets that strengthen our resilience for innovative corporate growth. We have incorporated the I report system in our manufacturing processes to enable real-time analysis and data comparisons; timely management of raw materials, electricity usage, and water consumption to prevent waste; and achievement of smart manufacturing goals. We also evaluate use of renewable energies and procurement of composite renewable energies to fulfill our sustainable energy transformation goals. We plan to achieve 25% renewable energy usage by 2030 and meet RE100 requirements in 2050 to mitigate the effects of global warming.

Global investment institutes have begun basing investment decisions on CDP ratings. Ennostar was established in 2021 and filled out the Carbon Disclosure Project (CDP) questionnaire for the first time in 2022. Based on questionnaire responses and achievement of climate response actions, we received a B rating on the "Climate Change" questionnaire.

In order to achieve sustainable development goals, Ennostar officially signed on and was approved to become a TCFD Supporter by the Task Force on Climate-Related Financial Disclosures website. To enhance internal awareness of carbon reductions, we signed on to become a TCFD supporter with the full support of our senior executives, demonstrating our commitment to carbon reductions, increasing transparency, enhancing our trustworthiness for investors, and mitigating climate change as we work toward net zero emissions.



Company	Sector	Industry	Location	Region	Date
Ennostar Inc.	Information Technology	Technology Hardware & Equipment	Taiwan	Asia Pacific	January 2023
HTC Corporation	Information Technology	Technology Hardware & Equipment	Taiwan	Asia Pacific	November 2022
SIMPLO TECHNOLOGY CO LTD	Information Technology	Technology Hardware & Equipment	Taiwan	Asia Pacific	November 2022
Acer Inc.	Information Technology	Technology Hardware & Equipment	Taiwan	Asia Pacific	September 2022
Imodisk corporation	Information Technology	Technology Hardware & Equipment	Taiwan	Asia Pacific	March 2022

▲ Ennostar listed as TCFD supporter



▲ Ennostar signed on to become a TCFD supporter with full support from senior executives

Related news reports:



In accordance with international net zero trends, all countries and multinational corporations around the world have launched corresponding laws and regulations. We plan to join the SBTi in 2023 and join the RE100 and other international initiatives within the next two years. We have formulated Group-wide short, medium, and long term greenhouse gas reduction management guidelines and plan to gradually increase our use of renewable energies to mitigate global warming caused by greenhouse gas emissions. We also work to fulfill corporate social responsibilities and continue to stay informed of international corporate sustainability trends, using comprehensive ESG implementations to enhance our corporate resilience and contribute to global sustainable developments.

## 4-1-2 Task Force on Climate-Related Financial Disclosures (TCFD)

Ennostar attaches great importance to operational and environmental impacts from climate issues and actively adheres to TCFD recommendations to strengthen our response capabilities to climate change risks. The TCFD 4 core aspects and 11 recommended disclosures are shown as follows:

Aspect	Recommended Disclosures	Management Strategies and Actions	Ennostar Implementations in 2022
Governance	Describe the board's oversight of climate-related risks and opportunities	The Board reviews climate change risks and opportunities every six months	<ol style="list-style-type: none"> <li>1. Formed the ESG Committee in the fourth quarter of 2021 and established related management measures in the first quarter of 2022</li> <li>2. The ESG Committee began making quarterly reports starting from the second quarter of 2022</li> <li>3. Presented two reports to the Board</li> <li>4. Reports encompassed climate change project plans and implementations</li> </ol>
	Describe management's role in assessing and managing climate-related risks and opportunities.	ESG Committee: The highest authority for climate change management at Ennostar. The Committee is headed by our chairman, reviews climate strategies and targets each quarter, and reports to the Board	
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	All Group subsidiaries have established cross-departmental Eight ESG Task Forces to discuss and identify respective short, medium, and long term climate risks and opportunities	<ol style="list-style-type: none"> <li>1. Ennostar subsidiaries EPISTAR, Lextar, and Unikorn have all established short, medium, and long term carbon reduction and management guidelines</li> <li>2. The innovative technology, sustainable manufacturing, sustainable energy, and sustainable value chain teams under our Eight ESG Task Forces jointly discuss and plan Group goals.</li> <li>3. Planned a TCFD workshop for 2023 to conduct scenario analyses and assess targets and response strategies for different scenarios</li> </ol>
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	Assessed major climate risks and opportunities as well as potential operational and financial impacts	
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Conducted scenario analyses and assessed targets and response strategies for different scenarios	
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	Used the TCFD framework to identify climate risks and opportunities	Planned a TCFD workshop for 2023 to discuss major climate-related risks/opportunities and qualitative and quantitative impacts
	Describe the organization's processes for managing climate-related risks	Identified major climate risks and opportunities, and formulated related targets and response strategies	
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	Incorporated identified and assessed climate risks and opportunities into risk management processes	



Aspect	Recommended Disclosures	Management Strategies and Actions	Ennostar Implementations in 2022
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	Formulated climate-related management guidelines	<ol style="list-style-type: none"> <li>1. Ennostar subsidiaries EPISTAR, Lextar, and Unicorn have all established short, medium, and long term carbon reduction and management guidelines</li> <li>2. The innovative technology, sustainable manufacturing, sustainable energy, and sustainable value chain teams under our Eight ESG Task Forces undergo horizontal communications with all subsidiaries to formulate carbon reduction and management guidelines for the Group</li> </ol>
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Assessed scope 1, 2, and 3 risks and carbon reduction measures each year following continued annual ISO14064-1 greenhouse gas inventories	Used inventory results (please refer to the <a href="#">4-1-3 Management of Greenhouse Gases</a> section on greenhouse gases for more information) to assess and continue to implement carbon reduction measures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Established management guidelines to assess target achievements and progress	<ol style="list-style-type: none"> <li>1. Formulated blueprint for renewable energies (please refer to the <a href="#">4-1-4 Energy Management</a> section on energy planning for more information)</li> <li>2. Continue to install solar power generation systems</li> <li>3. Signed MOU to generate offshore wind power</li> </ol>

Ennostar used the TCFD framework to formulate response measures for identified Group risks and opportunities. We have established solar power generation systems, signed renewable energy MOUs to enhance renewable energy consumption and reduce risks from power shortages, and established diverse water resource plans to reduce production and operational impacts. We continue to take advantage of market share opportunities in developments of low-energy LED products and work with multiple parties to create new business models. Our ESG Committee (Working Group) support effective management and implementation of climate change actions within the Group. We incorporated TCFD-defined risk and opportunity categories, and applied governance for climate change risks and opportunities on corporate operations and information asset management following our assessments.

The Group's main climate change risks are shown as follows:

Aspect	Item	Stakeholders	Challenges and Risks	Response Measures
<b>Transition Risks</b>				
Policies and regulations	International contracts	Ennostar Group	Global carbon reduction policies and commitments will promote development of low-carbon manufacturing, potentially increasing carbon reduction responsibilities and risks	<ol style="list-style-type: none"> <li>1. Formulate and continue to implement carbon reduction goals</li> <li>2. Continue to conduct annual inventory of greenhouse gases</li> <li>3. Invest in energy-saving solutions to achieve energy-saving goals</li> </ol>
Policies and regulations	Volume control and emissions transactions	Ennostar Group	Increased operational costs from future expansions in volume restrictions and emissions transactions by the Environmental Protection Administration	<ol style="list-style-type: none"> <li>1. Continue to be attentive of changes in volume restrictions</li> <li>2. Inventory and manage greenhouse gases</li> <li>3. Formulate and continue to implement annual volume reduction goals</li> <li>4. Energy deployments at operating bases</li> </ol>
Technology	Renewable energy	Ennostar Group	Requirements for installation, use, or procurement of renewable energies may increase establishment costs	<ol style="list-style-type: none"> <li>1. Plan and install solar power generation systems</li> <li>2. Formulate renewable energy procurement schedules</li> </ol>

Aspect	Item	Stakeholders	Challenges and Risks	Response Measures
Market	Consumer behaviors	Ennostar Group	Client product requirements already exceed regulatory requirements and we hope to surpass legal requirements	1. Continue development of low power consuming LED products 2. Enhance brightness of LED products to reduce the number of LEDs required for each product
Market	Increased raw material costs	Ennostar Group/ Supply chain	Climate change has increased raw material costs for bulk goods, which in turn has affected production costs.	1. Continue to implement material reduction at the source 2. Develop a circular economy where waste is recycled and reused
Immediate	Rainfall changes	Ennostar Group/ Clients	Changes in rainfall patterns may cause water shortages, affecting production and increasing operational costs	1. Formulate and continue to implement water conservation goals 2. Develop technologies for recycling process water 3. Prepare contract management for water trucks
<b>Physical Risks</b>				
Long-term	Extreme climate	Ennostar Group/ Supply chain	The frequency and severity of floods, snowstorms, droughts, and pandemics have increased, and therefore our supply chain should develop appropriate capabilities in response to climate change and epidemic prevention	1. Establish flood prevention plans and operational standards, conduct periodic disaster prevention drills such as floodgate flood prevention drills and drills for locating anti-flooding equipment in factories 2. Installed floodgates on easily flooded driveways and important server rooms to reduce disaster losses 3. Establish supply chain risk identification and business continuity plans 4. Distribute supplier questionnaires

Adaptation to climate change is an innovative organizational opportunity that includes enhancement of resource usage efficiency; use of low-carbon energies; development of new products, services, and market entry models; and enhancing supply chain resilience. Our ESG Committee (Working Group) identified the following climate change opportunities based on operational impacts and occurrence possibilities:

Identified Aspects	Item	Stakeholders	Challenges and Risks	Response Measures
Resource efficiency	Use of water resources	Ennostar Group/ Clients	Reduce reliance on water resources and develop water conservation technologies	1. Formulate and continue to implement water conservation goals 2. Develop technologies for recycling process water
Market	Seek out new business opportunities	Ennostar Group	Find new business opportunities through energy-saving policies and greenhouse gas reduction to discover new business opportunities	1. Continue to develop energy-saving products 2. Collaborate with multiple parties to develop new business models
Products/ services	Low-carbon products and services	Ennostar Group/ Clients	Keep abreast of market changes and provide energy-saving products to our clients	1. Develop LED products with low power consumption 2. Enhancement of LED product brightness

## Domestic and Foreign Climate Initiatives



### AUO Supplier Conference

As a key supplier of AUO Corporation, we jointly committed to achieve the goal of reducing carbon emissions by 20% in 2030



### BenQ Qisda Group Sustainable Initiative Action Conference

As a key supplier of BenQ Qisda Group, we jointly committed to achieve the goal of reducing carbon emissions by 20% in 2030



### Taiwan Climate Partnership

In 2022, we became a member of the Taiwan Climate Partnership to demonstrate our energy and carbon reduction commitments. We work with our industry supply chain to achieve mutual growth as we work toward RE100 and EV100 goals



### Task Force on Climate-Related Financial Disclosures

Ennostar and senior executives signed on to become a Task Force on Climate-Related Financial Disclosures supporter

## 4-1-3 Management of Greenhouse Gases

We began implementing the ISO 14064-1 in 2021, gradually conducted greenhouse gas inventories for all subsidiaries and factories, and disclosed emissions information in a transparent manner through external verification. We further measured and managed greenhouse gas emissions in 2022 to reduce operational impacts from climate change, and we continue to establish renewable energy systems and disclose greenhouse gas emissions.

The Group's greenhouse gas emissions include direct emissions and indirect emissions associated with energy. Sources of direct emissions include gases used during production processes (PFCs, N<sub>2</sub>O, CH<sub>4</sub>, CO<sub>2</sub>); equipment for preventing volatile organic compound pollution; emergency generators; natural gas, liquefied petroleum gas, petroleum, diesel, and other fuels used by other facilities; and fugitive emissions from septic tanks, fire drills, and associated equipment. Indirect emissions associated with energy mainly stem from purchased electricity. Other emissions stem from product and material transportation, supplier production, employee travel, waste treatment, and employee commutes.

The Group's total greenhouse gas emissions for 2022 amounted to 3,88,615.99 metric tons CO<sub>2</sub>e, and mainly included indirect emissions from electricity use, which accounted for 72.16% of all emissions, as well as direct emissions which accounted for 17.01% of all emissions. Ennostar worked to reduce scope 2 emissions in 2022, and is actively conducting ISO14064-1 inventories to better understand emission scopes which can be used as a basis for setting reduction targets.

## Greenhouse Gas Emissions and Management

Greenhouse Gas Type	Carbon Emissions (metric tons CO <sub>2</sub> e)	Boundaries	Reduction Measures
Category 1: Direct greenhouse gas emissions	66,085.75	All factories included in this Report	Planned gradual installation of local scrubbers which contain equipment to reduce fluorine gases and achieve carbon reduction benefits
Category 2: Indirect greenhouse gas emissions	280,416.30	All factories included in this Report	<ul style="list-style-type: none"> <li>Established a smart electricity usage management platform to monitor energy efficiency and prevent unnecessary energy wastage</li> <li>Centralized production plants; reduced machinery loads to conserve energy; and adjusted chillers, temperatures, humidity levels, and dew points in accordance with machine load</li> <li>Machinery unit adjustments, RA scheduling optimization, energy conservation lighting, and performance enhancements</li> <li>Planned procurement of renewable energies, including solar power, wind power, and other renewable energies</li> </ul>
Category 3: Indirect greenhouse gas emissions from transportation	597.44	Ennostar, EPISTAR, Lextar, Unikorn	N/A
Category 4: Indirect emissions from products used	41,516.50	EPISTAR, Lextar, Unikorn	Enhanced total yield by 2% and reduced use of raw materials

Note 1: EPISTAR and Lextar used the GWP value in the United Nations Intergovernmental Panel on Climate Change Fourth Assessment Report (AR4) released in 2007.

Note 2: Ennostar, Episky, Epicrystal, and Can Yang used the GWP value in the United Nations Intergovernmental Panel on Climate Change Sixth Assessment Report (AR6) released in 2022.

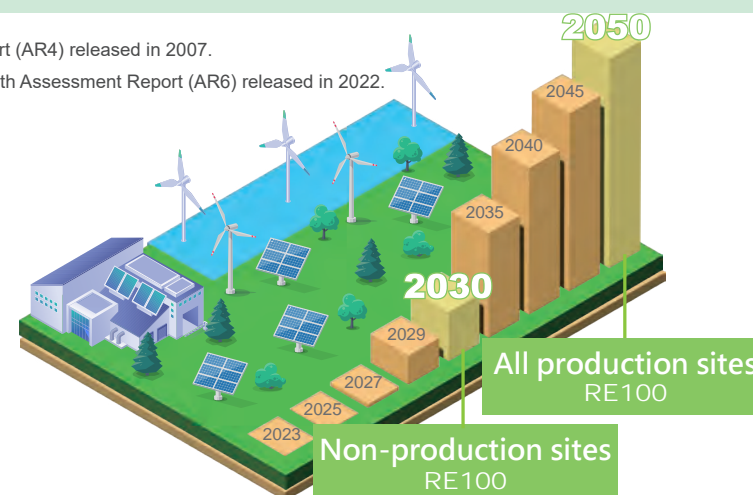
Please refer to the [Appendix 1: Environmental Data](#) section for information on the Group's greenhouse gas emissions for 2022.

## 4-1-4 Energy Management

### Ennostar Renewable Energy Blueprint

In response to the government's 2050 net zero emissions goal and to exert corporate influence, the Group has gradually procured renewable energy contracts and other renewable energy certificates, formulated renewable energy policies, and aims to achieve the RE100 goal in non-production sites by 2030 and the RE100 goal across the entire Group by 2050.

We plan to focus on solar energy/onshore wind power in 2023–2027, adopt solar power/onshore wind power/offshore wind power and other renewable energies in 2027–2050, and use comprehensive and planned renewable energy procurement to lead the Group in achieving the RE100 goal.



## The Group's Renewable Energy Investment Plan for 2030

Year	Targets	Invested resources	Expected Benefits
2021	Total rooftop solar photovoltaic systems installed in factories: EPISTAR: 464.35 KWp (N5/H1/S1/S3) Lextar: 262.89 KWp (Zhunan) Lextar: 3648 KWp (Chuzhou) <sup>1</sup>	We expect to invest a total of NT\$ 886 million from 2021-2030 <sup>2</sup>	2022 <ul style="list-style-type: none"> <li>Power generated by solar photovoltaic systems in EPISTAR factories: 744,116 kWh (wholesale)</li> <li>Power generated by solar photovoltaic systems in Lextar factories: 363,914 kWh (wholesale)</li> <li>Power generated by solar photovoltaic systems in Lextar Electronics (Chuzhou) factories: 3,903,388 kWh (wholesale)<sup>3</sup></li> </ul> Total: 1,108,030 kWh (wholesale) and 3,903,388 kWh used in factories
2022	Signed MOU to generate 105 million kWh in offshore wind power each year		2023-2024 Generate NT\$ 3.1 Million in revenues by selling rooftop solar power to taiwan power company
2023	Install 633 KWp rooftop solar power generation systems in factories (EPISTAR H1/S1/S3)		2021~2030 <ul style="list-style-type: none"> <li>Total cumulative renewable energy usage: 350 million kWh<sup>4</sup></li> <li>Total cumulative carbon reductions from renewable energy usage: 178,432 metric tons CO<sub>2</sub>e<sup>5</sup></li> </ul>
2024	Total capacity from installed solar power generation systems in factories: 1,360.29 KWp wholesale transferred for self-use (EPISTAR: 1,097.35KWp/Lextar: 262.89 KWp)		
2025	External purchases (solar power 2 MWp) of 2.5 million kWh per year in renewable energy		
2027~2030	~2030 Generate 105 million kWh in offshore wind power each year (and achieve RE100 in non-production sites)		

1: Lextar Electronics rooftops were leased to third parties for installations and generated power was sold back to the factory for self-use

2:(1)Not including construction costs for 149.35KWp already installed in 2021

(2)External procurements were calculated using differences between green and gray power prices

3:Our Chuzhou factory purchased renewable energy generated from third-party installations for factory self-use

4:(1)Self-installed capacities within our Taiwan factories are scheduled for self-use starting from 2025 and are expected to decrease by 1% each year. Capacities for new installations in 2023 were calculated using the Bureau of Energy's standard of 1,250 KWp/KWp annual decreases of 1%

(2) External purchases for solar power are scheduled for 2025-2027 and are expected to commence in 2027 for offshore wind power

5:Electricity carbon emissions coefficients in Taiwan were 0.502 kg CO<sub>2</sub>e in 2021 and 0.509 kg CO<sub>2</sub>e in 2022 (this coefficient was used to calculate emissions for 2023-2030)

6:Two electricity carbon emissions coefficients were used for the China region(Chuzhou):

(1)Electricity purchased from city power grid: 0.581 kg CO<sub>2</sub>e

(2)Photovoltaic generated power: 0.079kg CO<sub>2</sub>e=0.502 kg CO<sub>2</sub>e

## Energy Usage

The Group's energy consumption is mainly composed of purchased electricity, which accounts for 96.3% of all energy usage. Renewable energy accounts for 0.7%, and diesel and natural gas make up the remainder. Therefore, our energy conservation strategies are mainly concentrated on lowering electricity consumption. Ennostar's total energy consumption for 2022 amounted to 1,972,009 (GJ), a 7% decrease compared to 2021. In future, Ennostar will continue to strengthen energy management to meet our RE100 renewable energy goal.

📌 Please refer to the [Appendix 1: Environmental Data](#) section for information on the Group's energy consumption figures for 2022.



## Energy Management and Conservation Actions

The Group implements energy management and conservation through four major actions, including lighting management, air-conditioning management, equipment and system improvement, and process efficiency improvement. In 2022, we reduced electricity consumption by 20.74 million kWh and reduced carbon emissions by 11,040 metric tons CO<sub>2</sub>e.



### Lighting management

Reduced power consumption by **239** million kWh and **1,364** metric tons CO<sub>2</sub>e of carbon emissions

- Reduced lighting equipment and replaced existing lights with LED lights
- Installed segmented light controls in production areas



### Air-conditioning management

Reduced power consumption by **424** million kWh and **2,454** metric tons CO<sub>2</sub>e of carbon emissions

- Controlled air-conditioning times and temperatures in public areas
- Shut down non-essential air-conditioners in production areas



### Equipment and system improvement

Reduced power consumption by **331** million kWh and **1,731** metric tons CO<sub>2</sub>e of carbon emissions

- Optimized factory systems, standby equipment, and management of equipment shutdowns
- Replaced aged equipment and improved operational efficiency

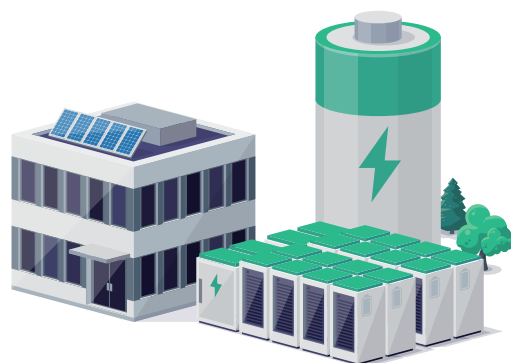


### Process efficiency improvement

Reduced power consumption by **1,078** million kWh and **5,490** metric tons CO<sub>2</sub>e of carbon emissions

- Optimized production and reduced energy consumption per unit
- Reduced electricity consumption

Looking to 2023-2025, we have formulated four action plans and continue to invest in energy-saving improvements, improve energy efficiency, implement integrated management measures, and reduce carbon emissions from operations.



Action Plan	Description of Actions
Achieve annual energy-saving rate of 1%	<ul style="list-style-type: none"> <li>• Formulate energy-saving plans during the first quarter of each year</li> <li>• Formulate five-year plans for replacing major energy-consuming equipment and conduct annual reviews and adjustments based on equipment efficiency/service life/operational risk and operational demands</li> <li>• Assess benefits of new technologies/equipment</li> </ul>
Implement ISO 50001 Energy Management System	In 2023, we plan to <ul style="list-style-type: none"> <li>• Implement the ISO 50001 Energy Management System in pilot factories</li> <li>• Establish factory system baselines and unit energy consumption levels, and identify energy-saving opportunities</li> </ul> Expand implementation to all factories in Taiwan in 2025
Establish digital energy platform	In 2023, we plan to <ul style="list-style-type: none"> <li>• Launch a digital platform in pilot factories, compile energy information</li> </ul> Expand implementation to all factories in Taiwan in 2025
Renewable energy usage and planning	<ul style="list-style-type: none"> <li>• Our factories have established solar power generation systems.</li> <li>• We plan to sell generated power in the short term and initiate self-use starting in 2025. All plans are formulated in accordance with Ennostar's renewable energy blueprint.</li> </ul>

## 4-2 Environmental Management

To improve resource recycling rates, realize waste reduction benefits, reduce environmental impacts from operational and manufacturing processes, and implement environmental management, Ennostar actively implemented ISO 14001, ISO 14064-1, and other environmental management systems to ensure that routine operations and products adhere to environmental standards and laws. We seek to balance economic growth and environmental protection as we work to fulfill our corporate social responsibilities.

### 4-2-1 Water Resource Management

#### Material Topic: Water Resource Management | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
1. Subsidiary EPISTAR diverse water resource assessments (desalinated sea water, reclaimed water)	✓	1. Subsidiary EPISTAR diverse water resource contracts (desalinated sea water, reclaimed water)	1. Subsidiary EPISTAR diverse water resource integration (desalinated sea water, reclaimed water)	1. Subsidiary EPISTAR long-term diverse water resource integration (desalinated sea water, reclaimed water)
2. Subsidiary EPISTAR achieves more than 1% annual growth in recycled water volumes and reduced water usage	✓	2. Subsidiary EPISTAR achieves more than 1% annual growth in recycled water volumes and reduced water usage	2. Subsidiary EPISTAR achieves more than 1% annual growth in recycled water volumes and reduced water usage	2. Subsidiary EPISTAR achieves more than 1% annual growth in recycled water volumes and reduced water usage
3. Subsidiary Lextar achieves cumulative annual water conservation rate (absolute reductions) of 4%	✓	3. Subsidiary Lextar achieves cumulative annual water conservation rate (absolute reductions) of 13%	3. Subsidiary Lextar achieves cumulative annual water conservation rate (absolute reductions) of 19%	3. Subsidiary Lextar achieves cumulative annual water conservation rate (absolute reductions) of 20%
4. Subsidiary Unicorn reduces unit product water consumption volumes by 40%	✓	4. Subsidiary Unicorn reduces unit product water consumption volumes by 40%	4. Subsidiary Unicorn reduces unit product water consumption volumes by 45%	4. Subsidiary Unicorn reduces unit product water consumption volumes by 50%

Responsible unit	Factory affairs units of all Group subsidiaries
Invested resources	Invested construction costs and efforts in tandem with industry, government, and academic institutes to identify opportunities for improvement and formulate innovative technologies with better energy and water conservation benefits.
Grievance Mechanism	<ul style="list-style-type: none"> <li>“Contact Us” section on corporate website</li> <li>Hsinchu Science Park Bureau</li> </ul>

## Management of Water Resource Risks and Responses

Water resources are an important resource for semiconductor manufacturing. In recent years, water management and efficiency have become a topic of concern for internal and external stakeholders due to climate change. We have clearly stipulated water contingency plans and measures in our standard operating procedure documents.

To strengthen management of water resource risks, the Group began to compile information on alternative water sources and formulated a stable water supply plan in 2022. We implement risk management using four steps as shown in the figure to the right. We have also listed management of diverse water resources as one of our three water resource management principles. Relevant actions include (1) Building tanks for industrial and domestic water use at all factories with backup capacities of 3-10 days; (2) Plan to use industrial water to supplement domestic water capacities; (3) Purchase tap water pipelines and supplement water supplies with water trucks when necessary; (4) Ground water management.



Our ESG Committee (Working Group) conducts monthly reviews of introductions, assessments, and applications for reclaimed water and desalinated sea water. In the third quarter of 2022, we submitted letters of intent to the Hsinchu Science Park Bureau and Water Resources Agency, and signed contracts with water trucks to deliver water sourced from surface water and ground water. We also inventoried and maintained functionality of water wells in factories to ensure that we have adequate water resources and to lower risks from water resource impacts.

According to the "Water Resource Risk Assessment Tool" developed by the World Resources Institute, the main area where our operations are located has Low Medium (1-2) water stress, indicating that Ennostar's water usage does not cause significant impact to ecological environments. However, our Epicrystal factories in China are located in Changzhou, Jiangsu, an area with High water stress. We will continue to establish diverse water resources, manage water usage, and promote water recycling and reuse plans.

## The Group's Responses to Water Regime Changes

Water restriction level	Water supply	Government measures	Corporate response measures
Blue	Stable supply	Routine management	Routine management
Green	Stable supply	<ol style="list-style-type: none"> <li>1. Water condition reminders</li> <li>2. Water source adjustments and measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Suspend all unnecessary water use</li> <li>2. Comprehensive review of all factory tap water pipes and water tanks</li> <li>3. Daily monitoring and reporting of factory water storage conditions</li> <li>4. Water conservation promotions</li> </ol>
Yellow	Water pressure reductions	<ol style="list-style-type: none"> <li>1. Reduce water pressure during off-peak and specific periods</li> <li>2. Suspend water supply for irrigation, landscaping, and cleaning</li> </ol>	<ol style="list-style-type: none"> <li>1. Extend pure water system use times and reduce backwashing frequencies</li> <li>2. First-stage enhancements of chiller tower water electrical conductivity (adjusted according to factory operations)</li> <li>3. Reduce frequency of water replacements for factory air pollutant scrubbers</li> <li>4. Coordinated reduction of water tank overflows</li> </ol>
Orange	Water pressure reductions	<ol style="list-style-type: none"> <li>1. Suspend water supply for fire hydrants and rooftop discharge</li> <li>2. Reduce supply to large users surpassing 1000 cubic meters</li> </ol>	<ol style="list-style-type: none"> <li>1. Coordinated suspension of water tank overflows, water for polishing processes, and limitations on production capacity</li> <li>2. Second-stage enhancements of chiller tower water electrical conductivity (adjusted according to factory operations)</li> <li>3. Initiate water truck supplementary measures (reduce water storage levels to less than 70%)</li> <li>4. Adhere to emergency factory measures for abnormal tap water levels</li> </ol>
Red	Regional water rationing	<ol style="list-style-type: none"> <li>1. Regional water rationing or timed suspension of water supply</li> <li>2. Fixed water supply locations</li> </ol>	Adjustments in production capacities

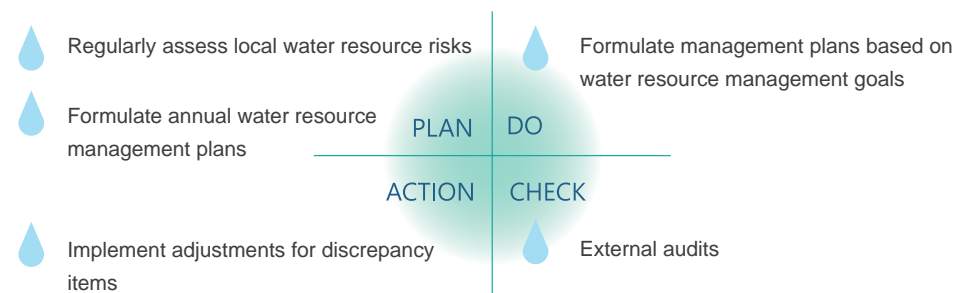
## Water Sources and Discharge Points for All Factories

Water used by the Group is mainly sourced from tap water. Discharge water is processed by sewage treatment facilities or drained to underground sewers connected to science park sewage treatment plants in accordance with law, before final discharge to oceans.

Company	Factory	Water Sources	Wastewater Treatment	Final Discharge Point
EPISTAR	Hsinchu Science Park Factory	Baoshan First Reservoir, Baoshan Second Reservoir, and Yongheshan Reservoir	Our factories are located in a science park and wastewater is processed by park sewage treatment plants	Keya River, Sinkang River
	Central Taiwan Science Park Factory	Liyutan Reservoir		Wu River
	Southern Taiwan Science Park Factory	Nanhua Reservoir		Yanshuei River
Lextar	Packaging and Assembly Factory	Tap water is sourced from Yongheshan Reservoir and industrial water is sourced from Dapu Reservoir	Our factories are located in the Pao Yuan Science Park and wastewater is processed by the Pao Yuan sewage treatment plant	Yangang River
Unikorn	Hsinchu Science Park Factory	Baoshan Reservoir	Our factories are located in a science park and wastewater is processed by park sewage treatment plants	Keya River
Epicrystal	Epicrystal Factories	Municipal tap water (Yangtze River water), reused water from Wunan Reclaimed Water Plant	Our factories are located within the Wujin High-Tech Industry Development Zone. Domestic sewage and industrial wastewater without nitrogen and phosphorus are treated by the Wunan Sewage Treatment Plant; industrial wastewater containing nitrogen and phosphorus is treated by the Wunan Reclaimed Water Plant.	Wunan River
Episky	Xiamen Factories	Tingxi Reservoir	Our factories are located in the Torch Hi-Tech Industrial Development Zone (Xiang'an) and wastewater is treated by the Xiang'an Water Purification Plant	Tongan Bay
Can Yang	Yangzhou Factories	Municipal tap water (Yangtze River water)	Wastewater is treated by factory wastewater treatment systems before discharge into sewer networks	Municipal tap water (Yangtze River water)
Lextar Electronics	Suchu Industrial Park	Shaheji Reservoir	Wastewater is treated by the Suchu Industrial Park sewage treatment plant	Qingliu River

## Water Resource Management and Reduction Actions

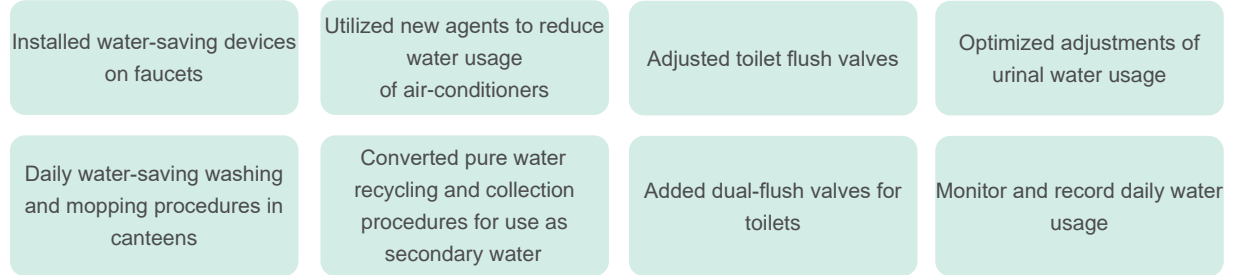
The Group implements water resource management in accordance with the PDCA process shown in the figure on the right, encompassing formulation of annual plans, management objectives, external audits, and real-time adjustments.





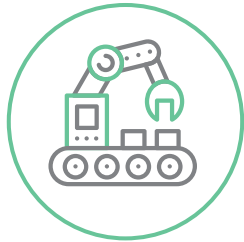
We also actively work to maximize water-saving benefits, including by publicizing energy-saving actions (see the figure below), identifying recyclable water sources, and increasing use of secondary water.

✓ In 2022, our entire recycling system recycled and reused an additional 532 million liters of water compared to the base year (2021), achieving an annual efficiency increase of almost 30%, demonstrating that our water conservation measures effectively enhance water recycling efficiency.



In 2022, we invested 2.13 million in energy-saving construction projects, and reviewed all stages related to water sources, including storage, generation, usage, recycling, drainage, and discharge, to identify possible water conservation and reuse opportunities. We also evaluated and formulated budgets and implementation plans as well as conducted regular reviews to meet our water conservation goals.

## Production optimization



Reduced annual water consumption volumes by 21.72 million liters

- Reduced pure water consumption for each unit of production capacity
- Replaced traditional quartz sand filter materials with antibacterial filter materials (AFM) (pure water conservation project): Reduced backwash water volumes and energy consumption; prevented bacteria from forming biofilm coatings which lower exchange times and generated water volumes; and eliminated unstable system operations from extracting resin to clear biofilms

## Water recovery and water cycles



Reduced annual water consumption volumes by 41.18 million liters

- Recovery methods included ROR wastewater recovery, QDR wastewater recovery, polishing wastewater recovery, air-conditioner condensate recovery, RO filter water recovery, low-concentration drainage recovery
- Heavy metals in wastewater are absorbed using nanoporous glass material: As heavy metals in wastewater are easily absorbed, water resources can be recycled and absorbed metals can be recycled and reused. Currently in development with the Industrial Technology Research Institute

Looking to 2023-2025, in the short term, we plan to continue participating in government-organized plans, using and purchasing water from the Hsinchu Desalination Plant and Anping Reclaimed Water Plant in the Southern Taiwan Science Park; our long-term goal is to import water during water shortages. We also plan to invest NT\$ 15 million in equipment upgrades which are expected to reduce unit production area (m2) wastewater volumes by 34%. Ennostar will also conduct weekly water consumption reviews, establish weekly consumption volumes and production capacity trends, aim to increase recycled (reduced) water volumes by more than 1% across all factories every year, and formulate budgets based on factory water recycling plans.

## Prevention and Management of Water Pollution

The main purpose of water pollution management is to reduce direct entry of process pollutants into wastewater. Our wastewater is processed by wastewater treatment equipment which lowers pollutant content such that discharged water can meet science park administration standards. Our main water processes involve water purification systems which convert tap water into ultrapure water used in process equipment for cleaning chemical residues on wafer surfaces.

In order to effectively monitor and manage wastewater, we implement the following three steps to achieve pollution prevention. Warnings of abnormalities are sent to staff on shift 24 hours a day so they can immediately respond to emergencies.

✓ The Group's discharged wastewater all adhered to the requirements of competent authorities in 2022.

### Segregation Based on Wastewater Classification

- Gallium, arsenic, fluorine/iron, and acid and alkaline wastewater
- Inorganic wastewater, organic wastewater, polishing wastewater, and fluorine wastewater
- Domestic wastewater

### Wastewater Treatment and Prevention

- All wastewater adhered to regulated standards
- Adhered to the ISO 14001 Environmental Management System and used systemic management measures to implement environmental protection strategies and wastewater plant operations. Responsible units also conduct maintenance procedures and periodic inspections based on equipment characteristics
- We have installed appropriate backup pumps and temporary equipment to ensure that backups are available in the event of operational interruptions, thereby reducing abnormal discharge of pollutants

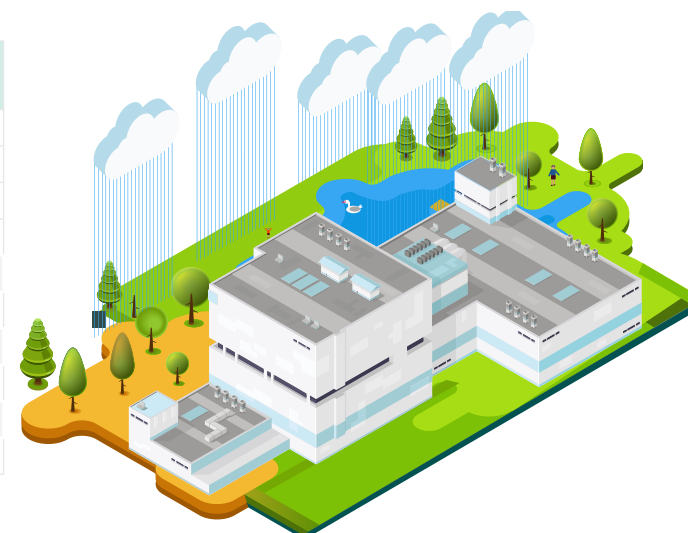
### Wastewater Monitoring and Optimization

- We have installed equipment at wastewater plant outlets to monitor water quality (acid and alkaline levels) and water volumes so that we can carry out appropriate responses if abnormalities occur
- All factories are required to undergo inspections of effluents and raw water every six months in accordance with law to ensure that effluent quality adheres to required standards. Ennostar also conducts voluntary sampling tests of water quality on a monthly basis

Wastewater indicators and limits for all factories in 2022:





Company/Factory	Sewage indicators/limits	Biochemical Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)	Suspended Solids (SS)
EPISTAR	Hsinchu	300 mg / L	500 mg / L	300 mg / L
	Zhunan	300 mg / L	500 mg / L	300 mg / L
	Central Taiwan Science Park	300 mg / L	500 mg / L	300 mg / L
	Southern Taiwan Science Park	250 mg / L	450 mg / L	250 mg / L
Lextar	Zhunan	300 ppm	500 ppm	300 mg / L
Unikorn	Hsinchu	300 mg / L	500 mg / L	300 mg / L
Epicrystal	Changzhou	350 mg / L	500 mg / L	400 mg / L
Episky	Xiamen	300 mg / L	500 mg / L	400 mg / L
Lextar Electronics	Chuzhou	N/A	500 mg / L	400 mg / L
Can Yang	Yangzhou	N/A	500mg /L	400 mg / L

Note: The pollutant discharge permits held by Lextar Electronics and Can Yang do not request BOD tests, and therefore BOD values are denoted as "NA"



## 4-2-2 Waste Management and Circular Economy

### Material Topic: Waste and Circular Economy | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
<ol style="list-style-type: none"> <li>1. Waste data collection and baseline formulation</li> <li>2. Assess alternative materials for EU restricted hazardous substances (NMP)</li> <li>3. Raise gold reuse ratios to 80%</li> <li>4. Recycle 100% of waste photoresist</li> </ol>	   	<ol style="list-style-type: none"> <li>1. Increase annual ratios for recycled waste by 1%</li> <li>2. Inventory raw materials containing NMP and confirm alternative target materials</li> <li>3. Raise gold reuse ratios to more than 80%</li> <li>4. Recycle 100% of waste photoresist</li> <li>5. Assess feasibility of recycling gallium waste</li> <li>6. Assess feasibility of recycling IPA waste</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase annual ratios for recycled waste by 1%</li> <li>2. Test and assess NMP alternatives</li> <li>3. Raise gold reuse ratios to more than 80%</li> <li>4. Recycle 100% of waste photoresist</li> <li>5. Implement recycling procedures for two types of gallium waste (PT buckets and gallium filter bags)</li> <li>6. Assess feasibility of recycling and reusing IPA for use as electronic grade raw materials</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase annual ratios for recycled waste by 1%</li> <li>2. Incorporate NMP alternatives</li> <li>3. Raise gold reuse ratios to more than 80%</li> <li>4. Recycle 100% of waste photoresist</li> <li>5. Assess feasibility of recycling gallium for reuse by raw materials vendors</li> <li>6. Recycle and reuse IPA for use as electronics grade raw materials</li> </ol>

Responsible unit

The Group's ESG Eight Task Forces-sustainable manufacturing team and all subsidiary manufacturing departments

Invested resources

Investments in recycling vendors and work with industry, government, and academic institutes to identify opportunities for improvement

Grievance Mechanism

Competent authorities

To balance economic activity and ecological environments, Ennostar transforms waste into resources that enter new material cycles through collaborations with industry, government, and academic institutes, thereby creating new materials or inputs. We incorporate green design concepts and improved processes to recycle and reduce organic solvents, waste emissions, and metals while working with suppliers to assess feasibility of recycling measures for hazardous substances. We also participate in industry-academia collaborations to test whether replacing wastewater treatment materials can enhance pollutant removal rates and energy-saving performance. We use sustainable raw materials, reduce material consumption, and enhance product yields to lower production costs and create symbiotic environments for enterprises and resources. We implement waste classification, waste recycling, and packaging material reuse measures to reduce waste, continue to implement improvements using the PDCA cycle, and work to achieve sustainable management.

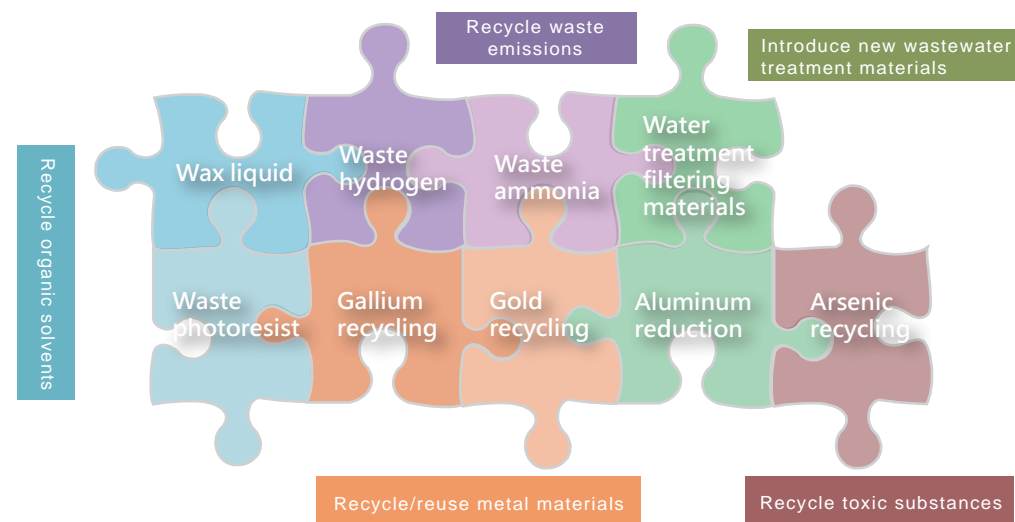
Our production processes adhere to regulations and waste from all process stages are classified according to their characteristics. Waste is managed and stored according to procedural manuals before treatment by legally qualified vendors. We continue to seek out opportunities related to waste reduction and waste reuse in our manufacturing processes by working with new collaborators to develop waste recycling and reuse technologies that enhance recycling rates and reduce volumes of non-recycled (incinerated, stabilized, and landfilled) waste. We hope to continue reducing the proportion of non-recycled waste and increasing the proportion of recycled waste.

In 2022, our waste recycling rate was 84%. We recycled reusable portions of packaging materials such as pallets, buffer materials, and wafer delivery boxes, and collected recyclable materials at specific suppliers for reuse. In 2022, EPISTAR's filings for LED wafer waste and waste powders did not match waste disposal plans, and were found to be in violation of Subparagraph 1, Paragraph 1, Article 31 of the Waste Disposal Act, incurring a fine of NT\$ 60,000. Ennostar immediately deleted relevant codes on the industrial waste system and incorporated monthly waste management self-assessment checklists into industrial waste systems.

Unikorn recycles gold (Au) and platinum (Pt) using in manufacturing processes. Overall recovery rate was 86.52%:

Material Category	Category	Usage Volumes in 2022 (G)	Recovery Volumes in 2022	Recovery Rate
Gold (Au) (Pure gold and alloys)	Slug (gold)	96,650	85,927	88.91%
	Chemicals containing gold	2,650	1,023	38.62%
	Au target	5,085	3,080	60.57%
Platinum (Pt)	Slug (platinum)	5,721	5,231	91.44%
Subtotal	-	110,106	95,262	86.52%

## Ennostar's circular economy



## Waste Management and Reduction Actions

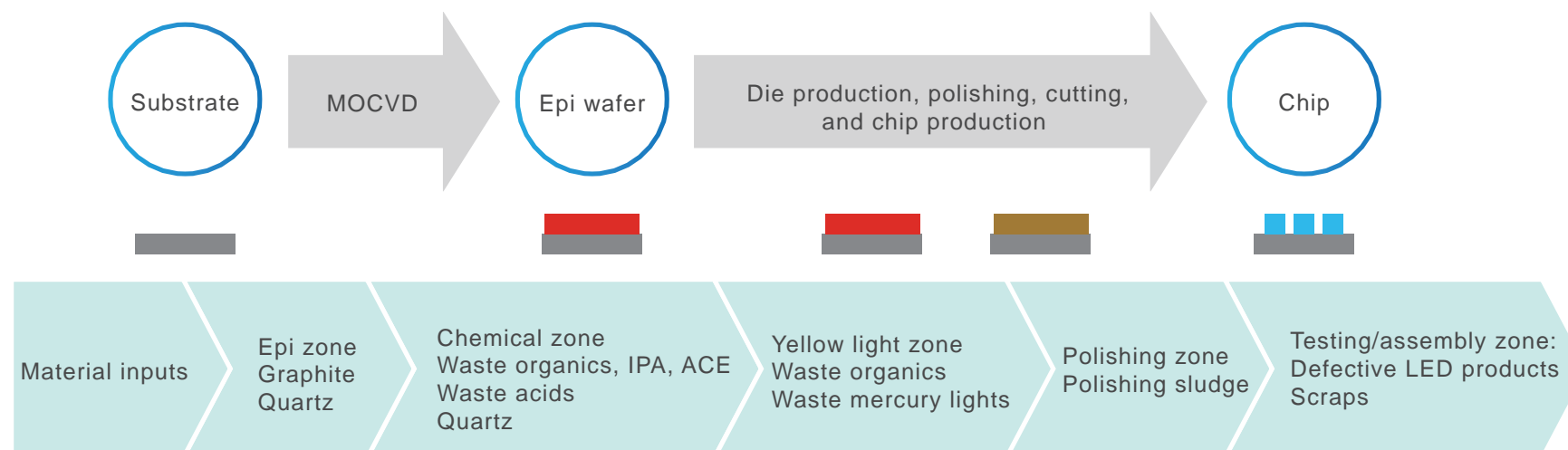
Waste Reduction Project	Achievements in 2022	Improvements Implemented in 2022
Source reduction of process materials (Lextar)	<ul style="list-style-type: none"> <li>Reduced loss rates for fluorescent glue by 4.7% and reduced costs by NT\$ 1.4 million</li> <li>Decreased use intensities for cutters (ton/million in revenue) by 25%</li> <li>Reduced UV resistant film use intensities (ton/million in revenue) by 10% (4.09 tons)</li> </ul>	<ul style="list-style-type: none"> <li>As waste plastics and waste rubber hoses cannot be recycled, process improvements reduced waste volumes, thereby lowering waste handling costs and environmental impacts</li> <li>Selected diamond blades with optimal configurations based on plate material characteristics to extend consumable material service life, quality, and yield, as well as enhance environmental sustainability</li> <li>Changed cutting machine platform designs to increase the number of products wrapped per unit of UV resistant film, achieving cost control, waste reduction, and environmental protection goals</li> </ul>
Reduction of packaging materials (EPISTAR)	<ul style="list-style-type: none"> <li>Reduced blue foam volumes by 12,000 pieces per year</li> </ul>	<ul style="list-style-type: none"> <li>Cardboard boxes used for shipments use blue anti-static foam as a buffer material. We therefore redesigned, tested, and verified cardboard boxes to eliminate the need for blue anti-static foam.</li> </ul>
Reduction of packaging materials (Lextar)	<ul style="list-style-type: none"> <li>Total volume of 11,929 pieces (141.2 kg)</li> </ul>	<ul style="list-style-type: none"> <li>Reduced use of shipment buffer materials</li> </ul>
Reuse packaging materials (Lextar)	<ul style="list-style-type: none"> <li>Total amount of 8.42 tons</li> </ul>	<ul style="list-style-type: none"> <li>Reuse shipping and packaging materials</li> <li>Recycle and reuse plywood pallets</li> </ul>
Source reduction of packaging materials (Lextar)	<ul style="list-style-type: none"> <li>Total amount of 845 kg</li> </ul>	<ul style="list-style-type: none"> <li>Implemented paperless operations and digital packaging reports</li> <li>Adjusted shipment packaging designs to reduce use of paper cartons</li> <li>Replaced paper pick lists with PDA devices</li> </ul>
Waste reduction	<ul style="list-style-type: none"> <li>Reduced recycled resources by 1.21 tons</li> <li>Waste generated per unit of production was reduced by 4% and waste recycling ratio per unit of production increased by 3%</li> </ul>	<ul style="list-style-type: none"> <li>Worked with factory manufacturing departments to reduce and reuse source materials, and searched for back-end vendors to implement recycling and reuse for materials that could not be reduced or reused</li> </ul>



Waste Reduction Project	Achievements in 2022	Improvements Implemented in 2022
Reduction of waste solvents (Epistar, Unikorn, Epicrystal, Can Yang)	<ul style="list-style-type: none"> <li>Recycling and reuse volumes               <ul style="list-style-type: none"> <li>✓ Waste photoresist (NMP): 127 tons</li> <li>✓ IPA: 140 tons</li> <li>✓ ACE: 56.6 tons</li> </ul> </li> <li>Recycled 201 empty solvent tanks</li> </ul>	<ul style="list-style-type: none"> <li>We began using photoresist strippers in front-end processes at EPISTAR H1 and S1 factories beginning in 2021. Originally, our waste liquids were incinerated by legally qualified vendors, and we commissioned tests and analyses from multiple waste treatment companies, the results of which showed that our photoresist strippers contained high levels of NMP (N-methyl pyrrolidone) which could be recycled. We collaborated with our factory managers to revise factory waste liquid discharge pipelines, diverting waste stripper liquid from mixed organic waste liquid pipelines to dedicated collection pipelines, then used physical disposal methods to achieve our aims of recycling and reuse</li> <li>Dedicated IPA and ACE recycling procedures prior to disposal by recycling vendors</li> <li>The raw materials used in our chemical zone come in 200L containers which were originally incinerated by qualified manufacturers. Ennostar took the initiative in seeking out chemical material suppliers willing to recycle these waste containers. Residual solvents were removed from collected empty containers, and the containers were reused to pack chemical materials</li> </ul>
Waste recycling (Lextar)	<ul style="list-style-type: none"> <li>Total recycled waste amounted to 5.052 tons</li> </ul>	<ul style="list-style-type: none"> <li>We generate around 3.06 tons of waste A/B plastic and glass bottles in a year and around 1,992 tons of plastic containers used for chemical materials; we commissioned waste disposal vendors to implement physical treatment processes on these waste containers to make recycled glass and recycled plastic materials</li> </ul>
Waste recycling (Lextar)	<ul style="list-style-type: none"> <li>Cleared 900 kg of lead frames which were used to generate 21 kg of pure silver and 700 kg of pure copper</li> </ul>	<ul style="list-style-type: none"> <li>Waste materials generated from lead frames during blanking stages were used by disposal vendors to collect recycled copper/silver</li> </ul>

All Ennostar factories have established “Waste Management Procedures” to ensure that waste generated during factory operations are treated legally, appropriately, and safely to minimize environmental impacts. We have also established “Supplier/Contractor EHS Appraisal Regulations” which stipulate that we only collaborate with qualified waste disposal companies which have passed our checks. Ennostar regularly conducts supplier audits to ensure that collaborating suppliers dispose of waste in accordance with contracts and regulations. The following waste generation charts from EPISTAR and Lextar are used to illustrate our waste management procedures.

## EPISTAR Waste Generation Chart and Waste Management Actions

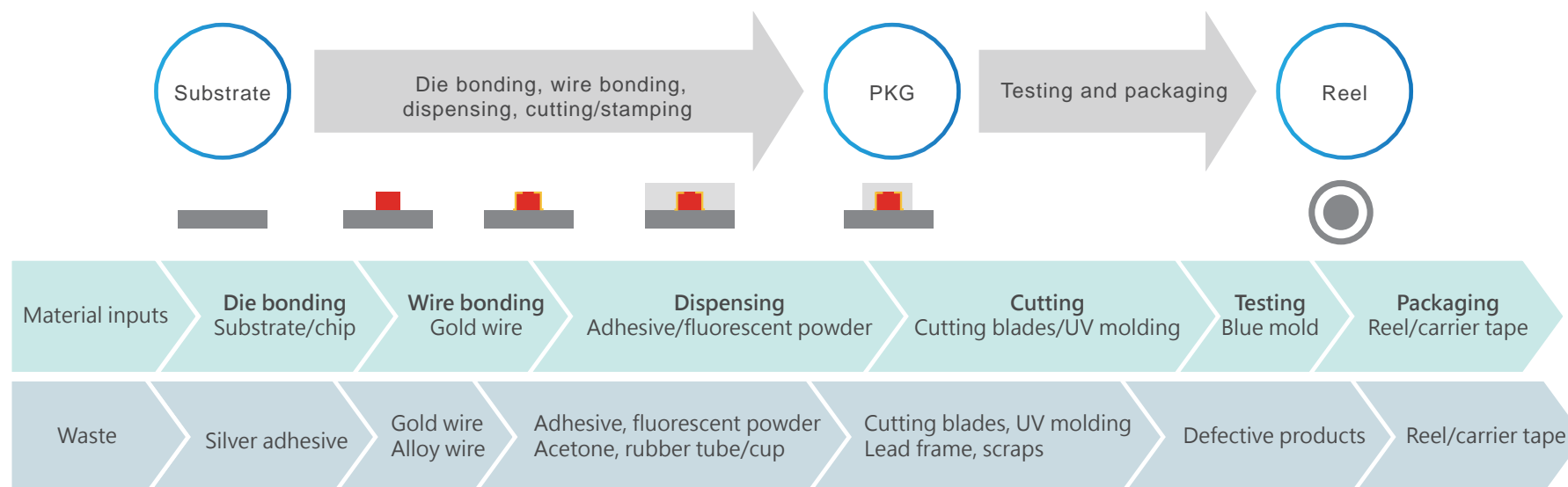


EPISTAR’s waste includes hazardous industrial waste, general industrial waste, listed reuse waste items, and listed recycling waste items. We determine whether waste generated during production is hazardous according to the “Standards for Defining Hazardous Industrial Waste,” assess industrial waste materials and characteristics, implement classifications based on industrial waste categories and codes released by the Environmental Protection Administration, and commission qualified removal/disposal companies to handle waste.

New waste disposal companies are investigated using the “Waste Disposal Company Investigation Form.” We can only commence collaborations with qualified waste disposal companies after they have passed our checks. We also conduct annual evaluations of all waste removal/disposal companies, including scheduled or non-scheduled audits of disposal processes. Related results are recorded using our “Waste Disposal Company Investigation Form” and general evaluation results are compiled in our “Waste Disposal Company General Evaluation Form.” Suppliers are ranked using three grades: A, B, and C. We maintain the status quo for A-grade companies and prioritize these companies for future collaboration. B-grade companies are included in watch lists and asked to implement improvements. C-grade companies are eliminated.

✓ In 2022, we completed audits of 55 removal/disposal companies, achieving a 100% evaluation completion rate.

## Lextar Waste Generation Chart and Waste Management Actions






Raw material categories included in Lextar production processes are PCBs, lead frames, phosphors, A/B glue, silver glue, chips, cleaning acetone, gold wires, carrier tape, PVC gloves, and face masks. Lextar products include LEDs, light strips/light panels, and modules; waste generated during these production processes include packaging materials, empty chemical containers, waste solvents, waste electronic components, and general industrial waste. Lextar and factories regularly discuss how to prevent and reduce generation of upstream and downstream waste. Factory waste is handled by third-party organizations and we conduct annual audits of related disposal companies in accordance with regulations.

## Circular Economy

In the face of growing global concern for circular economy issues, the Group not only works to reduce product carbon emissions, but also actively promotes Group-wide strategies and goals under a “zero waste” blueprint. Our strategies include increasing conversion rates of general industrial waste, reducing incineration and landfill volumes, and working with manufacturing departments to improve front-end factory throwing rates as well as reducing and reusing packaging materials and raw materials. Our EHS departments seek out back-end recycling and reuse vendors for general industrial waste and have established a goal of “Increasing waste recycling ratios and waste recycling intensities per unit of production capacity (for each million of revenue) by 3%” to achieve circular economy within the Group.

## 4-2-3 Prevention of Air Pollution

### Material Topic: Air Pollution Management | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
<ol style="list-style-type: none"> <li>1. Compliance with emission requirements of air pollution regulations</li> <li>2. Zero major violations of environmental regulations</li> <li>3. Replace or upgrade three anti-control equipment</li> </ol>	  	<ol style="list-style-type: none"> <li>1. Compliance with emission requirements of air pollution regulations</li> <li>2. Zero major violations of environmental regulations</li> <li>3. Replace or upgrade three anti-control equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. Compliance with emission requirements of air pollution regulations</li> <li>2. Zero major violations of environmental regulations</li> <li>3. Replace or upgrade five anti-control equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. Compliance with emission requirements of air pollution regulations</li> <li>2. Zero major violations of environmental regulations</li> <li>3. Replace or upgrade three anti-control equipment in a year</li> </ol>

Responsible unit

Manufacturing centers of all Group subsidiaries

Invested resources

Assessments for replacement of pollution prevention equipment and equipment procurement costs.

Grievance Mechanism

“Contact Us” section on corporate website

Exhaust gas from Group production processes is mainly categorized as acidic exhaust gas, alkaline exhaust gas, volatile organic exhaust gas, and general exhaust gas. Equipment for preventing air pollution differs by pollutant type and characteristics. Acid and alkaline substances in acidic and alkaline exhaust gases are collected by associated equipment before discharge to a central scrubber for filtering and cleaning with chemicals and water. Volatile organic compounds in volatile organic exhaust gases are collected by associated equipment before discharge to a zeolite concentration runner where high heat is used to break down the majority of volatile organic compounds, following which the exhaust gas is discharged into the atmosphere. Exhaust gas concentrations are tested periodically in accordance with law. Key parameters and operational signals of all prevention equipment receive 24-hour management and monitoring. Staff on shift immediately handle all abnormalities such as operational interruptions due to equipment failure, and backup equipment is also available to reduce environmental impacts.

In 2022, we inventoried all factory machinery and equipment containing ozone depleting substances (ODS) and did not discover any discharges of ozone depleting potential substances or ozone depleting substances. However, as manufacturing processes were transferred from Lextar's T01 factory to EPISTAR's N5 factory during the year, raw material usage volumes exceeded annual volumes on operational permits by 10%, and were found to be in violation of Paragraph 2, Article 24 of the Air Pollution Control Act, incurring a fine of NT\$ 100,000. As transfers have been completed and this issue did not reoccur, we plan to be attentive of all application procedures in future.

Please refer to the [Appendix 1: Environmental Data](#) section for air pollution data.

## Air Pollution Management and Future Targets for Optimization

We consider air pollution management to be an important environmental management issue. Apart from the aforementioned management guidelines, the Group also implements optimized management plans, including gradual integration of air pollution control equipment in factories without relevant equipment in 2023, collection of equipment operation and test data, and gradual equipment optimization and assessments. Our factories in China installed new spray towers which optimized primary and secondary treatments, reduced sulfuric acid mist concentrations from 20 mg/m<sup>3</sup> to 5 mg/m<sup>3</sup>, and reduced environmental impacts from air pollution to demonstrate our emphasis and commitment to environmental issues.

## 4-2-4 Biodiversity

“Biodiversity” encompasses all life forms at all levels from genes, individuals, groups, species, clusters, ecosystems, and landscapes. As a member of the global village, Ennostar fully understands the importance of maintaining and protecting biodiversity. We must coexist with all living things on the planet and it is our responsibility to maintain ecological balance.

Coastal debris can damage marine environments when it flows into oceans. To maintain marine ecological environments and do our part for marine organisms, we worked with third parties such as the Miaoli County government and the Miaoli County Volunteer Service Promotion Center on December 13, 2022 to jointly host a beach cleanup activity at Zhunan Qiding. Elderly volunteer guides from the Qiding community led volunteers in entering communities, listening to resident life stories, and removing man-made garbage; Volunteer teams collected a total of 3,500 kilograms (70 burlap sacks) of man-made garbage. volunteers were able to physically experience the environmental and biodiversity damage caused by discarded waste. We hope that the next generation can still be able to view the true appearance of these beautiful blue oceans and white sandy beaches.







**5-1 Talent Development**

**5-2 Happy Workplace**

**5-3 Protection of Human Rights**

**5-4 Occupational Health and Safety**

**5-5 Mutually Beneficial Society**

# Inclusiveness and Growth

## CH5 Inclusiveness and Growth

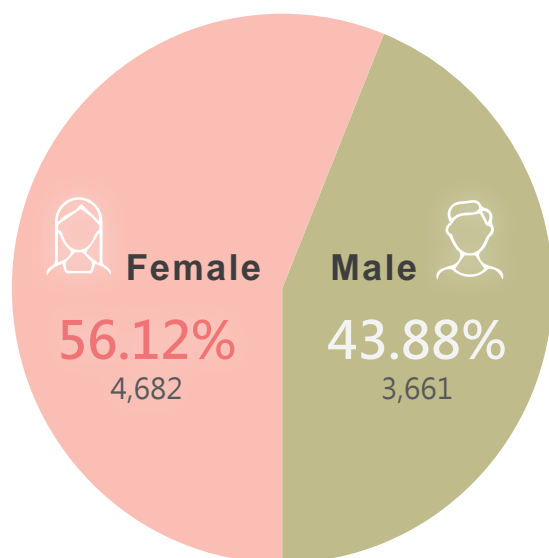
The Group is committed to continued investments in cultivation of internal talent, employee care, and external social participation. We believe that competitive advantages in talent supported by comprehensive benefits, care, and friendly workplace environments can better society and we work to jointly create virtuous cycles of social influence both inside and outside the Group.

### 5-1 Talent Development

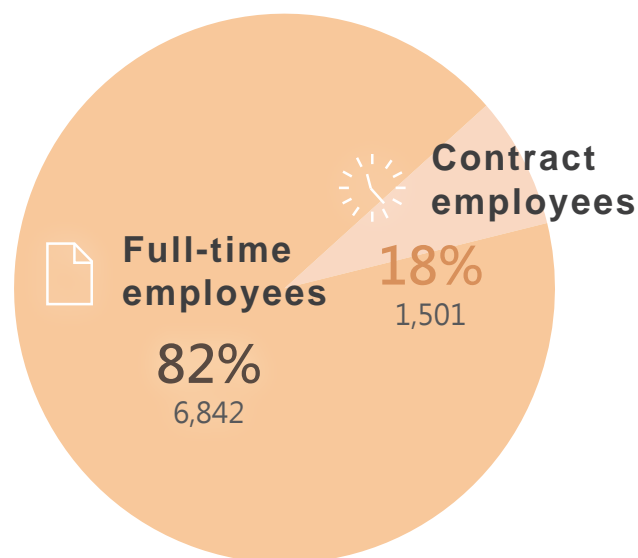
#### 5-1-1 Talent Strategies

Innovation and sustainable management are our core driving forces. We consider recruitment and cultivation of outstanding talent as well as creation of a diverse and inclusive workplace environment to be operational priorities.

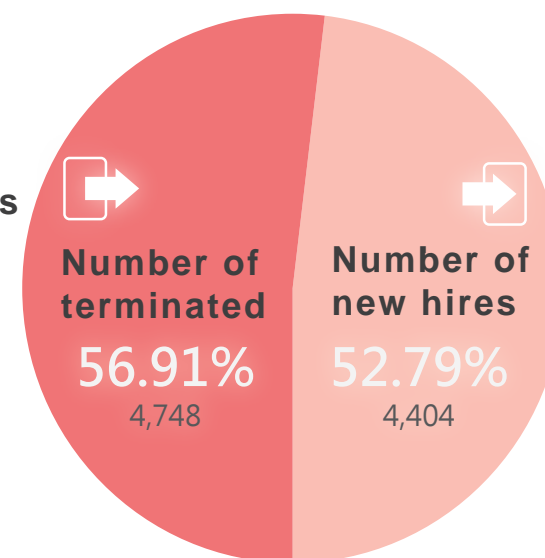
As of year-end 2022, the Group has a total of 8,343 employees in Taiwan and China. Our personnel distributions are as follows:



Gender Ratios

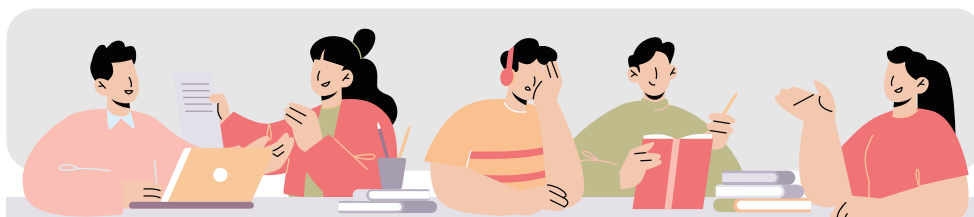


Ratios of Full-Time and Contract Employees

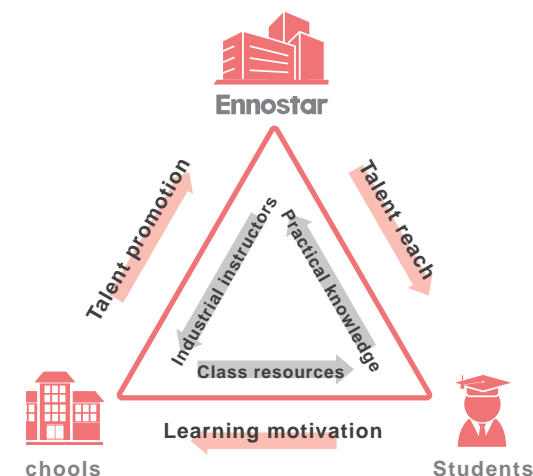


Ratios of New Hires and Terminated Employees

## 5-1-2 Industry-Academia Collaborations




At Ennostar, we consider it our responsibility to cultivate professional students who can become pillars of society. We continue to establish rich and diverse industry-academia collaborations by providing scholarships to schools all around Taiwan, organizing courses and classroom lectures, donating school equipment, and setting up internship programs. We are also working with National Taiwan University, National Taipei University of Technology, and National Yang-Ming Chiao-Tung University on a number of research projects to cultivate graduate and doctoral students. We invested NT\$ 3.87 million in 2022 and completed six industry-academia collaboration projects. We combine business and academic strengths to enhance the competitiveness of students in the job market, and continue to increase recognition and support of Ennostar in academic circles to build human resources and research momentum for the Group.



### Industry-Academia Collaboration Project Achievements in 2022

EPISTAR			
Mode of industry-academia collaboration	Partner schools	Description	Benefits
Scholarships	No restrictions	All science and engineering students who meet requirements for academic performance can apply for our scholarships	Number of applicants: 131 Recipients: 4 Total scholarship amounts for 2022: NT\$ 240,000
Courses and classroom lectures	National Taipei University of Technology, Soochow University, Chang Gung University, National Chung Hsing University, Southern Taiwan University of Science and Technology, I-Shou University, National Kaohsiung University of Science and Technology	Designated supervisors and engineers introduce emerging LED technological developments in campuses through our certification courses and specific courses to enhance student understanding of LEDs and miniaturization processes	Number of lectures: 15 Participants: 664
Equipment donations	Soochow University, National Central University, National Chung Hsing University	We reuse replaced equipment and help schools set up simulations of production environments to provide students with practical experiences	Completed equipment donations to three schools in 2022
Internship programs	No restrictions	EPISTAR has organized training schedules for students so they can learn by doing, combine theory and practice, and gradually familiarize themselves with the work routines of an engineer	We recruited eight interns in 2022 and plan to retain two



Lextar			
Industry-academia collaboration project	Partner schools	Description	Benefits
Micro LED display research project: Color measurement and image quality	National Taiwan University of Science and Technology 111/01/01~111/12/31	<ul style="list-style-type: none"> <li>Color measurement and color calibration</li> <li>Evaluation of display image quality</li> </ul>	<ul style="list-style-type: none"> <li>Trained 2 graduate students</li> </ul>
Research on next-generation ultra-high resolution LED display image processing algorithms	National Yang-Ming Chiao-Tung University 111/01/01~111/12/31	<ul style="list-style-type: none"> <li>Research and integration of human visual systems</li> <li>Establishment of verification processes</li> </ul>	<ul style="list-style-type: none"> <li>Trained 2 doctoral students and 2 graduate students</li> </ul>
Development of composite indium phosphide alloy core-shell quantum dots with high quantum efficiency and high stability for white-light mini-LED backlight modules	Feng Chia University (Collaborated on National Science and Technology Council project) 110/06/01~111/05/31	<ul style="list-style-type: none"> <li>Eco-friendly, non-toxic, and novel composite QDs</li> <li>White-light mini QD-LEDs with integrated COB packaging technologies</li> <li>Applied backlight modules to LCDs to create QD-LCDs</li> </ul>	<ul style="list-style-type: none"> <li>Trained 2 graduate students</li> <li>Our 2021 collaboration project received a distinguished honor award from the National Science and Technology Council</li> </ul> 
Synthesis and anti-counterfeiting applications of infrared quantum dot materials	National Taipei University of Technology (Collaborated on National Science and Technology Council project) 110/11/01~111/10/31	<ul style="list-style-type: none"> <li>Mass production and synthesis technologies for infrared quantum dot materials</li> <li>Strategies for improving polymer viscosity and stability</li> <li>Dual anti-counterfeiting applications</li> </ul>	<ul style="list-style-type: none"> <li>Trained 2 graduate students</li> </ul>
Research and development of composite LED perovskite quantum dot materials	National Taiwan University 111/01/10~112/01/09	<ul style="list-style-type: none"> <li>Perovskite quantum dot glass</li> <li>Synthesis of red quantum dots</li> </ul>	<ul style="list-style-type: none"> <li>Trained 4 doctoral students and 2 graduate students</li> </ul>
Development of quantum dot white-light Mini LED backlight module with AI-optimized design	National Yang-Ming Chiao-Tung University (Collaborated on Hsinchu Science Park Bureau project) 111/01/01~111/12/31	<ul style="list-style-type: none"> <li>Optical AI simulations and designs</li> <li>Development of ultra-wide-angle W-Mini LED packaging design technologies</li> </ul>	<ul style="list-style-type: none"> <li>Lextar received NT\$ 3.89 million in subsidies from the Hsinchu Science Park Bureau and the school received NT\$ 1.76 million from the Hsinchu Science Park Bureau</li> <li>Trained 2 doctoral students and 2 graduate students</li> </ul>

## Industry-academia collaborations-Improving tangible and intangible environments for talent cultivation in universities

### Soochow University

In 2022, EPISTAR provided Soochow University with course, funding, and equipment support, supplying students with hardware to enhance learning through donations of semiconductor testing equipment so that students in the physics department could gain a practical understanding of semiconductor manufacturing processes. We also offered monthly subsidies of NT\$ 10,000, seamless employment after graduation, and knowledge training in the form of an optoelectronics course to help students align their knowledge and skills with industry needs.



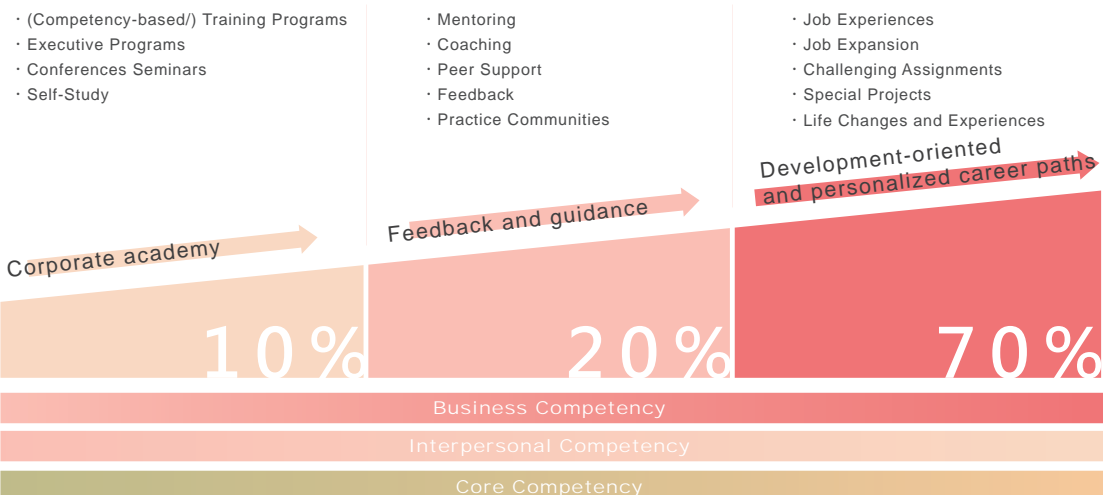
### National Chung Hsing University

To cultivate top optoelectronics talent, EPISTAR donated 28 pieces of equipment (including laser cutters, wire bonding machines, and splitting machines) worth more than NT\$ 200 million to National Chung Hsing University. Apart from large-scale equipment donations, we also plan to build an industrial-academic training platform with National Chung Hsing University to strengthen industry-academia collaboration relations.



### 5-1-3 Talent Cultivation

Ennostar adopts the 70/20/10 principle for talent development and has constructed competency models and learning blueprints as well as strengthened guidance and feedback to help our colleagues learn from their work experiences. We promote diverse education and training mechanisms through our corporate universities to enhance the professional capabilities, interpersonal skills, and management competencies of our personnel. Our performance management system is critical for enabling learning from work experiences, serving as a dual engine which enables 70% experience learning and 20% guidance and feedback through accumulation of work experience including routine business and project participation as well as timely information sharing and feedback from managers and project teams, forming a virtuous learning cycle which accelerates personal growth and development.





We consider talent to be our most important asset. We nurture employees from the five axes of “self-development,” “management capabilities,” “professional capabilities,” “general capabilities,” and “orientation training for new employees.” Our subsidiaries EPISTAR and Lextar have established “EPISTAR University” and “Lextar Academy” based on these axis items in line with key company projects and invested corporate resources in cultivating professional talent.

Five Main Axes	Axis Capabilities	Corresponding Courses
Self-development	Short-term capabilities needed, long-term potential cultivation	On-the-job training, language studies
Management capabilities	Strategic blueprints for management college	Training courses for managers of all levels, strategic blueprints for management college
Professional capabilities	Strategic blueprints for unit training; strategic blueprints for science, engineering, and quality colleges	Professional courses, training for internal lecturers, cultivation of production line trainers; strategic blueprints for engineering college, science college, quality college, and unit training
General capabilities	Strategic blueprints for quality and sustainability colleges; corporate culture and legal compliance courses (including dissemination of Foreign Corrupt Practices Act policies and internal reporting channels)	General education courses, new employee consensus camps, establishment of sustainability awareness, strategic blueprints for cultivation of new employees and general education college
Orientation training for new employees	Introduction to the Group; environmental safety and quality concepts; strategic blueprints for cultivation of new employees	Introduction to corporate culture, administrative regulations and quality concepts, occupational and environmental safety regulations, dissemination of information security policies and trade secrets laws, ethical management and legal compliance



## Sustainability College

Ennostar established a Sustainability College in early 2022 to create well-being from the inside out through ESG promotions while incorporating ESG in our corporate DNA, forming virtuous cycles for continued generation of additional corporate value. In 2022, the Sustainability College hosted 9 courses (8 in-person classes and 1 online class) attended by 4,216 outstanding managers and colleagues, achieving an average satisfaction score of 4.63 out of 5. The courses included low-carbon transformations and mutual prosperity through sustainability; human rights advocacy and legal compliance (ethical management, anti-corruption, anti-trust); and management training, enabling our colleagues to effectively and quickly learn and build sustainability awareness. We also invited personnel from other corporations to share how they incorporated ESG within their companies as well as the daily lives and work routines of their colleagues. Apart from these courses, we also disseminated ESG concepts and activities through internal factory publications and irregular newsletters, enabling our colleagues to stay informed of corporate sustainability management and plans.

Course Title	Participants	Satisfaction Score
Solar Applied Materials Technology Corporation ESG trends and strategies	89	4.68
Legal compliance module: Responding to client/supplier patent issues	194	4.72
Legal compliance module: Intellectual property rights from corporation establishment to sustainable management	144	4.58
Introduction to internal carbon pricing trends and corporate practices	137	4.51
How to enhance corporate resilience through ESG: Transformations and opportunities	233	4.72
ISO 14067 and product carbon footprints	35	4.69
Legal compliance module: Corporate anti-corruption seminar	178	4.57
Sustainability trends and dynamics	29	4.04
Management of human rights policies and ethical/moral behaviors	3,177	4.36

In 2023, we plan to host 19 in-person classes and 2 online classes themed around trend analysis, low-carbon transformations, ethical management, and mutual prosperity through sustainability to strengthen personnel sustainability awareness established in 2022.

All subsidiaries actively participate in Sustainability College courses and help to incorporate ESG into Ennostar's DNA, and also utilize internal communication channels (such as EPISTAR's publication The EPISTAR Times and Lextar's ESG Academy) to promote ESG concepts.



## EPISTAR University

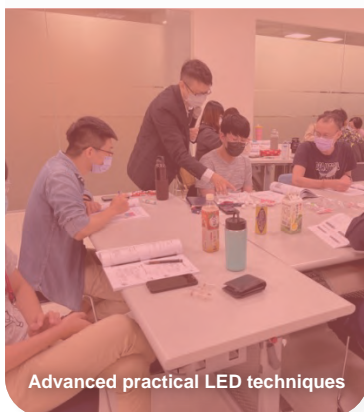
We founded EPISTAR University in 2020 after surveying and analyzing training needs based on annual organizational strategies and unit requirements, and established five colleges: Science, Engineering, Quality, General Education, and Leadership. To promote ESG concepts, we added the Sustainability college in 2021 and integrated the General Education college into Quality college. The five colleges have designed diverse learning programs to meet different needs and benefits, providing all employees with comprehensive learning resources from establishment of quality concepts, cultivation of professional skills, strengthening of general knowledge, enhancement of leadership and management, and establishment of sustainability awareness. We invested a total of NT\$ 1.92 million in 2022 and the overall satisfaction score was 4.68 out of 5.

### Science College

R&D personnel

Mainly cultivates professional skills in R&D personnel.

Organized regular "LED semiconductor theory" courses to assist new employees in reviewing basic theory and establishing fundamental knowledge.



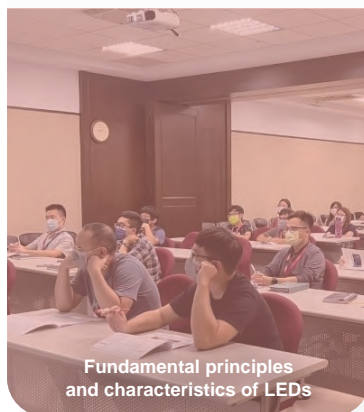
Advanced practical LED techniques

### Engineering College

Business units/  
factory affairs units

Mainly cultivates professional skills in production line and factory personnel.

Internal lecturers taught classes on "Fundamental principles and characteristics of LEDs" and "Introduction and use of EDAs" to help new employees understand LED principles and learn common tools used in routine work.



Fundamental principles and characteristics of LEDs

### Leadership College

Managers

Enhance leadership capabilities of all managers and provide related tools and resources.

"Management challenges of production line leaders/managers" course with practical case studies and discussions of best practices for each case with managers, enabling effective communication with colleagues.



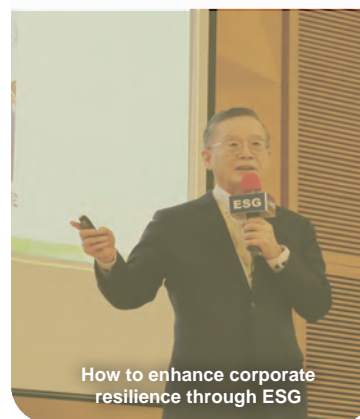
Management challenges of production line leaders/managers

### Sustainability College

All employees

Strengthen employee awareness of sustainability concepts through related courses in hopes that employees will base decisions on sustainable development.

Invited Ambassador Eugene Chien to speak on "How to enhance corporate resilience through ESG: Transformations and opportunities" so our employees could better understand ESG trends and corporate preparations.



How to enhance corporate resilience through ESG

### Quality College

All employees

Cultivate quality concepts and strengthen general management capabilities in all employees.

•Training of internal lecturers: Cultivated internal lecturers at EPISTAR to pass on professional knowledge and enhance teaching techniques.  
•Quality tools and descriptive statistics: Internal lecturers explained descriptive statistical tools, quality tools, and case studies to help employees with their routine work.



Lecture on metaverse trends

## Lextar Academy

Lextar established five colleges (Science, Engineering, Quality, Management, and Business) in 2011 to provide diverse competency training for relevant talent. We invited experts from all fields to design learning maps combined with annual corporate targets and strategic focuses, and formulated various themed courses. We invested a total of NT\$ 0.78 million in 2022 and the overall satisfaction score was 9.2 out of 10.

### Science College

#### R&D personnel

Incorporate advanced process information and external resources to cultivate advanced technological capabilities in our employees.

- Focused on organizational transformations and courses with strengthened focus on back-end technologies and industrial trends
- Invited internal experts in specific fields to develop teaching materials and lectures for key talent



Micro LED drivers and controllers

### Engineering College

#### Factory personnel

Responsible for planning training classes for factory units and organizing irregular classes on manufacturing techniques for key products to enhance employee understanding of manufacturing processes.

Focused on prospective technologies and back-end processes



AIOT market trends and product process frameworks

### Quality College

#### All employees

Strengthen internal knowledge on quality concepts, techniques, green product regulations, and ISO requirements.

Basic quality courses and courses to improve process efficiency



Automotive industry ecosystems and related standards

### Management College

#### Managers

Cultivate management capabilities in managers as well as knowledge and skills of general employees to shape internal cultures and values.

- Implemented management functions, established competency-oriented learning maps, promoted competency assessments, and organized "Competency Report Interpretation Training"
- Aligned with performance management systems and promoted "Goal Setting and Follow-Up" course



Competency report interpretation training

### Business College

#### Business unit employees

Strengthen corporate intellectual property, language, sales, and business capabilities.

Organized customized English training for all business units and important project team members



"The Effective Executive" book discussion



## 5-1-4 Development-Oriented Performance Management

The Group has formulated an appraisal system for performance management and development which aims to enhance overall individual and organizational performance. We implement bidirectional communications with our employees and appraise employee development using fair and reasonable performance appraisal procedures that are used as a basis for promotion, salary adjustments, bonus distributions, career development, and training. Ennostar provides appropriate severance pay measures in accordance with relevant laws to protect employee work rights. All employees who have worked at the Group for more than three months (including indirect labor and direct labor) are required to undergo mid-year and year-end appraisals. Employees are graded based on their work product and competencies. A total of 5,233 employees participated in the Group's appraisals for the first half of 2022, achieving a participation rate of 100%. A total of 7,195 employees participated in the Group's appraisals for the second half of 2022, achieving a participation rate of 100%.

	Participants in appraisals for first half of the year		Participants in appraisals for second half of the year	
Company	Number of participants	Participation rate	Number of participants	Participation rate
Ennostar	57	100%	67	100%
EPISTAR	3,105	100%	3,872	100%
Lextar	537	100%	757	100%
Unikorn	283	100%	347	100%
Episky	487	100%	627	100%
Epicrystal	226	100%	224	100%
Can Yang	270	100%	276	100%
Lextar Electronics	268	100%	1,025	100%
Total	5,233	100%	7,195	100%

## Manager Performance Management Training

To promote “development-oriented performance management,” we have organized courses to enhance manager performance management capabilities and techniques. Apart from tracking achievements of organizational goals, we also focus on employee competencies, performance enhancements, and career development. Our subsidiaries EPISTAR and Lextar both organized manager performance management training classes in 2022 which were attended by 172 managers, achieving an attendance rate of 80%. Unikorn plans to organize manager performance management training classes in 2023.

EPISTAR hosted the “Performance Interview and Guidance” class which included roleplay and simulated interview scenarios in combination with theoretical knowledge to help managers enhance their performance management and communication skills so that they could understand their colleagues, reach consensus, and enhance team performance. A total of 38 managers attended the class, achieving an attendance rate of 66% and an average satisfaction score of 4.68 out of 5.





Lextar hosted the “Goal Setting and Follow-up” course which included six training sessions for managers ranked below factory division directors. The course explained how goal-setting could be used to cultivate talent, emphasized the importance of regular tracking, feedback, and behavior observation, and helped managers evaluate personnel more objectively. This course was scheduled during performance appraisals so managers could practice what they had learned and enhance team development. A total of 134 managers attended the class, achieving an attendance rate of 93% and an average satisfaction score of 9.2 out of 10.





## 5-2 Happy Workplace

### Material Topic: Happy Workplace | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
<ol style="list-style-type: none"> <li>1. Establishment of one-way dissemination/ two-way communication channels</li> <li>2. Create long-term incentives in the form of an employee share ownership trust</li> <li>3. Conduct employee engagement/ satisfaction surveys</li> <li>4. Organize diverse employee activities (including family days, year-end banquets, and festive activities)</li> </ol>	   	<ol style="list-style-type: none"> <li>1. Handle and conclude 100% of employee feedback and complaints</li> <li>2. Provide remuneration that exceeds regulations</li> <li>3. Achieve 60% coverage on employee engagement/satisfaction surveys</li> <li>4. Organize diverse employee activities, enhance employee loyalty, and achieve satisfaction scores of 80% on activities</li> </ol>	<ol style="list-style-type: none"> <li>1. Handle and conclude 100% of employee feedback and complaints</li> <li>2. Propose competitive overall remuneration plans</li> <li>3. Achieve 70% coverage on employee engagement/satisfaction surveys</li> <li>4. Organize themed Group activities, expand employee loyalty, and achieve satisfaction scores of 80%</li> </ol>	<ol style="list-style-type: none"> <li>1. Handle and conclude 100% of employee feedback and complaints</li> <li>2. Improve employee satisfaction with overall rewards</li> <li>3. Achieve 80% coverage on employee engagement/satisfaction surveys</li> <li>4. Organize themed Group activities, expand employee loyalty, and achieve satisfaction scores of 85%</li> </ol>
Responsible unit	Human resources units of all Group subsidiaries			
Invested resources	Development of various activities, promotion costs, and childcare allowances and subsidies			
Grievance mechanism	<ul style="list-style-type: none"> <li>• Internal: Direct supervisors, physical employee suggestion box, dedicated phone lines, and president's mailbox</li> <li>• External: <a href="#">Reporting system for professional ethics violations</a> and Hsinchu Science Park Bureau</li> </ul>			

### 5-2-1 Employee Rights, Remuneration, and Welfare

#### Ennostar Group Overall Rewards Strategies

We focus on employee “career development,” “physical and mental health,” “remuneration and benefits,” and “social lives.” We maintain competitive salaries and benefits while also offering customized physical and mental health assistance programs.

#### Career development

- Provide sound learning environments
- Promote talent flow through internal rotations and promotions

#### Remuneration and benefits

- Maintain competitive salaries to retain and attract talent
- Diverse benefits and rewards

#### Physical and mental health

- Comprehensive physical and mental care
- Recreational gym equipment
- Personalized employee assistance program

#### Social interactions

- Comprehensive physical and mental care
- Recreational gym equipment
- Personalized employee assistance program

## Compensation Policies and Management Systems

Ennostar's compensation management mechanism proposals based on corporate operational performance are submitted to the Board by the Compensation Committee to ensure close links between corporate finances and operational performance. We also consider individual work duties, contributions, and results of performance appraisals when determining employee remuneration.

Ennostar attaches great importance to the consistency and fairness of remuneration operations, monetary incentives, and management of employee bonuses. Individual salaries are based on the education, expertise, and professional experience of each employee, but do not differ on the basis of race, religion, skin color, political affiliation, age, gender, marital status, or physical and mental disabilities. We provide Employee Assistance Programs (EAPs) to help our colleagues relieve work and life stresses and problems. We also review turnover rates and reasons for termination each month and take corresponding measures when necessary.

Ennostar adjusts employee salaries by referencing market salary levels, economic trends, price indexes, and related information, as well as corporate operational performance and individual performance. We provide our employees with basic salaries that exceed the standards stipulated by the Labor Standards Act.

Ennostar has completed structural salary adjustments and performance-based salary adjustments for the year. Average salary adjustment rates ranged from 8-15%. We also significantly raised starting salaries for new college graduates by 16-20% to encourage outstanding talent to join Ennostar and our subsidiaries EPISTAR, Lextar, and Unikorn.

## Compensation and Bonus Systems

We prepare annual variable bonus budgets to offer incentives and rewards, as well as encourage and attract outstanding talent.

Bonus Categories	Description
Outstanding production line incentives	We conduct quarterly evaluations of and provide awards for outstanding personnel, team competitions, action plans, best improvement progress, best idea generators, and most creative people on our production lines.
Team breakthrough awards	All business groups host internal celebrations when internal operational milestones have been met or as part of team-building activities as needed.
Outstanding award	All units can provide incentives to outstanding personnel or project teams at any time.
Lextar Award: Outstanding team award	We provide awards and incentives to outstanding cross-departmental teams.
Seniority award	We award gold and silver coins or trophies to our colleagues who have worked at the Group for 5, 10, or 15 years.

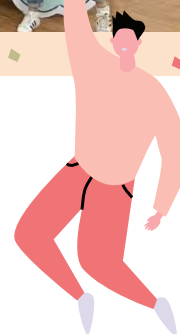


## Employee Welfare Committee

The Group established the Employee Welfare Committee to care for daily employee needs, maintain harmonious labor-management relations, and encourage our employees to engage in reasonable recreational and leisure activities. Committee members are nominated or elected from each department depending on the ratio of employees in each department. The Committee convenes regularly once every quarter to exercise their duties, decide on employee welfare policies, and promote employee activities. The Employee Welfare Committee provides monetary wedding gifts, childcare subsidies, funeral subsidies, hospitalization solatia, bonuses for the three major festivals, birthday bonuses, labor day gifts, department activity fees and travel allowances, childcare subsidies, and discounts for special stores and e-commerce platforms, providing the best care and services to our colleagues through comprehensive welfare benefits. To promote a work-life balance, the Employee Welfare Committee regularly organizes large-scale events including art activities, educational activities, fairs and markets, sports competitions, Christmas parties, year-end departmental networking activities, and year-end banquets. The Employee Welfare Committee has also formulated regulations for social club establishment, providing subsidies to encourage our colleagues to voluntarily set up social clubs, thereby creating diverse interpersonal interactions and promoting lifelong learning.

### Lextar “You Make It Interesting” 14th Anniversary Events

Lextar organized a series of activities to celebrate the 14th anniversary of the company. The “Interesting Fun” activity allowed colleagues from different factories to interact and compete with each other online, answering questions about Lextar as well as many trivia questions, making for a fun and interesting event; the “Interesting Smile” activity placed photo backdrop boards in factories and gave limited gifts to colleagues who took photos with these backdrops and posted them to our fan page; finally, the “Interesting Cool” activity gifted 814 popsicles from a renowned company in Hsinchu to our colleagues, allowing them to taste delicious ice products and enjoy their afternoon. This series of activities were met with unprecedented enthusiasm. Our colleagues experienced an unforgettable anniversary together with Lextar.





## Battlefield Rescue: PUBG MOBILE Lextar Tournament

During the pandemic, Lextar hosted a mobile game competition so that colleagues who enjoyed challenging their brains could play online with their team members, discuss strategy, and advance through game stages together from their own cubicles or conference rooms, even if they were at different factories. Colleagues who did not participate in the tournament could watch it online, listen to game commentary, and cheer on teams from their own departments. All teams displayed team spirit and unique tactics that led them to ultimate victory. This exciting tournament provided our colleagues with a tiring but interesting afternoon.



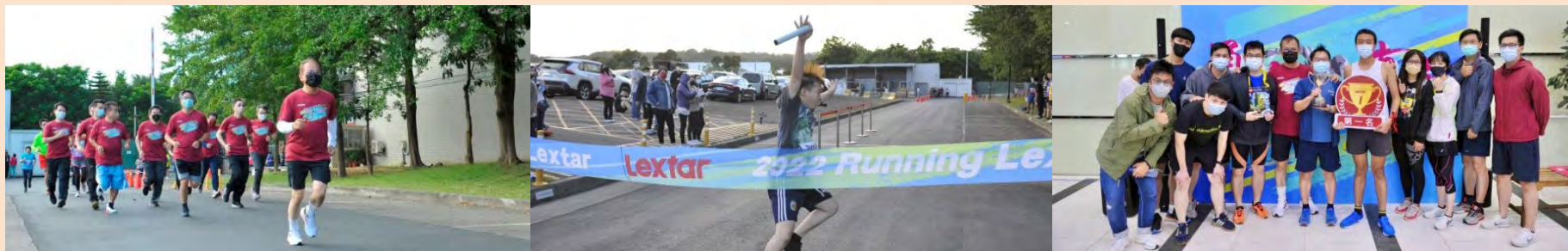
## Lextar Summer Go

Lextar organized the Summer Go trip after the pandemic eased. Our colleagues and their families enjoyed the outdoors together, hiked the Ming-Te Reservoir, and went on a scavenger hunt designed using sustainable water resource concepts, which helped both young and old participants understand the importance of water resources, the hazards of marine trash, and water-saving concepts for daily life. We also incorporated ESG concepts in this event: All participants were asked to bring their own water flasks, we provided breakfasts placed in eco-friendly meal boxes on the day of the event, and all foods for the day were also placed in eco-friendly meal boxes, achieving our purpose of not generating excess waste. After the event, many colleagues told us they approved our use of eco-friendly meal boxes, which not only contributed to environmental protection, but also helped children understand the importance of environmental protection in a meaningful way.



## 10th Running Lextar Let's Go Road Race Event

The Running Lextar road race, which was delayed for two years due to the pandemic, was held this year with a total of 17 enthusiastic teams, invigorating our factories. Employees are important assets of the Group, and our senior executives are attentive of the physical and mental health of employees. The Running Lextar road race event has been hosted for 10 years with this aim. This year, in addition to Lextar employees, we also invited colleagues from other Group subsidiaries to participate, and some of our foreign colleagues also decided to join the race, making the event much more interesting. At the beginning of the event, Lextar senior executives led all participants in warming up with a quick run around our factories, using practical actions to demonstrate their support for participating teams. These executives also cheered on each participant throughout the course of the event. This entire event showcased Lextar's "fighting spirit," "passion," and "persistence." After the event, all participants gathered in our factory lobby and waited for the results to be announced with much laughter and emotion, forming a perfect end to the race.



## 2022 Lextar Family Day

On a sunny weekend afternoon in November, Lextar organized a family day picnic at Pushin Ranch. Lextar colleagues and their family members of all ages gathered together to enjoy a grassland concert and an evening movie showing, creating waves of laughter that formed the best melody. Senior executives personally attended the picnic and chatted with everyone, expressing deep gratitude to all employee family members, as only support and encouragement from family members enable our colleagues to fully immerse themselves in their work and advance alongside the company. This event incorporated sustainability and environmental protection concepts. The event stage and market stalls were all made from recycled pallets. We also encouraged participants to bring their own meal boxes, tableware, and eco-friendly cups to reduce waste, planting seeds of environmental protection concepts and making environmental contributions while our colleagues enjoyed their time at the event.





## Employee Benefits

### Employee share ownership trust

All Ennostar subsidiaries established employee share ownership trusts beginning in July so that employees could share operational benefits. This system encouraged employees to increase their savings and add value to their post-retirement lives, creating a win-win situation. Employees who join the shareholding program can contribute different amounts based on their positions, and we match 100% of contributions, allowing our employees to retain flexibility in contributions.

A total of 900 employees joined our employee share ownership trusts, achieving a participation rate of 31%.

### Childcare subsidies

Starting in August 2022, Ennostar began providing childcare subsidies for employee offspring aged between 2-6 years who attend government-registered kindergartens or childcare centers. We provide two subsidies a year with no limit on the number of children. If both parents are Group employees, they can both apply for these subsidies.

These subsidies reduced the financial stresses of childcare, helping our employees to balance work and family care needs.

A total of 496 children benefited from these subsidies, which amounted to NT\$ 8.928 million.

### Employee stock options

Unikorn motivated essential corporate talents, enhanced employee commitment and sense of belonging, and jointly created benefits alongside employees by designing an employee stock option incentive program in 2022. The program will commence in 2023.

All employees can exercise this option and 93% of colleagues expressed a willingness to participate in this program.

Note: Please refer to the [Appendix 1: Social Data](#) section for data related to employee welfare.

## Retirement Benefits

To fulfill social responsibilities and stabilize employee post-retirement lives, we and our domestic subsidiaries adhere to the regulations of the Labor Standards Act and the Labor Pension Act. We have established the "Retirement Regulations for Appointed Managers and Directors Concurrently Serving as Workers" and the "Employee Retirement Regulations," which were reviewed by the Compensation Committee and submitted to the Board for approval before taking effect. We also implement monthly appropriations in accordance with law.

## Care for Employees with Occupational Injuries

To prevent health issues from affecting work performance and causing frustrations in injured employees or employees with physical and mental health problems when they return to work, and to prevent work from further deteriorating employee health conditions and affecting occupational safety, EPISTAR combined support from related departments to provide health assistance as well as return-to-work and work allocation mechanisms, thereby enabling comprehensive care for employees with occupational injuries.

Lextar colleagues who return to work from leave due to injury or other physical and mental health problems undergo consultation and assessment with factory doctors who provide suggestions on return-to-work and work allocation mechanisms to ensure that employee health is not affected or negatively impacted by work or workplace environments. Factory doctors use their expertise to ensure that these employees receive comprehensive health care.

## 5-2-2 Diversity and Inclusion

### Gender-Friendly Workplaces

Gender equality concepts are incorporated in our “Work Rules,” “Employee Manual,” and “Regulations for Preventions and Punishments Associated with Human Resources,” which stipulate that our companies should establish gender-equal workplace environments, provide employee childcare subsidies, and promote maternal protection and health in the workplace to reduce employee financial stresses related to childcare. We actively work to establish a friendly and equal workplace environment, have organized lectures on gender equality, and released newsletters discussing gender equality.

To care for maternal health, implement risk preventions and controls, and build maternity-friendly workplaces, we have established comprehensive pregnancy notification mechanisms, and our clinics provide regular care.

We also provide priority parking spaces and lactation rooms equipped with comfortable chairs, sterilizers, and other lactation accessories. These rooms are regularly disinfected and cleaned by dedicated personnel to provide clean environments that meet with the approval of lactating mothers.



### Diverse Employment of Employees from Minority and Disadvantaged Groups

Ennostar has a diverse group of employees. We comply with the People with Disabilities Rights Protection Act, which stipulates that employment of people with disabilities that have capability to work shall be no less than 1% of the total number of the employees, and we promote measures that enable innovation-friendly workplaces and redesigned job duties. For example, our subsidiary Lextar hired 12 disabled employees in 2022, exceeding 1% of all employees in accordance with regulations. We actively create job opportunities for people with disabilities. Our factories are equipped with handicap elevators which are more convenient for employees with disabilities. During the pandemic, we suspended massage services from visually impaired masseuses. However, in the spirit of caring for our employees, we allowed these masseuses to take paid leave, ensuring that they were able to maintain their living expenses even though they were not providing labor services.

Please refer to the [Appendix 1: Social Data](#) section for information on diverse employment across the Group.

## 5-3 Protection of Human Rights

Ennostar protects internationally recognized labor human rights such as freedoms of association, collective bargaining rights, care for disadvantaged groups, prohibition of child labor, elimination of all forms of forced labor, and elimination of discrimination in hiring and employment, and confirmed that all human resource policies do not discriminate on the basis of gender, race, socio-economic class, age, marital status, or family conditions to ensure equal and fair employment, recruitment conditions, salaries, benefits, training, appraisals, and promotion opportunities.

## Material Topic: Protection of Human Rights | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
1. Zero major human rights violations	✓	1. Establish human rights due diligence procedures	1. Optimize human rights due diligence procedures	1. Optimize human rights due diligence procedures
2. Achieve 100% completion rates on human rights training courses	✓	2. Zero major human rights violations (with fines exceeding NT\$ 300,000)	2. Zero major human rights violations (with fines exceeding NT\$ 300,000)	2. Zero major human rights violations (with fines exceeding NT\$ 300,000)
3. Formulate Group human rights policies	✓	3. Maintain 22% female executive ratio (EPISTAR/Lextar)	3. Maintain 22% female executive ratio (EPISTAR/Lextar)	3. Maintain 22% female executive ratio (EPISTAR/Lextar)
		4. Establish comprehensive care and retention system for foreign workers, and achieve foreign worker retention rate of 70%	4. Establish comprehensive care and retention system for foreign workers, and achieve foreign worker retention rate of 70%	4. Establish comprehensive care and retention system for foreign workers, and achieve foreign worker retention rate of 75%

Responsible unit	Human resources units of all Group subsidiaries
Invested resources	Invested education and training fees, costs to create online teaching materials, and consulting fees for professional consultants
Grievance mechanism	<ul style="list-style-type: none"> <li>Employee complaint hotline</li> <li>"Contact Us" section on corporate website</li> </ul>

## 5-3-1 Management of Human Rights Risks

### Human Rights Policies

The Group's human resource units jointly formulated human rights policies in three languages which were released on all Group corporate websites following approval by our chairman, serving as a public disclosure of our human rights policies and information. The Group strives to adhere to the "United Nations Global Compact," "Universal Declaration of Human Rights," "Guiding Principles on Business and Human Rights," "Organisation for Economic Cooperation and Development Guidelines for Multinational Enterprises," "Social Accountability International (SAI)," "Responsible Business Alliance (RBA)," and other relevant labor laws and international human rights standards. We have established human rights regulations to ensure protection of human rights in all operational activities as well as compliance with applicable labor laws, employment laws, and international standards.

The Group hosts annual online refresher courses and examinations on "human rights policies" through our internal platform to ensure employees understand our human rights policies, and to avoid human rights risks. These courses achieved training completion rates of 100%. We disseminate information on human rights policies and demonstrate our emphasis on human rights through irregular newsletters to avoid human rights risks.

### Ennostar Group Human Rights Policy



## Protections and Principles

The Group is committed to shaping sound environments with beneficial human rights protections that prevent operational activities from resulting in human rights violations or negative impacts. We have formulated the following principles:

1. Prohibition of human trafficking and forced labor.
2. Prohibition of child labor.
3. Provide employees with working hours and salaries that adhere to legal regulations.
4. Eliminate all forms of inhumane treatment.
5. Respect diverse cultures and eliminate illegal discrimination.
6. Respect freedoms of association.
7. Provide a safe, healthy, clean, and comfortable working environment for all employees.
8. Uphold the highest business ethics standards.

## Human Rights Management System



We adopt systemic management processes for complete compliance with Ennostar human rights policies. Related processes and practices include risk assessments, prevention measures, monitoring and detection measures, and mitigation or remediation measures.

Ennostar has established formal grievance channels so that employees, suppliers, and external stakeholders can report illegal matters or matters that violate human rights, our Code of Conduct, or our Ethical Corporate Management Best Practice Principles, and we work to remedy and respond to all human rights violations and negative impacts.

✓ In 2022, Ennostar reviewed and assessed all human rights issues related to discrimination, indigenous rights, child labor, forced labor, and obstructions to freedoms of association to confirm that no disputes occurred at all Group operational sites.

Ennostar assesses human rights risks in accordance with the RBA management system. The executive secretaries of our RBA management teams notify executive representatives for each team and conduct annual risk assessments of management practices, environments, health and safety, labor activities, and human rights and ethics risks using RBA risk assessment tools. Assessment aspects include work tasks and operational processes for all units, possible factors that may result in human rights risks, and possible violations of laws and RBA human rights. Ennostar has also formulated corresponding prevention and remedial measures for potential human rights risks:

Human Risks Issues	Prevention or Remedial Measures	Impacted Targets
Disclosures of human rights protections in ESG reports	<ul style="list-style-type: none"> <li>Formulated human rights policies and publicized human rights management principles</li> <li>We have included a chapter on human rights in our 2022 ESG report to disclose human rights management processes, activities, and achievements</li> </ul>	Employee/suppliers/contractors/clients
Foreign migrant workers who have inadequate knowledge regarding free employment and prohibition of forced labor	<ul style="list-style-type: none"> <li>We help foreign migrant workers better understand their rights and protect them from being overcharged through our “Zero Fee Policy for Foreign Migrant Workers”</li> <li>Promotion of free employment: Emphasize awareness of free employment and help foreign migrant workers understand that they have the right to freely choose the jobs that they want</li> <li>Optimize recruitment processes</li> <li>Ensure that all employment contracts have been signed</li> </ul>	Foreign migrant workers
Lack of official internal human rights protection policies and human rights training	<ul style="list-style-type: none"> <li>Established the Ennostar human rights protection working group</li> <li>Formulated the Regulations for Prevention of Sexual Harassment and Handling Complaints, changed the Complaint Handling Committee to a permanent organization with human resources and legal affairs managers serving as standing members, and offer timely, professional, and dedicated handling of complaints.</li> <li>Formulated human rights management systems and assessed human rights risks</li> <li>Designed human rights protection policies and promotional materials</li> <li>Implemented education and training related to human rights protections and disclosed human rights management measures in ESG reports</li> </ul>	All employees
Prevention of sexual harassment and unlawful infringements in the workplace	<ul style="list-style-type: none"> <li>Set the minimum penalty for violations as one minor demerit</li> <li>Elevated the authority of the appeal handling committee to center supervisors</li> </ul>	All employees
Non-discrimination	<ul style="list-style-type: none"> <li>Amended recruitment processes and personnel charts to ensure non-discrimination</li> </ul>	All employees
Freedom of association	<ul style="list-style-type: none"> <li>Implemented promotions and training related to labor-management meetings for new employees and all other employees to ensure that all colleagues are aware of their right to participate in said meetings.</li> </ul>	All employees

✓ Lextar and Lextar Electronics completed third-party RBA verifications in 2022 and 2021 in accordance with client requirements; Lextar received a full score.



## Human Rights Training

The Group understands the importance of human rights issues. To strengthen awareness of human rights issues in our colleagues, we have incorporated human rights courses in training for new employees, including courses on trends in gender issues, sexual harassment prevention, gender equality, labor laws, and the Labor Standards Act. In 2022, we conducted human rights protection training for all colleagues to help them better understand their rights and our human rights policies. A total of 4,906 Ennostar employees participated in human rights training courses, achieving a training completion rate of 100%.

## 5-3-2 Employee Communication



## Labor-Management Communications in 2022

Ennostar convenes labor-management meetings regularly once every quarter to exercise relevant duties, decide on employee welfare policies, and promote employee activities. All reports are filed within the time limits required by competent authorities. We currently have no labor unions or collective employee agreements, but we host quarterly labor-management meetings (a total of four meetings per year), to establish positive labor-management interactions. Labor representatives can put forward employee suggestions or propose matters for improvement, while management representatives can report on corporate management information or make commitments related to employee suggestions. We conduct collective bargaining procedures with employees each quarter and maintain harmonious labor-management relations through positive communications. Apart from labor-management meetings, Ennostar also hosted an employee communication meeting in 2022 to help our colleagues better understand our operational strategies, Group visions, missions, and strategic blueprints. Our colleagues were also able to provide feedback and suggestions during the meeting, enhancing communication between management and employees.

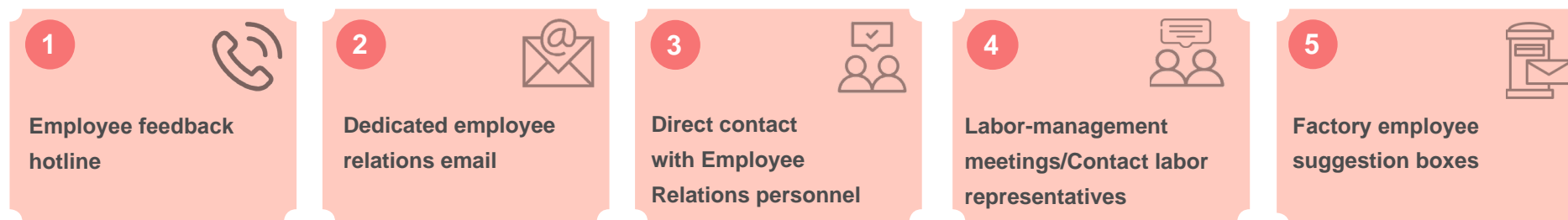


## Employee Grievance Mechanisms

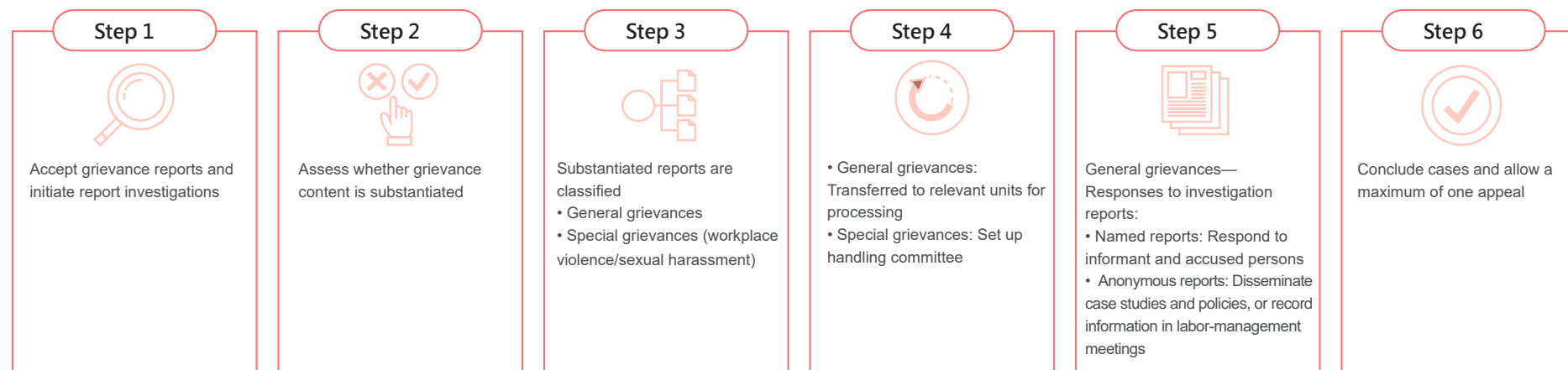
All reports from both internal and external channels are handled confidentially and informants can remain anonymous. We have established a dedicated handling committee which is composed of several of the highest-ranking managers from our audit office, intellectual property rights and legal affairs divisions, and human resource center. We exclude managers (committee members) of parties involved in reports and select five committee members to form a handling committee, following which all reports are handled as special projects in accordance to our "Handling Procedures of the Dedicated Handling Committee." Incidents that involve general employees are reported to department managers, and incidents that involve director or senior managers (insiders) are reported to the Board and independent directors. We have adopted appropriate measures that adhere to law to protect informant identities and report content, and pledge that informants will not receive inappropriate disciplinary actions due to their whistle-blowing.

Substantiated violations of our corporate bylaws and ethical management policies are punished in accordance with relevant regulations, and we also disclose the position and name of related personnel, violation details, and subsequent handling on our internal websites or bulletin boards. We take necessary legal proceedings for serious violations, as well as dismiss and blacklist said violators.

## Five main grievance channels:



## Six grievance handling procedures:



## Ennostar Group EAP Program

EPISTAR has promoted Employee Assistance Program (EAP) services for 12 years. We issue regular EAP newsletters, distribute EAP cards to all employees, and host regular EAP lectures. In 2022, a total of 762 people participated in the two stages of our events and the average satisfaction score was 93.6 out of 100. Lextar plans to promote EAP services starting in 2025.

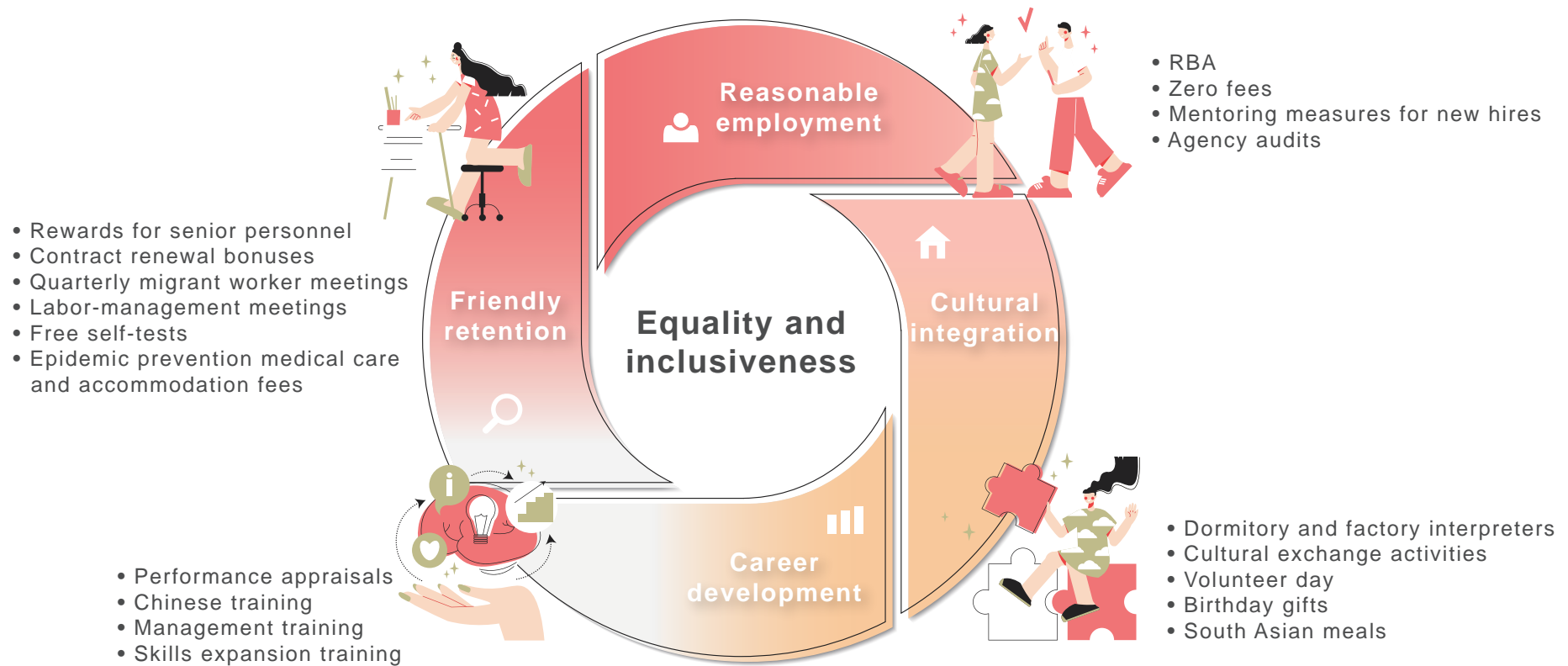
## Employee Satisfaction Surveys

To enhance employee cohesion and organizational commitment, Ennostar launched the “Q12 Organizational Atmosphere Survey” in 2022 to survey the five aspects of work content, team operations, leadership and management, feedback on performance, and interpersonal interactions. Analysis of survey results revealed that the average satisfaction score was 6 out of 7. This satisfaction survey helped us better understand employee needs and we formulated improvement measures for items with lower satisfaction scores to establish a high-performance team.

Lextar conducted the Q12 Employee Happiness Survey on indirect labor in 2022. The average satisfaction score was 3.8 out of 5. Unicorn conducted the Q12 Employee Engagement Survey in 2022, achieving a coverage rate of 57.78%. The proportion of actively engaged employees was 82.8%.

### 5-3-3 Equality and Inclusiveness for Foreign Migrant Workers

Note: Ennostar management regulations for foreign migrant workers are applicable only for subsidiaries in Taiwan



## Reasonable Employment Conditions

### 1.Zero Fee Policy for Foreign Migrant Workers

EPISTAR began implementing the “Zero Fee Policy for Foreign Migrant Workers” in 2020. We bear all expenses incurred by foreign migrant workers before commencing work (including agency fees, application handling fees, transportation/accommodation fees prior to departure, airplane ticket fees, and medical examination fees). In 2022, the “Zero Fee Policy for Foreign Migrant Workers” was applied to all foreign migrant workers within the Group to avoid use of debt-bonded labor. We waive all recruitment fees for foreign migrant workers to ensure that they are being employed of their own free will and are not subject to illegal coercions or debt bondage.

### 2.Agency audits

We ensure that our foreign migrant workers arrive safely in Taiwan and become a part of the company through mechanisms such as interviews and audits.

### 3.Domestic renewal of employment contracts

We encourage retention of outstanding foreign migrant workers with expiring contracts by actively surveying their willingness to stay at the company and providing assistance in handling contract renewal procedures, reducing time and expenses required for hiring new recruits, and also ensuring that our employees do not need to repeat complex employment, departure, interview, and relocation procedures, creating a win-win situation for both employees and managers. We also provide contract renewal bonuses to our migrant workers. In 2022, a total of NT\$ 10.3 million was distributed to 687 people in contract renewal bonuses.

## Cultural Integration

### 1.Dormitory interpreters and factory interpreters

Lextar understands the hardships and loneliness experienced by foreign migrant workers who are far from their home countries and who were unable to return home during the pandemic. We hope our foreign colleagues can consider Taiwan to be their second home and enjoy safety and comfort under our care. All dormitories have dedicated 24-hour administration personnel proficient in English and Filipino who provide medical assistance and daily living assistance, and who also serve as interpreters and communicators between workers and their Taiwanese managers, HR managers, and staffing agencies. Therefore, our foreign workers can fully express their opinions without worrying about communication problems.

### 2.Daily living assistance

To ensure the comfort of our foreign workers, we provide dormitories for 3 to 6 people which are equipped with en suite bathrooms for privacy and convenience. We conduct irregular dormitory audits to ensure our employees have clean, safe, and good living environments. Dormitory gates are equipped with access controls and we conduct fire drills and water quality tests on water fountains in accordance with law. In consideration of employee entertainment as well as physical and mental health needs, we provide facilities such as prayer rooms, gyms, microwave ovens, lounges, and public WiFi. We also host Christmas parties every year so our foreign colleagues can relax and have fun, as well as enjoy the customs of their home countries.

### 3.Physical and mental health

Lextar attaches great importance to the physical and mental health of foreign employees, and provides regular health checks and checks for specific items. We manage and track abnormal health conditions and adjust working environments as needed. Pregnant foreign workers are included in our maternal care and management programs, and enjoy the same benefits as domestic workers. We regularly track their health conditions to ensure the safety of both mothers and children.





## Quarterly Migrant Worker Meetings

Quarterly migrant worker meetings are the most important channel of communication between Ennostar and migrant workers. We disseminate work precautions, corporate policies, dormitory regulations, and labor-management meeting resolutions through these quarterly meetings, and arrange for in-person communications between unit managers and colleagues so that employee feedback can be heard. Staffing agents and simultaneous interpreters are also present at these quarterly meetings to ensure that there are no barriers in communication between us and our colleagues.



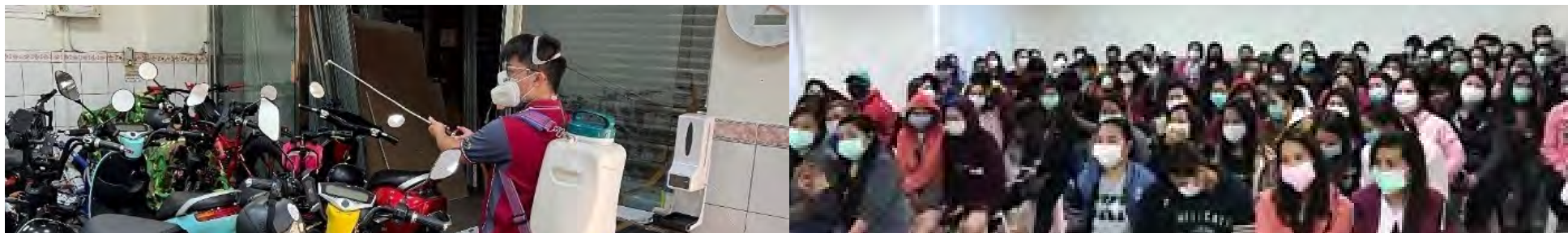
## Epidemic Prevention and Protections

In 2022, when domestic epidemic conditions were severe, Lextar and EPISTAR implemented anti-epidemic measures on migrant worker dormitories and established tracking measures, organized dispersion mechanisms, and provided free self-test kits. During the height of the epidemic, we established a small grocery store within our dormitories and implemented meal ordering services so that foreign colleagues worried about contracting diseases could avoid leaving the dormitory, ensuring airtight epidemic prevention. Lextar transferred confirmed or quarantined colleagues to free epidemic prevention suites while EPISTAR arranged for colleagues to stay in epidemic prevention hotels, paying for all accommodation costs, meals, and basic necessities. We also helped our colleagues apply for labor insurance benefits so that they could rest comfortably without worry.

In 2022, when domestic epidemic conditions were severe, we implemented corporate contact tracing procedures in accordance with government regulations. Lextar also organized separated office, dining, exit, and entry routes to prevent cross-infection between building tenants and Lextar colleagues. We also implemented remote work-from-home measures to reduce face-to-face contact.



We further established epidemic care measures and stocked self-test kits in our factories for use by colleagues who felt sick or who had come into contact with confirmed cases. We purchased self-test kits in bulk when they were not readily available on the market to solve the urgent needs of our employees.

Additionally, we encouraged our colleagues to undergo vaccination by providing NT\$ 500 bonuses to those who had received three doses of vaccination.



## 5-4 Occupational Health and Safety

### Material Topic: Occupational Health and Safety | Base Year: 2021

Targets for 2022	Progress	Short Term (2023)	Medium Term (2024-2025)	Long Term (2026 and beyond)
<ol style="list-style-type: none"> <li>100% compliance with regulations, client requirements, and EHS management systems</li> <li>Zero major industrial safety incidents</li> <li>Lower the number of penalties imposed by labor authorities to less than zero</li> <li>Lower the number of major deficiencies discovered during external ISO 45001 and CNS 45001 to less than zero</li> </ol>	   	<ol style="list-style-type: none"> <li>Lower the number of major deficiencies discovered during external ISO 45001 and CNS 45001 to zero</li> <li>Maintain our record of zero major industrial safety incidents for each year</li> <li>Participate in selection processes for excellent occupational safety and health units organized by local science park administration offices</li> <li>Manage 100% of groups at risk of occupational health hazards</li> <li>Achieve EAP satisfaction score of 90%</li> <li>Obtain Accredited Healthy Workplace certificates for each year</li> </ol>	<ol style="list-style-type: none"> <li>Lower the number of major deficiencies discovered during external ISO 45001 and CNS 45001 to zero</li> <li>Maintain our record of zero major industrial safety incidents for each year</li> <li>Participate in selection processes for excellent occupational safety and health units organized by local science park administration offices</li> <li>Manage 100% of groups at risk of occupational health hazards</li> <li>Implement diverse health promotions for 100% of employees</li> <li>Achieve EAP satisfaction score of 90%</li> <li>Obtain Accredited Healthy Workplace certificates for each year</li> </ol>	<ol style="list-style-type: none"> <li>Lower the number of major deficiencies discovered during external ISO 45001 and CNS 45001 to zero</li> <li>Maintain our record of zero major industrial safety incidents for each year</li> <li>Participate in selection processes for excellent occupational safety and health units organized by local science park administration offices</li> <li>Manage 100% of groups at risk of occupational health hazards</li> <li>Implement diverse health promotions for 100% of employees</li> <li>Achieve EAP satisfaction score of 90%</li> <li>Obtain Accredited Healthy Workplace certificates for each year</li> </ol>

Responsible unit

Environmental safety and health management units of all Group subsidiaries

Invested resources

Costs of annual employee health checks, special health checks, and emergency personnel, as well as ISO 45001 external verification costs.

Grievance mechanism

- Internal: Direct supervisors, physical employee suggestion box, dedicated phone lines, and president's mailbox
- External: [Reporting system for professional ethics violations](#) and Hsinchu Science Park Bureau

## 5-4-1 Occupational Health and Safety Management

### Occupational Health and Safety Management System

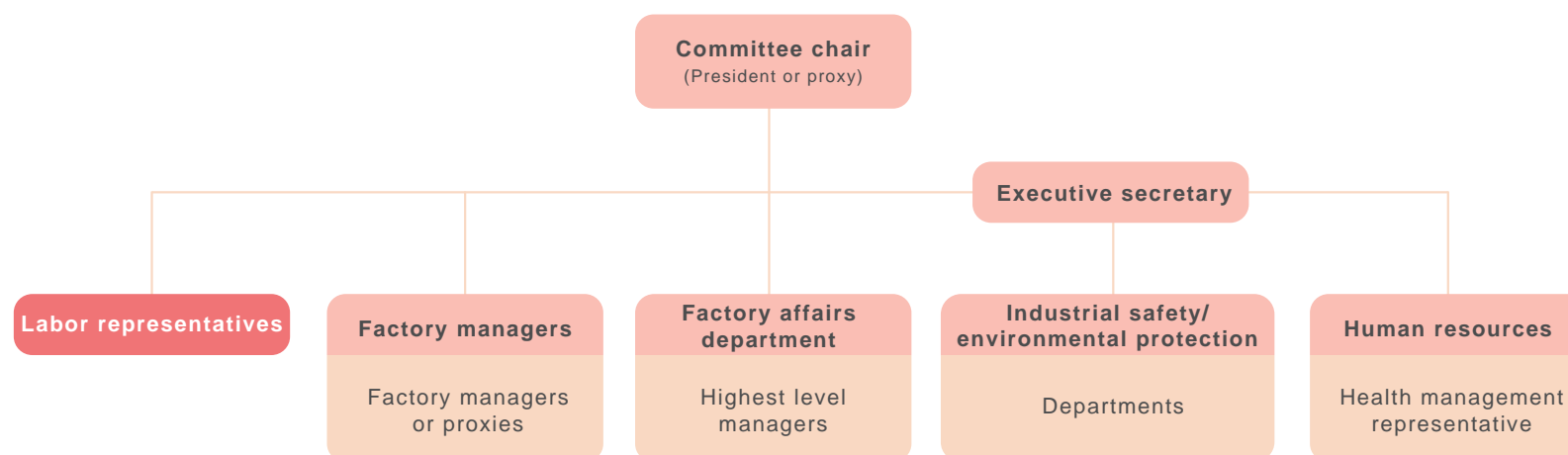
Ennostar established the “EHS Management Manual” and “Occupational Health and Safety Principles” in accordance with ISO 45001, RBA Code of Conduct, local regulations, and EHS system stipulations (ISO 14001:2015, ISO 45001:2018, CNS 45001). We also formed the “Occupational Health and Safety Committee” to identify, assess, and control hazards in workplace environments and operations.

All Group subsidiaries have obtained ISO 45001 verifications and management systems cover 100% of employees. EPISTAR has also obtained CNS 45001 certification.

### Occupational Health and Safety Committee

All Group subsidiaries have established environment, safety and health (EHS) committees to discuss and coordinate EHS matters, formulate targets, and continue to promote improvement plans.

Factory-level ESG committee meetings are convened at least once every quarter by factory managers and meeting conclusions are applicable to all factory and associated personnel. Meeting attendees include committee members such as factory managers or proxies and the highest level managers from the R&D, support, quality assurance, and human resource centers; environmental safety department representatives, as well as labor representatives, who are required to exceed more than one-third (33%) of committee members.

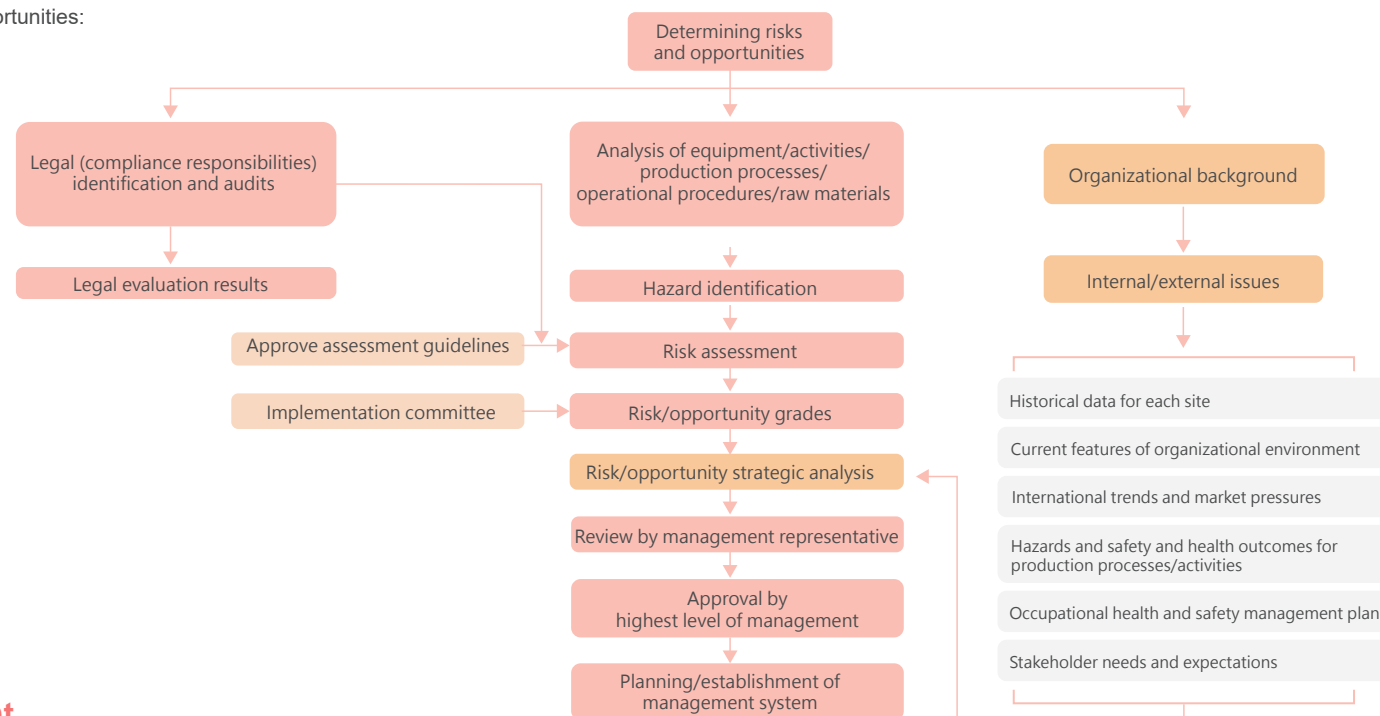


## Hazard Identification and Risk Assessment

The Group has formulated identification and risk assessment procedures for major hazards. We analyze potential risks that could result in abnormalities using risk assessment technologies and have adopted preventive measures to lower probabilities and severity of hazards.

Analysis of health and safety hazards are conducted in accordance with the activities/processes/scope of each department and associated steps/machinery and equipment/work items and other operational procedures. We classify physical, chemical, biological, ergonomic, social, and other types of hazards, estimate their probabilities of occurrence, exposure risks, and levels of severity to identify risks and opportunities.

Processes for determining and handling risks and opportunities:



## Incident Investigation Management

The Group attaches great importance to the occupational safety of employees. We promptly complete notification procedures at the first instance after abnormal incidents have occurred and initiate emergency response mechanisms to reduce personnel injuries and operational losses. We have established “Incident Notification and Investigation Procedures” to be adopted following incident occurrence. Incident investigations are conducted with labor representatives to discover root causes of incidents, which are used to formulate corrective and preventive measures. Incident investigation reports are simultaneously submitted to the safety committees of all factories, and we expand disclosures of investigation results when necessary to serve as a reference for implementing improvements at each factory and to prevent similar incidents from reoccurring.

The “Incident Notification and Investigation Procedures” are applicable to all Group employees and contractors at all factories. Notifications and investigations are limited to factory incidents and traffic accidents. Incidents that occur outside of factories are only included in notification and data compilation procedures.

## Emergency Response Procedures

The Group has established “EHS Emergency Response Procedures” and adopts a hierarchical management system. We have established response organizations at the head office level and factory level. Abnormal incidents that occur in factories are initially handled on site, but if subsequent responses are required, we rapidly complete notification procedures and initiate factory emergency response mechanisms to reduce personnel injury and operational losses. Should incident impacts continue to expand, response organizations at the head office level will be activated. All personnel comply with their required duties to respond to various situations during emergencies.

These emergency response procedures are applicable to all Group employees and contractors at all factories. We conduct factory emergency response drills at least once a year. Apart from factory-wide emergency responses, we also encourage on-site units to independently organize their own drills for strengthening of regional response capabilities and to practice preliminary responses when abnormalities occur so that emergencies do not expand to the entire factory. In 2022, we conducted a total of 42 emergency response drills, including 15 drills at EPISTAR, 7 drills at Lextar, 3 drills at Unikorn, and 17 drills at Lextar Electronics (including 6 tabletop simulations).



## Occupational Health and Safety Training

The Group organized 102 occupational health and safety training courses in 2022, including fire and disaster prevention drills, general knowledge of hazards, emergency evacuations, first aid training, emergency response training to chemical spills, factory-wide evacuation drills, and online courses. A total of 24,950 people attended these training courses, which enhanced employee occupational safety awareness.

All 103 of our environmental health and safety personnel have obtained occupational health and safety certification and qualifications. We conduct training and certification for internal environmental health and safety auditors, and undergo internal audits of environmental health and safety systems at least once every year.

## Management of Work-Related Injuries

The Group attaches great importance to safe workplace environments for employees and contractors. To prevent occupational disasters, our environmental health and safety department implements periodic and non-periodic environmental health and safety investigations, and invites managers ranking above factory department supervisors to participate in monthly environmental health and safety investigations. Defects are recorded by responsible units, who also assess improvement and response periods for each defect; all defects are tracked until they have been corrected.

In 2022, the Group's employees and contractors incurred 18 work-related injuries, none of which were high-consequence work-related injuries<sup>1</sup>. The main injury types included crush injuries and chemical injuries. We strengthened disseminations related to these work-related injuries, and also inspected the locations where injuries occurred and the equipment that caused the injuries to prevent similar injuries from reoccurring.

✓ No work-related ill health incidents or mortalities occurred during the year. The Group incurred no financial losses due to violations of employee health and safety laws in 2022, reflecting our efforts in protecting employee occupational safety.

Please refer to the [Appendix 1: Social Data section](#) for more information on work-related injuries and work-related ill health.

<sup>1</sup>The definition for high-consequence work-related injuries used in Taiwan adheres to Article 37 of the Occupational Safety and Health Act (accidents involving death, accidents causing injuries to three people or more, accidents causing injuries to one person or more that require hospitalization); the definition used in China encompasses personnel death, permanent total disability, permanent partial disability, temporary disability, financial losses of more than 300,000 RMB, or operational interruptions lasting for more four hours.



## 5-4-2 Employee Health Promotion

### { EPISTAR received I Sports Enterprise certification }

EPISTAR strives to build a workplace focusing on health and sustainability. We attach great importance to the physical and mental health of our employees and actively promote healthy exercise activities. We implement a number of internal events such as physical examinations, health lectures, and weight management activities, and our senior executives lead our employees in participating in external sports activities and competitions. We provide competition rewards and subsidies that encourage our employees to achieve physical and spiritual balance by focusing on their work and health.

We have also set up a variety of leisure facilities in our factories, including gyms, billiard tables, ping pong tables, and aerobics classrooms, which our employees can use free of charge. Our gyms employ instructors who teach employees correct exercise techniques and postures to protect employee safety. We hope our efforts keep all employees happy at work and in their daily lives.



### Occupational Health Protections and Care Framework

The Ennostar Group considers protection of employee physical and mental health to be a core duty of employee care. We provide periodic employee health checks, establish comprehensive systems to prevent employees from suffering unlawful infringements and overwork, and actively build healthy and friendly workplace environments. We evaluate all possible environment and work factors that could cause injuries or diseases, establish corresponding preventive measures, and track related improvements.



Health Promotion Aspect		Main Projects/Activities	Achievements in 2022								
Health checks	We actively enhance the health of all employees through annual health checks to protect against various hazards and prevent work-related injuries and ill health.	Employee health checks	Item	Ennostar	EPISTAR	Lextar	Unikorn	Lextar Electronics	Episky	Epicrystal	Can Yang
			Health checks for new hires <sup>1</sup>	14	512	109	264	562	1681	650	426
			Senior executive health checks <sup>2</sup>	8	91	38	1	Included in biannual health checks	N/A	N/A	6
			Biannual health checks <sup>3</sup>	N/A	N/A	689	1 <sup>4</sup>	343	12	N/A	N/A
			Health checks for special operations	N/A	590	64	83	280	437	183	173
Hazard prevention	We worked with occupational health management personnel equipped with professional medical backgrounds (factory doctors and occupational nurses) to conduct comprehensive assessments of occupational hazards and implement protections for operational health hazards to protect employee safety and reduce health hazards.	On-site services (physicians)	<ul style="list-style-type: none"><li>Unikorn: Began providing monthly on-site physician services in April 2022</li><li>EPISTAR: In 2022, physicians provided monthly on-site services at seven factories over a total of 78 times</li><li>Lextar: Monthly services were provided at each factory over a total of 24 times</li><li>On-site services by occupational physicians: Provided at Lextar's T01 factory once every four months over a total of three times in a year</li></ul>								
		First aid	<ul style="list-style-type: none"><li>Lextar: Lextar installed an in-factory AED for use by colleagues in emergencies to increase survival at the first instance. We organize regular first aid training (AED + CPR) for employees</li><li>Lextar Electronics: Lextar Electronics installed an in-factory AED for use by colleagues in emergencies to increase survival at the first instance, and also organized annual first aid training (AED + CPR) for employees and signed fast track agreements with hospitals</li></ul>								

<sup>1</sup> The Group hired 4,404 new employees in 2022 and 4,218 people participated in the year's health checks for new hires; 186 new employees provided documentation for health checks conducted within six months, and therefore were not required to undergo additional health checks.

<sup>2</sup> Health checks for senior executives at all Group subsidiaries in Taiwan. Managers ranking at vice president and above are required to undergo annual health checks, and managers ranking at division director and above are required to undergo health checks once every two years.

<sup>3</sup> All Group subsidiaries conduct health checks for all personnel once every two years. Ennostar, EPISTAR, and Unikorn are scheduled to implemented biannual health checks in 2023. Lextar previously implemented full health checks in 2022 and is scheduled to conduct the next round of health checks in 2024.

<sup>4</sup> As this employee was older than 65 years, we conducted an annual health check in accordance with law.

Health Promotion Aspect		Main Projects/Activities	Achievements in 2022
Health care	We consolidated external resources and supporting medical equipment to strengthen health care protections and enhance health care quality	Increased the number of contracted hospitals for physical examinations	<ul style="list-style-type: none"> <li>Unikorn: In negotiations with the Hsinchu Branch of the National Taiwan University Hospital</li> <li>EPISTAR: Established collaborations with 11 external hospitals to provide physical examinations for personnel around Taiwan</li> <li>Lextar: Contracted with Min-Sheng General Hospital to provide physical examinations for new hires and general health checks</li> <li>Lextar Electronics: <ul style="list-style-type: none"> <li>Physical examinations for new hires: Xie Cheng Hospital</li> <li>Employee health checks: Suchu Physical Examination Center</li> <li>Specific physical examinations: Chuzhou First People's Hospital/Suchu Physical Examination Center</li> </ul> </li> </ul>
		Newly contracted hospitals (health checks for senior executives)	<ul style="list-style-type: none"> <li>Unikorn: In negotiations with Cathay Healthcare Management (Hsinchu Physical Examination Center) to begin providing services in October</li> <li>EPISTAR: Collaborated with seven external hospitals distributed in northern, central, and southern Taiwan to provide health checks for senior executives</li> <li>Lextar: A total of 16 contracted hospitals around Taiwan provide services to senior executives</li> </ul>
		Collaborated with external hospitals to provide lung computed tomography (CT) scans (independent item not included in legal health checks)	<ul style="list-style-type: none"> <li>EPISTAR: Provided "free" low-dose lung CT scans for qualified personnel to facilitate early discovery and early treatment. In 2022, a total of 353 people received lung CT scans. No abnormalities were discovered</li> </ul>
		Cancer screening	<ul style="list-style-type: none"> <li>Lextar: Promoted Health Promotion Administration free screenings for breast cancer, cervical cancer, oral cancer, and colorectal cancer. A total of 208 people received screenings</li> <li>Lextar: Annual health check items included transvaginal scans, prostate B-mode ultrasounds, and cervical cancer screening. Additional health check items could be included at personnel's own expense</li> </ul>

Health Promotion Aspect		Main Projects/ Activities	Achievements in 2022
Health management	We established and implemented health classification and management systems to protect employee health, and also incorporated concepts relating to preventive medicine for effective disease control and prevention, thereby ensuring employee health	Classification management of health check information	<ul style="list-style-type: none"> <li>Unikorn: We implemented classification management on 264 health check reports in 2022</li> <li>EPISTAR: We implemented classification management on 590 health check reports in 2022, and discovered no personnel with Level 4 work-related ill health conditions</li> <li>Lextar: We implemented classification management on 858 health check reports and provided physician consultations and subsequent follow-up</li> </ul>
Health promotion	We designed diverse, multidimensional, and interesting health promotion activities; cultivated health promotion seed personnel; and extended health activities, concepts, and actions from our factories to the outside world, and from our employees to their family members	Health promotion activities	<ul style="list-style-type: none"> <li>Unikorn: We hosted the "Exercise in the Office" event in August 2022. A total of 15 people participated in the activity</li> <li>Lextar: <ul style="list-style-type: none"> <li>Frequency of health lectures: Health lectures were held twice a year, and were hosted online in 2022 due to the pandemic</li> <li>Theme for first session: 16/8 intermittent fasting weight loss strategy. A total of 44 people participated in the activity</li> <li>Theme for second session: Shoulder and neck pain in office workers. A total of 33 people participated in the activity</li> </ul> </li> <li>Lextar: <ul style="list-style-type: none"> <li>Eye care activities, including annual eye examinations and eye glass cleaning sessions. A total of 40 people participated in the activity</li> <li>Dental care: Dental checks, dental cleaning discounts, and free fluorine treatment for employee children, benefiting 60 people</li> </ul> </li> </ul>
		Promotion of paid flu vaccinations	<ul style="list-style-type: none"> <li>Lextar: To encourage our colleagues to receive flu vaccines and save them a trip to the hospital, we invited hospital personnel to provide two vaccines (GSK and TTY Biopharm) to employees on site at our factories. A total of 110 people participated in the activity</li> </ul>

## Maternal Protection and Care

The Ennostar Group attaches great importance to care of employee health before, during, and after pregnancy. We not only provide full protection mechanisms, but also established maternity-friendly workplace environments with pregnancy parking, nursery rooms, and other tangible assets. We conducted maternal health risk assessments on workplace environments; identified possible hazards, control measures, and risk classification in operational areas; and required our operational departments to reference physician suggestions regarding operational adjustments and environmental improvements to provide maternal health care for employees. We require employees to fill our maternal risk assessment reports and health care surveys during and after pregnancy so we can track their health conditions and adjust environments and operations as needed.



EPISTAR has provided maternal protection and care services to 96 employees (including 16 migrant workers) since 2020. Lextar provides the following maternal protection and care services:

Measures	Description	Achievements in 2022
Dedicated cleanroom clothing/pregnancy parking	We provide dedicated yellow cleanroom clothing and parking spaces closest to exits for our pregnant employees so they can quickly and safely arrive at work.	Used by a total of 20 pregnant colleagues
Welcoming Babies initiative	We encourage our colleagues to notify the health center of their pregnancy status as soon as possible so workplace health protection assessments for pregnant colleagues can be initiated. The health center confirms the number of pregnant personnel in each unit with unit assistants by email on the tenth of every month and arranges for factory physicians to provide maternal protection services. As part of our plan to build a caring and healthy workplace, our pregnant colleagues can receive a pregnancy gift from our health center by showing their mother's handbook.	Used by a total of 20 pregnant colleagues
Women's health activities	To protect the health of female colleagues, Lextar hosts paid women's health activities every year which offer convenient and rapid Pap smears, transvaginal scans, and mammograms to our female employees.	A total of 72 employees underwent checks
Surveys for childrearing women	The health center confirms the number of personnel who are pregnant, on maternity leave, or breastfeeding at each unit with unit assistants by email every month, and survey results are compiled and reported to managers via email to protect the interests of childrearing female personnel.	Distributed to all female colleagues

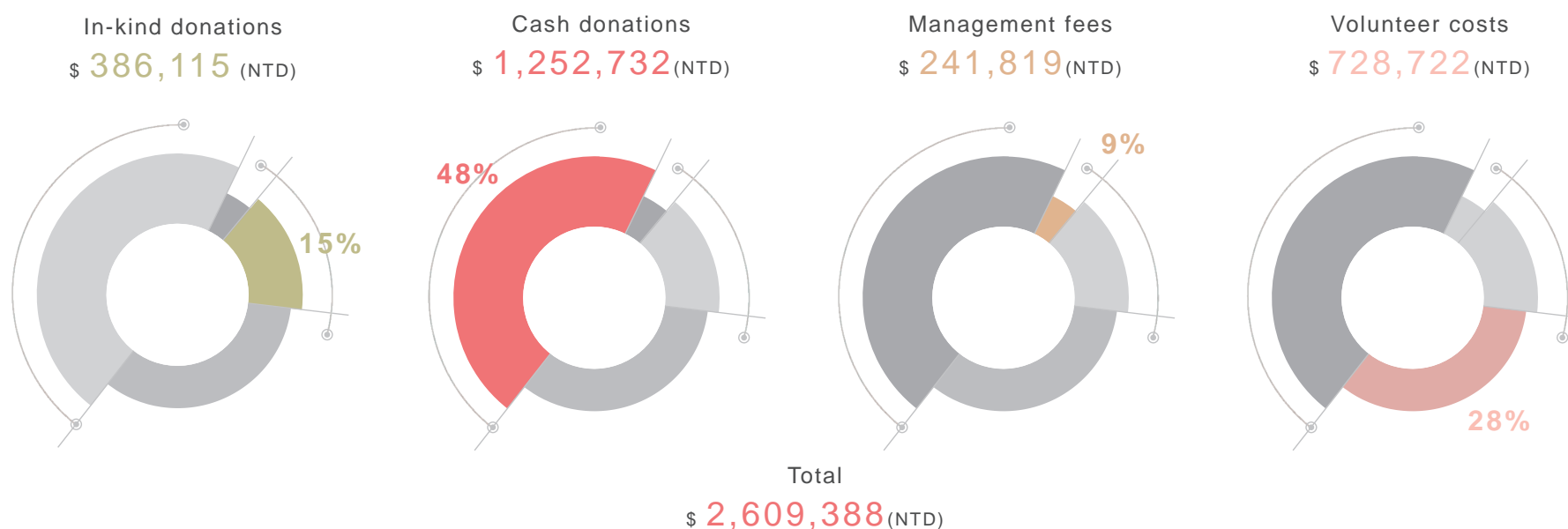


## 5-5 Mutually Beneficial Society

### 5-5-1 Community Investment

The Group actively participates in social welfare to achieve our core purpose of giving back to society. We actively encourage all Group subsidiaries to implement charity projects and lead employees in social participation to care for children and elders, as well as all humans, animals, and the environment. We have sown seeds of our positive influence all around Taiwan.

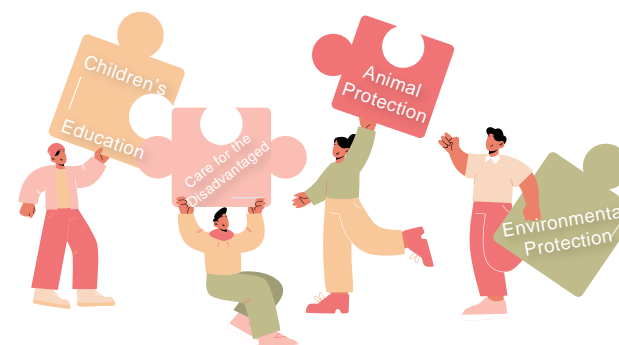
We encourage our employees to voluntarily organize and participate in various social participation events. In 2022, the Group invested a total of NT\$ 2.6 million in social participation.



### 5-5-2 Public Welfare Footprints

#### EPISTAR—Diverse Volunteer Activities

EPISTAR conducts public welfare activities along four main axes, and the Employee Relations Department organizes an abundant and diverse series of volunteer activities for Group employees under the motto of “Social influence begins from your own personal actions.”



## One Pencil, One Smile — The importance of companionship:

### [Northern Taiwan] Study Companions for Children × HsinChu I-Link Community Care Association



The HsinChu I-Link Community Care Association has established Green Light Seed Classrooms at three locations in Xipu, Erchong, and Chudong. These classrooms provide free after-school study companionship for primary and junior high school students from special-needs families in their respective school districts, in order to mitigate the impact of urban-rural disparities on education levels. Volunteers serve as after-school teachers, and instruct younger children in their lessons, or play board games with them. The Association also organizes school trips on occasion to enhance the life experiences of their students, and promote learning, development, and social interaction through extracurricular activities.

## One Cellphone, One Crow's Foot — Happiness can be so easy:

### [Central Taiwan] Cellphone Volunteer Instructors × Taiwan Community University Teacher's Association



EPISTAR works with the Taiwan Community University Teacher's Association to assist elders aged 55 years or older, helping them learn how to operate image editing mobile apps. From taking photos to removing backgrounds, volunteers help these elders independently create an edited image using only their cellphones.

As elders learn more slowly and are unfamiliar with the user interfaces of their mobile phones, assistance from volunteers enables them to learn new skills in recording their lives, opening the door to a new lifestyle.

#### Volunteer Experience Sharing: Human Resources Administrative Center-He Wei



"Their small frames hide unseen scars and stress, which are difficult for people of their age to endure. Our companionship is an important source of support for them, and even though our time together is short and we are not very familiar with each other, we feel mutual trust during the time that we spend together. With this as a starting point, companionship can bring great benefits!"

#### Volunteer Experience Sharing: Operations Center BU1-Rou Ying



I arrived at a community university in Qingshui, Taichung with a light heart, ready to participate in the Cellphone Volunteer Instruction activity. Originally, I thought this would be a fairly easy task, but as the class started, I realized that we would be teaching how to use MeituPic. As I had never used image editing software before, I thought to myself, "Goodness! These elders are amazing and so trendy!" Just 30 minutes into the class, I was flummoxed by their questions, and had to pull out my own phone to do some research. After some trial-and-error, I successfully taught my elderly students what I found out, preserving face for our younger generation. It was interesting that I was able to learn while serving as a volunteer, and I was impressed by the two couples attending the class, as the husbands always let their wives walking into the classroom first. After checking their temperatures and asking them to sign the register, the wives always said, "My husband is right behind me; he will sign for us." The husbands also taught their wives how to use the software during the class, which was really sweet and heartwarming.

I would like to thank EPISTAR for giving me the opportunity to participate in this activity and give back to society. I hope to do so again each year.

## One Dog, One Food Box — The inner face of resource appeals: [Southern Taiwan] Animal Welfare Volunteers × TNR.Animal



The shifting pandemic has impacted the overall environment, affecting not only disadvantaged groups, but also stray animal shelters, which face deficits in food and manpower. EPISTAR and the longstanding TNR. Animal association in Tainan collaborated to organize donated cash and goods from the public. As most donations are in the form of new household goods, the association holds weekend charity bazaars and streaming sales to turn these goods into cash which is used for medical and rescue expenses for the animals under their care.

## One Piece of Paper, One Pair of Scissors — Giving gifts that resonate: Elder Care × Huashan Social Welfare Foundation Lucky Doll Origami Well-wishing Activity × N6, N9



Huashan Social Welfare Foundation recently invested a lot of resources in three types of disadvantaged elderly groups: the disabled, the kinless, and the demented. The Foundation is also entering communities to provide at-home care. During the Lunar New Year holidays, the Foundation arranged festive dinner deliveries and Lucky Doll Origami Well-wishing Activities to ensure that disadvantaged elders can share in the holiday atmosphere. EPISTAR collaborated with the Huashan Social Welfare Foundation on the Lucky Doll Origami Well-Wishing Activity, thereby reducing manpower needs for the Foundation and allowing them to allocate resources to other care services. The making of paper lucky dolls not only requires time, but also tests the nimbleness of volunteer fingers. Despite these challenges, the participating employees were able to transmit their warmest wishes through the cutting and folding of paper, and looked forward to spreading love and kindness beyond boundaries through this activity.

### Volunteer Experience Sharing: Operations Center BU2-Hui Jing



During this year's volunteer drive, I chose to work with animals for my first volunteer experience. TNR.Animal is located in a residential building in an alley near the Tainan Art Museum. Two strays adopted by the association president, Ban-ban and Chiao-hu, were in the association offices alongside boxes of donated goods awaiting sorting and organization. Inside the little office, the telephone rang sporadically as people called to inquire about animal sheltering and transfer issues. Although we spent only four hours there, we felt richly rewarded. Upon chatting with the other volunteers, I learned that there were over 60 private animal welfare associations in Tainan City alone, and these associations required lots of manpower to support their operations. I am grateful to EPISTAR for organizing this volunteer activity, and I hope that others can sign up on the volunteer platform to experience this for themselves as well!

### Volunteer Experience Sharing: Human Resources Administrative Center-Tzu Yi

This was my first experience of participating in this disadvantaged elderly volunteer activity. After listening to the introduction, it was difficult to imagine that one day, I too might face such declines of physical function and energy, and experience losses of my own. Some elders were healthy but kinless and did not have the support and care of family. By making these lucky dolls, we were able to provide these elders with some holiday cheer and warm wishes. All of us tried hard to come up with creative designs for our lucky dolls during the activity. I believe that the elders who received our lucky dolls will surely feel the passion and warm wishes that went into their creation!



## One Bag, One Group of Partners —Environmental protection with you, me, and them



As the pandemic waned in the second half of 2022, EPISTAR arranged two beach cleanup activities, one at Nanliao Port in Hsinchu on November 28, and one at Yuguang Island in Tainan on December 13. The activities were combined with an inter-departmental contest, in which the ranking was determined by the amount of trash collected within a set period of time. Cash prizes were awarded according to the rankings, and a special “Most Creative Trash Award” was also established so participants could indulge their imaginations when picking up trash.

For this activity, 106 people participated in the Northern Taiwan event and 51 people attended the Southern Taiwan event, making an overall participation rate of 75%. Altogether, 1,157 kilograms of trash was collected, an average of 7.4 kg per person. The top team for Northern Taiwan collected 143 kg of trash between 4 members, and the top team for Southern Taiwan collected 108 kg of trash between 4 members.

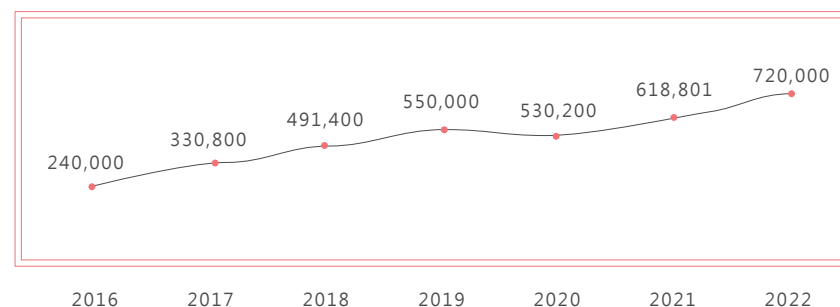
Apart from the Yuguang Island beach cleanup event, EPISTAR also collaborated with the Miaoli County Government Social Affairs Department and Volunteer Service Promotion Center to organize an environmental protection and beach cleanup event entitled, “Hundred-Person Beach Cleanup with EPISTAR.” The event included hands-on activities and local tours. This event was also open to foreign workers at the Group, and shuttle buses and professional translators were hired for the event to allow foreign workers to get a better understanding of Taiwan and promote cultural exchanges.

## EPISTAR—You Can Be Santa Claus



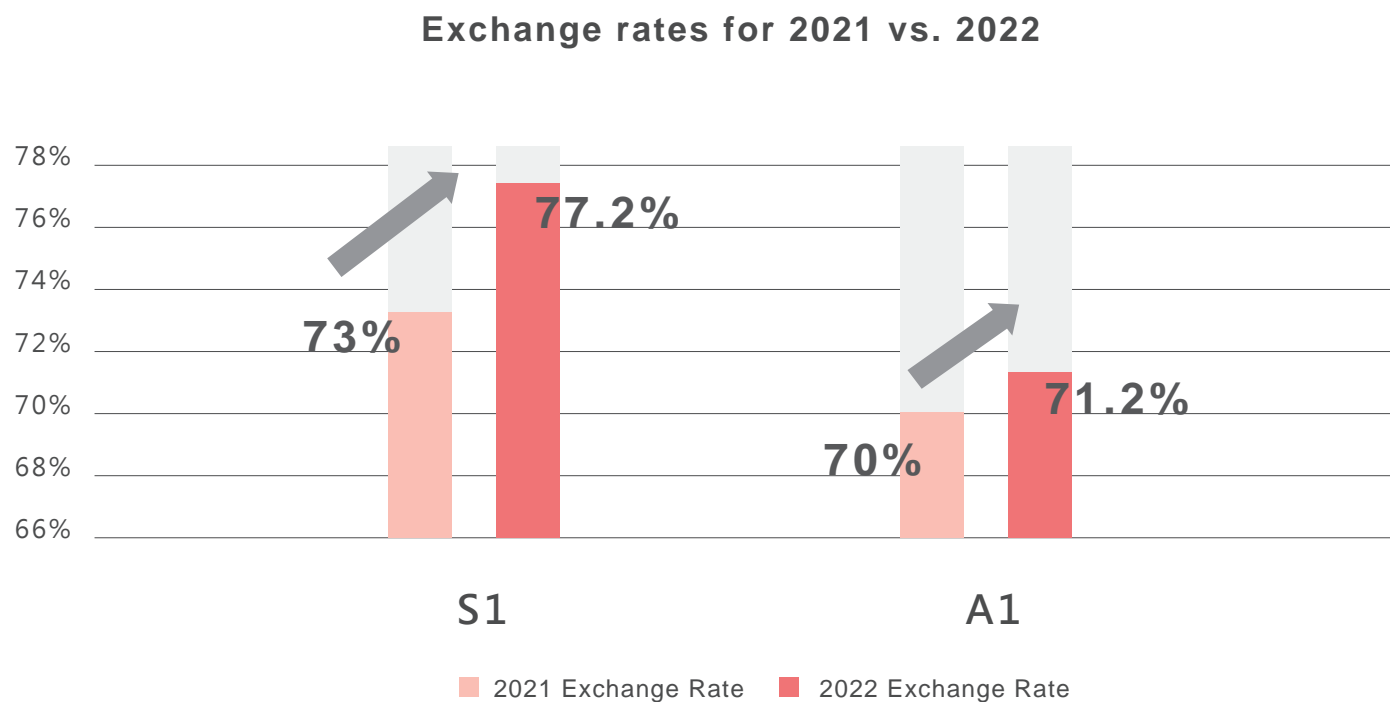
Since 2016, EPISTAR has collaborated with World Vision Taiwan on the annual “You Can Be Santa Claus” Christmas present collection and donation drive, which aims to provide children from disadvantaged families with warmth and comfort in the cold days of Christmas. Since 2017, this project has broadened its goals and increased the number of presents distributed to 500 people. Recipients include primary school and preschool children living around Taiwan and the outlying islands. More and more EPISTAR personnel have volunteered to fulfill the gift wishes of participating children, and those who send gifts receive a thank-you card from the recipients. In 2022, a new “Change The Light” project was added alongside the existing “Send A Gift” project to support the donation of lighting, with 230 items eventually donated.

【EPISTAR—You Can Be Santa Claus】-Annual Amount of Donations  
(including Ennostar, Epistar, Unikorn, and GaNrich)



7 years running | 3,200 presents collected | NT\$2,761,201 in donations

## EPISTAR—Free Store



Since 2020, EPISTAR has collaborated with public welfare groups on the “Free Store” project, where all items in a store are available for barter exchange, allowing those in need to get the goods that they need. Through the Free Store project, Group personnel can donate their unwanted items and take away second-hand goods that they want. Uncollected items are sorted and sent to public welfare groups, allowing resources to be recycled and love to be passed on in an endless cycle.

In 2022, a total of 1,262 items were collected; 633 items from A1 were exchanged, amounting to 71.2%, and 288 items from A2 were exchanged, amounting to 77.2%. The remaining 340 items were donated to three public welfare groups.

## EPISTAR—Luck for A Thousand Years Bringing Joint Happiness

EPISTAR collaborated with the social enterprise, Happy Food 1000, and encouraged employees to purchase their goods using a points system to promote related products and fulfill Goal 2: Zero Hunger and Goal 12: Responsible Consumption and Production of the United Nations Sustainable Development Goals (SDGs). We hoped that this activity could create happiness and ensure ecosystem sustainability.



## Lexstar—Read Together to Achieve Dreams Project

### Read Together to Achieve Dreams:

### Establishing a multifunctional learning classroom at Huayuan Elementary School in Wufeng Township



For the past 12 years, Lexstar has continuously been involved in the improvement of learning environments for schoolchildren in rural areas. In 2022, the Dreams Come True Project Train arrived at the 11th Dreams Come True School—Huayuan Elementary School in Wufeng Township, which had only 6 classes and 32 students, 95% from the Atayal and Saisiyat tribes. In addition, almost a third of the students were from low-income, single-parent, or skipped-generation disadvantaged families.

After learning from the Hsinchu Center for Children and Families that the third floor of the Teaching Building at Huayuan Elementary School in Wufeng Township was aging and had poor lighting, Lexstar initiated an employee donation drive to help students fulfill their dream of creating a “multifunctional learning classroom” that allowed them to read, play music, and learn comfortably, just as if they were at home.

A total of 145 staff members participated in the donation drive, which eventually raised a total of NT\$ 374,388. The donations were used to improve the library, music, and learning classrooms of Huayuan Elementary School, allowing these three neighboring spaces to become a multifunctional learning center for students where instruction in music (ancient ballads), reading and writing, and indoor sports could be conducted.

After seeing the new classroom, the students all happily exclaimed that their years-long dream had finally come true, and that they looked forward to learning happily with their classmates in the new space.

New infrastructure and learning spaces not only enhanced the teaching environment and effectiveness of the school, but also inspired hope for learning and enabled the children of Huayuan Elementary School to embark on a new journey of exploration.





# Appendix

**Appendix 1 : Data Overview**

**Appendix 2: GRI Standard Index**

**Appendix 3: Sustainability Accounting  
Standards Board Index**

**Appendix 4: ISO 26000 Guidance on  
Social Responsibility Index**

**Appendix 5: List of Affiliated Public  
Associations**

**Appendix 6: Reinvested Companies and  
Other Affiliated Businesses**

**Appendix 7: Independent Assurance  
Statement from TUV Rheinland**

# Appendix

## Appendix 1 : Data Overview

### [Governance Data]

#### Self-Evaluation Survey Results for the Board and all Committees

Survey type	Target	Collected surveys	Effective surveys	Recovery rate
Board performance evaluation self-assessment survey	9 directors	9	9	100%
Board member performance evaluation self-assessment survey	9 directors	9	9	100%
Audit Committee performance evaluation self-assessment survey	5 committee members	5	5	100%
Compensation Committee performance evaluation self-assessment survey	4 committee members	4	4	100%
ESG Committee	4 committee members	4	4	100%

## Compiled from Professional Ethics Reporting Platform

	Total number of reports collected from professional ethics reporting mailbox	Number of reports related to professional ethics	Substantiated violations of professional ethics	Reports related to corruption, bribery, or confidentiality	Reports related to diversity, equality, or sexual harassment	Reports related to discipline	Other
Ennostar	1	0	0	0	0	0	1
EPISTAR	4	0	0	0	1	2	1
Lextar	2	0	0	0	0	0	2
Unikorn	2	0	0	0	0	0	2
Lextar Electronics	0	0	0	0	0	0	0

Note: Episky, Episky, and Can Yang plan to establish professional ethics reporting channels in 2023

## Number of People Who Received Anti-Corruption Education and Training

	Ennostar		EPISTAR		Lextar		Unikorn		Episky		Can Yang		Lextar Electronics	
Year	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Participants	73	88	3,817	45	334	1,375	266	499	0	0	0	0	5,901	4,337
Total training hours	74	69.5	190.85	90	334	1,468	13.3	62	0	0	0	0	2,546	2,168.5

## Results of Annual Supplier Evaluations

Company/Evaluation level	A	B	C	D	E	suppliers to all suppliers (%)
Epistar	69	4	0	0	0	6.3%
Lextar	1	27	0	0	-	11%
Unikorn	26	0	0	0	-	7%
Epicrystal	25	0	0	0	0	7%
Episky	17	0	0	0	-	4%
Can Yang	16	1	0	0	0	5%
Lextar Electronics	0	31	0	0	-	15%
Total	154	63	0	0	0	

## Procurement from Local Suppliers

Company	Number of suppliers		Ratio of local suppliers	Proportion of local procurement
	Domestic	Overseas		
Ennostar	32	0	100%	100%
EPISTAR	1,152	53	96%	80%
Lextar	599	58	91%	89%
Unikorn	338	17	95%	62%
Epicrystal	343	41	89%	84%
Episky	373	27	93%	69%
Can Yang	305	11	96%	81%
Lextar Electronics	316	43	88%	85%



## [Environmental Data]

### Greenhouse Gas Emissions (unit: metric tonsCO<sub>2</sub>e)

Item (Unit)	Company	EPISTAR		Lextar		Unikorn	
	Year	2021	2022	2021	2022	2021	2022
Category 1: Direct emissions		67,042.00	60,285.09	6,079.46	285.01	3,836.98	1,896.59
Category 2: Indirect emissions		175,469.00	177,698.88	34,902.18	8,469.827	4,832.06	5,383.60
Category 3: Indirect emissions from transportation		-	256.16	-	130.159	-	169.98
Category 4: Indirect emissions from products used		35,941.00	40,385.84	6,896.61	94.494	968.45	1,036.17
Total		278,452.00	278,625.98	47,878.25	8,979.49	9,637.49	8,486.33
Greenhouse gas emission intensity		-	9.87 (metric tons CO <sub>2</sub> e/unit wafer production area m <sup>2</sup> )	-	3.94 (metric tons CO <sub>2</sub> e/unit wafer production area m <sup>2</sup> )	-	97.43 (metric tons CO <sub>2</sub> e/unit wafer production area)

## Factories newly included in greenhouse gas inventories for 2022 (unit: metric tons CO<sub>2</sub>e)

Item	Ennostar	Epicrystal	Episky	Can Yang	Lextar Electronics
Category 1: Direct emissions	3.28	2,034.72	839.51	672.77	68.77
Category 2: Indirect emissions	54.08	30,296.4	18,810.61	24,334.37	15,368.54
Category 3: Indirect emissions from transportation	41.14	-	-	-	-
Total	98.5	32,331.12	19,650.12	25,007.14	15,437.31

## Group Greenhouse Gas Emissions by Category

Category	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	NF <sub>3</sub>	Total
metric tons CO <sub>2</sub> e	3,805.24	500.57	3,292.43	1,839.75	56,145.34	499.14	0.00	66,082.47

## Group Energy Usage

Item	Unit	2021	2022
Purchased power	GJ	2,029,858	1,898,813
Electricity from renewable energies	GJ	14,210	14,052
Diesel	GJ	815	722
Liquefied natural gas (LNG)	GJ	73,924	58,422
Total energy consumption	GJ	2,118,807	1,972,009
Energy intensity	(GJ/million NTD)	58	68
Proportion of electricity usage to total energy usage	%	95.8%	96.3%
Renewable energy usage	%	0.7%	0.7%

## Water Resources

Item	Unit	2021		2022	
		Total consumption	Regions under water stress	Total consumption	Regions under water stress
Total water withdrawal	Million liters	3,846	45	3,492	318
Water withdrawal intensity	Million liters/ million NTD	0.11	-	0.12	-
Total discharge	Million liters	3,111	390	2,822	293
Total water consumption	Million liters	735	-	670	-

Recovered and reused water	Unit	2021	2022
Total recovered and reused water	Million liters	1,814	2,346

## Waste Amounts

Item	Unit	2021	2022
General industrial waste	Tons	1,618.155	1,616.548
Hazardous industrial waste		13,707.656	9,149.760
Recycling rates for general industrial waste	%	37.97	58.23
Recycling rates for hazardous industrial waste		77.76	70.73
Waste recycling rates		72.30	68.53

## Waste Classified by Disposal Method in 2022

Item	Unit	General industrial waste	Hazardous industrial waste
Amount of recyclable waste	Reuse preparations	687.94	0
	Recycling	538.12	7,022.66
Amount of non-recyclable waste	Incineration (including recycled energies)	75.28	93.15
	Incineration (excluding recycled energies)	24.36	75.57
	Landfill	629.57	1,781.43
	Other disposal methods	143.36	926.23

## Waste Classified by Disposal Sites in 2022

Item		Unit	General industrial waste	Hazardous industrial waste
On-site	Transferred for disposal	Tons	0	0
	Direct disposal		6.99	0
Off-site	Transferred for disposal		1,369.43	7,948.89
	Direct disposal		729.21	1,950.15

## Air Pollutants<sup>1</sup>

Factories in Taiwan			
Gas	Unit	Emissions in 2021	Emissions in 2022
Nitrogen oxides (NOx)	Kilograms (kg)	18,781	23,924
Sulfur oxides (SOx)		12,380	15,544
Volatile organic compounds (VOCs)		45,415	42,430
Factories in China			
Gas	Unit	Emissions in 2022	
Nitrogen oxides (NOx)	Kilograms (kg)	183.28	
Sulfur oxides (SOx)		262.72	
Volatile organic compounds (VOCs)		2,444.34	

Emissions data for 2021 only includes Epistar, Lextar, Epicrystal, and Lextar Electronics. Ennostar offices did not generate any emissions.



## [Social Data]

### Employees for Each Region

Company	Region	Type	Male		Female		Total number of employees
			Number of employees	Ratio	Number of employees	Ratio	
Ennostar	Taiwan	Full-time personnel	26	34.67%	48	64%	74
		Non-full time personnel (temporary/contracted personnel)	0	0.00%	1	1.33%	1
	China	Full-time personnel	0	0.00%	0	0.00%	0
		Non-full time personnel (temporary/contracted personnel)	0	0.00%	0	0.00%	0
(Episky/Epicrystal/Can Yang)	Taiwan	Full-time personnel	1,775	45.36%	1,283	32.79%	3,058
		Non-full time personnel (temporary/contracted personnel)	197	5.03%	658	16.82%	855
	Episky	Full-time personnel	493	60.05%	314	38.25%	807
		Non-full time personnel (temporary/contracted personnel)	6	0.73%	8	0.97%	14
	Epicrystal	Full-time personnel	277	53.37%	187	36.03%	464
		Non-full time personnel (temporary/contracted personnel)	35	6.74%	20	3.85%	55
	Can Yang	Full-time personnel	179	55.42%	104	32.20%	283
		Non-full time personnel (temporary/contracted personnel)	38	11.76%	2	0.62%	40
	Taiwan	Full-time personnel	428	49.8%	346	47.3%	835
		Non-full time personnel (temporary/contracted personnel)	0	0.00%	3	0.35%	3
Lextar	China	Full-time personnel	22	2.56%	0	0.00%	22
		Non-full time personnel (temporary/contracted personnel)	0	0.00%	0	0.00%	0

Company	Region	Type	Male		Female		Total number of employees
			Number of employees	Ratio	Number of employees	Ratio	
Lextar Electronics	China	Full-time personnel	700	50.25%	364	26.13%	1,064
		Non-full time personnel (temporary/ contracted personnel)	253	18.16%	76	5.46%	329
Unikorn	Taiwan	Full-time personnel	243	55.35%	171	38.95%	414
		Non-full time personnel (temporary/ contracted personnel)	10	2.28%	15	3.42%	25
	China	Full-time personnel	0	0.00%	0	0.00%	0
		Non-full time personnel (temporary/ contracted personnel)	0	0.00%	0	0.00%	0
Total			4,682	56.12%	3,661	43.88%	8,343

## Foreign and Expatriate Employees

Company	Type	Male		Female		Total number of employees
		Number of employees	Ratio	Number of employees	Ratio	
Ennostar	Foreign employees	0	0.00%	0	0.00%	75
	Expatriate employees	0	0.00%	0	0.00%	
EPISTAR	Foreign employees	148	3.78%	627	16.02%	3,913
	Expatriate employees	25	0.64%	2	0.05%	
Lextar	Foreign employees	28	3.26%	59	6.86%	860
	Expatriate employees	22	2.56%	0	0.00%	
Unikorn	Foreign employees	6	1.37%	15	3.42%	439
	Expatriate employees	0	0.00%	0	0.00%	

Company	Type	Male		Female		Total number of employees
		Number of employees	Ratio	Number of employees	Ratio	
Episky	Foreign employees	0	0.00%	0	0.00%	821
	Expatriate employees	2	0.24%	0	0.00%	
Epicrystal	Foreign employees	0	0.00%	0	16.02%	519
	Expatriate employees	0	0.00%	0	0.05%	
Can Yang	Foreign employees	0	0.00%	0	0.00%	323
	Expatriate employees	4	1.24%	0	0.00%	
Lextar Electronics	Foreign employees	0	0.00%	0	0.00%	1,393
	Expatriate employees	21	1.51%	0	0.00%	
Total		256	3.07%	703	8.43%	8,343

## Employee Diversity

Company	Gender/Age	Male			Female			Total	Proportion of total employees
		Under 30	30-50	Above 51	Under 30	30-50	Above 51		
Ennostar	Indigenous employees	0	0	0	0	0	0	0	0.00%
	Employees with disabilities certificates	0	0	0	1	0	0	1	0.01%
EPISTAR	Indigenous employees	3	0	0	1	12	0	16	0.19%
	Employees with disabilities certificates	0	10	4	0	15	1	30	0.36%
Lextar	Indigenous employees	1	0	0	0	0	1	2	0.02%
	Employees with disabilities certificates	0	3	0	1	3	1	8	0.10%
Unikorn	Indigenous employees	0	1	0	1	2	0	4	0.05%
	Employees with disabilities certificates	1	2	0	0	1	0	4	0.05%
Total		5	16	4	4	33	3	65	0.78%

## Group Exited and New Employees in 2022

Age	Number of voluntary terminations	Number of involuntary terminations	Number of terminated employees	Voluntary turnover rate	Involuntary turnover rate	Turnover rate	Number of new hires	Ratio of new hires
Under 30	3,230	74	3,304	38.72%	0.89%	39.61%	3,287	39.40%
31-50	1,361	47	1,408	16.31%	0.56%	16.89%	1,081	12.96%
Above 51	25	11	36	0.30%	0.13%	0.43%	36	0.43%
Total	4,616	132	4,748	55.33%	1.58%	56.91%	4,404	52.79%

## Employee Positions and Age Distributions

Company	Type	Management				R&D and technical personnel				Direct labor				Contract labor			
		Male		Female		Male		Female		Male		Female		Male		Female	
		Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio
Ennostar	Under 30	0	0.00%	0	0.00%	2	0.02%	10	0.12%	0	0.00%	0	0.00%	0	0.00%	1	0.01%
	31-40	1	0.01%	3	0.04%	3	0.04%	14	0.17%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	41-50	2	0.02%	8	0.10%	8	0.10%	11	0.13%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	Above 51	7	0.08%	1	0.01%	3	0.04%	1	0.01%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
EPISTAR	Under 30	6	0.07%	5	0.06%	225	2.70%	164	1.97%	132	1.59%	311	3.74%	10	0.12%	1	0.01%
	31-40	3	0.04%	2	0.02%	2	0.02%	3	0.04%	9	0.11%	21	0.25%	0	0.00%	0	0.00%
	41-50	362	4.34%	88	1.06%	724	8.70%	290	3.48%	487	5.85%	1,048	12.59%	7	0.08%	5	0.06%
	Above 51	2	0.02%	1	0.01%	2	0.02%	2	0.02%	1	0.01%	0	0.00%	0	0.00%	0	0.00%
Episky	Under 30	2	0.02%	3	0.04%	120	1.44%	49	0.59%	216	2.60%	136	1.63%	5	0.06%	2	0.02%
	31-40	25	0.30%	18	0.22%	28	0.34%	24	0.29%	78	0.94%	65	0.78%	0	0.00%	0	0.00%
	41-50	7	0.08%	1	0.01%	3	0.04%	2	0.02%	7	0.08%	15	0.18%	1	0.01%	0	0.00%
	Above 51	3	0.04%	0	0.00%	4	0.05%	1	0.01%	0	0.00%	0	0.00%	0	0.00%	6	0.07%

Company	Type	Management				R&D and technical personnel				Direct labor				Contract labor			
		Male		Female		Male		Female		Male		Female		Male		Female	
		Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio	Number of employees	Ratio
Can Yang	Under 30	0	0.00%	0	0.00%	39	0.47%	19	0.23%	78	0.94%	16	0.19%	0	0.00%	0	0.00%
	31-40	18	0.22%	13	0.16%	33	0.40%	23	0.28%	31	0.37%	21	0.25%	0	0.00%	0	0.00%
	41-50	6	0.07%	2	0.02%	3	0.04%	5	0.06%	4	0.05%	7	0.08%	0	0.00%	0	0.00%
	Above 51	3	0.04%	0	0.00%	0	0.00%	0	0.00%	2	0.02%	0	0.00%	0	0.00%	0	0.00%
Epicrystal	Under 30	1	0.01%	1	0.01%	76	0.91%	46	0.55%	103	1.24%	59	0.71%	0	0.00%	0	0.00%
	31-40	13	0.16%	3	0.04%	42	0.50%	40	0.48%	54	0.65%	49	0.59%	0	0.00%	0	0.00%
	41-50	11	0.13%	2	0.02%	1	0.01%	3	0.04%	4	0.05%	2	0.02%	0	0.00%	0	0.00%
	Above 51	3	0.04%	0	0.00%	4	0.05%	2	0.02%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Lextar	Under 30	0	0.00%	1	0.01%	31	0.37%	28	0.34%	19	0.23%	34	0.41%	0	0.00%	1	0.01%
	31-40	48	0.58%	22	0.26%	95	1.14%	76	0.91%	34	0.41%	100	1.20%	0	0.00%	1	0.01%
	41-50	88	1.05%	29	0.35%	96	1.15%	45	0.54%	13	0.16%	52	0.62%	0	0.00%	0	0.00%
	Above 51	15	0.18%	5	0.06%	10	0.12%	2	0.02%	1	0.01%	13	0.16%	0	0.00%	1	0.01%
Lextar Electronics	Under 30	5	0.06%	14	0.17%	44	0.53%	22	0.26%	333	4.00%	136	1.63%	246	2.96%	69	0.83%
	31-40	41	0.49%	25	0.30%	71	0.85%	35	0.42%	161	1.93%	109	1.31%	7	0.08%	6	0.07%
	41-50	21	0.25%	6	0.07%	10	0.12%	6	0.07%	13	0.16%	11	0.13%	0	0.00%	1	0.01%
	Above 51	1	0.01%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unikorn	Under 30	0	0.00%	0	0.00%	41	0.49%	26	0.31%	6	0.07%	21	0.25%	2	0.02%	0	0.00%
	31-40	15	0.18%	2	0.02%	61	0.73%	30	0.36%	13	0.16%	32	0.38%	0	0.00%	0	0.00%
	41-50	18	0.22%	6	0.07%	55	0.66%	20	0.24%	22	0.26%	39	0.47%	1	0.01%	0	0.00%
	Above 51	10	0.12%	1	0.01%	8	0.10%	2	0.02%	0	0.00%	7	0.08%	1	0.01%	0	0.00%
Total		737	8.86%	262	3.15%	1,844	22.16%	1,001	12.03%	1,821	21.83%	2,304	27.69%	280	3.36%	94	1.13%



## Annual Total Compensation Ratios

Company	Year	Total remuneration of highest paid individuals (A) (Including fixed salaries, pensions, bonuses, special expenses, and employee remuneration)	Median annual total remuneration of other employees (B) (Not including remuneration of highest paid individuals)	Annual total remuneration rate (C=A/B)%
Ennostar	2022	8,377	1,221	686.1%
	2021	6,916	1,046	661.2%
EPISTAR	2022	6,067	635	955.4%
	2021	7,372	715	1031.0%
Lextar	2022	7,014	786	892.4%
	2021	7,612	725	1049.9%
Unikorn	2022	3,717	801	464.0%
	2021	3,138	734	427.6%
Epicrystal	2022	1,646	355	465.0%
	2021	1,587	339	468.1%
Episky	2022	1,965	355	553.5%
	2021	2,113	384	550.3%
Can Yang	2022	1,778	387	459.4%
	2021	2,298	392	586.2%
Lextar Electronics	2022	2,161	258	837.6%
	2021	2,545	159	1,600.6%

## Male to Female Salary Ratios

Company	Ennostar		EPISTAR		Lextar		Unikorn		Lextar Electronics	
Employee type	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Entry-level employees	1	0.64	1	0.78	1	0.84	1	0.79	0.96	1
Junior executives	-	-	1	0.87	1	0.87	1	0.87	1.05	1
Mid-level executives	1	0.94	1	0.84	1	0.91	1	0.87	1	0(Note)
Senior executives	1	0.42	1	0.76	1	0.87	1	0.48	1	0(Note)

Note: As Lextar Electronics has no female mid-level/senior executives, the male ratio was set as 1.

## Ratio of Female to Male Basic Salaries and Remuneration

Operational sites	Position	2021		2022	
		Male	Female	Male	Female
Ennostar	Management	1	0.82	1	0.51
	R&D and technical personnel	-	-	1	0.78
	Direct labor	-	-	-	-
	Contract labor	-	-	-	-
EPISTAR	Management	1	0.76	1	0.75
	R&D and technical personnel	1	0.85	1	0.87
	Direct labor	1	0.89	1	0.95
	Contract labor	1	-	1	-

Operational sites	Position	2021		2022	
		Male	Female	Male	Female
Lextar	Management	1	0.77	1	0.76
	R&D and technical personnel	1	0.88	1	0.87
	Direct labor	1	1.04	1	0.94
	Contract labor	1	1	1	1
Lextar Electronics	Management	1	0.86	1	0.84
	R&D and technical personnel	1	0.88	1	0.91
	Direct labor	1	1	1	1
	Contract labor	1	1	1	1
Unikorn	Management	1	0.78	1	0.68
	R&D and technical personnel	1	0.79	1	0.83
	Direct labor	1	0.96	1	0.94
	Contract labor	-	-	-	-
Episky	Management	1	0.69	1	0.70
	R&D and technical personnel	1	1.07	1	1.03
	Direct labor	1	1.01	1	0.99
	Contract labor	1	-	1	-
Can Yang	Management	1	0.85	1	0.83
	R&D and technical personnel	1	0.72	1	0.77
	Direct labor	1	1	1	1.02
	Contract labor	1	-	1	-

## Average and Median Salaries of Non-Managerial Full-Time Employees in Taiwan in Recent Years

Company	Item	2021	2022
Ennostar	Number of non-managerial full-time employees	52	58
	Total salaries for non-managerial full-time employees	65,462	82,221
	Average salaries for non-managerial full-time employees (thousand NTD)	1,259	1,418
	Median salaries for non-managerial full-time employees	1,046	1,221
EPISTAR	Number of non-managerial full-time employees	3,348	3,713
	Total salaries for non-managerial full-time employees	2,925,741	3,029,522
	Average salaries for non-managerial full-time employees (thousand NTD)	874	816
	Median salaries for non-managerial full-time employees	715	635
Lextar	Number of non-managerial full-time employees	1,276	826
	Total salaries for non-managerial full-time employees	1,102,180	763,825
	Average salaries for non-managerial full-time employees (thousand NTD)	891	958
	Median salaries for non-managerial full-time employees	725	786
Unikorn	Number of non-managerial full-time employees	179	246
	Total salaries for non-managerial full-time employees	145,422	216,035
	Average salaries for non-managerial full-time employees (thousand NTD)	812	878
	Median salaries for non-managerial full-time employees	734	801

Company	Item	2021	2022
Epicrystal	Number of non-managerial full-time employees	1,288	802
	Total salaries for non-managerial full-time employees	203,279	184,684
	Average salaries for non-managerial full-time employees (thousand NTD)	158	230
	Median salaries for non-managerial full-time employees	105	64
Episky	Number of non-managerial full-time employees	1,239	1,658
	Total salaries for non-managerial full-time employees	227,120	270,712
	Average salaries for non-managerial full-time employees (thousand NTD)	183	163
	Median salaries for non-managerial full-time employees	118	94
Can Yang	Number of non-managerial full-time employees	472	457
	Total salaries for non-managerial full-time employees	77,841	73,939
	Average salaries for non-managerial full-time employees (thousand NTD)	165	162
	Median salaries for non-managerial full-time employees	135	136
Lextar Electronics	Number of non-managerial full-time employees	1,366	1,099
	Total salaries for non-managerial full-time employees	381,989	358,586
	Average salaries for non-managerial full-time employees (thousand NTD)	280	326
	Median salaries for non-managerial full-time employees	317	347

Unit: NTD

Note: Data for Epicrystal, Episky, Can Yang, and Lextar Electronics used an RMB:NTD exchange rate of 1:4.3597 for 2021 and 1:4.4173 for 2022.



## Education and Training

Company	Year	Total training expenses (NTD)	Total training hours	Total number of trainees	Training hours per capita (hours)
Ennostar	2021	Founded in 2021; relevant training statistics have been included in Epistar data.			
	2022	148,400	478	141	3.4
EPISTAR	2021	2,561,997	10,558	2,324	4.5
	2022	1,926,421	10,721	2,786	3.8
Lextar	2021	947,864	8,452	4,190	2.0
	2022	783,700	10,746	5,414	2.0
Unikorn	2021	136,484	6,808	2,938	2.3
	2022	1,088,230	13,690	5,652	2.4
Epicrystal	2021	48,325	568	31	18.3
	2022	91,708	962	36	26.7
Episky	2021	159,774	1,221	1,156	1.1
	2022	168,233	15,305	1,611	9.5
Can Yang	2021	27,476	112	11	10.2
	2022	19,506	88.0	11	8.0
Lextar Electronics	2021	264,243	4,500	301	15.0
	2022	458,427	2,044	316	6.5

## Employee Welfare

金額單位：新台幣元

Type	Ennostar		EPISTAR		Lextar		Unikorn	
	Number of participants	Amounts	Amounts	Number of participants	Amounts	Number of participants	Amounts	Amounts
Health checks	11	81,400	592	847,127	699	1,244,650	88	173,648
Employee travel	0	0	0	0	900	2,200,000	0	0
Festival bonuses	192	160,950	7,874	7,863,383	1,112	2,825,000	652	651,986
Employee insurance	81	6,200,877	4,687	296,816,099	1,121	72,413,645	550	26,747,995
Other allowances	13	29,600	646	1,320,700	180	349,000	58	122,300
Emergency relief	0	0	0	0	0	0	0	0
Activity bonuses	186	234,460	7,872	18,723,155	900	650,000	874	893,850
<b>Total</b>	<b>483</b>	<b>6,707,287</b>	<b>21,671</b>	<b>325,570,464</b>	<b>4,213</b>	<b>78,437,645</b>	<b>2,134</b>	<b>28,416,131</b>

Type	Epicrystal		Episky		Can Yang		Lextar Electronics	
	Number of participants	Amounts	Amounts	Number of participants	Amounts	Number of participants	Amounts	Amounts
Health checks	463	143,430	449	103,475	319	319,799	343	209,800
Employee travel	331	71,598	0	0	59	47,022	1,383	2,208,650
Festival bonuses	464	116,000	2,747	606,716	818	361,335	1,123	496,063
Employee insurance	684	79,344	5	22,411.70163	314	163,670	1,022	1,745,577
Other allowances	21	5,300	33	29,154	22	24,737	60	60,075
Emergency relief	0	0	0	0	2	8,835	0	0
Activity bonuses	449	71,700	4,139	1,322,479	1,971	1,475,206	2,250	2,494,586
<b>Total</b>	<b>2,412</b>	<b>487,372</b>	<b>6,924</b>	<b>2,084,236</b>	<b>3,505</b>	<b>2,400,604</b>	<b>4,816</b>	<b>5,259,374</b>

## Employees Who Applied for Parental Leave

Company	Ennostar			EPISTAR			Lextar			Unikorn		
Item	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
A. Number of employees eligible for parental leave without pay in 2022	1	8	9	175	102	277	71	52	123	5	2	7
B. Actual number of applicants for parental leave without pay in 2022	0	2	2	14	26	40	2	12	14	1	1	2
<b>Application rate (%)=B/A</b>	0.00%	25.00%	22.22%	8.00%	25.49%	14.44%	2.82%	23.08%	11.38%	20.00%	50.00%	28.57%
C. Number of employees on parental leave without pay scheduled for reinstatement in 2022	0	1	1	7	14	21	4	15	19	1	1	2
D. Actual number of employees on parental leave without pay reinstated in 2022	0	1	1	7	14	21	3	10	13	0	0	0
<b>Reinstatement rate (%)=D/C</b>	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	75.00%	66.67%	68.42%	0.00%	0.00%	0.00%
E. Actual number of employees on parental leave without pay reinstated in 2021	0	1	1	4	19	23	0	11	11	0	1	1
F. Number of employees on parental leave without pay who continued working for one year following reinstatement in 2021	0	1	1	4	17	21	0	9	9	0	1	1
<b>Retention rate (%)=F/E</b>	0.00%	100.00%	100.00%	100.00%	89.47%	91.30%	0.00%	81.82%	81.82%	0.00%	100.00%	100.00%

Company	Epicrystal			Episky			Can Yang			Lextar Electronics		
Item	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
A. Number of employees eligible for parental leave without pay in 2022	9	15	24	19	12	31	5	7	12	27	13	40
B. Actual number of applicants for parental leave without pay in 2022	0	0	0	0	2	2	0	0	0	27	13	40
<b>Application rate (%)=B/A</b>	0.00%	0.00%	0.00%	0.00%	16.67%	6.45%	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%
C. Number of employees on parental leave without pay scheduled for reinstatement in 2022	0	0	0	0	2	2	0	0	0	0	0	0
D. Actual number of employees on parental leave without pay reinstated in 2022	0	0	0	0	1	1	0	0	0	26	10	36
<b>Reinstatement rate (%)=D/C</b>	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
E. Actual number of employees on parental leave without pay reinstated in 2021	0	0	0	0	0	0	0	0	0	29	10	39
F. Number of employees on parental leave without pay who continued working for one year following reinstatement in 2021	0	0	0	0	0	0	0	0	0	21	8	29
<b>Retention rate (%)=F/E</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	72.41%	80.00%	74.36%

## Work-Related Injury Data

Note: T=Actual number of work days in the reporting year=249 days

Company	Gender	Occupational disasters		C Number of high-consequence work-related injuries	D Total number of employees	E Total number of work-related injuries (=A+B)	F Total number of hours worked (=D*8*T)	G Work-related injury rate (=E/F*200,000)
		A Number of injured personnel	B Number of fatalities					
Ennostar	Female	2	0	0	48	2	95,616	0.00
	Male	0	0	0	26	0	51,792	0.00
EPISTAR	Female	0	0	0	1,941	0	3,866,472	0.00
	Male	1	0	0	1,972	1	3,928,224	0.00
Lextar	Female	1	0	0	411	1	818,712	0.00
	Male	0	0	0	423	0	842,616	0.00
Unikorn	Female	0	0	0	186	0	370,512	0.00
	Male	0	0	0	253	0	503,976	0.00
Epicrystal	Female	0	0	0	211	0	420,312	0.00
	Male	0	0	0	321	0	639,432	0.00
Episky	Female	2	0	0	322	2	641,424	0.62
	Male	1	0	0	500	1	996,000	0.20
Can Yang	Female	0	0	0	1,339	0	2,667,288	0.00
	Male	0	0	0	2,364	0	4,709,088	0.00
Lextar Electronics	Female	0	0	0	1,211	0	2,412,312	0.00
	Male	11	0	0	3,252	11	6,477,984	0.34
Total		18	0	0	14,780	18	29,443,752	0.12



## Work-Related Injury Data

Note: T=Actual number of work days in the reporting year=249 days

Company	Gender	H High-consequence work-related injury rate (=C/F*200,000)	I Total days away from work	J Total work days (=D*T)	K Absentee rate (=I/Jx100%)	L Lost workdays	M Lost workday rate (L/F*200,000)
Ennostar	Female	0.00	4.40	11,952	0.04%	4.4	0.00
	Male	0.00	0.00	6,474	0.00%	0	0.00
EPISTAR	Female	0.00	0.00	483,309	0.00%	0	0.00
	Male	0.00	3.00	491,028	0.00%	3	0.00
Lextar	Female	0.00	15.00	102,339	0.01%	15	0.00
	Male	0.00	0.00	105,327	0.00%	0	0.00
Unikorn	Female	0.00	0.00	46,314	0.00%	0	0.00
	Male	0.00	0.00	63,246	0.00%	0	0.00
Epicrystal	Female	0.00	0.00	52,539	0.00%	0	0.00
	Male	0.00	0.00	79,929	0.00%	0	0.00
Episky	Female	0.00	14.00	80,178	0.02%	10	3.12
	Male	0.00	0.00	124,500	0.00%	0	0.00
Can Yang	Female	0.00	0.00	333,411	0.00%	0	0.00
	Male	0.00	0.00	588,636	0.00%	0	0.00
Lextar Electronics	Female	0.00	0.00	301,539	0.00%	0	0.00
	Male	0.00	69.00	809,748	0.01%	69	2.13
Total		0.00	105.40	3,680,220	0.00%	101.4	0.69

## Work-Related Ill Health Data

Note: T=Actual number of work days in the reporting year=249 days

Company	Gender	Work-related ill health		C Total number of employees	D Total number work-related ill health cases (=A+B)	E Total work hours (=C*8*T)	F Work-related ill health rate (=D/E*200,000)
		A Number of personnel with work-related ill health	B Number of fatalities				
Ennostar	Male	0	0	26	0	51,792	0.00%
	Female	0	0	49	0	97,608	0.00%
EPISTAR	Male	0	0	1,941	0	3,928,224	0.00%
	Female	0	0	1,972	0	3,866,472	0.00%
Lextar	Male	0	0	423	0	842,616	0.00%
	Female	0	0	411	0	818,712	0.00%
Unikorn	Male	0	0	253	0	503,976	0.00%
	Female	0	0	186	0	370,512	0.00%
Epicrystal	Male	0	0	211	0	420,312	0.00%
	Female	0	0	321	0	639,432	0.00%
Episky	Male	0	0	500	0	996,000	0.00%
	Female	0	0	322	0	641,424	0.00%
Can Yang	Male	0	0	2,364	0	4,709,088	0.00%
	Female	0	0	1,339	0	2,667,288	0.00%
Lextar Electronics	Male	0	0	1,211	0	2,412,312	0.00%
	Female	0	0	3,252	0	6,477,984	0.00%
Total		0	0	14,780	0	29,445,744	0.00%

Note: Work-related ill health can include acute, recurring, and chronic health problems caused or aggravated by work conditions or practices. They include musculoskeletal disorders, skin and respiratory diseases, malignant cancers, diseases caused by physical agents (e.g., noise-induced hearing loss, vibration-caused diseases), and mental illnesses (e.g., anxiety, post-traumatic stress disorder). This disclosure covers, but is not limited to, the diseases included in the ILO List of Occupational Diseases. In the context of the GRI Standard, work-related musculoskeletal disorders are covered under ill health (and not injuries) and are to be reported using this disclosure.

## Appendix 2: GRI Standard Index

The following content has been verified by TUV Rheinland, an independent third-party institute. Verification results are as shown in Appendix 7. Independent Assurance Statement.

Statement of Use	The Ennostar Sustainability Report has been compiled in accordance with GRI standards. The disclosure period for this report is 2022 (January 1, 2022 to December 31, 2022).
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Industry Guidelines	As there are no applicable GRI industry guidelines, we have used SASB semiconductor industry standards as a basis for disclosing relevant information.

### GRI 2: General Disclosures 2021

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>1. The organization and its reporting practices</b>					
GRI 2: General Disclosures 2021	2-1	Organizational details	About Ennostar	7	
	2-2	Entities included in the organization's sustainability reporting	About this Report	3	
	2-3	Reporting period, frequency and contact point	About this Report	3	
	2-4	Restatements of information	No material restatements of information affecting past reporting periods occurred in 2022	-	
	2-5	External assurance	Appendix 7	182	

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>2. Activities and workers</b>					
GRI 2: General Disclosures 2021	2-6	Activities, value chain and other business relationships	About Ennostar	7	
	2-7	Employees	Appendix 1 : Data Overview [Social Data]	148	
	2-8	Workers who are not employees	Appendix 1 : Data Overview [Social Data]	148	
<b>3. Governance</b>					
GRI 2: General Disclosures 2021	2-9	Governance structure and composition	2-2 Governance Organizations	35	
	2-10	Nomination and selection of the highest governance body	2-2 Governance Organizations	36	
	2-11	Chair of the highest governance body	2-2 Governance Organizations	35	
	2-12	Role of the highest governance body in overseeing the management of impacts	2-2 Governance Organizations	35	
	2-13	Delegation of responsibility for managing impacts	2-2 Governance Organizations	35	
	2-14	Role of the highest governance body in sustainability reporting	1-1 Sustainable Development Strategies 2-2 Governance Organizations	20 35	
	2-15	Conflicts of interest	2-2 Governance Organizations	37	
	2-16	Communication of critical concerns	2-2 Governance Organizations	36	
	2-17	Collective knowledge of the highest governance body	2-2 Governance Organizations	36	
	2-18	Evaluation of the performance of the highest governance body	2-2 Governance Organizations Appendix 1 : Data Overview [Governance Data]	37 140	
	2-19	Remuneration policies	2-2 Governance Organizations	38	
	2-20	Process to determine remuneration	2-2 Governance Organizations	38	
	2-21	Annual total compensation ratio	Appendix 1 : Data Overview [Social Data]	148	

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>4. Strategy, policies and practices</b>					
GRI 2: General Disclosures 2021	2-22	Statement on sustainable development strategy	A Message from our Chairman 1-1 Sustainable Development Strategies	5 18	
	2-23	Policy commitments	1-2-3 Management Policies and Impact Descriptions of Material Topics 5-3 Protection of Human Rights	26 112	
	2-24	Embedding policy commitments	5-3-1 Management of Human Rights Risks	26 113	
	2-25	Processes to remediate negative impacts	1-2-4 Stakeholder Identification and Engagement 2-3-1 Ethical Governance	28 38	
	2-26	Mechanisms for seeking advice and raising concerns	2-3-1 Ethical Governance	38	
	2-27	Compliance with laws and regulations	2-3-2 Legal Compliance	40	
	2-28	Membership associations	Appendix 5	179	
<b>5. Stakeholder engagement</b>					
GRI 2: General Disclosures 2021	2-29	Approach to stakeholder engagement	1-2 Materiality Analysis and Stakeholder Communication	23	
	2-30	Collective bargaining agreements	Ennostar currently has no unions or collective bargaining agreements, but we hold quarterly labor-management meetings which serve as a transparent communication channel.	-	

## GRI 3: Material Topics 2021

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
GRI 3: Material Topics 2021	3-1	Process to determine material topics	1-2 Materiality Analysis and Stakeholder Communication	23~29	
	3-2	List of material topics	1-2 Materiality Analysis and Stakeholder Communication	23~29	



GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>Material Topic: Corporate Governance and Risk Management</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	CH2 Corporate Governance	32	
GRI 205: Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	2-3-1 Ethical Governance	38	
	205-2	Communication and training about anti-corruption policies and procedures	2-3-1 Ethical Governance	38	
	205-3	Confirmed incidents of corruption and actions taken	2-3-1 Ethical Governance	-	
GRI 206: Anti-Competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Ennostar did not incur any legal violations relating to anti-competition, anti-trust, and anti-monopolization in 2022.	-	
<b>Material topic: Information Security and Privacy Protection</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	2-4-2 Information Security Management	45	
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No complaints concerning breaches of customer privacy or customer data occurred in 2022	-	
<b>Material Topic: Product Quality</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	3-2 Product Quality Assurance	68	
<b>Material Topic: Water Resources</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	4-2-1 Water Resources Management	84	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	4-2-1 Water Resources Management	84	
	303-2	Management of water discharge-related impacts	4-2-1 Water Resources Management	84	
	303-3	Water withdrawal	4-2-1 Water Resources Management Appendix 1:Data Overview [Environmental Data]	84 143	
	303-4	Water discharge	4-2-1 Water Resources Management Appendix 1:Data Overview [Environmental Data]	84 143	
	303-5	Water consumption	4-2-1 Water Resources Management Appendix 1:Data Overview [Environmental Data]	84 143	

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>Material Topic: Waste and Circular Economy</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	4-2-2 Waste Management and Circular Economy	90	
GRI 301: Materials 2016	301-2	Recycled input materials used	4-2-2 Waste Management and Circular Economy	90	
	301-3	Reclaimed products and their packaging materials	4-2-2 Waste Management and Circular Economy	90	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	4-2-2 Waste Management and Circular Economy	90	
	306-2	Management of significant waste-related impacts	4-2-2 Waste Management and Circular Economy	90	
	306-3	Waste generated	4-2-2 Waste Management and Circular Economy Appendix 1 : Data Overview [Environmental Data]	90 143	
	306-4	Waste diverted from disposal	4-2-2 Waste Management and Circular Economy Appendix 1 : Data Overview [Environmental Data]	90 143	
	306-5	Waste directed to disposal	4-2-2 Waste Management and Circular Economy Appendix 1 : Data Overview [Environmental Data]	90 143	
<b>Material Topic: Prevention of Air Pollution</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	4-2-3 Prevention of Air Pollution	96	
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	4-1-3 Management of Greenhouse Gases Appendix 1 : Data Overview [Environmental Data]	80 143	
	305-2	Energy indirect (Scope 2) GHG emissions	4-1-3 Management of Greenhouse Gases Appendix 1 : Data Overview [Environmental Data]	80 143	
	305-3	Other indirect (Scope 3) GHG emissions	4-1-3 Management of Greenhouse Gases Appendix 1 : Data Overview [Environmental Data]	80 143	
	305-4	GHG emissions intensity	4-1-3 Management of Greenhouse Gases Appendix 1 : Data Overview [Environmental Data]	80 143	
	305-5	Reduction of GHG emissions	4-1-3 Management of Greenhouse Gases	143	
	305-6	Emissions of ozone-depleting substances (ODS)	4-2-3 Prevention of Air Pollution	96	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	4-2-3 Prevention of Air Pollution Appendix 1:Data Overview [Environmental Data]	96 143	

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>Material Topic: Happy Workplace</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	5-2 Happy Workplace	108	
GRI 401: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Appendix 1 : Data Overview [Social Data]	148	
	401-3	Parental leave	Appendix 1 : Data Overview [Social Data]	148	
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	Appendix 1 : Data Overview [Social Data]	148	
	405-2	Ratio of basic salary and remuneration of women to men	Appendix 1 : Data Overview [Social Data]	148	
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Appendix 1 : Data Overview [Social Data]	148	
<b>Material Topic: Protection of Human Rights</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	5-3 Protection of Human Rights	114	
GRI 402: Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	Notice periods regarding major operational changes at Ennostar adhere to local regulations	-	
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	No Incidents of discrimination occurred in 2022	-	
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	5-3-1 Management of Human Rights Risks 2-6-1 Supplier Management	115 49	
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	5-3-1 Management of Human Rights Risks 2-6-1 Supplier Management	115 49	
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	5-3-1 Management of Human Rights Risks 2-6-1 Supplier Management	115 49	
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	5-3-1 Management of Human Rights Risks 2-6-1 Supplier Management	115 49	
GRI 411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	No Incidents of violations involving rights of indigenous peoples occurred in 2022		

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>Material Topic: Occupational Health and Safety</b>					
GRI 3: Material Topics 2021	3-3	Management of material topics	5-4 Occupational Health and Safety	124	
GRI 403: Occupational Health and Safety 2016	403-1	Occupational health and safety management system	5-4 Occupational Health and Safety	124	
	403-2	Hazard identification, risk assessment, and incident investigation	5-4 Occupational Health and Safety	124	
	403-3	Occupational health services	5-4-2 Employee Health Promotion	128	
	403-4	Worker participation, consultation, and communication on occupational health and safety	5-4-1 Occupational Health and Safety Management	125	
	403-5	Worker training on occupational health and safety	5-4-1 Occupational Health and Safety Management	125	
	403-6	Promotion of worker health	5-4-2 Task Force on Climate-Related Financial Disclosures (TCFD)	128	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5-4 Occupational Health and Safety	122	
	403-8	Workers covered by an occupational health and safety management system	5-4-1 Occupational Health and Safety Management	124	
	403-9	Work-related injuries	5-4-1 Occupational Health and Safety Management Appendix 1 : Data Overview [Social Data]	124 148	
	403-10	Work-related ill health	5-4-1 Occupational Health and Safety Management Appendix 1 : Data Overview [Social Data]	124 148	

## Standards for Topic-Specific Disclosures

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
<b>Topic-Specific Disclosures: GRI 200 Economic Disclosures</b>					
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	2-1 Operational Performance	33	
	201-2	Financial implications and other risks and opportunities due to climate change	4-1-2 Task Force on Climate-Related Financial Disclosures (TCFD)	77	
	201-3	Defined benefit plan obligations and other retirement plans	5-2-1 Employee Rights, Remuneration, and Welfare	108	
	201-4	Financial assistance received from government	Total government subsidies amounted to NT\$ 72,723 thousand		
GRI 202: Market Presence 2016	202-2	Proportion of senior management hired from the local community	Appendix 1 : Data Overview [Social Data]	148	
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	2-6-3 Green Procurement	54	
GRI 207: Tax 2019	207-1	Approach to tax	2-1 Operational Performance	33	
<b>Topic-Specific Disclosures: GRI 300 Environmental Disclosures</b>					
GRI 301: Materials 2016	301-1	Materials used by weight or volume	Appendix 1 : Data Overview [Environmental Data]	143	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	Appendix 1 : Data Overview [Environmental Data]	143	
	302-2	Energy consumption outside of the organization	Appendix 1 : Data Overview [Environmental Data]	143	
	302-3	Energy intensity	Appendix 1 : Data Overview [Environmental Data]	143	
	302-4	Reduction of energy consumption	4-1-4 Energy Management	81	
	302-5	Reductions in energy requirements of products and services	4-1-4 Energy Management	81	



GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	2-6-1 Supplier Management	49	
	308-2	Negative environmental impacts in the supply chain and actions taken	2-6-2 Supplier Evaluations and Engagement	52	
<b>Topic-Specific Disclosures: GRI 400 Social Disclosures</b>					
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	Appendix 1 : Data Overview [Social Data]	148	
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	Appendix 1 : Data Overview [Social Data]	148	
	404-2	Programs for upgrading employee skills and transition assistance programs	5-1-3 Talent Cultivation	102	
	404-3	Percentage of employees receiving regular performance and career development reviews	5-1-4 Development-Oriented Performance Management	107	
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	1-2-3 Management Policies and Impact Descriptions of Material Topics	26~27	
	413-2	Operations with significant actual and potential negative impacts on local communities	No operations with significant negative impacts took place in 2022.	-	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	2-6-1 Supplier Management	49	
	414-2	Negative social impacts in the supply chain and actions taken	2-6-2 Supplier Evaluations and Engagement	52	
GRI 415: Public Policy 2016	415-1	Political contributions	No political contributions were made in 2022	-	

GRI Standards	No.	GRI Disclosures	Corresponding Sections	Page No.	Notes
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	2-3-2 Legal Compliance	70	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No violations of relevant regulations or voluntary compacts occurred in 2022	-	
GRI 417: Marketing and Labeling 2016	417-2	Incidents of non-compliance concerning product and service information and labeling	No violations of relevant regulations or voluntary compacts occurred in 2022	-	
	417-3	Incidents of non-compliance concerning marketing communications	No violations of relevant regulations or voluntary compacts occurred in 2022	-	

## Appendix 3: Sustainability Accounting Standards Board Index

Disclosed Theme	Indicator	Category	Indicator Code	Corresponding Sections	Page No.
Greenhouse Gas Emissions	(1)Gross global Scope 1 emissions and	Quantitative	TC-SC-110a.1	4-1-3 Management of Greenhouse Gases	80
	(2)amount of total emissions from perfluorinated compounds	Quantitative		4-1-3 Management of Greenhouse Gases	80
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	TC-SC-110a.2	4-1 Climate Actions	73
Energy Management	(1)Total energy consumed	Quantitative	TC-SC-130a.1	4-1-4 Energy Management	81
	(2)percentage grid electricity	Quantitative		4-1-4 Energy Management	81
	(3)percentage renewable	Quantitative		4-1-4 Energy Management	81
Water Management	(1)Total water withdrawn, (2)total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	TC-SC-140a.1	4-2-1 Water Resources Management	84
Waste Management	Amount of hazardous waste from manufacturing, percentage recycled	Quantitative	TC-SC-150a.1	4-2-2 Waste Management and Circular Economy	90

Disclosed Theme	Indicator	Category	Indicator Code	Corresponding Sections	Page No.
Employee Health & Safety	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	Discussion and Analysis	TC-SC-320a.1	5-4 Occupational Health and Safety	124
	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	Quantitative	TC-SC-320a.2	We incurred no monetary losses as a result of legal proceedings associated with employee health and safety violations in 2022.	-
Recruiting& Managing a Global & Skilled Workforce	Percentage of employees that are (1)foreign nationals and (2)located offshore	Quantitative	TC-SC-330a.1	Appendix 1 : Data Overview [Social Data]	148
Product Lifecycle Management	Percentage of products by revenue that contain IEC 62474 declarable substances	Quantitative	TC-SC-410a.1	<ul style="list-style-type: none"> <li>•Unikorn: Unikorn's list of prohibited and restricted substances cover 95% of materials on the IEC 62474 declarable substances list; we will continue to evaluate the remaining 5% of materials to determine whether they should be included in Unikorn's list of prohibited and restricted substances in future</li> <li>•Lextar: Two substances have not been included in Lextar's list of controlled substances, but regulatory requirements related to these materials are not applicable for Lextar products</li> <li>•Other subsidiaries have conducted tests for hazardous substances</li> </ul>	-

Disclosed Theme	Indicator	Category	Indicator Code	Corresponding Sections	Page No.
Product Lifecycle Management	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, (3) laptops	Quantitative	TC-SC-410a.2	Not applicable as the Ennostar Group does not produce the aforementioned products	-
Materials Sourcing	Description of the management of risks associated with the use of critical materials	Quantitative	TC-SC-440a.1	2-6 Sustainable Supply Chain	49
Intellectual Property Protection & Competitive Behavior	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	Quantitative	TC-SC-520a.1	The Ennostar Group incurred no monetary losses due to legal proceedings associated with anticompetitive behavior in 2022.	-

## Appendix 4: ISO 26000 Guidance on Social Responsibility Index

Item Number	Issue	Corresponding Sections	Page No.
<b>1.Organizational governance</b>			
1.1	The system by which an organization makes and implements decisions in pursuit of its objectives	CH2 Corporate Governance	31
<b>2.Human Rights</b>			
2.1	Due diligence	5-3 Protection of Human Rights	114
2.2	Human rights risk situations	5-3 Protection of Human Rights	114
2.3	Avoidance of complicity	CH2 Corporate Governance	31
2.4	Resolving grievances	5-3-2 Employee Communication	118
2.5	Discrimination and vulnerable groups	5-3 Protection of Human Rights	114
2.6	Civil and political rights	5-3 Protection of Human Rights	114
2.7	Economic, social and cultural rights	5-2 Happy Workplace	108
2.8	Fundamental principles and rights at work	CH2 Corporate Governance	31
<b>3.Labour practices</b>			
3.1	Employment and employment relationships	CH5 Inclusiveness and Growth	99
3.2	Conditions of work and social protection	5-3 Protection of Human Rights	114
3.3	Social dialogue	5-3 Protection of Human Rights	114
3.4	Health and safety at work	5-4 Occupational Health and Safety	124
3.5	Human development and training in the workplace	CH5 Inclusiveness and Growth	99

項次	條文	對應章節	頁碼
<b>4.The environment</b>			
4.1	Prevention of pollution	CH4 Green Operations	73
4.2	Sustainable resource use	CH4 Green Operations	73
4.3	Climate change mitigation and adaptation	CH4 Green Operations	73
4.4	Protection of the environment, biodiversity and restoration of natural habitats	CH4 Green Operations	73
<b>5.Fair operating practices</b>			
5.1	Anti-corruption	2-3 Ethical Management	38
5.2	Responsible political involvement	2-3 Ethical Management	38
5.3	Fair competition	2-3 Ethical Management	38
5.4	Promoting social responsibility in the value chain	CH1 Commitment to Sustainability 2-6 Sustainable Supply Chain	16 49
5.5	Respect for property rights	3-2 Product Quality Assurance	68
<b>6.Consumer issues</b>			
6.1	Fair marketing, factual and unbiased information and fair contractual practices	2-3 Ethical Management	38
6.2	Protecting consumers' health and safety	3-2 Product Quality Assurance	68
6.3	Sustainable consumption	CH4 Green Operations	73
6.4	Consumer service, support, and complaint and dispute resolution	2-5 Client Relations	47
6.5	Consumer data protection and privacy	2-5 Client Relations	47
6.6	Access to essential services	3-2 Product Quality Assurance	68
6.7	Education and awareness	CH3 Leading Innovation	56



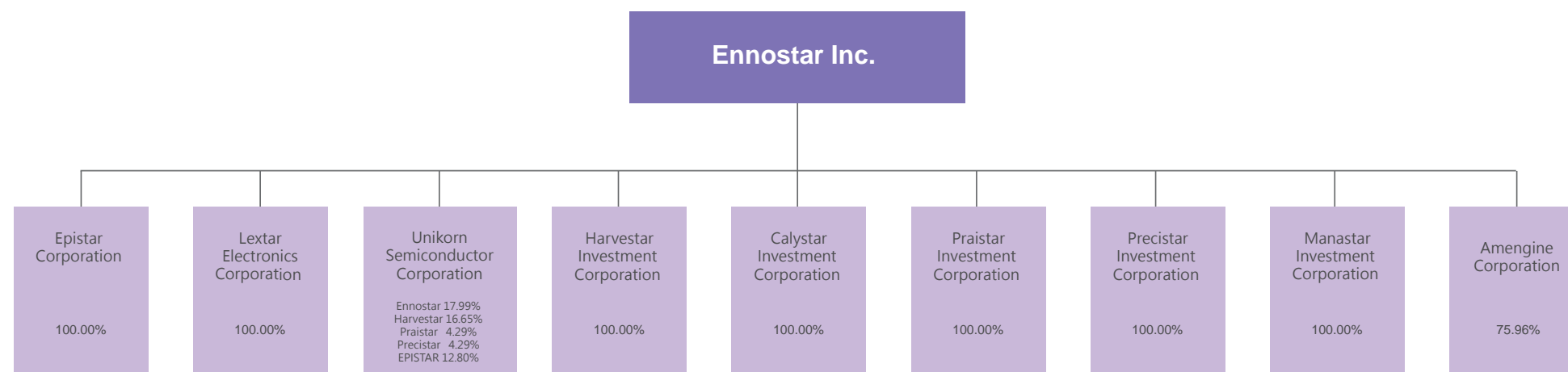
項次	條文	對應章節	頁碼
<b>7.Community involvement and development</b>			
7.1	Community involvement	5-5 Mutually Beneficial Society	133
7.2	Education and culture	CH5 Inclusiveness and Growth	99
7.3	Employment creation and skills development	5-1 Talent Development	99
7.4	Technology development and access	CH3 Leading Innovation	56
7.5	Wealth and income creation	2-1 Operational Performance	33
7.6	Health	5-4 Occupational Health and Safety	124
7.7	Social investment	2-1 Operational Performance	33

## Appendix 5: List of Affiliated Public Associations

Category	Participating Company	Affiliated Association or Organization	Management Role	Member
Local industry	Ennostar	Taiwan Panel & Solution Association (TPSA)	-	V
International	EPISTAR/Unikorn	SEMI	-	V
China	EPISTAR/Lextar	UV LED Alliance	-	V
Local industry	EPISTAR	Academia-Industry Consortium for Southern Taiwan Science Park	-	V
Local industry	EPISTAR	Taiwan Flat Panel Display Materials & Devices Association (TDMDA)	Director	V
Local industry	EPISTAR	Taiwan Display Union Association (TDUA)	Director	V
Local industry	EPISTAR	Taiwan Optoelectronic Semiconductor Industry Association (TOSIA)	Honorary chair/vice chair	V

Category	Participating Company	Affiliated Association or Organization	Management Role	Member
Local industry	EPISTAR	Taiwan Optoelectronic Semiconductor Industry Association Intellectual Property Right Strategic Committee	Committee chair	V
Local industry	EPISTAR	Taiwan Optoelectronic Semiconductor Industry Association Standards and Regulations Committee	Vice committee chair	V
Local industry	EPISTAR	Taiwan Optoelectronic Semiconductor Industry Association Environment and Safety Sustainable Development Committee	Vice committee chair	V
Local industry	EPISTAR/Lextar	The Allied Association for Science Park Industries	-	V
Local industry	EPISTAR/Lextar	Taiwan Lightning Fixture Export Association (TLFEA)	Honorary chair	V
Local industry	EPISTAR	Taiwan Lightning Fixture Export Association Committee of Illumination Technics	Committee member	V
Local industry	EPISTAR	Taiwan Plant Factory and Smart Agriculture Development Association	Director	V
Local industry	EPISTAR	The International Commission on Illumination-Taiwan (CIE-Taiwan)	Executive committee member	V
Local industry	EPISTAR	The Electronics Devices and Materials Association (EDMA)	Director	V
Local industry	EPISTAR	Taiwan Automation Intelligence and Robotics Association (TAIROA)	-	V
Local industry	EPISTAR	Photonics Industry & Technology Development Association (PIDA)	-	V
Local industry	EPISTAR	Taiwan Association for Trade Secrets Protection	-	V
Local industry	EPISTAR	Chinese Institute of Industrial Engineers	-	V
Local industry	Lextar	Taipei Computer Association	Director	V
Local industry	Unikorn	High Power Device Application and Research Alliance (Taiwan Institute of Economic Research)	-	V

## Appendix 6: Reinvested Companies and Other Affiliated Businesses



The following is a list of businesses under the Ennostar Group, including companies established for product integration and supply purposes:

Domestic wholly-owned subsidiaries	Domestic joint venture subsidiaries	Wholly-owned subsidiaries in China	Joint venture subsidiaries in China
EPISTAR Corporation Lextar Electronics Corporation Yenrich Technology Corporation GaN Force Corporation WellyWave Semiconductors Inc.	Unikorn Semiconductor Corporation GaNrich Semiconductor Corporation Amengine Corporation Trendylite Corporation Vogito Innovation Co., Ltd. Hexawave Inc. WellyHertz Electronics Corp.	Episky Corporation (Xiamen) Ltd. Luxlite (Shenzhen) Corporation Limited Shenzhen Epikylin Optoelectronics Co., Ltd. Lextar Electronics (Suzhou) Corp. Lextar Electronics (Xiamen) Co., Ltd. Lextar Electronics (Chuzhou) Corp.	Jiangsu Canyang Optoelectronics Ltd. Epicrystal (Changzhou) Co., Ltd. United LED Shan Dong Corporation Leadstar Micro-Crystal Display Corporation (JiangSu) Ltd.

An affiliated enterprise is defined as an enterprise in which Ennostar holds more than 50% (inclusive) of shares, has effective control over (holds majority control of the board), or is included in consolidated financial statements. As of year-end 2022, Ennostar has 50 affiliated enterprises.

## Appendix 7: Independent Assurance Statement from TÜV Rheinland



### Independent Assurance Statement

Ennostar Group 2022 ESG Report

#### Introduction:

TÜV Rheinland Taiwan Ltd., member of TÜV Rheinland Group, Germany (TÜV Rheinland Taiwan, We) has been entrusted by the management of Ennostar Inc. (including Epistar Corporation, Lexter Electronics Corporation and Umkorn Semiconductor Corporation, the Ennostar Group) to conduct independent assurance of Ennostar Group 2022 ESG Report (the Report). All contractual contents for this assurance engagement rest entirely within the responsibility of Ennostar Group. Our task was to give a fair and adequate judgment on the Ennostar Group 2022 ESG Report.

The intended users of this assurance statement are stakeholders having relevance to the Ennostar Group overall Sustainability Performance and impacts of its business activities during 2022 (January 2022 – December 2022). TÜV Rheinland Group is a global service provider of CSR & Sustainability Services in over 65 countries, having qualified professionals in the field of Corporate Sustainability Assurance, Environment, Social and Stakeholder Engagement. We have maintained complete impartiality and independence during the assurance engagement and were not involved in the preparation of report contents.

#### Assurance Standard:

The Independent Assurance was carried out in accordance with AccountAbility, U.K Standard AA1000 Assurance Standard v3 and related standards AA1000 AccountAbility Principles (2018), AA1000 SES (2015), Principles of Inclusivity, Materiality, Responsiveness and Impact, Global Reporting Initiative (GRI) Universal Standards 2021.

#### Scope & Type of Assurance:

Our Assurance engagement covers the following:

- Ennostar Group Sustainability performance as described in the 2022 report in accordance with GRI Universal Standards 2021 and performance indicators and according disclosure on management approach (DMAs) from Economic, Environment & Social category, also defined in Reporting boundaries.
- Evaluation of disclosed information in the report as per the Assurance Standards.
- Type-2, Moderate Level as per AA1000 Assurance Standard v3

**Limitation:** The assurance engagement was carried out at Ennostar Group at Hsinchu City, Taiwan. The consultations with external stakeholder were not carried out. We have not observed any significant situations to limit our assurance activity. The verification is carried out based on the data and information provided by Ennostar Group, assuming they are complete and true. We did not verify the reported financial data as same is verified by another third party in annual report.

#### Assurance Methodology:

TÜV Rheinland Taiwan has challenged the report contents and assess the process undertaken by Ennostar Group from source to aggregate in disclosure of information related to Sustainability performance. Our judgment is based on the objective review of reported and based on the principles defined in the assurance standards, the principles of inclusiveness, materiality, responsiveness and impact, and the integrity of the data provided in the report.

Analytical methods and the performance of interviews as well as verification of data, done as random sampling, to verify and validate the correctness of reported data and contents in light of contractual agreement and the factual Ennostar Group Corporate Sustainability strategy as mentioned in the report. Our work included consultation with over 20 Ennostar Group representatives including senior management and relevant employees. The approach deemed to be appropriate for the purpose of assurance of the report since all data therein could be verified through original proofs, verified database entries.

The Assurance was performed by our multidisciplinary team of experienced professionals in the field of Corporate Sustainability, Environment, Social and Stakeholder Engagement. We are of the opinion that our work offers a sufficient and substantiated basis to enable us to come to a conclusion mentioned below and based on the content of our contract.

#### Adherence to AA 1000 principles:

**Inclusivity:** Ennostar Group has continually sought the engagement of its stakeholders, identify and understand their stakeholder, and use the communication mechanism to identify the material issues and achieve an accountable response.

#### Materiality:

Ennostar Group has implemented the material issues identification processing. The identification was based on the requirements and focus of attention of the stakeholder, the consideration of the company internal policy, shareholders meeting, questionnaires and the understanding and communication on the sustainable development content. The sustainability information disclosed enables its stakeholders to make informed judgements about Ennostar Group's management and performance.

#### Responsiveness:

Ennostar Group has implemented the policy including environment and safety, quality, and corporate sustainability. The 2022 report disclosed the management system of the company and stakeholder engagement, responding to their stakeholders against material issues of the sustainable development.

#### Impact:

Ennostar Group has identified and fairly represented impacts that were measured and disclosed in effective way. Ennostar Group has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization.

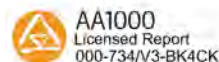
#### Conclusion:

In conclusion, we can mention that no instances or information came to our attention that would be to the contrary of the statement made below:

- Ennostar Group 2022 ESG Report meets the requirement of Type-2, Moderate Level Assurance according to AA1000AS v3 and Global Reporting Initiative (GRI) Universal Standards 2021.
- The Report includes statements and claims that reflects Ennostar Group achievements and challenges supported by documentary evidences and internal records.
- The performance data we found in the report are collected, stored and analyzed in a systematic and professional manner and were plausible.
- TÜV Rheinland Taiwan shall not bear any liability or responsibility to a third party for perception and decision about Ennostar Group based on this Assurance Statement.

TÜV Rheinland Taiwan Ltd.

Vito Lin



Vito C. C. Lin

Lead Verifier

Taipei, June 26, 2023





---

THE No.1 INVESTMENT PLATFORM  
FOR COMPOUND SEMICONDUCTORS

Ennostar Inc.

TEL:03-567-9000

FAX:03-577-9900

7F-5., No.1, Sec.3, Gongdao 5th Rd., Hsinchu City 300, Taiwan

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