



Chang Wah Technology Co., Ltd.
Sustainability Report
- 2023 -

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About This Report

Chang Wah Technology Co., Ltd. (CWTC or the Company) has prepared this report with reference to the GRI Standards issued by the Global Reporting Initiative (GRI) and in accordance with the “Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies” of the Taipei Exchange (TPEX). This report has been publicly released in the “Corporate Social Responsibility (CSR)” section of the Company’s official website, demonstrating the Company’s concrete achievements and performance in Environmental (E), Social (S), and Governance (G) aspects to realize the vision of sustainable management and development.

Reporting Period

CWTC regularly releases sustainability reports on an annual basis, and this is the fourth report. The 2023 sustainability report was issued in August 2024, covering information from January 1 to December 31, 2023. To ensure the completeness of information disclosure, some of the data covers periods before and after the reporting period.

Reporting Boundary

The reporting boundary includes CWTC and its subsidiaries. In this report, financial information, greenhouse gas (GHG) inventory and social data come from all entities within the consolidated financial statements, while environmental, occupational safety, and health data are from the production plants only.

Audit and External Verification

The content of this report was reviewed for accuracy and completeness by the heads of each department. The ESG Unit of CWTC Group compiled the information and prepared the report, which was then submitted for approval by the President and reported to the Board of Directors on August 6, 2024, prior to its release.

The disclosed financial performance data has been prepared in accordance with the International Financial Reporting Standards (IFRSs) as endorsed by the Financial Supervisory Commission (FSC) and audited by Deloitte & Touche. Unless otherwise stated, all figures are expressed in New Taiwan dollars.

The 2023 GHG emissions data for CWTC and its subsidiaries was inventoried in accordance with the latest version of the ISO 14064:2018 standard, and a verification statement was obtained. A third party, DNV Business Assurance Co., Ltd. (DNV), was also commissioned to verify this report in accordance with the GRI Standards and the AA1000 Assurance Standard v3 for Type 1, moderate assurance. The assurance statement is attached in the appendix.

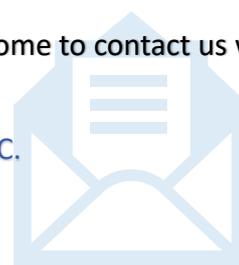
Contact Information

For continuous communication with stakeholders, you are most welcome to contact us with your valuable suggestions. The contact information is as follows:

Address : NO. 24, Kai-Fa Road Nan-Tze Dist., Kaohsiung, Taiwan, R.O.C.

E-mail : cwtkh@cwtcglobal.com

Official Website : <https://www.cwtcglobal.com/>





Letter from The Chairman

Since its founding in 1989 in a modest office on Sec. 4, Nanjing East Road in Taipei City, Chang Wah Electromaterials Inc. (CWE) has grown significantly, thanks to the unwavering support from our original manufacturers and customers, as well as the dedication and hard work of our employees. As we mark our 35th anniversary in 2024, we take pride in our strong presence in the semiconductor packaging materials industry in Taiwan. Since 2006, CWE has expanded its horizons through strategic investments, leading to the establishment of Chang Wah Technology Co., Ltd. (CWTC) and JMC Electronics Co., Ltd. We have also invested in various companies, including Tian Zheng International Precision Machinery Co., Ltd., Advanced Echem Materials Company Limited, Silver Connection Co., Ltd., Taiflex Scientific Co., Ltd., and Vizionfocus Inc., among others. Our reach has extended beyond Taiwan to Malaysia, Singapore, China, and Japan, creating a well-established Group that is continuously advancing towards diversification.

In recent years, ESG (Environmental, Social, and Governance) sustainability has emerged as a global business imperative. At CWE Group, we recognize that, in addition to pursuing profitability, it is essential to prioritize environmental stewardship and social prosperity. We are committed to adhering to international environmental regulations and actively champion eco-friendly practices such as waste reduction, energy conservation, and resource recycling. This dedication not only aligns with our customers' expectations for green supply chain standards but also underscores our proactive stance as a global corporate citizen in advancing environmental protection and social responsibility.

In alignment with the government's push for renewable energy, CWE Group has implemented several eco-friendly initiatives. We have installed solar panels at our plants and established a water reclamation system to improve water recycling rates and reduce tap water usage. In addition, we provide incentives for employees to purchase electric motorcycles, reinforcing our commitment to global citizenship and corporate responsibility. In recognition of our efforts, CWTC was selected for the "TIP Customized TPEX ESG 30 Index" in 2023.

CWE Group focuses its public welfare efforts on three key areas: sports and health, charitable activities, and culture and arts. By leading these initiatives, we cultivate a supportive environment and establish collaborative pathways for both internal and external partners committed to social care. We team up with local groups at our operational sites to ensure that resources are effectively directed to those in genuine need through various methods, including material donations and care initiatives.

In terms of corporate governance, CWE Group is committed to safeguarding shareholder rights through internal and external oversight and a system of checks and balances. We maintain effective corporate operations and aim to optimize corporate value while also protecting the interests of all stakeholders to support the Company's sustainable growth.



Regarding our business operations, we use QFN as a raw material to develop distinctive processes that differentiate our products in the market and allow us to penetrate niche sectors such as lead frames for Mini LEDs and automotive power management. Also, we leverage Group resources by collaborating with subsidiaries to develop innovative ultra-thin packaging substrates using roll-to-roll plastic substrate materials for emerging applications such as Micro LEDs. Both Micro LEDs and Mini LEDs are crucial in advancing net-zero carbon emissions and align with global energy-saving trends.

We extend our sincere gratitude to all employees, customers, suppliers, investors, and partners of CWE Group for their trust, support, and efforts. CWE Group is dedicated to the sales and technical support of semiconductor packaging materials and advanced packaging equipment, including lead frames, EME, CRM, and IC substrates. We also focus on the market for packaging materials in electric vehicles and automotive electronics, while collaborating with manufacturers to explore opportunities in the Micro LED and Mini LED substrate markets. In the future, our operations will center on three key areas: computers, communications, and consumer electronics (3C), automotive, and industrial sectors, to drive our growth.

Looking forward, CWE Group plans to establish a comprehensive semiconductor materials ecosystem, positioning itself as a leading authority in the industry. Our goal is to generate shared value with suppliers and customers, support our employees, deliver returns for shareholders, uphold strong corporate governance, and meet our social responsibilities, all while advancing sustainable business practices.

A handwritten signature in black ink, consisting of several overlapping loops and strokes, positioned above the name and title.

Canon Huang
Chairman of the CWE Group



Sustainable Management Goals and Performances

Sustainable Management Performances

2023

- Completed a GHG inventory in accordance with ISO 14064:2018 and passed a third-party audit by an impartial institution.
- Water withdrawal decreased by 14%, and the recycling rate increased by about 4% compared to 2022.
- Waste reuse reached 67% in 2023, a 3% increase compared to 2022.
- We installed solar panels at our Taiwan plant, generating up to 119,877 kWh of electricity.

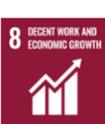


- No incidents of occupational disease occurred in 2023.
- No human rights violations or labor disputes occurred in 2023.
 - The total training hours for employees reached 134,652 hours.
 - The proportion of female employees was 39%, and it was 31% at the supervisory level.

- Operating revenue was NT\$11,581,245 thousand and earnings per share were \$NT1.67, based on a par value of NT\$0.4 per share.
- Consistently ranked within the top 6% to 20% in the Corporate Governance Evaluation conducted by the TPEX.
- We hold a total of 309 patents and 7 trademarks worldwide.
- The proportion of local procurement accounted for 48% of all procurement.

Corresponding policies, strategies, and action plans to UN Sustainable Development Goals (SDGs)



SDGs Core Objectives	Achievements	Corresponding Issues
	<ul style="list-style-type: none"> • There are regular employee health check-ups every year and the health risk classification approach in place to provide timely tracking of employee health, encourage treatments and prevent the occurrence of occupational diseases. • We provide safe and healthy working environment, keep monitoring various operating environment and promote the programs of occupational health and safety. 	4.4 Occupational Health and Safety
	<ul style="list-style-type: none"> • Hold vocational training courses covering a wide range of fields for employees every year. 	4.3 Talent Development and Diversity Cultivation
	<ul style="list-style-type: none"> • We establish “Regulations Governing the Maternal Health Protection of Female Employees” to ensure the physical and mental health of female employees during pregnancy, postpartum, and breastfeeding. • We promote a gender-friendly workplace that male and female employees both can apply for unpaid parental leave for raising children and family care leave. 	4.2 Talent Attraction and Retention
	<ul style="list-style-type: none"> • The discharge of wastewater is controlled by each plant to comply with local regulations. • Each plant promotes conservation measures such as water recycling systems and water-saving design of machinery and equipment. 	3.4 Water Resources Management
	<ul style="list-style-type: none"> • Increase installed capacity of rooftop solar system. 	3.3 Energy Management
	<ul style="list-style-type: none"> • Employment equality, respect for human rights, employee diversity, and prohibition of child labor and forced labor are incorporated into our recruitment principles and processes. • Employees are entitled to appropriate compensation package and fair promotion opportunities. • We establish a Safety and Health Committee. • Regularly examine our operating environment to eliminate and improve unsafe conditions and potential hazards. 	4.1 Human Rights Policies 4.2 Talent Attraction and Retention 4.4 Occupational Health and Safety
	<ul style="list-style-type: none"> • Comply with the Responsible Business Alliance Code of Conduct (RBA) and the Responsible Minerals Initiative (RMI) based on which suppliers are required to comply with relevant rules and standards. • We adopt the latest version of ISO14001:2015 environmental management system and obtain relevant certifications. • We set up the environmental management units, including the Environmental Management Committee of the head office and the Environmental Safety Center and Occupational Safety Office of each plant, which are responsible for issues and effectiveness of environmental management. 	2.7 Sustainable Supply Chain 3.1 Environmentally Sustainable Development
	<ul style="list-style-type: none"> • In accordance with Task Force on Climate-related Financial Disclosures (TCFD), we identify the climate-related risks and opportunities, strengthen renewable energy and extend to the operation of carbon neutrality. • We continue to conduct greenhouse gas inventories. 	3.2 TCFD Task Force on Climate-related Financial Disclosures (TCFD) 3.3 Energy Management
	<ul style="list-style-type: none"> • We offer multiple communication channels for stakeholders to solicit opinions and report of improper interests. • Strictly prohibit any actions about corruption, bribery, embezzlement and improper enrichment. We have a zero-tolerance policy for any violations. • Strictly prohibit our suppliers from engaging in child or forced labor, and closely observe fair business principles. 	1.1 Sustainable Development Organizations and Strategies 2.2 Integrity Management 4.1 Human Rights Policies



About CWTC

IC Lead frame

SO, SOP, TSSOP, TSOP, COL, QFP, TQFP, LQFP, PDIP



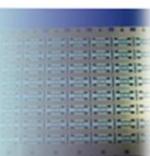
IC Lead frame (Quad Frame No Lead)

QFN, MQFN, DRQFN, aQFN



Discrete:

Discrete transistor · SOT



EMC Lead frame

LED, Pre-mold



Chang Wah Technology Co., Ltd. was established on December 24, 2009, as a subsidiary of Chang Wah Electromaterials Inc. (CWE).

The Company focused on the development and production of packaging materials for LED lead frames initially and was listed on the Taipei Exchange under stock code 6548 in 2016. It purchased the shares of SH Asia Pacific Pte. Ltd. (SHAP), an investee of the Japanese company, SH Materials Co., Ltd. (S.H.M), on March 17, 2017, marking its official start to the upstream metal lead frame industry to become a leading global IC substrate manufacturer.

Our role in the IC and LED supply chain is to provide materials for packaging following wafer production. Wafers need to be packaged before they can be used in subsequent module production and be installed in/applied to various electronic consumer products. Same as other IC and LED packaging companies, we are material suppliers of the back-end process in the early stages of the entire industry chain. CWTC is one of the top five lead frame suppliers in the world.

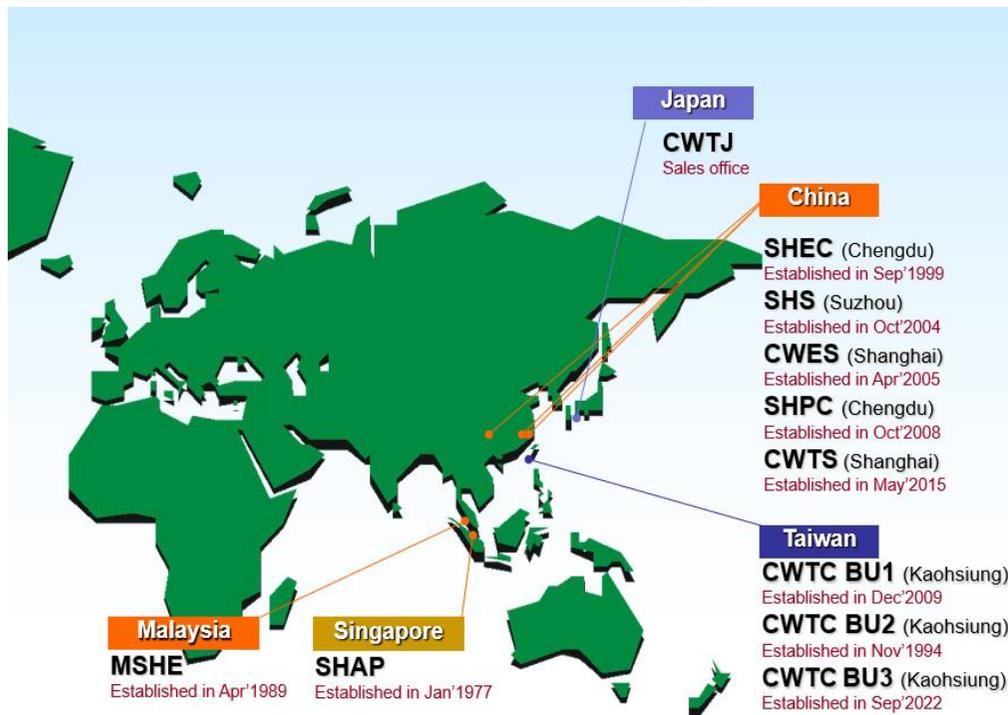
Company Overview

Stock Code	6548
Company Name	Chang Wah Technology Co., Ltd.
Business ID No.	70849957
Industry	Semi-conductor industry
Main businesses	Manufacturing of lead frames
Chairman	Cannon Huang
President	Chuen-Sing Hung
Paid-in capital	NT\$ 380,215,480
Par value per common share	NT\$ 0.4
Headquarter	No. 24, Kaifa Road, Nanzhi District, Kaohsiung City

Note: The completion of capitalization change registration was on July 11, 2023.



Main Business Locations of CWTC Group



Chang Wah Technology Co., Ltd.	
Location	No. 24, Kaifa Rd., Nanzi Dist., Kaohsiung City, Taiwan (R.O.C.) No. 16, E. 7th St., Nanzi Dist., Kaohsiung City, Taiwan (R.O.C.) (Plant 2) No. 133, Jing 5th Rd., Nanzi Dist., Kaohsiung City, Taiwan (R.O.C.) (Plant 3)
Main Business	Manufacturing of lead frames
Branch office in Japan of CWTC	
Location	Takano Building, 2-5-3, Uchi-kanda, Chiyoda-ku, Tokyo, Japan
Main Business	Trading of lead frames

SH Electronics Suzhou Co., Ltd. (SHS)	
Location	No. 123, Longtan Road, Suzhou Industrial Park, Jiangsu Province, China
Main Business	Manufacturing of lead frames
SH Electronics Chengdu Co., Ltd. (SHEC)	
Location	No. 7, Xin Yuan South 2nd Road, Singapore Industrial Park, Chengdu Hi-Tech Zone, Sichuan Province, China
Main Business	Manufacturing of lead frames
SH Precision Chengdu Co., Ltd. (SHPC)	
Location	No.6, West Zone, No.8, Kexin Road, West Park, Chengdu Hi-tech Zone, Sichuan Province, China
Main Business	Manufacturing of lead frames
Shanghai Chang Wah Electromaterials Inc. (CWES)	
Location	Room 2101, 1027 Changning Road, Changning District, Shanghai, China
Main Business	Trading of IC packaging materials
CWTC (Shanghai) Inc. (CWTS)	
Location	Room E01, 2F, No. 207, Fute North Road, Pilot Free Trade Zone, Shanghai, China
Main Business	Trading of lead frames
SH Asia Pacific Pte. Ltd (SHAP)	
Location	10 Eunoz Road 8 #05-04/05 Singapore Post Centre Singapore 408600
Main Business	Trading of lead frames
Malaysian SH Electronics Sdn. Bhd. (MSHE)	
Location	Lots 5,7&9, Jalan Ragum 15/17, 40200 Shah Alam, Selangor Darul Ehsan, Malaysia
Main Business	Manufacturing of lead frames

Note: CWTC's subsidiaries, WSP Electromaterials Ltd. and Shing Zheng Investment Co., Ltd., which are not main operational locations, primarily engage in investment activities. Their financial information, GHG inventory, and social information are included in this report. The other information please refer to Section VIII in 2023 Annual Report.



Participation in Associations

By actively participating in associations, we can establish good interactions with the industry and society, enabling us to stay closely informed about industry development trends at all times.

Organization	Position
Taiwan Institute of Directors	Member
The Institute of Internal Auditors-Chinese Taiwan	Member
Accounting Research and Development Foundation	Member
Taiwan External Trade Development Council	Member
Taiwan Computer Emergency Response Team / Coordination Center	Member
Chinese Society for Quality	Member

Vision and Mission

■ Quality Assurance

- To meet or exceed customer expectation
- To achieve customer's request on quality and delivery
- Extraordinary service and craftsmanship

■ Three Cultures

• Human is fundamental

To provide employees safe, friendly and fair working environment. Focus on working environment safety, continue to develop talented employee, offer complete promotional map and build highly developing stage.

• Integrity

Integrity is the foundation of an enterprise sustainable operation.

• Innovation

Innovation is the source of grow, continue to create and improve our product to satisfy customer's expectation.

■ To Fulfill the Responsibility of the Enterprise Operator

• Share holder

Throughout efficiency management, sustainability to pursuit the maximization of the interest.

• Customer

To segment our market with skills, quality, delivery and production cost and become a highly competitive enterprise.

• Employees

To create decent working environment, clearly specify the job and responsibility.

• Government

To follow all regulation and law principal.





Significant Achievements

Items	Contents
Key Technology or Service Model	<ul style="list-style-type: none">● CWTC focuses on pre-mold IC technology and has gained favor with leading international customers such as IDM and ASTS.● With the main R&D center based in Taiwan, our R&D funding increases every year. We have a total of 309 patents.● Our ENEPIG post plating facilities employ the industry's leading technology worldwide.● We have the exclusive pre-mold metal substrate technology in the world and are also one of the leaders in the field.● CWTC is the only company in the world capable of vertically (or horizontally) integrating the IC substrate supply chain.● We actively promulgate the international quality assurance system ISO9001 to establish a hierarchical and standardized quality and environmental management system. We obtained ISO9001 certification from the Association Française de Normalisation (AFNOR) in July 2011, ISO/TS16949 quality management systems certification from the AFNOR in February 2015, and ISO14001 environmental management systems certification from the Joint Accreditation System of Australia and New Zealand (JAS-ANZ) in April 2016.
Market Positioning	<ul style="list-style-type: none">● We specialize in manufacturing metal substrate products, with our lead frames ranking among the world's top five.● The EMC LED lead frames developed and produced by CWTC are mainstream EPOXY lead frames, offering advantages such as high density, heat resistance, yellowing resistance, and airtightness.● Our core technology lies in the key process technology for high-precision lead frames, which is completely different from the traditional PPA LED lead frames in both process and structure.● We develop industry-leading pre-mold IC packaging technology for LED lead frames.● We are actively promoting the commercialization of mini LED products.
Brand Development	<ul style="list-style-type: none">● We market internationally under the brand of CWTC.● We become the one of the best suppliers of well-known international companies including the IDM.● Our worldwide sales exceed NT\$10 billion, making us one of the largest groups in the global metal substrate industry in terms of product sales.
Operating Performance	<ul style="list-style-type: none">● Our operating revenue amounted to NT\$11.6 billion, with a gross margin of 22% in 2023.● Our earnings per share were NT\$1.67, based on a par value of NT\$0.4 per share.



1. Sustainability Management

1.1 Sustainable Development Organizations and Strategies

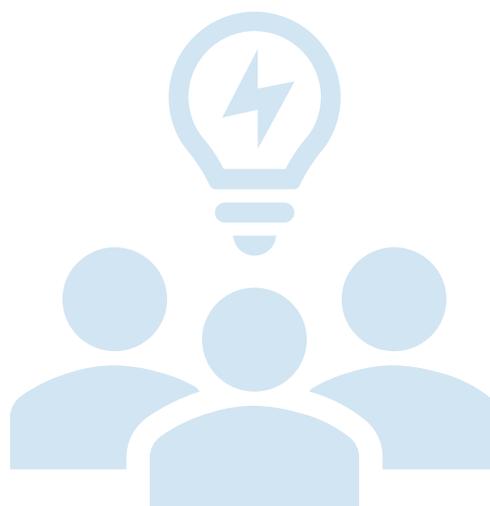
To realize the visions and goals of sustainable development, the Board of Directors appointed the President as the convener to establish the ESG Unit of CWTC Group. The ESG Unit of CWTC Group is responsible for coordinating and promoting the sustainability affairs, planning and managing the preparation of the annual sustainability report, and reporting to the Board of Directors on the progress and effectiveness of each sustainable development task and the Company's strategies, which are incorporated into the President's KPIs. In addition to responsibility for supervision and direction, the Board of Directors also guides the management team to make adjustments when necessary to ensure the achievement of sustainable development goals.

Our sustainable development strategies please refer to the Company's official website:

<https://www.cwtcglobal.com/en/responsibility/csr-overview/csr-policy>

The Main Points for Reporting to the Board of Directors from the ESG Unit of CWTC Group in 2023

Date	Content
February 21, 2023	Business integrity performance with reviews revealing there were no violations in the previous year.
March 16, 2023	GHG inventory and schedule planning for verification, where implementation and progress are monitored on a quarterly basis.
August 8, 2023	Scope and analysis of material issues for sustainability reports in 2022.
December 21, 2023	GHG inventory and progress report on verification planning.





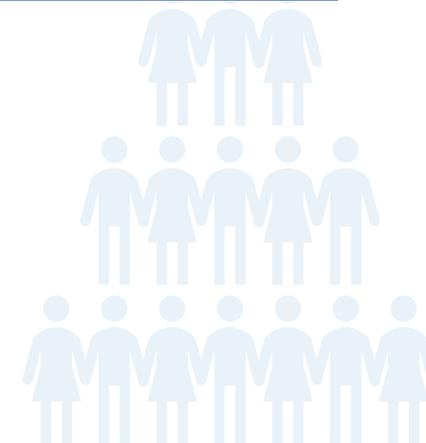
1.2 Stakeholder Engagement

Based on the five major principles of the AA1000 Stakeholder Engagement Standard (AA1000 SES) which includes Influence, tension, responsibility, dependency and diverse perspectives, CWTC has identified six major categories of stakeholders, which are government agencies, investors, employees, customers, suppliers and society (including local communities and non-profit organizations (NGOs)).

Communication with Stakeholders

Stakeholder	Significance	Communication Channel	Frequency
Employees	Employees are our foundation to sustainable operating and the key toward the road of our sustainable operations.	Welfare Committee meetings	At least once every quarter
		Labor-management meetings	At least once every quarter
		Human Resources Arbitration Committee	At least twice every year
		Environmental Management Committee	At least once every quarter
		Improvement proposal incentive form	Irregularly
		Employee opinion mailbox / Reporting hotline	Timely
		Telephone / E-mail	Timely
Customers	Focus on customer demands and provide our services using our core technology fully and comprehensively.	Different types of meetings	Irregularly
		Customer Satisfaction Survey	At least once every quarter
		Conduct an audit	Irregularly
		Supplier audit and interview	At least once every quarter
Suppliers	We are paying more attention to quality of raw materials from suppliers, and we gain trust in market and customers through joint efforts to achieve benefit-sharing and sustainable growth.	Inspection at equipment suppliers' premises	Irregularly
		Interview / telephone / E-mail	Irregularly
		Construction Safety Commitments	At least once every year
		Supplier evaluation form	At least once every year
		Company website	Timely

Stakeholder	Significance	Communication Channel	Frequency
Investors	Investors' support is our motivation for continuous growth and responsibility.	Company website	Irregularly
		Investor conferences	At least once every quarter
		Shareholders' meeting	At least once every quarter
		Annual Report / Financial Report	At least once every quarter
Government agencies	Prudently comply with the requirements of local government agencies for each plant, and we will adjust by using methods in line with local circumstances.	Official Correspondence	Irregularly
		Inspection and Audit	Irregularly
		Material Information Announcement	Irregularly
Society (including local communities and NGOs)	To be a good corporate citizen, implement corporate social responsibility and create prosperity and a common good for society.	Project Collaborations and Activities	Irregularly
		Telephone / E-mail	Timely
		Company website	Timely





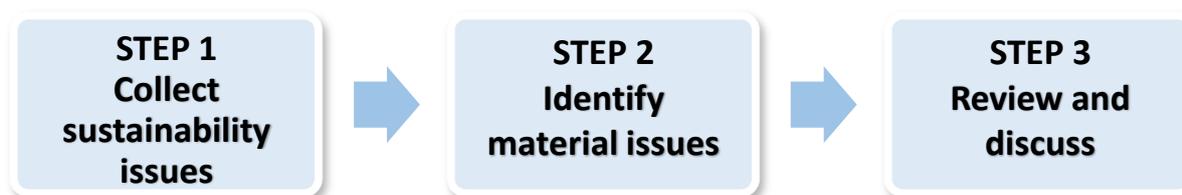
1.3 Identify Material Topics

According to the Company's vision and sustainable development strategy, and referring to the updated GRI Universal Standards, SDGs, topics of concern to peers, as well as important industry trends, we summarize three aspects for sustainability topics listing with consideration to stakeholders' feedback.

We identify the external impact for each topic and integrate it into questionnaire. The significance of impacts is then evaluated and ranked through stakeholder questionnaire surveys. After confirmation by the ESG Unit of CWTC Group, the topics are submitted to the senior manager for approval. For material topics with high impact, we disclose our management policies and performance in the sustainability report under corresponding to particular topics of the GRI Universal Standards. We ensure that the contents of the report comply with the principles of stakeholder inclusiveness, materiality, and completeness, and reflect on the position and sustainability influence of CWTC in the value chain. This is used as an important basis for examining and continuously improving our sustainability management and performance.

CWTC's material topic analysis for sustainability issues mainly carries out identification and prioritizing through questionnaire survey results. Based on results of a materiality matrix compiled, the high concern and high impact are listed as material topics. CWTC has **eight material topics** resulting the investigation.

Process of Identifying Material Topics



■ STEP 1: Collect sustainability issues

Referring to the updated GRI Universal Standards, SDGs, topics of concern to peers, and important industry trends, we summarize three aspects for listing sustainability topics, taking stakeholder feedback into consideration.

■ STEP 2: Identify material issues

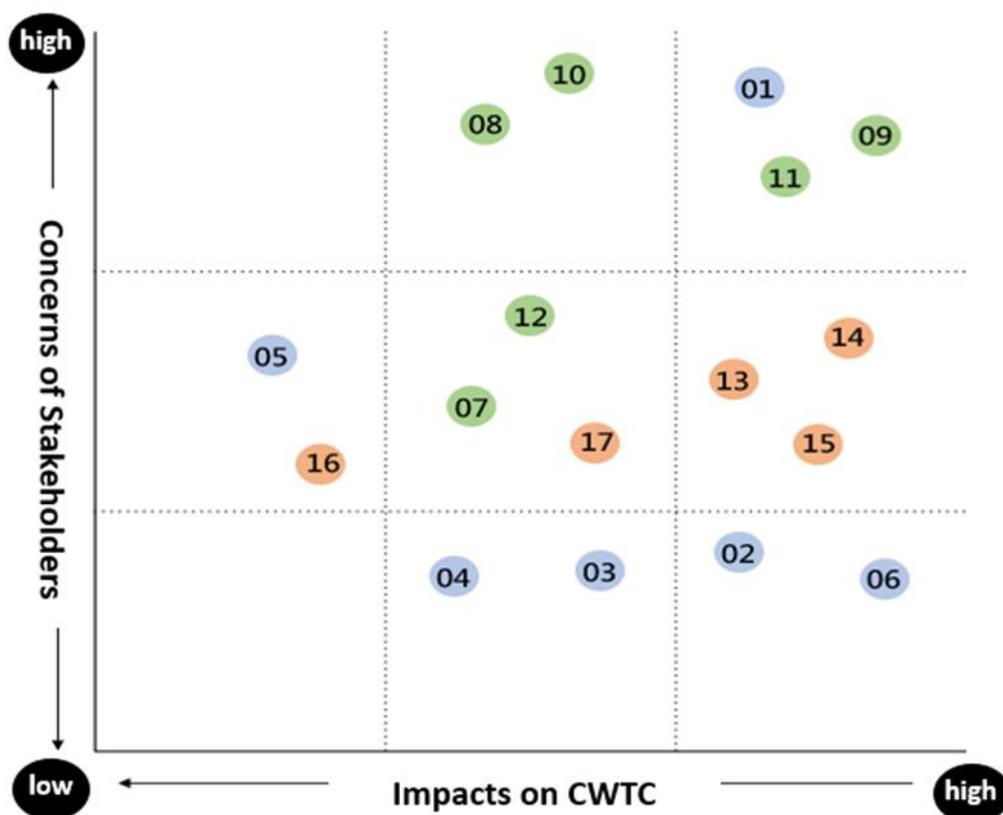
The significance of impacts is then evaluated and ranked through stakeholder questionnaire surveys. After confirmation by the ESG Unit of CWTC Group, the topics are submitted to the senior management for approval.

■ STEP 3: Review and discuss

For material topics with high impact, we disclose our management policies and performance in our sustainability report, corresponding to specific topics of the GRI Universal Standards, as an important basis for evaluating and continuously improving our sustainability management and performance.



Materiality Matrix



Economic Topics	Environmental Topics	Social Topics
<p>01. Economic Performance</p> <p>02. Governance and Risk Management</p> <p>03. Procurement Practices</p> <p>04. Supplier Management</p> <p>05. Business Ethics</p> <p>06. Customer Relationship Management</p>	<p>07. Hazardous Substance Management</p> <p>08. Energy</p> <p>09. Water Resources Management</p> <p>10. Waste Management</p> <p>11. GHG Management</p> <p>12. Climate Change Mitigation and Adaptation</p>	<p>13. Talent Attraction and Retention</p> <p>14. Occupational Safety and Health</p> <p>15. Employee Development and Training</p> <p>16. Community Investments and Participations</p> <p>17. Employees' Rights and Diversity and Equality</p>

The quantifiable impacts of material topics on the economy, environment and society, both positive and negative, are as follows (with 5 being the highest score):

Positive Impact		Negative Impact	
Economic Performance	5	Water Resources Management	3
Energy	4	Waste Management	3
Talent Attraction and Retention	3	GHG Management	4
Employee Development and Training	3	Occupational Health and Safety	5



Involvement Levels in the Value Chain for Material Topics and the Management Policies

Material Topics	Corresponding to GRI Guidelines Material Topics	Corresponding Chapter	Response measures	Value Chain Impacts Boundaries (Boundaries of Topics)			Management indicators	2022 Goals	2023 Achievements	2024 Goals	
				All Plants	Downstream value chains	Upstream value chains					
E	Water Resources Management	GRI303	3.4 Water Resources Management	Our plating and etching processes require a high level of water resources. We will establish emergency response measures for water supply interruptions and use recycled water to reduce the consumption of tap water.	●	●		Recycling rate of water	>20%	19%	>30%
	GHG Management	GRI305	3.3 Energy Management	Strengthen carbon reduction and facilitate process efficiency, as well as continue to plan on purchasing renewable energy.	●	●		GHG inventory in accordance with ISO14064 and external assurance	100%	100%	100%
	Waste Management	GRI306	3.5 Waste Management	Sources reduction, recycling and the use of precious metal recycling techniques, along with the establishment of in-house treatment systems, are implemented to reduce waste emissions.	●	●		Reuse rate of waste	>40%	67%	>40%
	Energy	GRI302	3.3 Energy Management	Improve energy performance using PDCA approach for ISO50001 energy management systems, increase energy efficiency, and develop green energy to reduce environmental impact.	●	●		Energy efficiency	Energy Saving >5,400GJ	Energy Saving 19,792GJ	Energy Saving >3,000GJ
S	Occupational Health and Safety	GRI403	4.4 Occupational Health and Safety	Build comprehensive education and training programs and continuously improve safety and health management to reduce occupational accidents and create a safe, healthy, and high-quality work environment.	●	●	●	Regular promotion of Safety Week	4 times	4 times	4 times
								Regular Occupational Safety and Health Committee	20 meetings	42 meetings	20 meetings
								Regularly working environment monitoring	5 times	7 times	5 times
	Talent Attraction and Retention	GRI401	4.2 Talent Attraction and Retention	Create a happy and friendly workplace, and continue to enhance the competitiveness of remuneration and diverse benefits, as well as promote internship cooperation plans with universities and colleges.	●			Regular Employer-employee Meeting	4 meetings	4 meetings	4 meetings
								Turnover rate	15%	16%	15%
								Number of employees receive retention bonus	>100 employees	103 employees	>100 employees
	Employee Development and Training	GRI404	4.3 Talent Development and Diversity Cultivation	Focus on talent cultivation and strengthen employees' core technological skills to maintain our core competence.	●			Participants in training	22,000 employees	23,988 employees	24,000 employees



Material Topics	Corresponding to GRI Guidelines Material Topics	Corresponding Chapter	Response measures	Value Chain Impacts Boundaries (Boundaries of Topics)			Management indicators	2022 Goals	2023 Achievements	2024 Goals
				All Plants	Downstream value chains	Upstream value chains				
G Economic Performance	GRI201	2.3 Operating Performance	Ensure the Company's profitability and growth momentum, strengthen long-term competitiveness, and maintain a stable dividend policy to create a win-win situation for CWTC, shareholders and employees.	●	●	●	Investor conference	4 investor conferences	4 investor conferences	4 investor conferences
							Shareholders meeting	1 Shareholders meeting	1 Shareholders meeting	1 Shareholders meeting

List of material topics and description of changes in 2023 and 2022

To focus on tracking effectiveness in 2023, CWTC adjusted its material topics from 15 items to 8. The retained topics include **Economic Performance**, **Energy**, **Waste Management**, and **Occupational Safety and Health**. We integrated or renamed **Water Resources Management** (previously **Water and Effluents** in 2022), **GHG Management** (previously **Emissions** in 2022), **Talent Attraction and Retention** (previously **Employment, Diversity and Equal Opportunity** and **Labor/Management Relations** in 2022), **Employee Development and Training** (previously **Training and Education** in 2022). We deleted **Supplier Social Assessment**, **Procurement Practices**, **Forced or Compulsory Labor**, **Customer Privacy** and **Child Labor**.

Material Topics in 2023

(sorting)

Economic Performance, **Energy**, **Water Resources Management**, **Waste Management**, **GHG Management**, **Talent Attraction and Retention**, **Occupational Safety and Health**, **Employee Development and Training**

(sorting)

Material Topics in 2022

Economic Performance, **Occupational Safety and Health**, **Energy**, **Water and Effluents**, **Emissions**, **Waste**, **Employment**, **Supplier Social Assessment**, **Diversity and Equal Opportunity**, **Procurement Practices**, **Labor/Management Relations**, **Forced or Compulsory Labor**, **Customer Privacy**, **Child Labor**, **Training and Education**



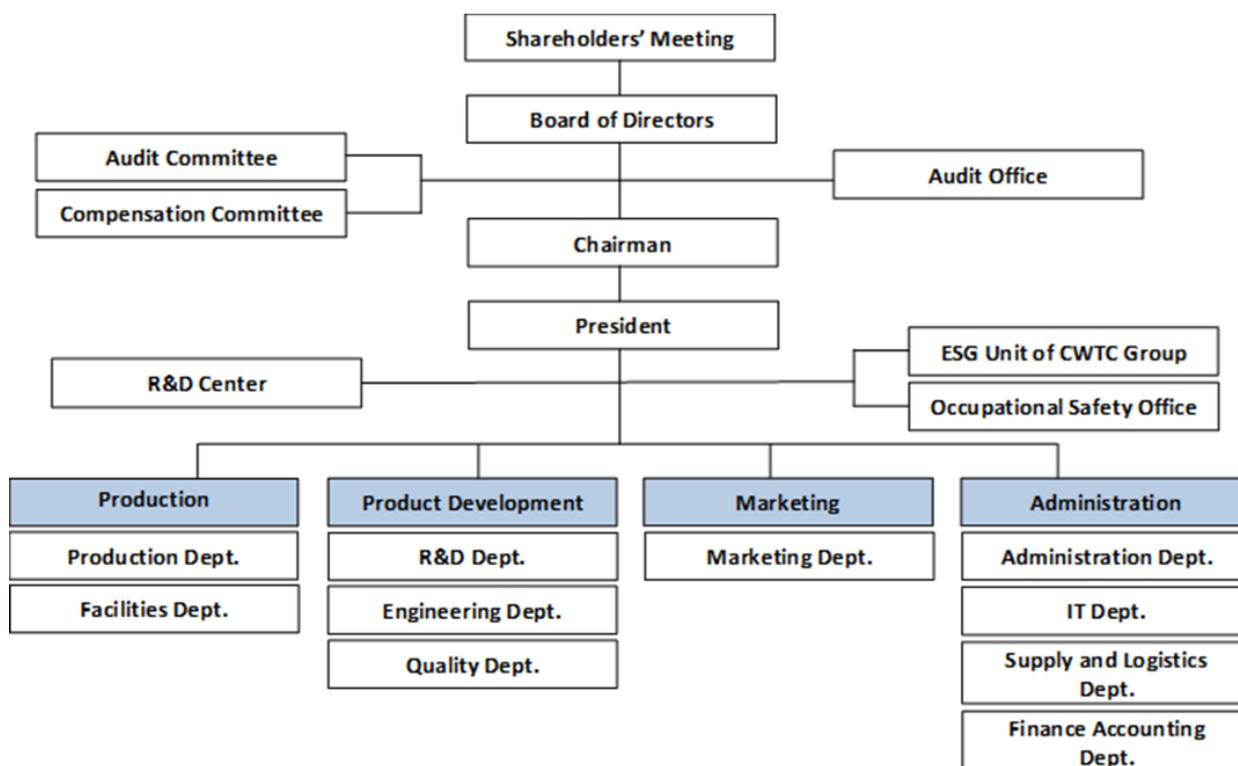
2. Corporate Governance

2.1 Organization and Operation of Corporate Governance

CWTC deeply understands that integrity is the solid foundation for sustainable development. With the protection of shareholders' rights and interests as the starting point, we aim to maximize corporate value through sound business management, while also ensuring the rights and interests of all stakeholders.

In accordance with the "Corporate Governance 3.0 - Sustainable Development Roadmap" promoted by the Financial Supervisory Commission (FSC) of Taiwan and the "Code of Practice for Corporate Governance," revised and approved by the Board of Directors in 2020, CWTC continuously reviews and assesses the status and effectiveness of its corporate governance practices. Through a process of self-evaluation, we strive to enhance sustainability and competitiveness, dedicating ourselves to becoming an excellent company with long-term sustainable operations.

Organizational Structure





Department	Main Functions
Audit Office	Implementation of internal audit and risk assessment, planning and execution of internal control system, assessment of operational efficiency, and provision of system improvement recommendations.
President	Planning and execution of the Company's overall operation, development and execution of the Company's medium and long-term operational strategies, establishment and supervision of the operation and system of each department.
Occupational Safety Office	Formulation, planning, supervision and promotion of occupational safety and health management issues.
ESG Unit of CWTC Group	Planning and promotion of the Group's sustainable development objectives with a focus on sustainable risk management and opportunities.
R&D Center	Research and development of the company's future short, medium and long-term products and technologies.
Marketing Dept.	Market development and sales, customer services and consulting, business resource planning, management and utilization, industry data investigation and collection.
R&D Dept.	Market survey for new products, research and development and production of new technologies and molds, and business activities and customer services for new products at the initial stage.
Engineering Dept.	Control of process yield rate and improvement of quality yield rate, product project development, testing for mass production of new product introductions, planning and management of sample deliveries and shipments, and estimation of component composition and equipment loss in the plant.
Quality Dept.	Establishment and maintenance of quality systems, management of supplier audits, control of incoming material and process quality, response and improvement associated with internal, external, and customer audits, assurance on product reliability testing, maintenance of calibration systems, handling and tracking of customer complaints.
Production Dept.	Planning of production line operation and production process, control of production schedule and planning of production targets.
Facilities Dept.	Establishment of safety operating standards, inspection of risk factors and collaboration of elimination, compliance with labor laws and regulations, labor safety and health training, operation of environmental protection equipment, wastewater treatment, and maintenance of facilities and electrical and plumbing facilities.
Supply and Logistics Dept.	Arrangement of production capacity, control of delivery schedules, coordination between production and sales, planning of materials and control of production costs, management of outsourced production, and warehouse control.
Finance Accounting Dept.	Finance and accounting management, funding arrangements, tax management, and investor relations, etc.
Administration Dept.	Human resource planning, various education courses, corporate operation management, general affairs, etc.
IT Dept.	Establishment, introduction and maintenance of software and hardware information systems and development of smart technology applications.



Structure and operation of the Board of Directors

The Board of Directors is the highest governance body of CWTC. In conducting the Company's affairs, it shall exercise its powers with a high level of self-discipline and prudence, and assist in supervising, appointing, and instructing the management, as well as overseeing the Company's operations. In addition to matters that must be resolved by the shareholders' meeting in accordance with the law or the Articles of Incorporation, the Board of Directors conducts the Company's business based on its resolutions and is also responsible for formulating the Company's corporate social responsibility and sustainable development strategies.

The CWTC Board of Directors comprises seven members with extensive industry experience, including four directors and three independent directors, one of whom is a female director. The Board members are selected in accordance with a fair, impartial, and transparent director appointment process. The election of directors follows a candidate nomination system, where candidates are approved by the Board of Directors and then submitted to the shareholders' meeting for final appointment.

To establish proper governance system of the Board of Directors, improve supervision and strengthen management efficiency, we formulate the Rules of Procedure for Board of Directors' Meetings based on Article 2 of the Regulations Governing Procedure for Board of Directors Meetings of Public Companies. The CWTC Board of Directors convenes at least once every quarter. For the operation of the Board of Directors, please refer to CWTC's 2023 Annual Report.

The current term of the Board of Directors is from July 22, 2021 to July 21, 2024, spanning three year. In 2023, a total of eight Board meetings were held. The relevant information about the Board members is as follows:

Information of the Board members

Title	Name	Gender / Age	Experience (Education)	Number of Other Public Companies in Which the Individual is Concurrently Serving in the BOD	Attendance in Person	Attendance by Proxy	Attendance Rate (%)
Chairman	Yuan Yao Energy Technology Co., Ltd Representative: Canon, Huang	Male > 50 years old	<ul style="list-style-type: none"> Graduated from the Department of Mechanical Engineering in Chung Yuan Christian University. He is now the director and president of CWE., the chairman of CWTC and the vice chairman of JMC Electronics Co., Ltd. He is also a director in companies within the electronic technology industry chain with expertise in governance. Once served as an executive at several multinational corporations such as ASE Electronics Inc., Orient Semiconductor Electronics Ltd., and Wah Lee Industrial Corp., he has been involved in the operation and strategic management of semiconductor industry for more than 30 years. 	3	6	0	75%
Director	Chang Wah Electromaterials Inc. Representative: Chuen-Sing, Hung	Male > 50 years old	<ul style="list-style-type: none"> Graduated from Hong Kong Polytechnic University. He is now the president of CWTC and a director in entities of the CWE Group. Once served as the president of Possehl Electronics Hong Kong Ltd. and SH Electronics Taiwan Co., Ltd., he has been involved in the operation and strategic management of semiconductor industry for more than 30 years. 	3	8	0	100%



Title	Name	Gender / Age	Experience (Education)	Number of Other Public Companies in Which the Individual is Concurrently Serving in the BOD	Attendance in Person	Attendance by Proxy	Attendance Rate (%)
Director	Chang Wah Electromaterials Inc. Representative: Rong-Dong, Tsai	Male > 50 years old	<ul style="list-style-type: none"> Graduated from Indiana University with an MBA. He is now the director of Gold Circuit Electronics Ltd. And the independent director of ALi Corporation. Once served as the president of Ta Chong Commercial Bank Co., Ltd. and Taishin International Bank Co., Ltd., he has been involved in the operation and strategic management of finance industry for more than 30 years. 	2	8	0	100%
Director	Chang Wah Electromaterials Inc. Representative: Angus, Shih	Male 30-50 years old	<ul style="list-style-type: none"> Graduated with a Ph.D. in Electrical Engineering at the National Taiwan University. He is now the president and director of Vizionfocus Inc. Once served as a R&D assistant manager/director at several multinational corporations such as Tong Bao Technology Co., Ltd. and Innolux Corporation, he has been involved in the high-tech industry for more than 20 years 	1	8	0	100%
Independent Director	Yi-Jing, Lin	Female 30-50 years old	<ul style="list-style-type: none"> Graduated from the Department of Accounting in Tunghai University. Passed the Senior Examinations for Certified Public Accountants and has a CPA license. She is now an independent director of several companies, including Contrel Technology Co., Ltd. and Sun Rise E&T Corporation. Once served as a senior manager of Deloitte & Touche, specializing in corporate finance and accounting. 	3	8	0	100%
Independent Director	Ren-Lin, Lin	Male > 50 years old	<ul style="list-style-type: none"> Graduated from the City University of New York with a Master of Information Management. He is the president of Hsin Yi Recreation Enterprise Co., Ltd. Once served as vice president of Hanyu Electronic Technology Co., Ltd. and president of Konlin Digital Technology Co., Ltd., he has been involved in the operation and strategic management of electronics industry for more than 20 years. 	None	8	0	100%
Independent Director	Jia-Ruey, Ou	Male > 50 years old	<ul style="list-style-type: none"> Graduated from the Institute of Transportation of National Chiao Tung University with a PhD. He is now the chairman of Sustainable & Circular Economy Development Association and the director of ShinFox Energy Co., Ltd. Once served as the director-general Bureau of Energy, Ministry of Economic Affairs, the president of Dayeh University, and the chairman of CPC Corporation, and accumulated vast experience in the industry, government and academy. 	1	8	0	100%



Board Diversity

To ensure that the Board of Directors has strong governance capabilities, it is required that the Board of Directors members possess professional competencies in areas such as operational judgment, financial analysis, business management, risk management, industry knowledge, international market perspective, leadership, and decision-making.

The nomination and selection of the Board members comply with the Articles of Incorporation and adopt a candidate nomination system. The Finance Department reviews the qualifications of candidates before submitting them to the Board of Directors for final resolution, ensuring the diversity and independence of the Board members.

Implementation of Board Diversity

Policy	Goals	Performance in 2023	Accomplishment
Professional Competence	Diversity of professional background, skills and industry experience.	The Board members include professionals from industry, accounting, technology and management fields. The directors possess the knowledge, skills and competencies required to carry out their duties, and their industry experience and professional expertise are diverse and complementary.	✓
Gender Equality	At least one female Director.	There is one female director among the seven directors.	✓
Independence	The number of directors who are also managers of the Company should be less than one-third of the Board seats. The number of independent directors should be at least one-third of the Board seats. Independent directors should not serve consecutively for more than three terms.	Only two directors also serve as managers of the Company, accounting for 28.57%. Three of the seven directors are independent, accounting for 42.86%. None of the independent directors have served for more than three consecutive terms.	✓



Diverse Backgrounds of the Board Members

Name	Diversified Core Competence	Nationality	Gender	Concurrently serving as company officers	Age			Independent Director Term and Experience			Professional Knowledge and Skills				
					< 60 years old	61-70 years old	> 71 years old	< 3 years	3-9 years	> 9 years	Industry Operation	Marketing Management	Technology R&D	Risk Management	Accounting and Financial Analysis
Yuan Yao Energy Technology Co., Ltd. Representative: Canon, Huang		ROC	Male	✓		✓					✓	✓	✓	✓	
Chang Wah Electromaterials Inc. Representative: Chuen-Sing, Hung		H. K	Male	✓	✓						✓	✓	✓	✓	
Chang Wah Electromaterials Inc. Representative: Rong-Dong, Tsai		ROC	Male			✓					✓	✓		✓	✓
Chang Wah Electromaterials Inc. Representative: Angus, Shih		ROC	Male		✓						✓	✓	✓	✓	
Yi-Jing, Lin		ROC	Female		✓				✓					✓	✓
Ren-Lin, Lin		ROC	Male			✓			✓		✓	✓		✓	
Jia-Ruey, Ou		ROC	Male			✓		✓			✓	✓		✓	

Continuing Education of Directors

To enhance the functions of the members of the CWTC Board of Directors, the Board members actively participate in relevant training courses which organized by institutions designated by the Taiwan authorities, in accordance with Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies and the regulations of the Taiwan authorities. The Board members remain attentive to developments in domestic and international economic, environmental, and social regulations by taking courses in various areas including finance, risk management, operations, business, accounting, law, corporate governance, integrity and ethics, and corporate social responsibility. This approach aims to strengthen the Board's leadership and decision-making capabilities and ensure the diligent execution of business and management responsibilities. In 2023, the total training hours of the CWTC Board members met the legal requirement of six hours, with an average of 7.71 training hours per director and a total of 54 training hours.



Continuing Education of Directors Recently

Year	Number of Directors	Training Hours	Average Hours
2023	7	54	7.71
2022	7	53	7.57
2021	7	53	7.57

Performance Evaluation of the Board of Directors

To strengthen the operational functions and efficiency of the Board of Directors, CWTC has established the Rules for Performance Evaluation of the Board of Directors to assess the performance of the Board at least once every year. To ensure the Board of Directors is capable of fulfilling its responsibilities in corporate governance, management operations and achieving sustainable development, the evaluation includes the level of company engagement, the enhancement of decision-making quality, composition and structure of the Board, the election and continuing education of the directors, and internal control.

In 2023, the overall average self-evaluation score of the CWTC Board of Directors was 4.76 out of 5. The overall average self-evaluation score for individual board members was also 4.76 out of 5, with an overall performance rating of "Good."

In addition to internal evaluations, evaluations are carried out by external independent agencies or a team of experts at least once every three years. The evaluation criteria include non-financial indicators and elements related to sustainability, enabling an assessment of the board's and individual directors' performance in leading and overseeing the company's operations. The Board of Directors will work to fully enhance overall effectiveness based on the professional and objective evaluation report. The Taiwan Association of Board Governance was commissioned to conduct the performance evaluation in 2022, with a plan for another external evaluation in 2025.

Results of the Board Performance Evaluation for Years

Year	Internal Evaluation	External Evaluation
2023	4.72/5 A sound operation of the Board.	-
2022	4.72/5 A sound operation of the Board.	With good communication and respect for professionals, the Board moves towards positivity and progression.
2021	4.51/5 A sound operation of the Board.	-

Compensation Policy for the Directors and Executives

■ Remuneration of Directors

The Compensation Committee assesses remuneration by referring to overall operational performance, the level of engagement in company's operations for each director, sustainable value contribution, and peer remuneration levels. According to The Company's Articles of Incorporation, CWTC states that the remuneration to Directors shall not exceed 1.5% of the Company's profits for the year, and the remuneration of individual directors shall be disclosed in the annual report and reported to the shareholders' meeting.

■ Remuneration of Executives

According to the rules of compensation management, the remuneration of executives includes a fixed component where severance pay and pensions are distributed in accordance with the rules. The variable portion of the compensation is linked to KPIs and short- and medium-term incentives,



which serve as the basis for compensation distribution. The rules of compensation management must be approved by the Compensation Committee, and any related payments require a proposal from the Compensation Committee and approval by the Board of Directors.

In 2023, the ratio of the President’s compensation to the median annual compensation of other employees was 49 to 1, and the change rate in annual compensation was zero.

Functional Committees

To effectively enhance the functions of the Board of Directors, develop supervisory functions and strengthen management mechanisms, CWTC has established the “Compensation Committee” and “Audit Committee” under the Board, based on their authorities and functions. These committees are designed to ensure the effective implementation of independent supervision and checks and balances mechanisms, and to ensure that all resolutions and actions of the Board are duly reported and discussed. If a proposal involves any conflict of interest with a director or the legal entity they represent, the director must recuse themselves to uphold the best interests of stakeholders.

Additionally, an administrative audit unit, the "Audit Office," has been set up. Its responsibility is to audit and evaluate the reliability and effectiveness of the Company's internal control system. The Audit Office regularly reports audit results and provides improvement recommendations to the Audit Committee to promote the Company's effective operations.

■ Audit Committee

The Audit Committee is composed of three independent directors, one of whom must possess expertise in accounting and finance. The committee assists in overseeing the fair presentation of the Company’s financial statements; the appointment (or dismissal), independence, and performance evaluation of the Company’s CPAs; the effective implementation of internal controls; compliance with relevant laws and regulations; and the management of existing or potential risks. The resolutions passed in the meetings are documented in minutes and submitted to the Board of Directors. In 2023, the committee held seven meetings, with an overall attendance rate of 100% by its members. The overall average self-evaluation score of the CWTC Audit Committee was 4.89 out of 5, with an overall performance rating of "Excellent" in 2023.

Attendance of the Audit Committee in 2023

Title	Name	Attendance in Person	Attendance by Proxy	Attendance Rate (%)
Independent Director	Yi-Jing, Lin (Convener)	7	0	100%
Independent Director	Ren-Lin, Lin	7	0	100%
Independent Director	Jia-Ruey, Ou	7	0	100%

■ Compensation Committee

The Compensation Committee is composed of three independent directors. The committee assists the Board of Directors in implementing and evaluating the Company’s overall compensation and benefits policies, as well as the remuneration of directors and executives, with a professional and objective perspective. The committee regularly provides recommendations to the Board as a reference for decision-making. In 2023, the committee held four meetings, with an overall attendance rate of 100% by its members. The overall average self-evaluation score of the CWTC Compensation Committee was 4.89 out of 5, with an overall performance rating of "Excellent" in 2023.



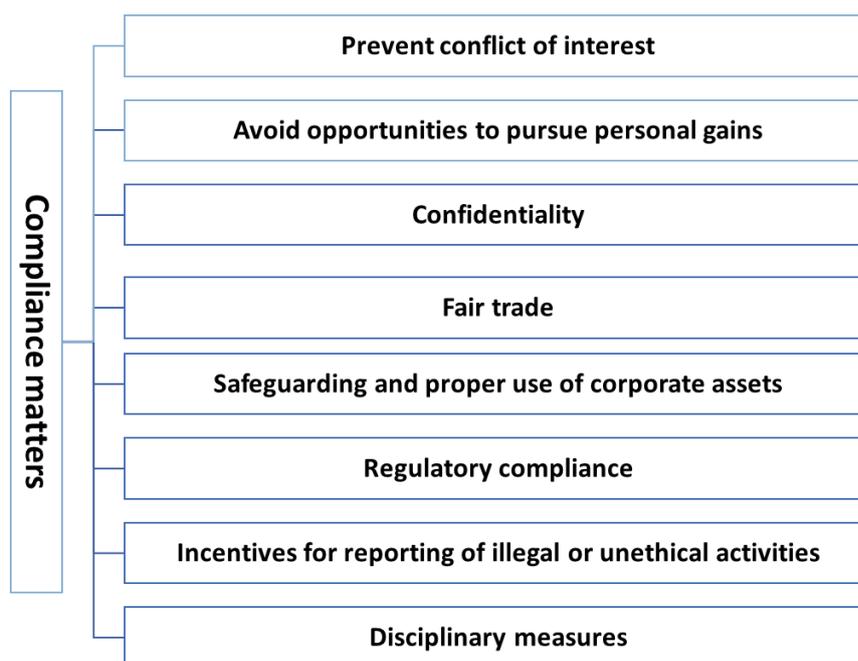
Attendance of the Compensation Committee in 2023

Title	Name	Attendance in Person	Attendance by Proxy	Attendance Rate (%)
Independent Director	Ren-Lin, Lin (Convener)	4	0	100%
Independent Director	Jia-Ruey, Ou	4	0	100%
Independent Director	Yi-Jing, Lin	4	0	100%

2.2 Integrity Management

Integrity Management

The Board has gradually adopted rules of business conduct and ethics and established policies, guidelines, operating procedures, a code of conduct, and grievance systems to prevent unethical behavior. We are committed to conducting all business activities and actions with integrity, and have dedicated a chapter on the employees' code of conduct in our working rules, which is applicable to all employees of the Company and its subsidiaries. The ESG Unit of CWTC Group assesses our business integrity performance every year and reports the results to the Board of Directors.



Relevant rules

Internal Rules	Date of Establishment (Amendment)
Code of Ethical Conduct	October 21, 2015
Code of Business Integrity	October 21, 2015
Procedures and Guidelines of Business Integrity	October 21, 2015
Procedures for Preventing Insider Trading	October 21, 2015
Code of Practice for Corporate Social Responsibility	March 17, 2022
Code of Practice for Corporate Governance	February 21, 2023
Risk Management Policy	February 21, 2023



Regulatory Compliance

In addition to continuously focusing on domestic and international policies and laws that may potentially impact the Company's business and finances, CWTC has established various corporate governance regulations. The Audit Office is responsible for auditing regulatory compliance and coordinating updates to internal rules accordingly. In 2023, there was one violation of the Occupational Safety and Health Act in Taiwan, with a fine of NT\$100,000. The items in violation have been corrected.

Regulatory Compliance for Each Department

Department	Regulatory Compliance	External Assistance
President Office	Report regularly on legal disputes and the progress of related litigations and cases, and take actions accordingly.	Plan for external legal advice and services.
Administration Dept.	Conduct internal training on relevant laws and regulations to strengthen employees' awareness of legal compliance.	Coordinate with external consultants to plan and obtain certificates of relevant educational training
Departments and Subsidiaries	Comply with local laws and regulations.	Work with local authorities to conduct regulatory training courses and obtain relevant certificates.
Audit Office	Implement internal audits and control business risks.	

Prevention and Grievance

To guide our employees and stakeholders in understanding the Company's corporate social responsibility (CSR) policies, we have released the relevant policies and practices on the Company's official website and communicated our concepts and actions through various means, such as education and promotion, within the Company.

In terms of human rights, all plants invite labor and management representatives for labor-management meetings. The Taiwan plant holds these meetings once every quarter, the Chengdu plant in China holds employee representative exchange meetings every six months, the Suzhou plant in China holds employee representative conferences every six months, and the Malaysia plant holds welfare committee meetings once a month. These meetings cover 100% of the total workforce. During these meetings, proposals related to the Company's operations and personnel matters are discussed, and relevant departments are requested to provide explanations on the content of the proposals, with follow-up reports presented at the next meeting.

In terms of environment, the Taiwan plant holds the Environmental Management Committee meetings quarterly, while other plants hold the meetings monthly in 2023. In addition to promoting laws and regulations, and conducting education and training, environmental monitoring, measurements, as well as internal and external communications and proposals, are fully discussed and resolved in the meetings.



A stakeholder mailbox (michelle.hsu@cwtcglobal.com) is created as a communication channel for soliciting opinions and reporting of improper interests with the whistleblower’s identity strictly kept confidential. To ensure its effectiveness, the auditing officer is appointed to handle reported incidents. If the investigation reveals any material irregularities or the Company may suffer significant losses, a report will be prepared immediately to notify the Independent Directors in writing. As of the end of 2023, the Company has not received any reporting of incidents.

Violations and Improvements in 2023

Category	Location	Description	Fine	Improvement
Social	Plant 2	Violation of Section 13, Paragraph 1, Article 6 of the Occupational Safety and Health Act and Article 21 of Regulations of Facilities.	NT\$100,000	<ol style="list-style-type: none"> 1. Strengthen the employee training and dissemination. 2. Revise the “RA-052 Safe Work Instructions for PMC” to add section 6.6 to 6.6.2, specifying the safety regulations for transporting materials to small trucks. 3. Update hazard identification and risk assessment.

Note: Major violations of the Company are one-off events. The cumulated fines totaled NT\$1million.



2.3 Operating Performance

Financial Performance

CWTC specializes in metal substrates and is dedicated to the manufacturing, R&D, and sales of IC lead frame packaging materials to meet the demands of global top-tier IC manufacturing and packaging foundries, as well as vertically integrated manufacturers. Our goal is to become the world's largest IC lead frame supplier by 2025. To meet the demands of various customers, CWTC continuously engages in technological innovation and product development to enhance product performance and quality. Meanwhile, we are also actively expanding our capacity and pursuing M&A strategies to ensure long-term sustainable revenue growth, maintain our competitive advantage in the market, and achieve stable sales growth over the long term. Our operating revenue was NT\$11,581,245 thousand in 2023, and earnings per share (EPS) after tax were NT\$1.67.

Financial Information of CWTC Group

(In Thousands of New Taiwan Dollars)

Type	Item	2020	2021	2022	2023
Direct economic value generated	Revenues	9,678,146	12,792,169	14,431,284	11,581,245
Economic value distributed	Operating costs	7,395,093	8,828,993	8,983,599	7,904,717
	Employee wages and benefits	1,305,307	1,691,299	1,775,461	1,684,653
	Profit-seeking enterprise income Tax	175,742	510,539	789,286	373,041
	Remuneration to Directors	4,000	4,000	4,000	4,000
	Remuneration to Employees	7,386	18,693	32,969	17,387
	Dividends to shareholders	467,445	892,995	1,427,036	1,528,175
	Community investments	-	-	1,000	300
Economic value retained		323,173	845,650	1,417,933	68,972

Government Subsidies

(In Thousands of New Taiwan Dollars)

Item	2020	2021	2022	2023
Government subsidies	83,183	32,058	32,184	37,304

The Company and its subsidiaries receive government financial subsidies primarily through loan subsidies under the Action Plan for Welcoming Overseas Taiwanese Businesses to Return to Invest in Taiwan, as well as incentives from the Three Authorized Tax Collection Commissions in China and employment stabilization policies in China.

Additionally, the Company qualified for tax reductions in 2023 by meeting the government's criteria for encouraging investment in smart machinery and research and development. Subsidiaries SHEC and SHPC qualify for a 15% corporate income tax rate due to meeting the conditions of the China Western Development Policy, are exempt from customs duties on imported self-use equipment, and also benefit from R&D investment tax reductions. Subsidiary SHS has obtained Chinese high-tech enterprise certification, entitling it to a 15% corporate income tax rate. Subsidiary CWTS is eligible for the small low-profit enterprise income tax reduction policy in China, benefiting from a 5% corporate income tax rate.



Tax Policies

CWTC adheres to both domestic and international tax regulations in its operations and is committed to establishing a robust tax management system and governance culture, with the goal of effectively managing tax risks to promote sustainable corporate development and create corporate value.

In recent years, under the trend of international tax fairness and anti-tax avoidance principles, and in response to the Controlled Foreign Company (CFC) rules that has been implemented, CWTC has adjusted its organizational structure, carefully assessing the policy's tax impact on the group, and continues to closely watch on any revision of applicable laws and regulations.

The tax affairs of CWTC are managed by the Finance Department of the parent company, while the accounting department of each subsidiary acts as the execution unit. Based on the overall business strategy and operating environment, the Company formulates comprehensive tax governance policies to ensure the effective operation of the tax management mechanism. After filing annual income tax returns, the execution of tax management is reported to the Board of Directors of the parent company each year.





2.4 Risk Management

To provide a framework for the Company's risk management operations and effectively manage risks, we established a "Risk Management Policy" in 2023. The policy is reviewed regularly and submitted for approval by the Board of Directors before the annual group risk assessment, serving as the Company's highest guiding principle. We instruct each functional unit to conduct risk identification according to their division of labor and to formulate management strategies and action plans to mitigate, transfer, or avoid risks in order to effectively lower the Company's operational risks.

To ensure the Company's normal operations and achieve business continuity, we proactively and cost-effectively integrate and manage all potential strategic, operational, financial, and hazard-related risks that could impact operations and profitability. Through regular group risk assessments, we utilize a risk matrix to understand the frequency of risk events and their potential impact on the Company's operations, define risk priorities and levels, and adopt corresponding risk management strategies based on the risk levels.

Risk Management Structure and Relevant Responsibilities



Risk Identification and Countermeasures



Our risk management process includes elements such as risk identification, risk assessment, risk response, risk monitoring, and risk management information communication and handling. In addition to assessing the overall impact of various risks on the Company through cross-departmental communication and data collection, the degree of each risk's impact is also linked to the Company's short, medium, and long-term operational goals to gauge its risk tolerance. To implement the risk management mechanism, a group risk assessment is conducted annually, and the results of the risk assessment are regularly reported every year to the Audit Committee (composed of three independent directors) and the Board of Directors. The report includes a summary of the various risks the Company faces during the year, risk response measures, and planned improvements, which are subsequently tracked annually. The Audit Office is notified of the tracking results, and it conducts risk management audits to ensure the effective operation and execution of the Company's risk management.

Material Issue	Risk Evaluation Item	Risk Management Policy and Measure
Finance	Interest rate fluctuations	<ul style="list-style-type: none"> • Monitor changes in interest rate markets and manage existing short- and long-term loan positions, using market tools as needed. • Determine the use of funds based on the cost of capital and possible returns and risks. • Maintain close contact with banks to secure the best financing and deposit rates.
	Exchange rate fluctuations	<ul style="list-style-type: none"> • Collect daily information on exchange rate fluctuations and comprehensively evaluate future trends and influencing factors to determine the most appropriate pricing. • Achieve a certain degree of natural hedging through trading and adjust the positions of assets and liabilities denominated in foreign currencies in a timely manner.
	Changes in the inflation rate	<ul style="list-style-type: none"> • Closely monitor price fluctuations in the upstream raw materials markets. • Maintain good relationships with suppliers and customers in order to properly adjust the inventory level of raw materials.
Operation	Peers competition	<ul style="list-style-type: none"> • Map out cross-regional strategies with developments in the Asia-Pacific market as our advantages. • Maintain excellent customer relations to enhance customer loyalty and trust.
	Shrinking of profit margin	<ul style="list-style-type: none"> • Focus on expanding product applications to ensure that products meet the diverse needs of different customers. • Strengthen product reliability in terms of design and verification to improve customer satisfaction and trust.
	Customization affects production efficiency	<ul style="list-style-type: none"> • Focus on key customers, concentrate on advantages of mainstream products, and committing to planned production to increase production efficiency. • Strengthen customer communication to ensure timely and efficient production while aiming to reduce costs associated with work-in-progress inventory.
Environment	Environmental protection	<ul style="list-style-type: none"> • Promote reduced water usage in the manufacturing process, establish wastewater recycling facilities, and improve wastewater treatment efficiency with an annual target to increase the recycling volume by 10%. • Map out short, medium and long-term recycling targets with a projected increase of 5~10% in recycling volume every year.
	Climate change	<ul style="list-style-type: none"> • Implement energy conservation and carbon reduction initiatives, conducting GHG inventories annually to gradually reduce carbon dioxide emissions.
Society	Workplace safety	<ul style="list-style-type: none"> • Conduct at least two plant-wide disaster prevention drills and emergency responses every year, covering scenarios such as earthquakes, fires, and chemical spills, based on operational characteristics and types of hazards.
	Employees recruitment and training	<ul style="list-style-type: none"> • Prioritize local hires when recruiting and employing new team members. Our company training courses include new employee orientation and on-the-job training, with assessments and evaluations conducted to motivate employees and ensure appropriate empowerment.
Corporate Governance	Regulatory compliance	<ul style="list-style-type: none"> • Ensure that all personnel and operations fully comply with relevant laws and regulations by establishing a governance structure and implementing internal control mechanisms.



2.5 Internal Control

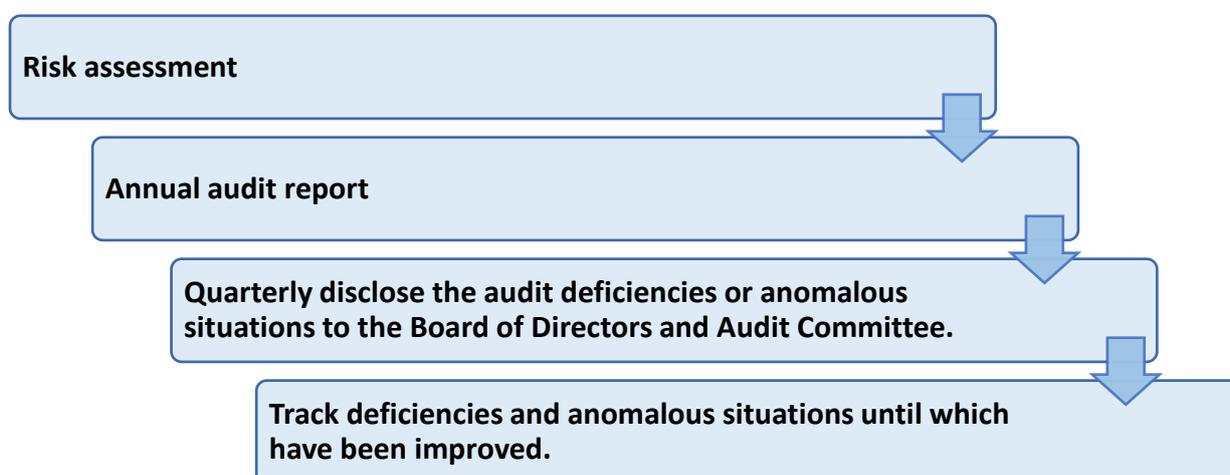
According to the “Regulations Governing Establishment of Internal Control Systems by Public Companies” issued by the Financial Supervisory Commission (FSC), CWTC has established an internal control system under the Board of Directors, which is implemented by an independent audit office. Its purpose is to assist the Board of Directors and management in overseeing all internal systems and processes, ensuring the effective execution of annual audit plans and continuous monitoring of relevant operational systems. This helps reasonably ensure that the goals of accurate, reliable, timely, and transparent operational, financial, and management information, as well as compliance with relevant laws, are met. Additionally, it provides timely improvement recommendations to ensure the continued and effective implementation of the internal control system.

Furthermore, the Audit Office reviews the self-inspection reports for the internal control system prepared by all departments and subsidiaries as required, and regularly submits these reports on the results, along with their corrections, to the Board of Directors. This process ensures that management is informed and that the supervisory mechanism is effectively implemented.

Audit Work

- Every year, based on identified risks, an annual audit plan is developed for the next year and executed upon approval by the Board of Directors.
- Monthly, the execution of audit items in the plan is checked, and audit reports are prepared and submitted to the Board of Directors and the Audit Committee for review. Quarterly, a report on the internal audit activities is presented at the Board of Directors meeting.
- The parent and subsidiary companies are required to conduct at least one self-inspection annually. The results of these self-inspections, along with the Audit Office’s findings of internal control deficiencies and irregularities, are reviewed and used as the basis for the President and Board of Directors to issue the Internal Control System Statement.
- Deficiencies and irregularities identified during audits that require follow-up must be tracked with reports issued at least quarterly until fully resolved, ensuring that the relevant units have taken appropriate and timely corrective actions.
- Conduct related project audits as needed.
- Complete the required internet information system reporting within the deadlines set by the regulatory authorities.

Audit Process



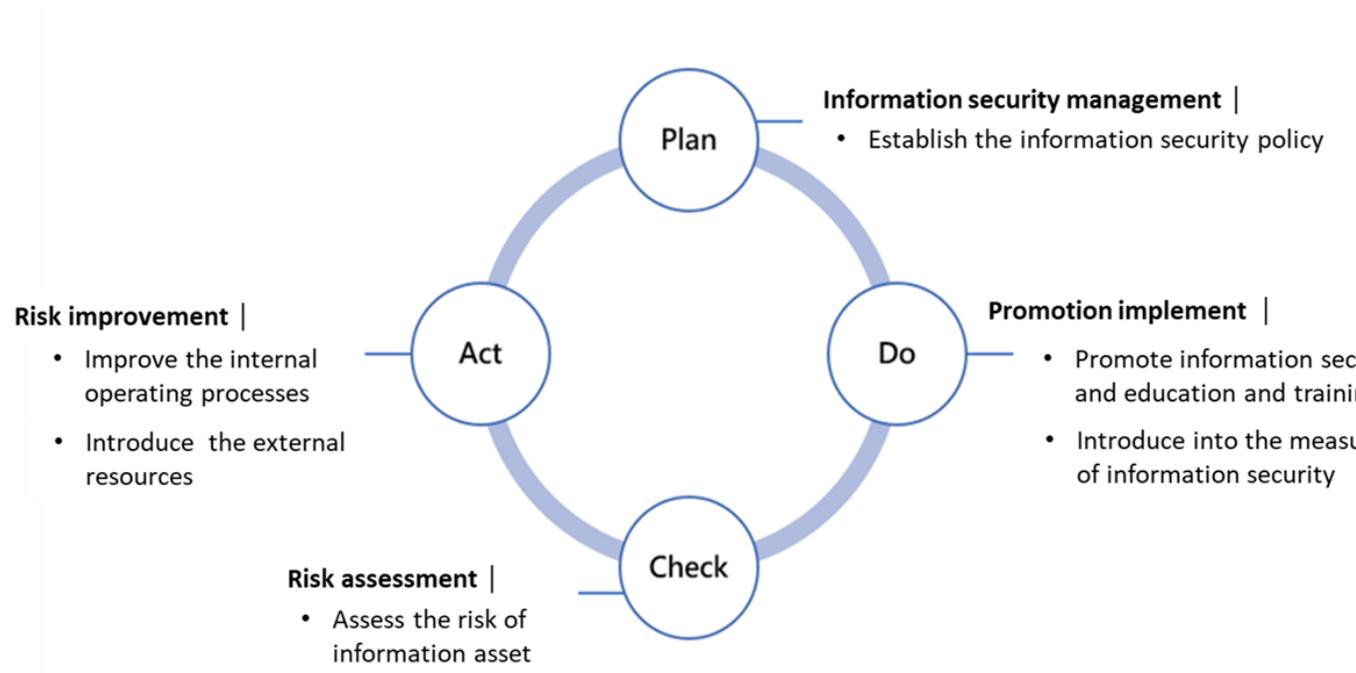


2.6 Information Security Management

To strengthen information security resilience and management mechanisms in response to various cybersecurity threats and operational risks, the internal information management system adopts a PDCA (Plan-Do-Check-Act) cyclical management model. This model includes system establishment, implementation, risk assessment, and improvement measures to enhance CWTC's information security framework. It ensures the confidentiality, integrity, and availability of the company's critical information assets while complying with relevant laws and regulations to maintain sustainable operations and key business functions.

With the approval of the Board of Directors, a "Cybersecurity Dedicated Unit" has been established, with Manager Fu-ren Zhang serving as the cybersecurity officer. The unit is responsible for formulating, implementing, and managing policies related to CWTC's information security and trade secret protection. It conducts regular annual security assessments of information assets and adjusts information security policies as needed, based on updates to security tools or technologies, to ensure the effective operation of the information security management system. The IT department is responsible for executing cybersecurity advocacy and handling cybersecurity incidents.

PDCA for Information Security Management





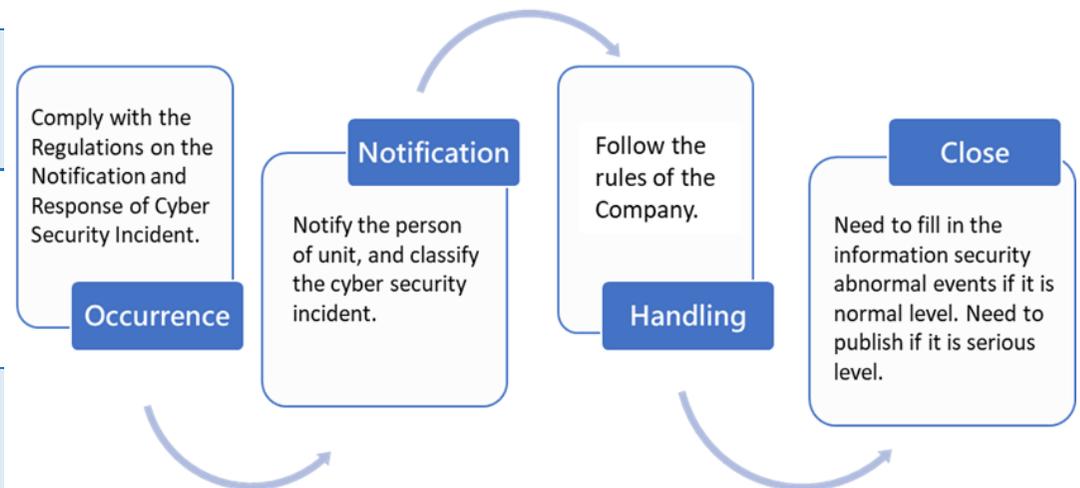
Information Security Control Measures

CWTC regularly reviews its information security processes to enhance and strengthen all information risk management. In 2023, there were no significant cyberattacks or events, nor were there any issues that have caused or could potentially cause a significant adverse impact on the company's operations. Furthermore, no major complaints were received regarding the infringement of customer privacy or the loss of customer data.

Risk management	<ul style="list-style-type: none"> Install endpoint detection and response (EDR) software on personal computers and servers under the control of the master control unit, and update threat definition files regularly. Deploy patches through Windows Server Update Services (WSUS). Schedule restarts for changes to take effect. Establish Urchin Tracking Module (UTM) to prevent malicious attacks. Conduct regular disaster drills and exercises related to information security systems.
Information operation security	<ul style="list-style-type: none"> Formulate backup plans in compliance with the 3-2-1 backup principle. Initiate virtual platforms and employ high availability (HA) mechanism. Monitor the operational efficiency of core systems through SYSLOG.
Device security	<ul style="list-style-type: none"> Prohibit the use of personal computers within the plants. Disable USB ports on company computers. Applications are required for user access. Establish a network access control (NAC) platform to block access from unknown devices.
Information security of suppliers	<ul style="list-style-type: none"> Require all departments to ensure that NDAs (Non-Disclosure Agreements) are signed with suppliers. Conduct irregular audits or inspections of suppliers annually to prevent supply chain disruptions caused by information security incidents.
Field Security	<ul style="list-style-type: none"> Enforce computer control for visitors entering the plant and regulate 3C products, personal mobile phones, and USB drives on production lines and in laboratories. Establish a zoned management mechanism for office and controlled areas, as well as access control and abnormal event monitoring for computer rooms, with regular reviews and continuous improvements.
Human Resources Security	<ul style="list-style-type: none"> New employees of the Company and its subsidiaries shall sign the non-disclosure agreements (NDA) when joining the Company. Information security is part of the orientation program. Information system accounts and permissions are reviewed and managed by the IT unit. Information security awareness programs are conducted regularly to raise employees' awareness.

Information Security Incident Reporting Process

A comprehensive information security incident reporting process has been established, allowing employees to report incidents through multiple channels. Once the Information Security Task Force receives a notification, a dedicated team is formed to handle the incident based on its category and severity. In 2023, no information security incidents were reported by employees.





2.7 Sustainable Supply Chain

Suppliers are important partners to the Company. Therefore, CWTC values the sustainable development of its suppliers. We implement “Sustainable Development Best Practice Principles” to encourage our suppliers to fulfill their corporate social responsibilities by protecting the environment, reducing carbon emissions, improving safety and health, valuing human rights, managing risk, and adhering to ethical compliance. Together, we aim to establish a stable and sustainable supply chain.

All new or existing suppliers are required to sign the “Responsible Business Alliance Code of Conduct (RBA Code of Conduct) Compliance Declaration,” the “Corporate Social Responsibility Statement,” and the “Conflict Minerals Declaration,” and complete the relevant background information survey forms. Additionally, we implement the RBA Code of Conduct, uphold the Human Rights Declaration, and comply with current laws, regulations, and customer requirements. In 2023, none of the Company's existing suppliers or contractors had any significant negative impact, either actual or expected, on the environment, labor conditions, human rights, or society.

Quality Management for Suppliers

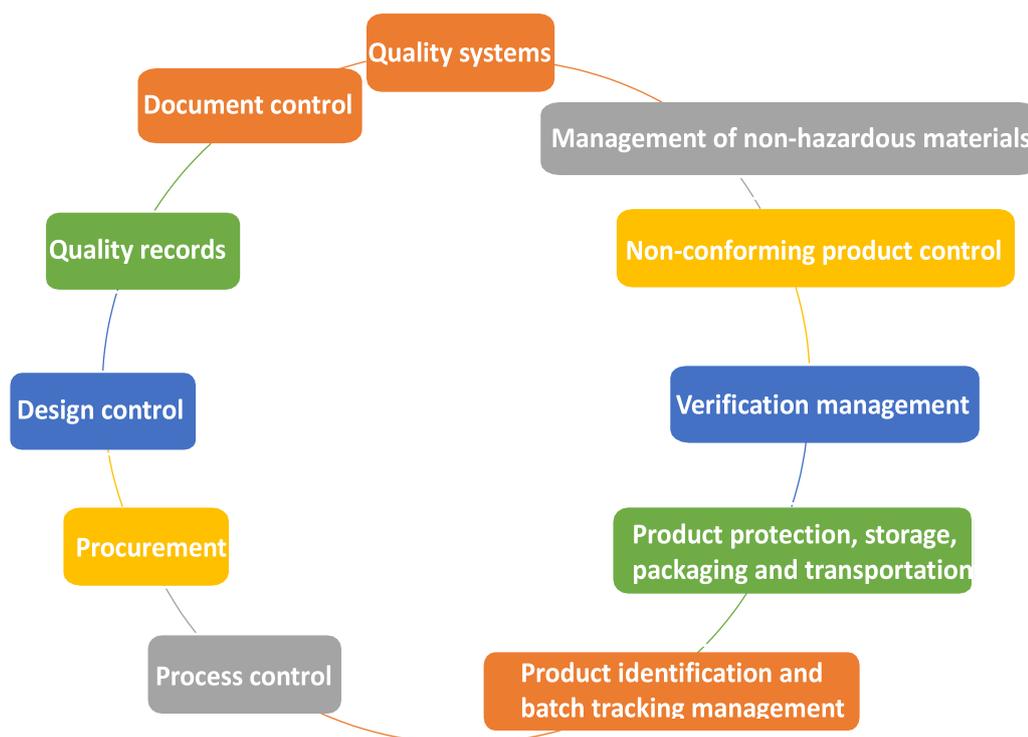
Through the supplier purchasing process, CWTC reviews each supplier's qualifications, including general information, financial status, and relevant system certifications such as quality management and environmental management. Depending on the assessment, it may conduct factory visits and evaluations covering quality management, delivery dates, system management and sustainability risk assessment to ensure that the suppliers comply with relevant regulations. To become a qualified supplier, the supplier must obtain approval from the purchasing, quality, and engineering departments, as well as other relevant units. In addition, CWTC conducts regular on-site evaluations annually to ensure that suppliers continue to meet the requirements. In 2023, there were no factory visits or evaluations, as we did not have any new major raw material suppliers.

Relevant Value Chains of Main Products (Material Stability and Price & Inventory Control)

Industry	Upstream	Midstream	Downstream	Product Applications
IC	Copper alloys, nickel-iron alloys, industrial epoxies	Lead frame manufacturers	IC packaging companies	LCD panels, automobiles, computers and peripherals, lighting fixtures, handheld consumer electronics devices, precision instruments, aerospace industry
LED			LED packaging companies	

Quality Audit Process for Suppliers

To understand the current status of suppliers in depth, CWTC evaluates the performance of “key suppliers of the current year” or “key suppliers rated as Class C in the previous assessment.” The assessment includes 11 aspects: document control, design control, quality systems, quality records, procurement, process control, management of non-hazardous materials, control of non-conforming products, verification management, product protection, storage, packaging and transportation, product identification, and batch tracking management. These aspects are covered in both the suppliers' self-assessments and the Company's on-site evaluations.



Supplier Tier Management

Rank	Score	Result	Action
A	>85	Approval	Normal purchases.
B	70~85	Conditional approval	Annual audits and counseling.
C	<70	Fail	Improvement plans shall be submitted within 7 days. Suppliers failing to make improvements as scheduled would be banned.

Supplier Assessment

To proactively manage risks and enhance overall supply chain quality, CWTC conducts sustainability risk assessments for suppliers. CWTC distributes self-assessment questionnaires to primary materials suppliers to investigate their potential environmental and social risks. Based on the results, suppliers are categorized into five risk levels. High-risk suppliers are required to make improvements within a prescribed timeframe. Those who fail to make improvements on time will be disqualified from our supplier list. In 2023, we assessed 13 primary materials suppliers, and none of them were found to have significant or potential negative social impacts.

Risk Assessment of 2023

Category	Extremely Low	Low	Medium	High	Extremely High
Risk Level	0~3	4~6	7~9	10~12	13~15
Numbers	11	1	1	0	0



Conflict Minerals Policy

CWTC has long been committed to complying with the standards and initiatives of the Responsible Business Alliance (RBA), the Global e-Sustainability Initiative (GeSI) and the Responsible Minerals Initiative (RMI). We clearly state that conflict minerals originating from the Democratic Republic of Congo (DRC) and its neighboring areas, controlled by armed groups—such as gold (Au), tantalum (Ta), tungsten (W), cobalt (Co), tin (Sn), and other conflict minerals—are not accepted in our supply chain. Suppliers are also required to comply with the RBA Code of Conduct.

Specific Measures

- Do not use conflict minerals from illegal sources, and do not purchase conflict metals produced in conflict-affected and high-risk areas.
- Encourage all suppliers in our supply chain to participate in programs such as the RBA (Responsible Business Alliance) and the RMI (Responsible Minerals Initiative).
- Commit to conducting due diligence on conflict minerals to ensure more transparent sourcing of conflict metals and minerals.

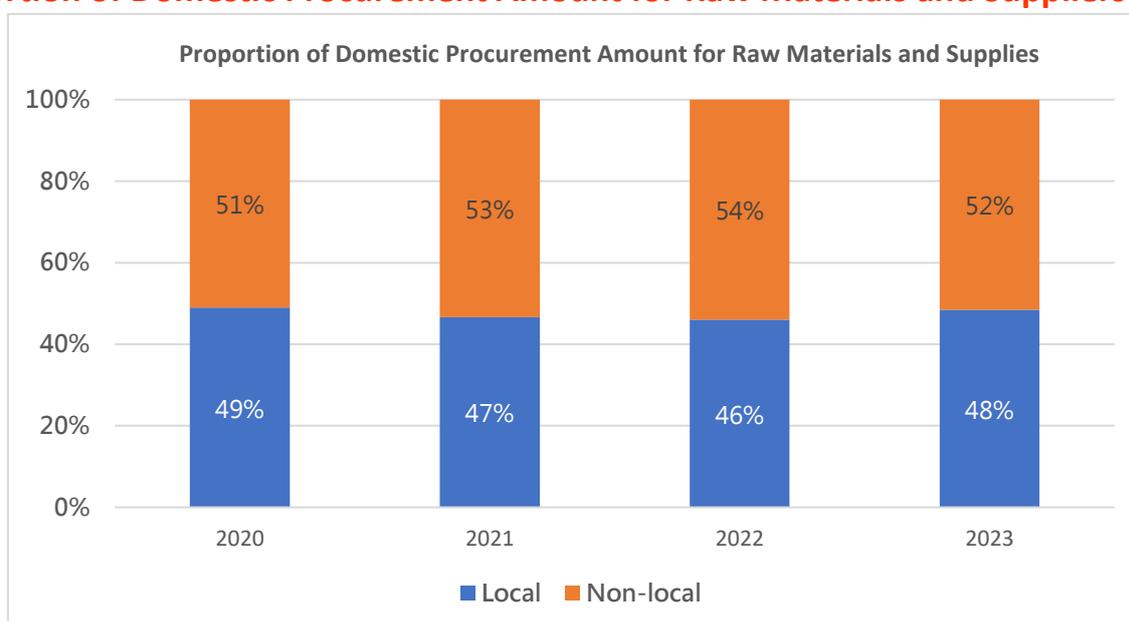
Local Procurement

CWTC has been committed to promoting local procurement to reduce carbon emissions from material transportation and improve procurement stability, while also fostering local employment and economic development. Local procurement also helps strengthen relationships with local suppliers, enhancing the flexibility and efficiency of the supply chain. In 2022, we expanded our facilities in Taiwan, increasing production capacity and gradually raising the proportion of self-produced materials while reducing overseas procurement. In 2023, the proportion of local procurement for raw materials reached 48%.

Proportion of Local Procurement Amount of Raw Materials in Our Plants

Plant	2020	2021	2022	2023
Taiwan Plant	38%	31%	29%	38%
China Plant	84%	90%	81%	91%
Overseas Plant	25%	24%	24%	19%

Proportion of Domestic Procurement Amount for Raw Materials and Suppliers



2.8 Product Research, Development and Innovation



With the rise of emerging technologies such as 5G, AI and IoT, the consumer and automotive electronics markets would continue to grow in size and bring new opportunities for display applications as products shift toward being thin, light, and compact with high value-added or high-end specifications. Using QFN as our raw material, we create different processes to differentiate our products from the market and enter the niche market of lead frames for mini LED and automotive power management.

Our PMMS (pre-mode metal substrate) for mini LEDs use flat metal lead frames to open up the beam angle of LED chips to 170 degrees, superior to the 130 degrees in the conventional packaging structure. It greatly improves the contrast and brightness of mini LED backlights, which are formerly constrained by the multi-chip arrangements.

There are also lead frames with high reliability for automotive/industrial power supply applications and GaN/SiC. In terms of applications, one is for TFT backlights while the other is lead frames for automotive power management.



As lead frames for mini LED display technology and automotive power management enter the mass production stage, new challenges have emerged. Through commercialization of results from our R&D Center, we are developing packaging metal substrates with higher precision, thinner in thickness, better reliability and greater diversity. By maximizing the number of chips on the laminate substrates in a larger area with high density, we assist customers with improving the product performance, packaging quality, and production efficiency. These products will become the market mainstream in the future.

R&D Investments and Achievements

(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Item		2019	2020	2021	2022	2023	
R&D Investments	Revenue(A)	9,320,275	9,678,146	12,792,169	14,431,284	11,581,245	
	R&D expenses (B)	149,707	228,583	461,211	422,484	420,520	
	Total number of employees (C)	1,918	1,927	2,066	2,202	2,130	
	Total number of R&D personnel (D)	55	118	213	266	190	
	Average R&D expense per R&D personnel (B/D)	2,722	1,937	2,165	1,588	2,213	
	Proportion of R&D expenses (B/A)	1.61%	2.36%	3.61%	2.93%	3.63%	
R&D Achievements	Cumulative number of patents	Domestic	37	39	37	43	55
		Overseas	74	78	88	109	254
	Cumulative number of trademarks	Domestic	3	3	3	3	2
		Overseas	-	-	-	-	3

3. Sustainable Environment



3.1 Environmentally Sustainable Development

CWTC is a professional manufacturer of metal lead frames, dedicated to production, manufacturing and product development. Our operation model is built on the business philosophy of humanity, rationalization, standardization, and internationalization, with a fair and transparent management approach. As we are well aware of the potential environmental impact of our products, activities and services, we have fully implemented an “Environmental Management System” and advocate for “full participation, conserving social resources, and complying with environmental regulations.”

Our environmental management unit includes the Environmental Management Committee, as well as the Environmental Safety Centers and Occupational Safety Offices at each plant. These entities are responsible for executing comprehensive tasks related to internal and external issues and environmental considerations raised by various units, and for reviewing and confirming the environmental consideration data from each unit. A committee is established at each plant, chaired by the plant manager, which regularly convenes meetings to review performance. The meetings involve coordination, research, and examination of environmental management issues with supervisors and employee representatives from all units, demonstrating a high level of commitment to environmental management.

Our plants, both domestic and overseas, have adopted ISO14001 Environmental Management Systems, with certifications acquired. The latest version of ISO14001:2015 was introduced with certifications received in 2016 for our Taiwan plants and in 2020 for our overseas plants. This extends environmental management to the entire product lifecycle and addresses environmental risks and mechanisms at each stage, establishing a macro-level strategic policy and action plan aligned with the latest international management trends.

ISO14001:2015 certifications

Taiwan Plant	Overseas Plant	China Plant
 <p>Environmentally Certified</p> <p>Certificate of Registration</p> <p>Chang Wah Technology Co., Ltd. No.24, Kaifa Rd., Nanzih Dist, Kaohsiung City, 811, Taiwan (R.O.C.) No.16, E. 7th St., Nanzih Dist, Kaohsiung City, 811, Taiwan (R.O.C.) No.133, Jing 5th Rd., Nanzih Dist, Kaohsiung City, 811, Taiwan (R.O.C.) operates a</p> <p>Environmental Management System which complies with the requirements of ISO 14001:2015</p> <p>The registration covers the manufacturing and sales of lead frames. Original Certification: 18 April 2016 Registration No: 7A2235-EC Certification/Release Date: 20 November 2022 Expiry Date: 23 November 2025</p> <p>Accreditation Manager TQCSI International (Group) Pty Ltd For the TQCSI Certification Approval Panel</p> <p>This certificate verifies the original certificate issued and is valid as long as it is displayed as an electronic copy at www.tqcsi.com and surveillance audits are satisfactory completed. TQCSI International Pty Ltd (ABN 59 965 953 924) of Quality House, 117A Tapscott Road, Hendon, WA, 9014, Australia issues certification subject to the TQCSI Rules of Certification.</p> 	 <p>MALAYSIAN SH ELECTRONICS SDN BHD Lot 5, 7 B, 9, Jalan Ragum 15/17, 40200 Shah Alam, Selangor Darul Ehsan, Malaysia.</p> <p>Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below</p> <p>ISO 14001:2015 Scope of certification</p> <p>MANUFACTURE OF LEAD FRAME FOR SEMICONDUCTOR DEVICES</p> <p>Original cycle start date: 03-06-1998 Expiry date of previous cycle: NA Certification / Recertification cycle start date: 12-04-2024 Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: 11-04-2027</p> <p>Certificate No.: MY03063 Version: 1 Issue date: 28-03-2024</p>  <p>AKHD Nizam Abdul Malik, Chief Executive (Malaysia) Signed on behalf of BVM SH Electronics Certification Body Address: 26 Fosse, 46 Princes Street, London, E1 6NG, United Kingdom Local Office: Lot 19.01 B, 19th Floor, Alorjaya, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia Tel: +603 2173 7800</p> <p>Further certification requires the scope and validity of this certificate, and the applicability of the management system requirements, should be: +603 2173 7800</p> <p>UKAS Certificate Template Single Site Rev.4.1</p>	 <p>CERTIFICATE</p> <p>The Certification Body of TÜV SÜD Asia Pacific TÜV SÜD Group certifies that</p> <p>SH Electronics Chengdu Co., Ltd No.7 Xinyuan Nan Er Lu, Singapore Industrial Park, Chengdu Hi-Tech Development Zone, Chengdu City, Sichuan, P.R. China Post Code: 610041 has established and applies an Environmental Management System for</p> <p>Manufacture of Leadframes</p> <p>An audit was performed, Report No. 7482414982. Proof has been furnished that the requirements according to</p> <p>ISO 14001:2015</p> <p>are fulfilled. The certificate is valid in conjunction with the main certificate from 2022-12-30 until 2025-12-29. Certificate Registration No.: TUV104 03 4732/1 2022-11-14</p>  <p>CERTIFICATE</p> <p>The Certification Body of TÜV SÜD Asia Pacific TÜV SÜD Group certifies that</p> <p>SH Precision Chengdu Co., Ltd No. 6 Workshop, 8 Kexin Road, Chengdu Hi-Tech Zone (West), Chengdu City, Sichuan, P.R. China Post Code: 611731 has established and applies an Environmental Management System for</p> <p>Manufacture of Leadframes</p> <p>An audit was performed, Report No. 7482414982. Proof has been furnished that the requirements according to</p> <p>ISO 14001:2015</p> <p>are fulfilled. The certificate is valid in conjunction with the main cert from 2022-12-30 until 2025-12-29. Certificate Registration No.: TUV104 03 4732/2 2022-11-14</p>  <p>证书</p> <p>TÜV SÜD 宝奥服务有限公司 认证</p> <p>苏州兴胜利科半导体材料有限公司 中国江苏省苏州工业园区北港路123号 邮政编码: 215128</p> <p>在以下范围范围内建立和实施了环境管理体系 引续框架的制造。</p> <p>通过审核, 证书编号: 7482287214 证明体系符合</p> <p>DIN EN ISO 14001:2015</p> <p>的要求。 本证书的有效性从2023年07月06日至2026年07月06日。 证书注册号: 12 104 42314 TWS。</p> 



3.2 Task Force on Climate-Related Financial Disclosures (TCFD)

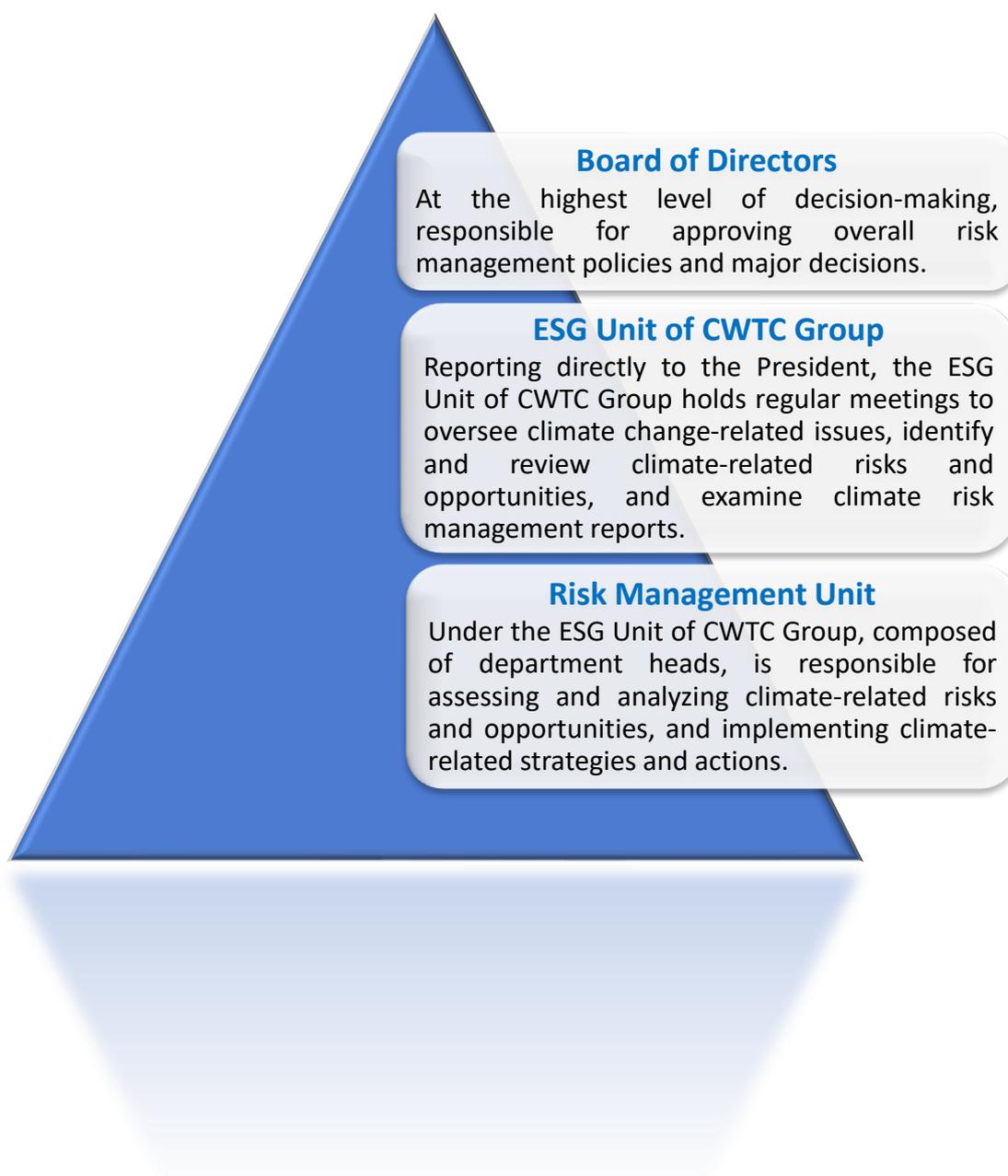
Climate action has become a critical factor in evaluating international commitments to carbon reduction. Therefore, CWTC follows the framework of the Task Force on Climate-related Financial Disclosures (TCFD) to disclose effective data on the financial impacts, the risks and opportunities brought by climate change, and to establish relevant response strategies while assessing potential financial impacts. This approach aims to enhance the management framework for responding to climate change, demonstrating the resilience of the Company's operations.





Governance

The Company has established the ESG Unit of CWTC Group, which is responsible for formulating the company's climate policy, coordinating sustainable development and climate change-related affairs, and ensuring the alignment and integration of the company's environmental and social activities. The ESG Unit of CWTC Group is also responsible for interdepartmental coordination, communication, and the integration regarding the management activities of sustainability and climate-change issues, as well as overseeing their implementation. The ESG Unit of CWTC Group is in charge of setting the Company's long-term goals and development strategies for climate change and renewable energy and reports to the Board of Directors every six months.



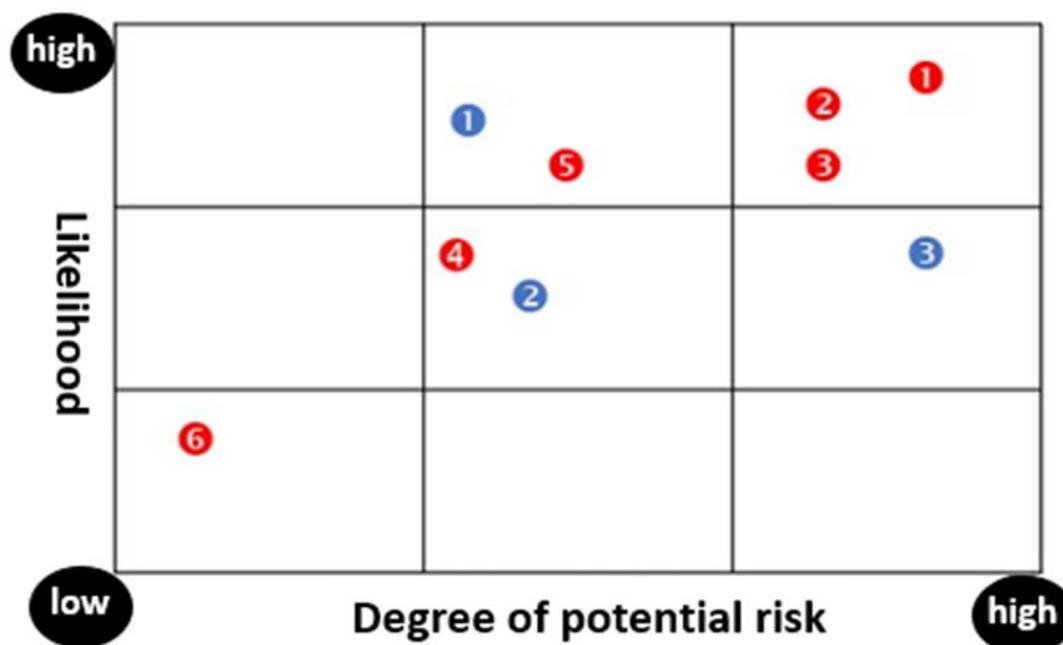


Strategy

The ESG Unit of CWTC Group requested all department heads from the Risk Management Team to evaluate the major climate risks and opportunities the Company faces through a questionnaire, resulting in 12 pieces of feedback.

Based on the Company's internal management needs, the short-term is defined as within the next 3 years; the medium-term is defined as within the next 3 to 5 years; and the long-term is defined as more than 5 years. Following the TCFD guidelines, we identified six climate risks and three derived opportunities.

Climate Change Risk and Opportunity Matrix



Risk / Opportunity	Risk Category and Opportunity	
Risk	Transition	<ul style="list-style-type: none"> 1 Imposition of carbon fees/taxes due to GHG emissions control 2 Stricter regulations on renewable energy 3 Net zero trend
	Physical	<ul style="list-style-type: none"> 4 Drought 5 Rising average temperature 6 Increasing severity of extreme weather events, such as typhoons and floods
Opportunity	<ul style="list-style-type: none"> 1 Improve resource efficiency 2 Enhance corporate reputation 3 Reduce water consumption 	



Financial Impacts and Response Measures of Climate Change Risk and Opportunity

	Risk / Opportunity Type	Duration of Impact	Potential Financial Impacts	Response Measures
Transition Risk	Imposition of carbon fees/taxes due to GHG emissions control	Short-term	Carbon fee increases the operating costs.	<ul style="list-style-type: none"> Achieve energy efficiency and invest in green energy facilities.
	Stricter regulations on renewable energy	Medium-term	Purchases of National Renewable Energy Certification increase the costs. Violations of laws and regulations result in penalties.	
	Net zero trend	Long-term	Installation and operation of carbon reduction facilities increase the costs.	<ul style="list-style-type: none"> Continue to execute GHG reduction measures.
Physical Risk	Increasing severity of extreme weather events, such as typhoons and floods	Short-term	Plant shutdown leads to decreased revenue. Damage to machinery and equipment results in property loss.	<ul style="list-style-type: none"> Formulate natural disasters contingency measures and water rationing contingency plans. Evaluate the risk of natural disasters at the plants, and develop and implement risk mitigation measures.
	Drought	Medium-term		
	Rising average temperature	Long-term	Increasing power consumption leads to increased operating expenses.	<ul style="list-style-type: none"> Acquire energy-saving equipment. Install energy management systems to track energy consumption.
Opportunity	Reduce water consumption	Short-term	Reducing the water conservation charge imposed by the government, thereby lowering operating costs. Saving water to reduce costs.	<ul style="list-style-type: none"> Increase the use of reclaimed water. Introduce water-saving management measures as well as technology for recycling process water.
	Improve resource efficiency	Medium-term	Saving electricity to reduce costs. Reducing consumption from the source to lower costs.	<ul style="list-style-type: none"> Acquire energy-saving equipment. Track energy consumption through energy management systems. Reduce the generation of scrap and waste through process improvement.
	Enhance corporate reputation	Long-term	Increase the availability of fund raising and reduce the cost of capital.	<ul style="list-style-type: none"> Strengthen corporate governance; and identify and implement climate-related issues concerned by the Company. Improve sustainability ratings to build a positive image.



Climate Scenario Analysis

Based on TCFD recommendations, the Company uses scenario analysis of both transition and physical risks, as well as climate opportunities, to assess the resilience of its climate strategy under the most severe scenarios.

Type	Reference	Details
Transition Risk	The assessments and reports on climate emission pathways by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA).	Evaluate the potential operational impact of carbon-related expenses based on carbon pricing trends corresponding to temperature increases kept below 1.5°C, 1.8°C, and 3°C, respectively.
Physical Risk	The Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP) conducts projections based on the RCP8.5 ^{Note} scenario.	If temperature control is not effectively achieved, evaluate the operational impact of extreme weather conditions in a worst-case warming scenario.

Note: Under a scenario of extremely high GHG emissions (RCP8.5), climate change would exacerbate changes in the average temperature, extreme high temperatures, total annual precipitation, the annual maximum 1-day intensity of heavy precipitation, the annual maximum number of consecutive dry days, and the proportion of strong typhoons in the future.

Scenario Analysis	Financial Planning Impact
High Emission Scenario with Temperature Rise of More than 3°C <ul style="list-style-type: none"> No additional carbon reduction actions beyond current national policies International Carbon Price^{Note}: US\$2.63 per metric ton 	Increase in operating costs accounts for 0.02% of annual revenue.
Medium Emission Scenario with Temperature Rise of More than 1.8°C <ul style="list-style-type: none"> No active low-carbon transition actions by countries before 2030, but still aiming for a temperature rise of less than 2°C International Carbon Price^{Note}: US\$231.86 per metric ton 	Increase in operating costs accounts for 1.71% of annual revenue.
Low Emission Scenario with Temperature Rise of More than 1.5°C <ul style="list-style-type: none"> Achieving net-zero emissions globally by 2050 International Carbon Price^{Note}: US\$268.12 per metric ton 	Increase in operating costs accounts for 1.98% of annual revenue.

Note: The carbon price is based on the scenario parameters published by the NGFS and adopts the carbon price for 2035 globally as assumed in the REMIND-MAgPIE 2.1-4.2 model.

CWTC conducts a physical risk scenario analysis of its operations to understand the impact of climate-related risks on its business, strategy, and financial planning under the RCP8.5 scenario. The Company's main processes include etching and plating production lines, making water resources an essential factor. It was determined that the Taiwan plant is not affected by water resource constraints, resulting in no significant impact on the estimated financial loss.



Risk Management

In 2023, CWTC established a “Risk Management Policy” to integrate climate-related risk management processes into its enterprise risk management processes. The results and experiences of this ongoing work are regularly reported to the Board of Directors by the responsible units. The Audit Committee periodically reviews reports from the Chief Internal Auditor regarding the design and effectiveness of internal controls related to climate-related risks, as well as any audit findings.

Plan / Do

Step 1 Collection of data Period: 2023/1/1~2023/12/31
Step 2 Assessment scope Boundaries : Taiwna plant
Step 3 Analysis of impact Hold an annual meeting to discuss and identify climate change risks and opportunities

Identify the prioritization of risks and opportunities based on the severity of impact and the possibility of occurrence.

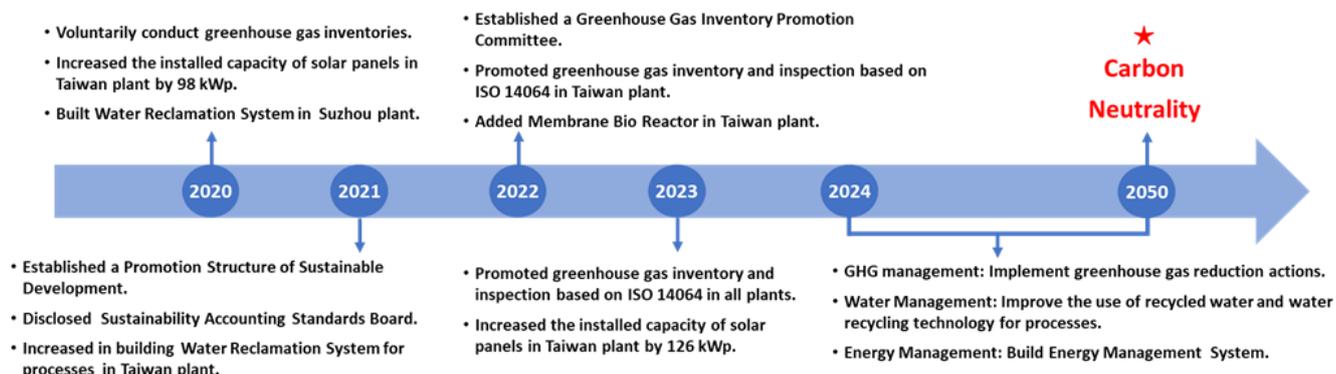
Check / Action

Step 4 Goal setting CWTC takes 2023 as the base year to set an absolute GHG emission reduction targets.
Step 5 Control Measures Select response strategies to achieve the 2050 carbon neutrality goal.
Step 6 Review and Optimization Hold review meetings every six months.

Metrics and Targets

The Company annually inventories its GHG emissions and verifies the accuracy of these emissions through third-party impartial agencies. The revised "Climate Change Response Act" of 2023 stipulates that net zero GHG emissions must be achieved by 2050. It also requires a science-based approach to assess climate risks, strengthen governance capabilities, and enhance resilience.

To align with the policy, the Company will adopt a gradual carbon reduction approach, supported by the Science-Based Targets initiative (SBTi). Using the 2023 GHG emissions from our Taiwan plant (26,662 metric tons) as the base year, we have established short-term, medium-term, and long-term absolute GHG reduction targets. Specifically, we aim to reduce emissions to 21,330 metric tons by 2028 (short-term), achieve a 40% reduction from the base year by 2033 (medium-term), and reach carbon neutrality by 2050 (long-term).





3.3 Energy Management

To respond to the challenges of global energy shortages and climate change, we consolidate energy-saving proposals from all units to set relevant targets and action plans each year and periodically monitors and controls performance. Additionally, we promote production machinery assessments to drive energy efficiency improvements in plant facilities.

Based on our energy-saving plan submitted to the Bureau of Energy, Ministry of Economic Affairs, the average energy-saving rate approved for our Taiwan Plant 2 was 2.97% in 2023. In line with the government’s promotion of renewable energy, we increased the installed capacity of solar panels at our Taiwan plant in 2020, reaching a cumulative capacity of 107 kWp by 2023, generating 119,877 kWh. Our new Taiwan plant, scheduled to commence production in 2024, will add an additional installed capacity of 126 kWp, bringing our total solar panel capacity to 233 kWp.

Energy Consumption

Unit: GJ

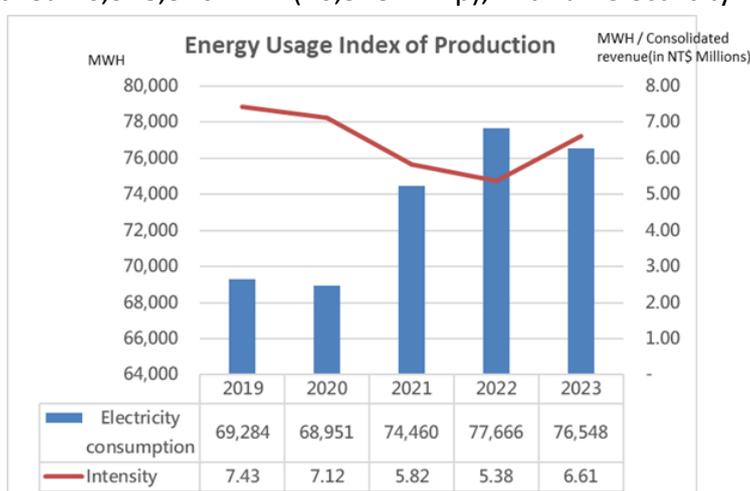
Item		The statistics covers our plants in Taiwan, China and Malaysia			
		2020	2021	2022	2023
Direct Energy	Diesel fuel	251	276	1,174	365
	Gasoline	733	361	500	486
	Natural gas	18,463	22,115	22,673	17,110
Indirect Energy	Purchased electricity	248,225	268,055	279,597	275,574
	Renewable energy	23,977	26,662	20,884	17,287
Total		291,649	317,469	324,828	310,822

Note 1: Conversions are based on the “Heat Content of Energy Products” of the Ministry of Economic Affairs.

Note 2: Renewable energy mainly includes solar energy and non-pumped storage hydroelectric power. Solar energy is estimated annually based on the daily generation in GJ of the installed capacity. Non-pumped storage is estimated based on the actual electricity consumption in the locality, with proportions determined for wet, normal, and dry periods.

Electricity Usage of Production

In 2023, the total electricity consumption reached 76,548,376 kWh (76,548 MWh), with an electricity intensity of 6.61. The largest source of electricity consumption was process power, accounting for 55% of the total, followed by air conditioning, which accounted for 26% of the total electricity consumption. Although the total electricity consumption in 2023 decreased compared to 2022, the intensity increased, mainly due to the testing requirements of a new plant in Taiwan. Going forward, we will continue to focus on energy efficiency, renewable energy use, and alternative energy planning and execution.





Energy-saving Measures

To effectively lower energy consumption and GHG emissions, we actively promote various energy-saving measures. The focus is on improving the energy efficiency of plant facilities and production equipment, optimizing operational efficiency by adjusting production equipment parameters, and replacing traditional lighting with energy-efficient alternatives. We aim to achieve our environmental and energy-saving goals through initiatives across its plants. Additionally, we raise energy-saving awareness by encouraging employees to turn off lights when not in use and shut down computers after work. We also promote the widespread use of energy-efficient lighting and installs motion-sensor switches in areas with intermittent lighting needs to reduce energy waste by changing daily habits.

Energy-saving Measures and Performance of Each Plant in 2023

Plant	Measures and Performance
Taiwan Plant 1	Chiller replacement achieved annual energy savings of 416,976 kWh (equivalent to 1,501 GJ).
Taiwan Plant 2	Air compressor replacement achieved annual energy savings of 719,268 kWh (equivalent to 2,589 GJ).
Suzhou Plant	Adjusting the frequency of the air conditioning fans, turning off the humidifier outside of winter, and shutting down power-consuming equipment during holidays achieves annual energy savings of 3,278 MWh (equivalent to 11,801 GJ).
Malaysia Plant	Replacing traditional fluorescent lamps with LED lamps, installing solar streetlights, and replacing turbo air compressors achieved annual energy savings of 1,083,660 kWh (equivalent to 3,901 GJ).
Total	19,792GJ

Key Points of Energy-saving Programs

Programs	Taiwan Plant	China Plant	Overseas Plant
Parameter setting	★	★	★
Production process integration	★	-	★
Equipment process integration	★	★	-
Energy-saving of facilities	★	★	★

Progressive Energy-saving Plans

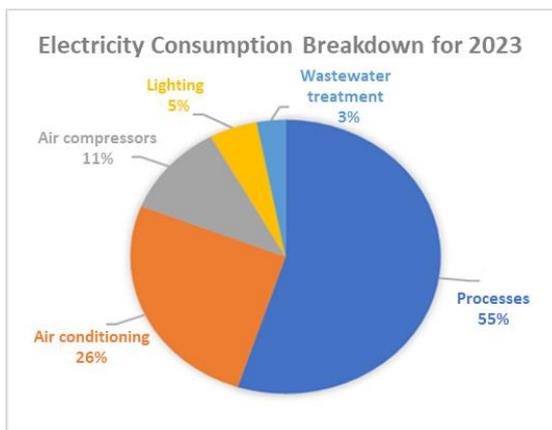
Stage	Measures
Short-term	<ul style="list-style-type: none"> Convert existing air conditioners to a central air conditioning system. Replace all lighting in the plant with LED lights. Install sensor-activated LED floodlights around the plant. Use sensor-activated landscape ground lights for sidewalks. Prioritize purchasing high-energy-efficiency equipment and those rated with energy-saving level 1. Replace old power-consuming equipment, such as air compressors and chillers, with high-energy-efficiency alternatives, and manage them through a central monitoring system. Increase the air conditioning temperature when equipment is shut down. Shut down power-consuming facility equipment during holidays.
Medium- and Long-term	<ul style="list-style-type: none"> Install a central monitoring system to control the energy consumption of utility equipment. Continuously adopt the latest energy-saving technologies to improve the efficiency of processes and utility equipment.



GHG Emissions Management

To fulfill our social responsibility, we voluntarily conduct an annual self-assessment and disclosure of our GHG emissions. To meet our own targets, we adopted ISO14064-1:2018 for our 2022 GHG inventory of Taiwan plant as a demonstration. GHG data were consolidated using the operational control approach and verified by a third-party assurance agency. In 2023, all subsidiaries completed the external assurance of their GHG inventories, and we have completed the external assurance of the Group's GHG inventory.

As purchased electricity is the main source of GHG emissions, we analyze the electricity consumption of our plant equipment and strive to reduce energy loss and improve energy efficiency. Power for processes accounts for 55% of our electricity consumption, making it the largest source of energy use, followed by air conditioners, air compressors, lighting and wastewater treatment facilities.

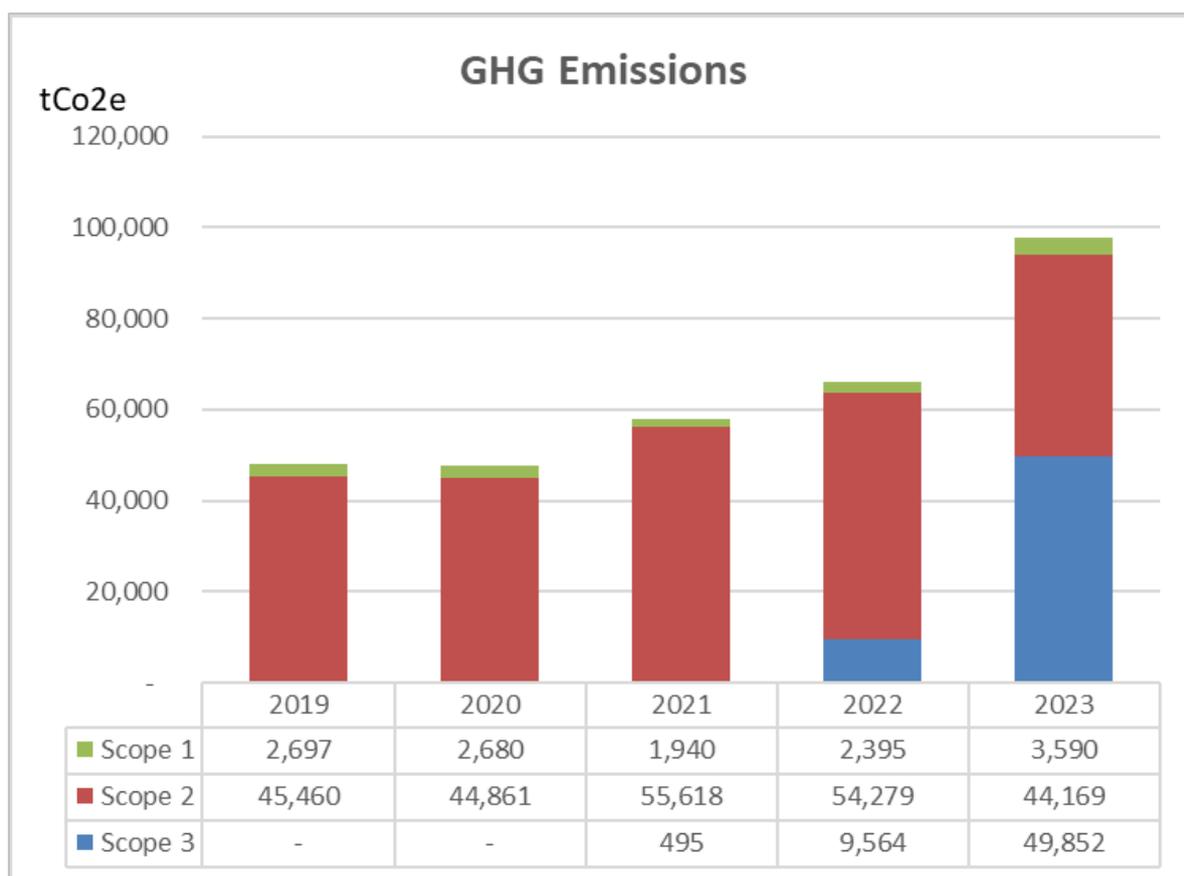


GHG Emissions over the Years

We adopted external inventory under ISO14064-1:2018 for the first time at our Taiwan plant in 2022, while other sites implemented it in 2023. The Taiwan plant calculated its GHG emissions using the "EPA GHG Emissions Factor Management Table (v. 6.0.4)," published by Taiwan's Ministry of Environment. For China, emissions were calculated using the "2006 IPCC Guidelines for National Greenhouse Gas Inventories," the "China Products Carbon Footprint Factors Database," the "2022 National Grid Emission Factor" issued by the Ministry of Ecology and Environment of the PRC, the "China Products Carbon Footprint Factors Database (2022)," the "ecoinvent database," and the "2023 GHG Emission Factors Hub." For Malaysia, emissions were calculated using the "Greenhouse Gas Reporting: Conversion Factors 2023," published by the UK Department for Environment, Food and Rural Affairs (Defra), and the grid emission factors published by the Malaysian Energy Commission. For Singapore, emissions were calculated using the grid emission factors published by the Singapore Energy Market Authority. The global warming potential (GWP) for the Group was calculated using the "IPCC AR-6."

<p>Category 1 Direct GHG emissions Scope 1</p>	<ul style="list-style-type: none"> • Mobile combustion: Corporate cars and forklifts- CO₂、CH₄、N₂O • Stationary combustion: Emergency generators and analytical instruments for laboratory- CO₂、CH₄、N₂O • Fugitive emission: Septic tanks, air-cooling facilities and fire-fighting facilities- CH₄、HFC_s
<p>Category 2 Indirect GHG emissions Scope 2</p>	<ul style="list-style-type: none"> • Imported electricity emissions (purchased electricity)- CO₂
<p>Category 3~6 Other indirect GHG emissions Scope 3^{Note}</p>	<ul style="list-style-type: none"> • Upstream transportation and distribution, employee commuting and business travel • Purchase of goods • Disposal of waste from operation • Fuel and energy-related activities (excluding categories 1 and 2)

Note: The calculation is based on the results of material identification conducted by the plants individually.



Note 1: For Scope 3 emissions, some overseas plants started tracking in 2021, the Taiwan plant started in 2022, and all others began in 2023.

Note 2: The 2023 data includes all consolidated entities, while the other data only covers the Taiwan, China, and Malaysia plants.

Note 3: The GHGs included in the inventory are CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ for the Malaysia plant; for all others, the gases are CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃.

GHG Emission Intensity (Scope 1 + Scope 2)

Item	2019	2020	2021	2022	2023
Total GHG emissions (tCO ₂ e)	48,157	47,541	57,558	56,674	47,759
Intensity (tCo2e / Consolidated revenue in millions of NT\$)	5.167	4.912	4.500	3.927	4.124



3.4 Water Resources Management

CWTC primarily uses tap water for wet processing (plating), cleaning and environmental protection purposes. The water sources for each plant are from surface water supplied by third parties, with all sources being freshwater ($\leq 1,000$ mg/L total dissolved solids). The water supply for the Taiwan plants comes from the Taiwan Water Corporation, specifically the Gaoping River Weir, Nanhua Interconnecting Pipeline, and Fengshan Reservoir; the plants in China receive water from the Minjiang River and Taihu Lake, while the overseas plants source water from the Selangor River. None of these raw water sources are classified as national or international nature reserves, nor do they come from sensitive water bodies. Additionally, based on the AQUEDUCT WATER RISK ATLAS, the water risk assessment for each plant indicates that the plants in China are rated as "High-Medium risk (3-4)" due to water stress, while all other locations are classified as "Low-Medium risk (1-2)" and are not considered water-stressed areas.

The total water withdrawal in 2023 continued to show a downward trend compared to the previous year, amounting to 1,136 million liters in 2023, a decrease of 187 million liters compared to 2022.

Use of Regional Water Resources

Region		Taiwan	China		Overseas
		Taiwan Plant	Chengdu Plant	Suzhou Plant	Malaysia Plant
Water Sources	Tap water	Gaoping-River Weir, Nanhua Interconnecting Pipeline and Fengshan Reservoir	Minjiang River	Taihu Lake	Selangor River
	Groundwater and others	Groundwater	None	None	None
Water supply (10 thousand metric tons/day)		158.7	60	45	49.6
Water withdrawal (10 thousand metric tons/day)		0.11	0.06	0.1	0.09
Use of regional water (%)		0.07	0.1	0.2	0.18

Note: Water supply is derived from data on the websites of the Water Resources Agency and the local water companies.

The Use of Water Resources and Performance Management

CWTC uses tap water mostly for wet processing (plating), cleaning and environmental protection purposes. Water consumption by site for 2023 is detailed in the table below. In the face of global climate changes in recent years, we continuously monitor our water consumption and proactively promote plant-wide water-saving measures to ensure there is no immediate water scarcity issue arising from a lack of water resources. Since 2021, our Taiwan plants have begun installing systems for process water recycling. The systems treat and filter rinsing water with high acid concentration for reuse instead of releasing it directly from the wastewater treatment plant as was our previous practice, thereby increasing the reuse rate of process wastewater. There are also other water-saving measures in place to lower our water consumption.



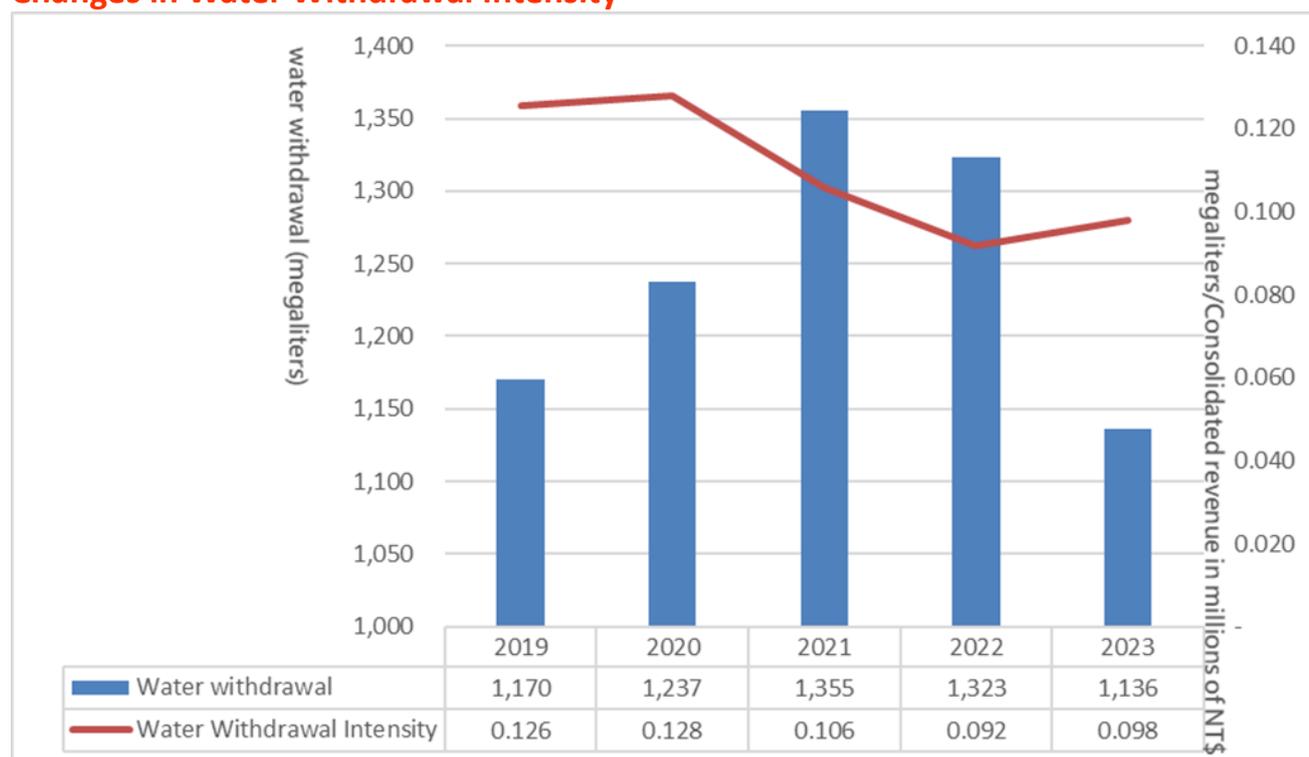
Use of Water Resources and Management

Unit: megaliters

Plant	Item	2019	2020	2021	2022	2023
Taiwan Plant	Water withdrawal (A)	278	306	388	417	396
	Water recycled (B)	36	48	70	96	131
	Total consumption (C=A+B)	314	354	458	513	527
	Water recycled / Total consumption (%) = (B/C)	11.46	13.56	15.28	18.71	24.86
	Water recycled / Water withdrawal (%) = (B/A)	12.95	15.69	18.04	23.02	33.08
	Water discharge (D)	261	294	370	379	364
	Water consumption	53	60	88	134	163
China Plant	Water withdrawal (A)	604	629	640	585	475
	Water recycled (B)	1	27	98	141	133
	Total consumption (C=A+B)	605	656	738	726	608
	Water recycled / Total consumption (%) = (B/C)	0.17	4.12	13.28	19.42	21.88
	Water recycled / Water withdrawal (%) = (B/A)	0.17	4.29	15.31	24.10	28.00
	Water discharge (D)	475	472	527	475	400
	Water consumption	130	184	211	251	208
Overseas Plant	Water withdrawal (A)	288	302	324	321	265
	Water recycled (B)	0	0	0	0	0
	Total consumption (C=A+B)	288	302	324	321	265
	Water recycled / Total consumption (%) = (B/C)	0.00	0.00	0.00	0.00	0.00
	Water recycled / Water withdrawal (%) = (B/A)	0.00	0.00	0.00	0.00	0.00
	Water discharge (D)	216	245	267	266	203
	Water consumption	72	57	57	55	62
Total	Water withdrawal (A)	1,170	1,237	1,352	1,323	1,136
	Water recycled (B)	37	75	168	237	264
	Total consumption (C=A+B)	1,207	1,312	1,520	1,560	1,400
	Water recycled / Total consumption (%) = (B/C)	3.07	5.72	11.05	15.19	18.86
	Water recycled / Water withdrawal (%) = (B/A)	3.16	6.06	12.43	17.91	23.24
	Water discharge (D)	952	1,011	1,164	1,120	967
	Water consumption	255	301	356	440	433



Changes in Water Withdrawal Intensity



Water Withdrawal and Consumption

Unit: megaliters

Year			2022		2023	
Item			All plants	Areas with Water Stress	All plants	Areas with Water Stress
Water withdrawal by sources	Third-party water	Freshwater				
		Surface water	1,323	383	1,136	322
		Groundwater	0	0	0	0
		Seawater	0	0	0	0
	Produced water	0	0	0	0	
Total water withdrawal			1,323	383	1,136	322
Water discharge by destination	Total water consumption		440	233	433	197

Note 1: The Company's water withdrawal sources exclude surface water, groundwater, seawater and produced water.

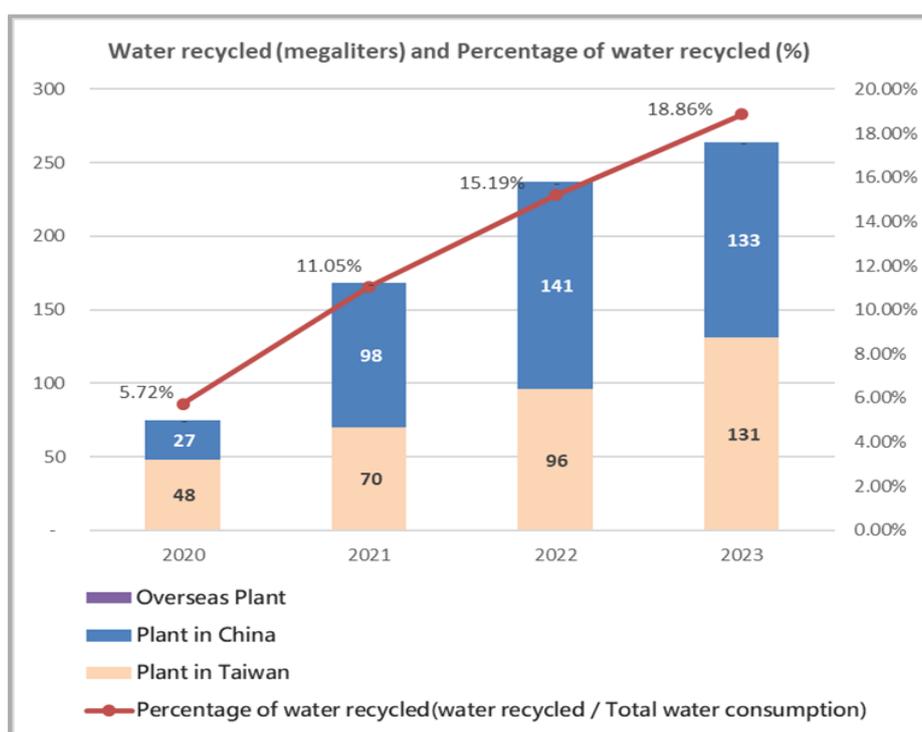
Note 2: For areas with water stress, please refer to the Aqueduct Water Risk Atlas.



Water Conservation Measures within the Plants

■ Water Reclamation System - Recycling and Reuse of Process Water

In 2021, the Taiwan plants installed recycling systems where process water is recycled for reuse through ultrafiltration (UF) and reverse osmosis (RO) processes. In 2022, we adopted membrane bioreactors (MBR) devices to replace the UF system. The enlarged membrane pore size increased fluxes and improved the fouling issue, enhancing the efficiency of the water recycling system. At the same time, the switch reduced the frequency of backflushing and chemical cleaning and consequently the consumption of recycled water. Additionally, the less frequent replacement of filter bags led to waste reductions. In 2022, the combination of MBR and RO processes increased the average daily volume of recycled water to the industrial tanks by 80 metric tons, improving the water recycling rate by 5.1% compared to 2021. In 2023, the combination of MBR and RO processes increased the average daily volume of recycled water to the industrial tanks by 170 metric tons, raising the water recycling rate by 12.9% compared to 2022. We plan to install a second MBR system in 2024, which is expected to add an additional 100 metric tons of recycled water per day.



■ Pure Water Recycling System - Recycling and Reuse of Pure Water

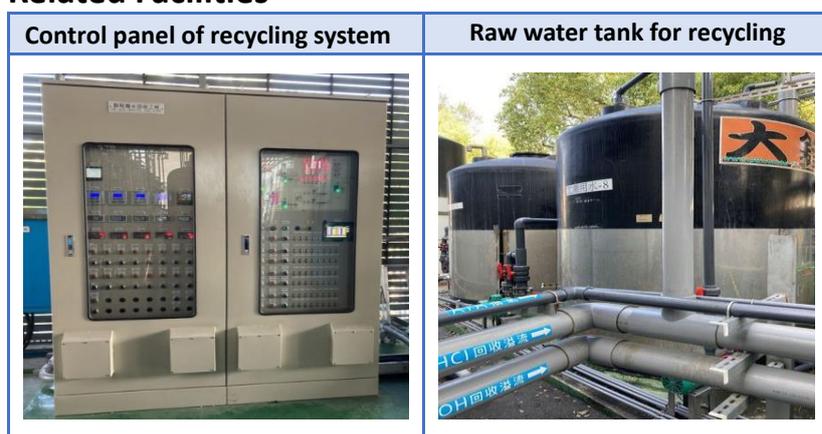
The Taiwan plants expanded their process water recycling system in 2021 by adding a pure water recovery system. The concentrated water produced by the RO pure water system is further treated through a secondary reverse osmosis (RRO) for reuse in the manufacturing process. Due to the 2B3T pretreatment design of the RO pure water system, the quality of the concentrated water from the secondary RRO system is even better than tap water, enabling its recycling and reuse in the industrial water pool. In 2023, the total amount of recycled pure water used in the manufacturing processes at the Taiwan plants reached 66,871 tons, accounting for 13.8% of the total water consumption, which is similar to the 66,767 tons recycled in 2022.

■ Water-saving Design of Machinery and Equipment

Electroplating equipment adopts the counter-current rinsing design where the rinse water is circulated through three washing tanks, achieving water conservation.



Related Facilities



Waste Water Discharge and Water Quality Monitoring and Control

CWTC conducts regular annual sampling and testing of various parameters in the effluents to ensure that wastewater generated from the manufacturing processes fully complies with the current environmental laws and regulations and the standards of the industrial park management, thereby minimizing environmental pollution impact. We are proactively reviewing and improving the wastewater pollution control systems at our plants. In 2023, the test results of effluents discharged from all plants remained in compliance with the regulatory standards^{Note} approved in their respective locations.

Note: The Taiwan plants adhere to the “Standards for Wastewater Discharge into Sewerage Systems of Nanzih Technology Industrial Park, Kaohsiung.” The China plants comply with the “Integrated Wastewater Discharge Standard,” the “Water Quality Standards for Discharge to Municipal Sewers,” and the “Discharge Standards of Pollutants for Electroplating.” The overseas plants follow Malaysia’s “Environmental Quality Act 1974.”

Discharge

		Unit: megaliters			
Year		2022		2023	
Item		All plants	Areas with Water Stress	All plants	Areas with Water Stress
By destinations	A Surface water	266	0	203	0
	B Groundwater	0	0	0	0
	C Seawater	0	0	0	0
	D Third-party water (total)	854	283	764	250
	E Third-party water sent for use to other organizations	0	0	0	0
Total water discharge	F=A+B+C+D+E	1,120	283	967	250
Freshwater		0	0	0	0
Others		1,120	283	967	250



3.5 Waste Management

With the philosophy of “contributing to the community” and recognizing “the finite nature of Earth's resources” and “the importance of environmental protection,” CWTC is committed to environmental protection in all aspects including business operations, products and services.

1. Adopt low-pollution raw materials and clean production methods; commit to environmental protection and reduce the environmental impact of our product supply chain.
2. Comply with relevant environmental laws and regulations and fulfill the environmental responsibilities of all entities within the CWTC Group.
3. Continuously improve and enhance environmental performance through environmental target setting, regular audits, and management reviews.
4. Adopt appropriate risk control techniques to effectively reduce the risk of hazards to stakeholders, and continuously strengthen relationships with contractors and suppliers.
5. Protect natural resources through programs for efficient use and waste reduction.
6. Reduce and prevent the environmental impact of harmful substances to protect our employees and the environment.
7. Improve production quality to reduce waste.

Waste Management

Waste generated by the Company can be categorized into two major types: “non-hazardous industrial waste” and “hazardous industrial waste,” which are further classified into recyclable and non-recyclable waste based on disposal methods. In addition to implementing waste sorting, the Company complies with local regulations for waste reporting, sorting, and storage, and engages qualified vendors to assist in the removal, disposal, and recycling of waste. We ensure that our waste is properly handled through regular vendor reviews and audits. For example, Taiwan Plant No. 2 manages industrial waste online through the "Three-Party Waste Disposal Control and Delivery Form." It also formulates an audit plan for waste clearance and disposal organizations by dispatching personnel to conduct on-site inspections of their management practices, with the audit results recorded in an inspection log. If any irregularities are detected during inspections, the company will notify the contractor to make improvements and schedule a follow-up audit to ensure that the waste is managed in compliance with regulations.

Taiwan Plant No. 2 has been recognized for its excellence in recycling for two consecutive years (2021-2022). The Company will continue to focus on waste reduction at the source, recycling, and reuse as management objectives to minimize waste generation, aiming to reduce operating costs and environmental impact.

Waste Treatment Methods and Types for Taiwan Plant in 2023

Unit: metric tons

Category	Treatment Method	Disposal	Type	Weight
Non-hazardous industrial waste	Reuse and recycling	Off-site	Scraps, waste steel belt, resin, waste lubricant, waste wood	2,172.97
	Incineration	Off-site	Household waste, waste dry film, waste plastic mixtures	205.66
	Physico-chemical treatments	Off-site	Waste electronics components, scraps and defectives	2.26
	Biological processing	Off-site	Waste such as night soil or excrements	45.03

(Continued)



Unit: metric tons

Category	Treatment Method	Disposal	Type	Weight
Hazardous industrial waste	Reuse	Off-site	Sludge, Waste filter cores, filter bags, chemical waste containers, waste glass containers, iron drums	608.55
	Incineration	Off-site	Waste solutions, acetone, empty drums (plastic bags)	0.33
	Physical treatment	Off-site	Waste solutions	72.51

(Concluded)

Statistics of Waste Volume

Unit: metric ton

Category	Treatment Method	2020		2021		2022		2023	
		Weight	%	Weight	%	Weight	%	Weight	%
Non-hazardous industrial waste	Recyclable	242	1	1,673	8	1,589	8	2,341	14
	Non-recyclable	6,922	40	5,379	26	5,841	29	4,408	27
Hazardous industrial waste	Recyclable	8,635	50	11,787	57	11,342	56	8,617	53
	Non-recyclable	1,601	9	1,853	9	1,332	7	1,047	6
Total		17,400	100	20,692	100	20,104	100	16,413	100
Waste intensity		0.0018		0.0016		0.0014		0.0014	

Note: Waste intensity = Waste generated / Consolidated revenue in thousands of NT\$

Case of Circular Economy - Recycling of precious metal including silver, gold and palladium from waste produced during the manufacturing process

To promote a sustainable environment, CWTC has introduced precious metal recycling technology and established an in-house treatment system to reduce waste emissions. Our main recycling technologies are described as follows:

• Recycling and refinement of waste filter cores (bags) and silver soil into raw materials



STEP 1: Silver stripping tanks

STEP 2: Revive silver stripping plates

STEP 3: Silver stripping tanks for plates

STEP 4: Precipitation of silver on cathode plates

STEP 5: Scrapping of silver precipitated on the cathode plants for collection

STEP 6: Filter bags for silver stripping plates

STEP 7: Packaging and shipment of silver/filter bags for refinement

STEP 8: Made into raw materials (e.g., silver plates) by processors for reuse



• **Electrolytic recovery and refinement of waste solutions containing silver into rawmaterials**



STEP 1: Silver recovery tank

STEP 2: Drums for waste solutions containing silver

STEP 3: Electrolytic recovery equipment

STEP 4: Dry storage for plated silver

STEP 5: Stripping of silver from drums

STEP 6: Packaging and shipment of electrolytic silver

STEP 7: Made into raw materials (e.g., potassium silver cyanide) by processors for reuse

- Set up resin towers to recover rinsing water with low concentration of gold and palladium and collect waste solutions with high concentration from plating tanks for outsourced treatment and recycling

Resin tower for gold



Resin tower for palladium



Drums for waste gold/palladium solutions





3.6 Biodiversity Commitment

To respond to international concerns regarding biodiversity and forestry conservation, we have declared our "CWTC Group Biodiversity and Zero Deforestation Commitment." Through the oversight and promotion of corporate sustainability governance, we demonstrate our determination to conserve ecological environments and actively respond to the challenges posed by climate change. All of our plants are located within industrial parks and are not situated in areas designated as important for global or national biodiversity.

CWTC Group Biodiversity and Zero-Deforestation Commitment

- Avoid constructing manufacturing facilities or engaging operations adjacent to globally or nationally protected biodiversity areas.
- The Company is committed to biodiversity conservation with the goal of Net Positive Impact on the environment and ecology.
- Comply with the international or local forestry laws or specific regulations, ensuring that our products and services meet the principle of Zero Net Deforestation.
- Respond to the United Nations Convention on Biological Diversity (CBD) and the initiative to preserve biodiversity.
- Conduct regular ecological surveys and impact assessments at business operation sites.
- Collaborate with external partners to fulfill this commitment.





4. Growth and Common Prosperity

4.1 Human Rights Policy

Human Rights Commitments

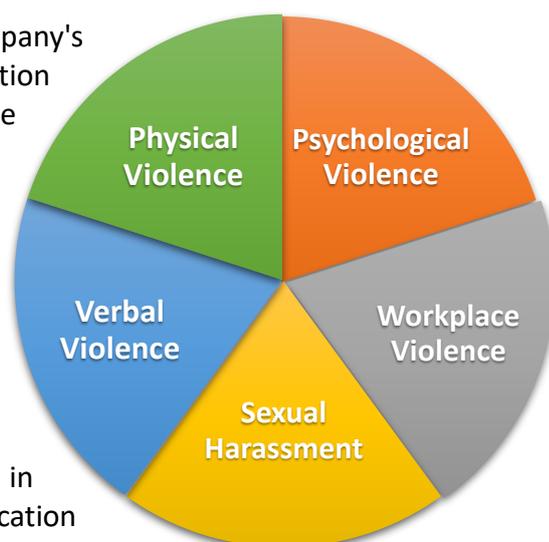
CWTC strictly complies with labor-related laws and regulations in the countries where it operates, protects the legal rights and interests of employees, and adheres to the spirit and basic principles of human rights protection outlined in the “United Nations Global Compact”, the “United Nations Universal Declaration of Human Rights”, the “ILO Declaration on Fundamental Principles and Rights at Work” and other international human rights conventions. We treat all employees with dignity and respect.



Workers' Rights

To ensure that employees fully understand the Company's commitment to human rights protection, as well as the prevention of workplace violence and sexual harassment, we have made the "Human Rights Policy," "Corporate Social Responsibility Policy," and "Written Statement Prohibiting Workplace Violence" mandatory courses for new employees and part of the annual training. We have also established a formal grievance channel, managed confidentially by designated personnel, to address various workplace issues, including safety and health, gender equality, and workplace violence, ensuring a safe and healthy working environment for all employees.

CWTC has established a labor-management committee in accordance with the law to facilitate effective communication between the Company and its employees, aiming to build a positive labor-management relationship. The committee meets at least quarterly, and in addition to handling labor-management matters submitted by various departments, it solicits employee proposals through representatives from both sides to ensure that employee opinions and needs are thoroughly considered. In 2023, there were no labor disputes.





Reporting Process for Unlawful Infringement at Workplace

In-charge Department / Personnel	Description	Management Process
Employees Departments	<ul style="list-style-type: none"> Informed by employees on their own initiative. Reported, complained or raised by others. 	<pre> graph TD A[Reporting of suspected unlawful infringement at workplace] --> B[1. Receive the reporting or complaint 2. Assist with handling the matter simultaneously] B --> C{Is it an unlawful infringement at workplace?} C -- No --> H[Case Closed] C -- YES --> D[Whether it is an internal or external infringement?] D --> E[1. Coordinate the handling of incidents 2. Follow-up] E --> F[Review, improvement and preventive measures] F --> H G[Internal violence Intervention by the HR unit or department supervisor.] --- D I[External violence Contact the local police authorities or relevant supervisory agencies.] --- D </pre>
Administration Dept.	<ul style="list-style-type: none"> Interview, hazard identification and risk assessment by occupational safety personnel, nurses, human resources unit, and the employees involved (and other relevant and appropriate personnel). For internal incident, labor representatives shall be involved in the investigation. For external incident, the local police or relevant authorities shall be contacted. 	
Employees Administration Dept. Human Resources Unit Department Supervisors	<ul style="list-style-type: none"> Employer may make timely referrals or arrangements for consultation, counseling, leave of absence, or flexible adjustments of work duties, working hours, etc. Medical resources may be employed, such as follow-up by healthcare professionals or appropriate personnel, or referrals to local occupational disease and injury prevention centers. Implement internal disciplinary procedures when needed. Assist with subsequent legal actions when needed. Timely work adjustment for the two parties involved when needed. 	
Administration Dept. Department Supervisors Human Resources Unit	<ul style="list-style-type: none"> The in-charge departments shall properly retain relevant records of their respective departments. 	



4.2 Talent Attraction and Retention

Employees Structure

We view employees as our most valuable asset and incorporates this perspective into our recruitment, compensation design, performance management, and training policies and systems, with a focus on enhancing both company growth and employee effectiveness. We prioritize hiring local talent as partners, believing that mutual success with employees is key to the Company's sustainable development and enables employees to enjoy their work and harness collective strength.

The CWTC Group complies with regulations set by the International Labour Organization and local labor standards, ensuring that no child labor is employed and that no individuals are forced or coerced into performing labor.

In line with the fundamental human right to equal employment opportunities, we base hiring decisions solely on professional abilities and job fit, without consideration of race, ideology, religion, political affiliation, nationality, gender, marital status, or disability. The CWTC Group also adheres to relevant regulations regarding the promotion of persons with disabilities and assigns suitable job roles based on their capabilities.

As of the end of December 2023, the CWTC Group employed a total of 2,130 staff (96.82%), with 70 workers (3.18%) hired through external contractors for tasks such as site cleaning and security. Among the total employees, 61% are male and 39% are female, with the majority (68%) aged between 30 and 50. There were 331 resignations, a slight decrease from 2022. The number of employees with disabilities is 11, and the number of minority group members is 6, representing approximately 0.52% and 0.28%, respectively. In the event of significant operational changes, we will provide notice in accordance with local labor laws (10-30 days in Taiwan, within 30 days in Mainland China, 1-4 weeks in Singapore, and 4-8 weeks in Malaysia).

Workforce Structure by Region

Region	2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female
Taiwan	373	241	434	312	525	514	514	357
China	477	296	475	309	467	446	446	303
Overseas	349	191	353	183	360	341	342	168
Total by genders	1,199	728	1,262	804	1,352	1,301	1,302	828
Total	1,927		2,066		2,202		2,130	
Percentage	62%	38%	61%	39%	61%	39%	61%	39%



Composition of Employees Classified by Employment Contract

Type	Item		2020		2021		2022		2023	
	Category	Gender / Workplace location	No. of Employees	%						
Recruited	Regular employees	Male	1,093	56.72	1,170	56.63	1,262	57.31	1,213	56.95
		Female	638	33.11	727	35.19	771	35.01	753	35.35
	Temporary employees	Male	105	5.45	92	4.45	90	4.09	89	4.18
		Female	91	4.72	77	3.73	79	3.59	75	3.52
	Regular employees	Taiwan	616	31.97	744	36.01	886	40.24	871	40.89
		China	744	38.61	775	37.51	761	34.56	722	33.90
		Overseas	371	19.25	378	18.30	386	17.53	373	17.51
	Temporary employees	Taiwan	-	-	-	-	-	-	-	-
		China	33	1.71	11	0.53	7	0.32	27	1.27
Overseas		163	8.46	158	7.65	162	7.35	137	6.43	
Contracted	Full-time employees	Male	1,199	62.22	1,262	61.08	1,352	61.40	1,302	61.13
		Female	728	37.78	804	38.92	850	38.60	828	38.87
	Part-time employees	Male	-	-	-	-	-	-	-	-
		Female	-	-	-	-	-	-	-	-
	Full-time employees	Taiwan	616	31.97	744	36.01	886	40.24	871	40.89
		China	777	40.32	786	38.04	768	34.88	749	35.17
		Overseas	534	27.71	536	25.95	548	24.88	510	23.94
	Part-time employees	Taiwan	-	-	-	-	-	-	-	-
		China	-	-	-	-	-	-	-	-
Overseas		-	-	-	-	-	-	-	-	

Diversity Performance in 2023

Type	Category	Male	%	Female	%	Total	%
Nationality	Migrant workers ^{Note}	146	6.86	62	2.91	208	9.77
	Local workers	1,156	54.27	766	35.96	1,922	90.23
Age	< 30	298	13.99	174	8.17	472	22.16
	30 - 50	857	40.23	593	27.84	1,450	68.07
	> 50	147	6.90	61	2.87	208	9.77
Ranking	Management level	396	18.59	179	8.40	575	27.00
	Non-management level	906	42.54	649	30.47	1,555	73.00
Function	Sales	20	0.94	22	1.03	42	1.97
	Manufacturing	1,087	51.03	622	29.20	1,709	80.24
	R&D	117	5.50	73	3.43	190	8.92
	Administration and others	78	3.66	111	5.21	189	8.87
Education	Masters	37	1.74	18	0.85	55	2.58
	Junior College / Bachelor	474	22.25	313	14.69	787	36.95
	Senior high school and below	791	37.14	497	23.33	1,288	60.47

Note: Migrant workers are categorized based on their respective nationalities relative to their workplace location.



Statistics of New Employee Hires

Type	Category	2020			2021			2022			2023		
		New Recruits	Total Employees	% Note	New Recruits	Total Employees	% Note	New Recruits	Total Employees	% Note	New Recruits	Total Employees	% Note
Gender	Male	164	1,198	13.69	249	1,262	19.75	315	1,352	23.30	146	1,302	11.21
	Female	102	729	13.99	187	804	23.23	187	850	22.00	84	828	10.14
Age	< 30	144	493	29.21	226	512	44.14	254	542	46.86	109	472	23.09
	30 - 50	120	1,298	9.24	200	1,390	14.39	238	1,475	16.14	119	1,450	8.21
	> 50	2	136	1.47	10	164	6.10	10	185	5.41	2	208	0.96
Workplace Location	Taiwan	114	616	18.51	225	744	30.24	331	886	37.36	141	871	16.19
	China	84	777	10.81	104	786	13.23	67	768	8.72	39	749	5.21
	Overseas	68	534	12.73	107	536	19.96	104	548	18.98	50	510	9.80
Total of Each Type		266	1,927	13.80	436	2,066	21.10	502	2,202	22.80	230	2,130	10.80

Note: Hiring rate = Total number of new hires for the year (employees who have been with the company for more than 3 months) / Number of employees in the group at year-end (December 31).

Statistics of Employee Turnover

Type	Category	2020			2021			2022			2023		
		Resignations	Total Employees	% Note									
Gender	Male	139	1,198	11.60	187	1,262	14.83	227	1,352	16.79	211	1,302	16.21
	Female	104	729	14.27	116	804	14.41	142	850	16.71	120	828	14.49
Age	< 30	118	493	23.94	151	512	29.49	159	542	29.34	141	472	29.87
	30 - 50	120	1,298	9.24	135	1,390	9.71	192	1,475	13.02	177	1,450	12.21
	> 50	5	136	3.68	17	164	10.37	18	185	9.73	13	208	6.25
Workplace Location	Taiwan	77	616	12.50	96	744	12.90	191	886	21.56	146	871	16.76
	China	83	777	10.68	103	786	13.10	86	768	11.20	96	749	12.82
	Overseas	83	534	15.54	104	536	19.40	92	548	16.79	89	510	17.45
Total of Each Type		243	1,927	12.61	303	2,066	14.67	369	2,202	16.76	331	2,130	15.54

Note: Turnover rate = Total number of resignations for the year (employees who have been with the company for more than 3 months) / Number of employees in the group at year-end (December 31).

Equal Opportunity

With regard to the development of women in the workplace, we uphold the principle of "equal treatment" and firmly oppose any form of gender discrimination. We are committed to ensuring that recruitment, compensation, promotion opportunities, and other factors are not influenced by gender, race, nationality, religious beliefs, age, physical condition, political stance, marital status, or union affiliation. Through concrete actions, we aim to create a supportive work environment that helps female employees achieve a balance between work and life. As of 2023, female employees represent 39% of the total workforce, and women hold 31% of management positions.

Proportion of Female Employees (%)

Type	2021			2022			2023		
	Taiwan Plant	China Plant	Overseas Plant	Taiwan Plant	China Plant	Overseas Plant	Taiwan Plant	China Plant	Overseas Plant
Female employee proportion	42	39	34	41	39	34	41	40	33
Overall proportion of female employees	39			39			39		
Proportion of female non-management employees	46	38	39	45	38	39	45	39	38
Proportion of female management employees	22	43	9	20	43	8	26	44	8
Proportion of female senior-level supervisors	18	36	28	17	35	30	12	34	27
Proportion of female executives	25	17	33	25	14	33	20	13	33
Proportion of female employees in management positions	31			30			31		



Compensation

To attract and retain top talent, CWTC designs its compensation packages based on market standards, external competitiveness, and labor market supply and demand. We offer competitive salaries that comply with local minimum wage regulations and ensure no gender-based discrepancies.

The compensation structure includes fixed and variable components. Fixed salaries are adjusted according to market salary levels, educational background, work experience, and market surveys. Variable compensation consists of year-end bonuses and employee profit-sharing, which are distributed based on the Company's operational performance and individual achievements. Salary and promotion adjustments depend on the Company's overall business conditions, individual performance, the consumer price index, and government policies.

Comparison of the Non-managerial Positions at CWTC

(In Thousands of New Taiwan Dollars)

Item	2020	2021	2022	2023
Number of employees	159	195	731	794
Average salary	568	681	767	637
Median salary	503	616	622	568

Note: The number of employees in this table excludes the Company's managers. The term "manager" is defined according to Official Letter No. Taiwan-Finance-Securities-III-920001301 issued by the competent authority on March 27, 2003. This is consistent with the scope of managers disclosed in the Company's annual report.

Proportion of Employees' Annual Income (%)

Position	2021		2022		2023	
	Female	Male	Female	Male	Female	Male
Non-managerial	0.88	1	0.92	1	0.92	1
Managerial	0.78	1	1.01	1	0.92	1
Manager	1.01	1	1.02	1	1.12	1
Executive	0.98	1	1.49	1	0.85	1

Note: The formula calculation is based on the average of female colleagues.

Performance Evaluation System

To effectively commend, reward, and motivate employees with outstanding performance, the CWTC Group conducts annual performance evaluations. For example, Taiwan Plant 1 conducts annual performance evaluations for operators every July, while Plant 2 conducts annual evaluations for employees in non-managerial positions every December. In 2023, the employee performance evaluation coverage reached 87% (with males and females representing 50% and 37% of the total workforce in our Taiwan plants, respectively, and managerial and non-managerial positions representing 11% and 76% of employees at each level, respectively). Additionally, the Taiwan plants conduct annual employee career development assessments to ensure that all employees have the opportunity to fully realize their potential.



Unpaid Parental Leave and Maternity Protection Program

To promote a harmonious and equitable workplace environment, CWTC has established the "Maternity Health Protection Implementation Measures for Female Workers" to provide comprehensive health care for female employees, ensuring their physical and mental well-being during pregnancy, postpartum, and breastfeeding.

In 2023, there were 42 employees in Taiwan eligible for parental leave without pay (21 males and 21 females). Of those eligible, 8 applied for the leave (1 male and 7 females). A total of 4 employees returned to work (1 male and 3 females), resulting in a return-to-work rate of 75% and a retention rate of 80%.



Statistics of Unpaid Parental Leave and Return-to-Work in 2023

Item	Male	Female	Total
Number of employees eligible for unpaid parental leave during the year (A)	21	21	42
Number of applicants for unpaid parental leave during the year (B)	1	7	8
Number of employees expected to be reinstated from unpaid parental leave during the year (C)	0	4	4
Number of employees actually reinstated after parental leave during the year (D)	0	3	3
Return-to-work rate (D/C)	NA	75%	75%
Number of employees reinstated in the previous year (E)	1	4	5
Number of employees reinstated in the previous year and have worked for more than one year (F)	1	3	4
Retention rate after unpaid parental leave (F/E)	100%	75%	80%

With 2023 as an example, the data for other years are calculated in the same way:

Note 1: Calculation of the number of employees eligible for unpaid parental leave: The number of employees who applied for maternity leave and paternity leave from 2020 to 2023.

Note 2: Return-to-work rate= (Number of employees actually reinstated after parental leave in 2023 / Number of employees who shall be reinstated after parental leave in 2023) × 100%

Note 3: Retention rate= (Number of employees employed by the Company for 12 months after reinstatement from parental leave in 2022 / Number of employees reinstated after parental leave in 2022) × 100%



Employee Care and Benefits

To enhance employee engagement and ensure their rights, the CWTC Group has established a comprehensive benefits system and, in accordance with local regulations, has set up an employee benefits committee. This committee is responsible for managing and distributing the benefits funds. Each plant is tasked with planning and implementing corresponding welfare policies to fully address employees' benefit needs.

Employee Benefits

Item	Description
Basic Benefits	Labor and health insurance, labor pension, group insurance, and educational training.
Retirement Security	In accordance with local laws and regulations, monthly pension contributions are made to a government-designated account at a specific percentage of the salary to ensure employees' retirement rights.
Compensation Plan	Employees are entitled to shares reserved from cash capital increase for employee stock purchase plans, the transfer of treasury shares to employees, employee stock options and restricted shares.
Financial Planning	The Company initiates an employee share ownership trust and matches 100% of employee contributions. Employees are entitled to receive annual dividends and can fully redeem their shares after five years.
Health Care	Free employee health check-ups, on-site doctor consultations, maternity health protection policies, and health promotion activities.
Special Leave	Maternity leave/prenatal leave, leave for pregnancy checkups and paternity leave, family care leave.
Other	To encourage the use of electric motorcycles, we provide a subsidy of NT\$30,000 per motorcycle for a total of 150 motorcycles in response to energy conservation and carbon reduction.





4.3 Talent Development and Diversity Cultivation

To enhance employees' learning abilities and professional skills, the CWTC Group considers training and professional development as a long-term investment in its staff. We are committed to strengthening employees' job knowledge, skills, and attitudes to achieve the Company's business objectives. Our diverse training programs include new employee orientation training and on-the-job training, with each program undergoing assessments and effectiveness evaluations to ensure its impact. We also encourage employees to participate in training activities such as

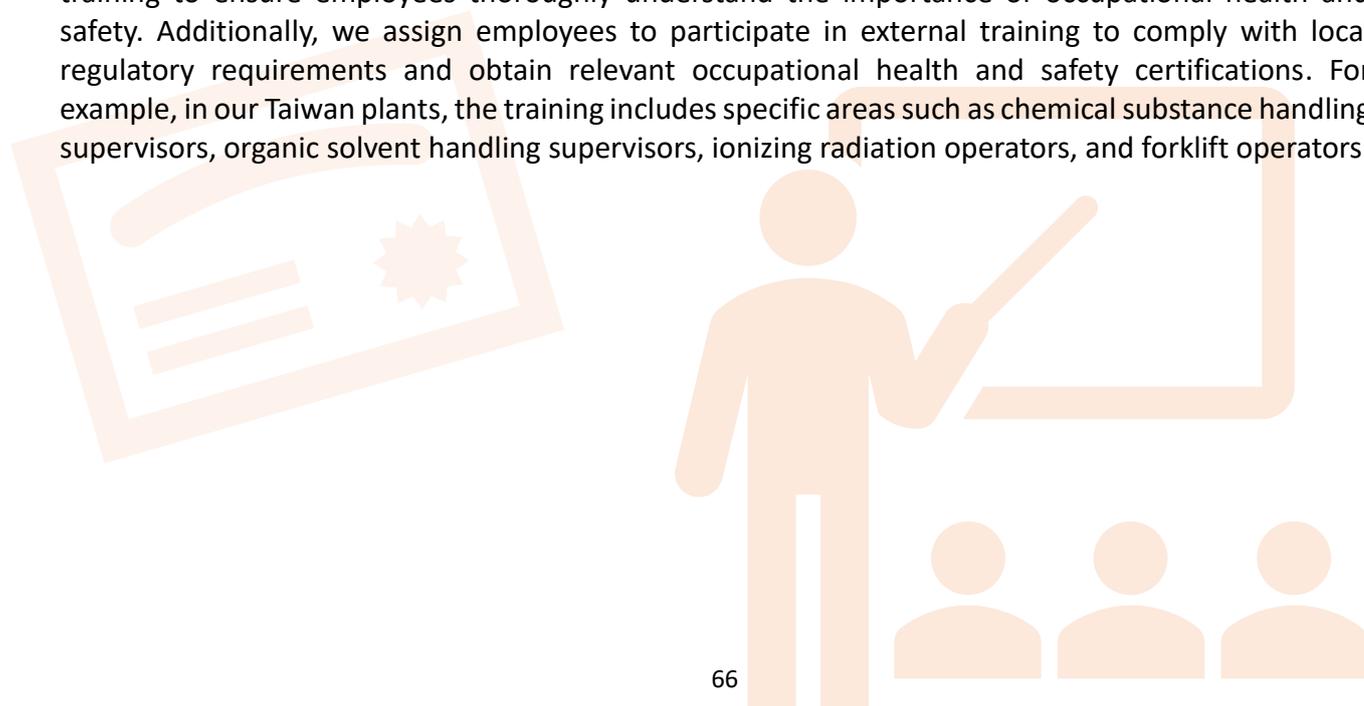


overseas visits, domestic company tours, conference attendance, and job rotations to strengthen human resource development and motivate employees to continue growing and advancing.

Diverse Training

Item	Description
New Employee Orientation Training	General education and basic skills training.
On-the-job Training	It is divided into general training and skills training. The training covers internal departmental training, quality system, occupational and environmental safety, internal audit and control, production management, and administrative management.

CWTC Group also adheres to the requirements of ISO 9001 Quality Management Systems and ISO 14001 Environmental Management Systems by regularly conducting both internal and external training programs to enhance employees' professional competence and work skills. Based on the nature of employees' work, we provide corresponding occupational health and safety education and training to ensure employees thoroughly understand the importance of occupational health and safety. Additionally, we assign employees to participate in external training to comply with local regulatory requirements and obtain relevant occupational health and safety certifications. For example, in our Taiwan plants, the training includes specific areas such as chemical substance handling supervisors, organic solvent handling supervisors, ionizing radiation operators, and forklift operators.





Statistics of Training – by Gender

Type	2020		2021		2022		2023	
	Male	Female	Male	Female	Male	Female	Male	Female
Internal Training Hours	56,334	44,719	68,881	53,567	85,534	53,479	74,785	51,623
External Training Hours	3,916	1,578	4,976	1,834	5,705	1,265	6,301	1,943
Total (A)	60,250	46,297	73,857	55,401	91,239	54,744	81,086	53,566
Number of Employees (persons) (B)	1,198	729	1,262	804	1,352	850	1,302	828
Training Hours per Employee (A/B)	50.29	63.51	58.52	68.91	67.48	64.40	62.28	64.69

Statistics of Training – by Position

Type	2020		2021		2022		2023	
	Non-Managerial Position	Managerial Position						
Internal Training Hours	90,436	10,617	114,907	7,540	128,392	10,621	104,280	22,128
External Training Hours	2,143	3,351	3,876	2,935	3,664	3,306	4,199	4,045
Total (A)	92,579	13,968	118,783	10,475	132,056	13,927	108,479	26,173
Number of Employees (persons) (B)	1,432	495	1,546	520	1,650	552	1,555	575
Training Hours per Employee (A/B)	64.65	28.22	76.83	20.14	80.03	25.23	69.76	45.52

Diverse Training in 2023

Type	New Employee Orientation Training	General Training	Skills Training	Management Training	Total
Total number of participants	389	16,386	1,723	5,490	23,988
Total number of courses	13,769	70,636	35,477	14,770	134,652



4.4 Occupational Health and Safety

Occupational Safety and Health (OSH) Management System

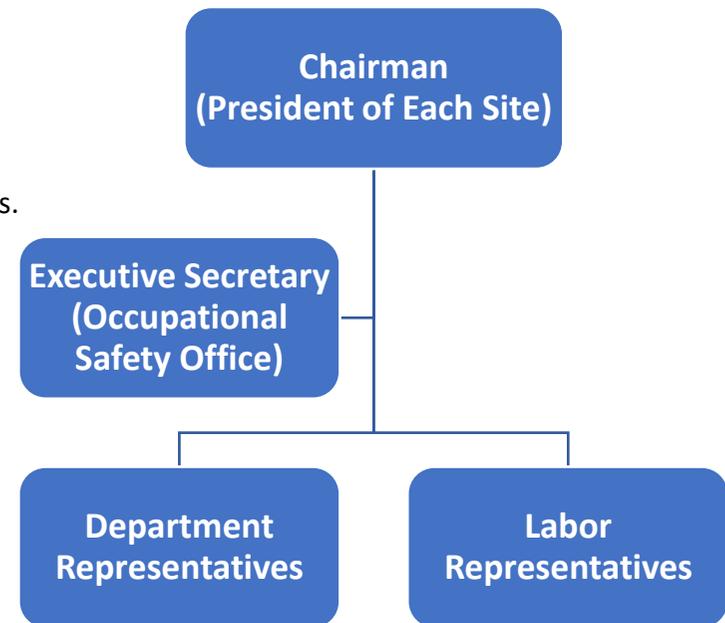
Our OSH management system covers a total of 2,200 persons, including 2,130 employee and 70 non-employee workers, with an employee coverage rate of 100%. In order to effectively discuss and solve practical OSH issues, we have established the Safety and Health Committee.

The structure of the Safety and Health Committee is as follows:

The President of each site would serve as the chairman and hold regular meetings. In Taiwan, meetings are held at least once every three months while monthly meetings are arranged for our China and overseas plants.

Duties of the Committee are as follows:

1. Review OSH policies.
2. Review OSH management plans.
3. Review the implementation plan of safety and health education and training.
4. Review work environment monitoring plan, monitoring results and action plans.
5. Review health management, occupational disease prevention and health promotion matters.
6. Review various safety and health proposals.
7. Review self-inspections and safety and health audits of business units.
8. Review preventive measures for hazards of machinery, equipment, or raw materials and materials.
9. Review occupational disaster investigation reports.
10. Assess the performance of on-site safety and health management.
11. Review safety and health management of contractor business.
12. Responsible for other matters related to OSH management.



The Company conducts regular safety and health compliance audits to ensure that our business operations adhere to regulations. In 2023, all sites were in compliance with local regulations, and there were no safety and health violations. To ensure that employees can work in a safe and healthy environment and to enhance the Company's competitiveness, each site conducts regular monitoring of the working environment and occupational hazards as required by local laws and regulations— twice a year for our Taiwan plants and once a year for our overseas and China plants. The monitoring results have met all requirements and remained below the regulatory thresholds.

Safety Promotion

The Group aims for zero incidents in occupational hazard management, prioritizing employee safety. If immediate danger arises in the workplace, personnel must cease operations, move to a safe location, and report the issue, without facing any disciplinary action. Each year, "Safety Risk Week" activities are held at each plant to enhance employees' awareness of safety and health, ensuring a safe working environment. Each plant conducts at least two comprehensive disaster drills annually, covering scenarios such as earthquakes, fires, and chemical spills, tailored to the specific operational characteristics and hazards of each site.

Additionally, to reduce occupational injuries, a hazard identification and risk assessment is performed annually for operations in each department. Risks are classified by severity and likelihood, with medium- and high-risk operations requiring additional risk control measures to lower their risk levels. The principle of transparent reporting of occupational accidents is enforced, encouraging departments to proactively identify safety hazards during daily operations and observe unsafe conditions through labor behavior monitoring, with safety suggestions tracked for improvement. The company includes near-miss incidents in its reporting procedures, intervening to make improvements before any harm occurs to prevent future incidents.



Emergency Drills





Internal Training Courses for Safety and Health



Practical Use of Respiratory Protection Equipment



Aromatherapy for Stress Relief



Continuing Training for First Aid



Prevention of Diseases Caused by Abnormal Workloads and Musculoskeletal Disorders Due to Repetitive Tasks



Hearing Protection Training



Prevention of Chronic Diseases (Hypertension, Hyperlipidemia, Hyperglycemia)



Promotion of Tobacco Hazards Prevention



AED and CPR Training



Promotion of Healthy Eating



Occupational Accidents Management

Occupational injury statistics are calculated based on the definitions provided by the “Occupational Safety and Health Act” and the key disabling injury indicators published by the Global Reporting Initiative (GRI), focusing on the frequency rate (FR) and severity rate (SR) of disabling injuries.

In 2023, the CWTC Group reported a total of 6 occupational injuries, including 1 major injury, with no fatal occupational incidents. For each occupational injury case, we complete an incident report and investigate the direct, indirect, and root causes of the injury. In addition to conducting training and reviewing standard operating procedures (SOPs), we reassess the risk evaluation of the relevant work environment to understand the underlying causes of each occupational injury. Appropriate corrective measures are then implemented and extended to other similar work environments or tasks to minimize hazards and effectively prevent recurrence of similar incidents.

Statistics of Occupational Injuries in 2023

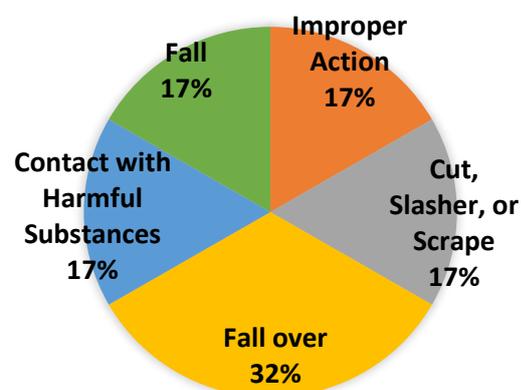
Type	Statistical Indicators	Taiwan Plant	Overseas Plant	China Plant	Total
Employees	Recordable occupational injuries	6	0	0	6
	Rate of fatalities as a result of occupational injuries	0	0	0	0
	High-consequence occupational injuries	1	0	0	1
	Rate of high-consequence occupational injuries	0.55	0	0	0.21
Non-employees	Recordable occupational injuries	0	0	0	0
	Rate of fatalities as a result of occupational injuries	0	0	0	0
	High-consequence occupational injuries	0	0	0	0
	Rate of high-consequence occupational injuries	0	0	0	0

Note 1: Severe occupational injuries are those where employees are unable or unlikely to return to their pre-injury state of health within six months.

Note 2: The statistics exclude injuries sustained while commuting.

Statistics on the Frequency and Severity Rates of Disabling Injuries in Recent Years

Year	Disabling Injury Frequency Rate (FR)				Disabling Injury Severity Rate (SR)			
	Taiwan Plant	Overseas Plant	China Plant	Total	Taiwan Plant	Overseas Plant	China Plant	Total
2020	5.72	0.91	0.50	2.08	155	0	0	49
2021	3.93	0	0	1.24	45	0	0	14
2022	5.06	0	0	1.80	26	0	0	9
2023	3.30	0	0	1.23	102	0	0	38



2023 Occupational Accident Type



Contractor Safety and Health Management

To further enhance workplace safety and extend protection to contractors, the CWTC Group has established Contractor Management Procedures at all plants. These procedures ensure that safety management mechanisms are in place when contractors perform work on-site, aiming for zero workplace injuries. Before starting any work, contractors must hold a safety meeting with project and occupational safety personnel. The occupational safety personnel will outline the safety requirements for the project, and work can only commence once these requirements are met. For special operations, such as slinging and lifting, hot work, confined spaces, or hazardous piping, a special work permit must be submitted, along with a relevant protection plan, and approved before proceeding.

Project and safety personnel conduct periodic inspections during the contractor's work to ensure compliance with safety requirements and to safeguard the contractor's work safety. In 2023, no contractor-related workplace injuries were reported at any domestic or overseas plants.

Contractor Safety and Health Awareness Meeting in 2023



Health Care Management

The Company provides health check-ups that exceed regulatory requirements, offering all employees annual health screenings, including general check-ups and special hazard-related assessments, to understand and protect our employees' health status. Since 2019, the Taiwan plant has also included electrocardiography to assess cardiovascular health and prevent overwork. Health check-up results are managed by risk levels. We track employees in high-risk health groups and provide relevant health education and consultation services to safeguard their health and prevent occupational diseases. In 2023, 102 employees at the Taiwan plant were categorized for Level 2 to Level 3 management based on their special health check results. They were interviewed and monitored by nurses and on-site physicians, with results from follow-up doctor appointments uploaded to the official system as required by law. No occupational disease cases were diagnosed at any domestic or overseas plants in 2023.

On-site health services by contracted occupational health physicians are arranged at our Taiwan plant on a monthly basis, with a total of 173 appointments in 2023. The services include disease health interviews and guidance, assessment for return-to-work or job reassignment, recommendations for improving workplace environmental hazards, and reviews of health interview documents by nurses, etc.



Health Management Classification

Year	Number of Participants in Health Check-ups			Number of Participants In Special Health Check-ups		Number of Employees with Abnormal Results from Special Health Check-ups	
	Taiwan Plant	Overseas Plant	China Plant	Taiwan Plant	Overseas Plant	Taiwan Plant	Overseas Plant
2019	557	528	420	284	94	74	43
2020	566	507	462	312	40	116	12
2021	608	521	467	294	11	102	10
2022	761	532	457	346	82	71	40
2023	791	512	407	415	173	102	0

Note: The health check-ups in our China site have already included special operation items; therefore, they are not listed separately.

Regular Health Check-up in 2023



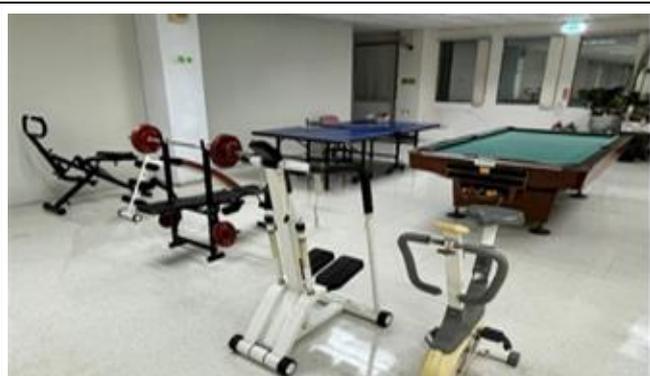


To enhance employees' physical and mental well-being, CWTC has established fitness areas at our Taiwan and China plants, offering a variety of exercise equipment, table tennis, billiards, and a basketball court (at the Chengdu plant) for use during breaks. Additionally, we require our catering service to provide multigrain rice and cook a variety of vegetables with minimal oil, salt, and sugar to offer healthier dietary options. Vending machines stocked with sugar-free beverages and fruits are also provided to meet employees' needs and promote better health and productivity.

Physical and Mental Health Care



Provide multigrain rice, and cook a variety of vegetables with minimal oil, salt, and sugar.



Establish fitness areas, offering a variety of exercise equipment, table tennis, and billiards.



5. Appendix

5.1 GRI Standards Content Index

Statement of Use	CWTC has reported in accordance with the GRI Standards for the period from January 1 to December 31, 2023.
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	NA

No.	Disclosure Titles	Corresponding Chapters	Page
GRI 2: General Disclosures 2021			
The organization and its reporting practices			
2-1	Organizational details	About CWTC	6
2-2	Entities included in the organization's sustainability reporting	About CWTC	7
2-3	Reporting period, frequency and contact point	About This Report	1
2-4	Restatements of information	Not applicable	-
2-5	External assurance	About This Report	1
Activities and workers			
2-6	Activities, value chain and other business relationships	About CWTC	6
		2.7 Sustainable Supply Chain	34
2-7	Employees	4.2 Talent Attraction and Retention	60
2-8	Workers who are not employees	4.2 Talent Attraction and Retention	60
Governance			
2-9	Governance structure and composition	2.1 Organization and Operation of Corporate Governance	16-24
2-10	Nomination and selection of the highest governance body	2.1 Organization and Operation of Corporate Governance	18-19
2-11	Chair of the highest governance body	2.1 Organization and Operation of Corporate Governance	18
2-12	Role of the highest governance body in overseeing the management of impacts	2.1 Organization and Operation of Corporate Governance	23-24
2-13	Delegation of responsibility for managing impacts	1.1 Sustainable Development Organizations and Strategies	10



No.	Disclosure Titles	Corresponding Chapters	Page
2-14	Role of the highest governance body in sustainability reporting	1.1 Sustainable Development Organizations and Strategies	10
2-15	Conflicts of interest	2.1 Organization and Operation of Corporate Governance	18-19
2-16	Communication of critical concerns	1.2 Stakeholder Engagement	11
2-17	Collective knowledge of the highest governance body	2.1 Organization and Operation of Corporate Governance	21-22
2-18	Evaluation of the performance of the highest governance body	2.1 Organization and Operation of Corporate Governance	22
2-19	Remuneration policies	2.1 Organization and Operation of Corporate Governance	22-23
2-20	Process to determine remuneration	2.1 Organization and Operation of Corporate Governance	22-23
2-21	Annual total compensation ratio	2.1 Organization and Operation of Corporate Governance	22-23
Strategy, policies and practices			
2-22	Statement on sustainable development strategy	1.1 Sustainable Development Organizations and Strategies	10
2-23	Policy commitments	1.1 Sustainable Development Organizations and Strategies	10
2-24	Embedding policy commitments	4.1 Human Rights Policy	58
2-25	Processes to remediate negative impacts	1.2 Stakeholder Engagement	11
2-26	Mechanisms for seeking advice and raising concerns	2.2 Integrity Management	25-26
		4.1 Human Rights Policy	58-59
2-27	Compliance with laws and regulations	2.2 Integrity Management	24-26
2-28	Membership associations	About CWTC	8
Stakeholder engagement			
2-29	Approach to stakeholder engagement	1.2 Stakeholder Engagement	11
2-30	Collective bargaining agreements	We have no union. Not applicable.	-
GRI 3: Material Topics 2021			
3-1	Process to determine material topics	1.3 Identify Material Topics	12-13
3-2	List of material topics	1.3 Identify Material Topics	14-15
3-3	Management of material topics	1.3 Identify Material Topics	14-15



No.	Disclosure Titles	Corresponding Chapters	Page
Specific Topics: GRI 200: Economic Series			
GRI 201: Economic Performance 2016			
GRI 201-1	Direct economic value generated and distributed	2.3 Operating Performance	27
GRI 201-2	Financial implications and other risks and opportunities due to climate change	3.2 Task Force on Climate-Related Financial Disclosures (TCFD)	39-44
GRI 201-4	Financial assistance received from government	2.3 Operating Performance	27
Specific Topics: GRI 300: Environmental Disclosures Series			
GRI 302: Energy 2016			
GRI 302-1	Energy consumption within the organization	3.3 Energy Management	45
GRI 302-3	Energy intensity	3.3 Energy Management	45
GRI 302-4	Reduction of energy consumption	3.3 Energy Management	46
GRI 303: Water and Effluents 2018			
GRI 303-1	Interactions with water as a shared resource	3.4 Water Resources Management	49-53
GRI 303-2	Management of water discharge-related impacts	3.4 Water Resources Management	49-53
GRI 303-3	Water withdrawal	3.4 Water Resources Management	50-51
GRI 303-4	Water discharge	3.4 Water Resources Management	50-51
GRI 303-5	Water consumption	3.4 Water Resources Management	50-51
GRI 305: Emissions 2016			
GRI 305-1	Direct (Scope 1) GHG emissions	3.3 Energy Management	47-48
GRI 305-2	Energy indirect (Scope 2) GHG emissions	3.3 Energy Management	47-48
GRI 305-3	Other indirect (Scope 3) GHG emissions	3.3 Energy Management	47-48
GRI 305-4	GHG emissions intensity	3.3 Energy Management	47-48
GRI 306: Waste 2020			
GRI 306-1	Waste generation and significant waste-related impacts	3.5 Waste Management	54-56
GRI 306-2	Management of significant waste-related impacts	3.5 Waste Management	54-56
GRI 306-3	Waste generated	3.5 Waste Management	54-56



No.	Disclosure Titles	Corresponding Chapters	Page
Specific Topics: GRI 400: Social Disclosures Series			
GRI 401: Employment 2016			
GRI 401-1	New employee hires and employee turnover	4.2 Talent Attraction and Retention	62
GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.2 Talent Attraction and Retention	63 、 65
GRI 401-3	Parental leave	4.2 Talent Attraction and Retention	64
GRI 403: Occupational Health and Safety 2018			
GRI 403-1	Occupational health and safety management system	4.4 Occupational Health and Safety	68
GRI 403-2	Hazard identification, risk assessment, and incident investigation	4.4 Occupational Health and Safety	71-72
GRI 403-3	Occupational health services	4.4 Occupational Health and Safety	72
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	4.4 Occupational Health and Safety	68
GRI 403-5	Worker training on occupational health and safety	4.3 Talent Development and Diversity Cultivation	66
		4.4 Occupational Health and Safety	69-70
GRI 403-6	Promotion of worker health	4.4 Occupational Health and Safety	72-74
GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.4 Occupational Health and Safety	72
GRI 403-8	Workers covered by an occupational health and safety	4.4 Occupational Health and Safety	68
GRI 403-9	Work-related injuries	4.4 Occupational Health and Safety	71
GRI 403-10	Work-related ill health	4.4 Occupational Health and Safety	72
GRI 404: Training and Education 2016			
GRI 404-1	Average hours of training per year per employee	4.3 Talent Development and Diversity Cultivation	67
GRI 404-3	Percentage of employees receiving regular performance and career development reviews	4.2 Talent Attraction and Retention	63



5.2 SASB Index – Semiconductor Industry

SASB Topics	Code	Metric	Category	Corresponding Chapters / Descriptions
Greenhouse Gas Emissions	TC-SC-110a.1	(1) Gross global Scope 1 emissions (2) Amount of total emissions from perfluorinated compounds	Quantitative	3.3 Energy Management
	TC-SC-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Qualitative	3.3 Energy Management
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed (2) Percentage grid electricity (3) Percentage renewable	Quantitative	3.3 Energy Management
Water Management	TC-SC-140a.1	(1) Total water withdrawn (2) Total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	3.4 Water Resources Management
Waste Management	TC-SC-150a.1	(1) Amount of hazardous waste from manufacturing (2) Percentage recycled	Quantitative	3.5 Waste Management
Workforce Health & Safety	TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of workforce to human health hazards	Qualitative	4.4 Occupational Health and Safety
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	Quantitative	2.2 Integrity Management
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	Percentage of employees that are (1) Foreign nationals (2) Located offshore	Quantitative	The percentage of foreign employees is 9.77%, and the percentage of overseas employees is 0.23%.
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Quantitative	Currently, CWTC does not perform statistical management of IEC 62474 materials, but it has established hazardous substance management standards that suppliers are required to comply with.
	TC-SC-410a.2	Processor energy efficiency at a system-level for: (1) Servers (2) Desktops (3) Laptops	Quantitative	As CWTC is not an end-product manufacturer, it does not calculate the overall energy efficiency of processors.
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	Qualitative	2.7 Sustainable Supply Chain
Intellectual Property Protection & Competitive Behaviour	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviors regulations	Quantitative	In 2023, no financial losses occurred due to legal proceedings related to anti-competitive behavior.
Total production	TC-SC-000.A	Varies by product type	Quantitative	Total production is disclosed in the Company's annual reports. Please refer to the annual report for details. Total production was 102,305KKPCS in 2023 and 127,887KKPCS in 2022.
Percentage of production from owned facilities	TC-SC-000.B	Percentage (%)	Quantitative	CWTC is a professional lead frame manufacturer with 100% of its production coming from its own facilities.



5.3 Sustainability Disclosure Indicators- Semiconductor Industry

No.	Indicator	Indicator Type	Unit	Annual Disclosure
1	Total energy consumption, percentage of purchased electricity and renewable energy usage	Quantitative	Gigajoules (GJ), Percentage (%)	Total energy consumption: 310,822 GJ Percentage of purchased power: 89% Percentage of renewable energy usage: 6%
2	Total water withdrawal and total water consumption	Quantitative	Thousand cubic meters (m ³)	Total water withdrawal: 1,136m ³ Total water consumption: 433m ³
3	Total hazardous waste generated and percentage recycled	Quantitative	Metric tons (t), Percentage (%)	Total hazardous waste output: 9,664 t The hazardous waste recycling rate: 53%
4	Types of, number of employees in and rate of occupational accidents	Quantitative	Percentage (%), Quantity	Fall over: 32%, 2 injuries Improper action: 17%, 1 injury Fall: 17%, 1 injury Cut, Slasher, or Scrape: 17%, 1 injury Contact with Harmful Substances: 17%,1 injury
5	Product Lifecycle Management Disclosure: including weights of scraps and electronic waste and percentage recycled (Note)	Quantitative	Metric tons (t), Percentage (%)	Weight of scrap products and electronic waste: 13,040 t Percentage of recycling: 68%
6	Description of the management of risks associated with the use of critical materials	Qualitative	Not applicable	CWTC does not use conflict minerals in its manufacturing process and conducts due diligence within its supply chain to ensure that all products are 100% free from minerals sourced from conflict areas.
7	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	Quantitative	Reporting currency	In 2023, no financial losses occurred due to legal proceedings related to anti-competitive behavior.
8	Production by product category	Quantitative		102,305KKPCS

Note: Descriptions including the sale of scraps and the recycling and processing of waste shall be provided.

5.4 ESG Data Summary



Environmental Data

Energy Consumption							
Item	Unit	2020	2021	2022	2023	Remarks	
Direct Energy	Diesel fuel	251	276	1,174	365	Note 1: The statistics covers Taiwan Plant, China Plants, and Malaysia Plant. Note 2: Conversions are based on the “Heat Content of Energy Products” of the Ministry of Economic Affairs. Note 3: Renewable energy mainly includes solar energy and non-pumped storage hydroelectric power. Solar energy is estimated annually based on the daily generation in GJ of the installed capacity. Non-pumped storage is estimated based on the actual electricity consumption in the locality, with proportions determined for wet, normal, and dry periods. Note 4: Electricity intensity= Electricity consumption / Consolidated revenue in millions of NT\$	
	Gasoline	733	361	500	486		
	Natural gas	18,463	22,115	22,673	17,110		
Indirect Energy	Purchased electricity	248,225	268,055	279,597	275,574		
	Renewable energy	23,977	26,662	20,884	17,287		
Total		291,649	317,469	324,828	310,822		
Electricity consumption	MWH	68,951	74,460	77,666	76,548		
Electricity intensity		7.12	5.82	5.38	6.61		
GHG Emission							
Item	Unit	2019	2020	2021	2022	2023	Remarks
Direct emissions- Scope 1	tCo2e	2,697	2,680	1,940	2,395	3,590	Note 1: For Scope 3 emissions, some overseas plants started tracking in 2021, the Taiwan plant started in 2022, and all others began in 2023. Note 2: The 2023 data includes all consolidated entities, while the other data only covers the Taiwan, China, and Malaysia plants. Note 3: GHG emission intensity= GHG emissions (tCO2e) / Consolidated revenue in millions of NT\$
Indirect emissions- Scope 2		45,460	44,861	55,618	54,279	44,169	
Other indirect emissions- Scope 3		-	-	495	9,564	49,852	
GHG emission intensity (Scope 1 + Scope 2)		5.167	4.912	4.500	3.927	4.124	
Water Resources							
Item	Unit	2019	2020	2021	2022	2023	Remarks
Total water withdrawal	megaliters	1,170	1,237	1,352	1,323	1,136	Note 1: The Company's water withdrawal sources come from third-party water- surface water, excluding other surface water, groundwater, seawater and produced water. Note 2: Recycling rate of water = Total water recycled / Total water consumption Note 3: Water withdrawal intensity = Total water withdrawal / Consolidated revenue in millions of NT\$
Total water recycled		37	75	168	237	264	
Total water discharge		952	1,011	1,164	1,120	967	
Total water consumption		255	301	356	440	433	
Recycling rate of water	%	3.07	5.72	11.05	15.19	18.86	
Water withdrawal intensity		0.126	0.128	0.106	0.092	0.098	



Waste						
Item	Unit	2020	2021	2022	2023	Remarks
Total waste generated	metric tons	17,400	20,692	20,104	16,413	Note: Waste intensity = Total waste generated / Consolidated revenue in thousands of NT\$
Recyclable waste		8,877	13,460	12,931	10,958	
Waste intensity		0.0018	0.0016	0.0014	0.0014	
Reuse rate of waste	%	51	65	64	67	

Social Data

Achievements of the Diverse Workforce										
Type	Category	Gender	2020		2021		2022		2023	
			No. of Employees	%						
Nationality	Migrant workers ^{Note}	Male	67	3.48	82	3.97	157	7.13	146	6.86
		Female	27	1.40	42	2.03	76	3.45	62	2.91
	Local workers	Male	1,131	58.69	1,179	57.07	1,195	54.27	1,156	54.27
		Female	702	36.43	763	36.93	774	35.15	766	35.96
Age	< 30	Male	307	15.93	328	15.88	350	15.89	298	13.99
		Female	186	9.65	184	8.91	192	8.72	174	8.17
	30 - 50	Male	791	41.05	810	39.21	870	39.51	857	40.23
		Female	507	26.31	580	28.07	605	27.48	593	27.84
	> 50	Male	100	5.19	124	6.00	132	5.99	147	6.90
		Female	36	1.87	40	1.94	53	2.41	61	2.87
Ranking	Management level	Male	349	18.11	357	17.28	385	17.48	396	18.59
		Female	146	7.58	163	7.89	167	7.59	179	8.40
	Non-management level	Male	849	44.06	905	43.80	967	43.91	906	42.54
		Female	583	30.25	641	31.03	683	31.02	649	30.47

Note: Migrant workers are categorized based on their respective nationalities relative to their workplace location.



Achievements of the Diverse Workforce

Type	Category	Gender	2020		2021		2022		2023	
			No. of Employees	%						
Function	Sales	Male	31	1.61	20	0.97	21	0.95	20	0.94
		Female	25	1.30	23	1.11	23	1.04	22	1.03
	Manufacturing	Male	1,047	54.33	1,013	49.03	1,081	49.09	1,087	51.03
		Female	550	28.54	596	28.85	623	28.29	622	29.20
	R&D	Male	39	2.02	137	6.63	172	7.81	117	5.50
		Female	53	2.75	76	3.68	94	4.27	73	3.43
	Administration and others	Male	81	4.20	92	4.45	78	3.54	78	81
		Female	101	5.24	109	5.28	110	5.00	111	5.21
Education	Masters	Male	29	1.50	32	1.55	32	1.45	37	1.74
		Female	11	0.57	15	0.73	22	1.00	18	0.85
	Junior College / Bachelor	Male	434	22.52	459	22.21	478	21.71	474	22.25
		Female	277	14.37	306	14.81	307	13.94	313	14.69
	Senior high school and below	Male	735	38.14	771	37.32	842	38.24	791	37.14
		Female	441	22.89	483	23.38	521	23.66	497	23.33

Diverse Training

Type	2020		2021		2022		2023	
	Total No. of Participants	Total No. of Courses	Total No. of Participants	Total No. of Courses	Total No. of Participants	Total No. of Courses	Total No. of Participants	Total No. of Courses
New Employee Orientation Training	540	4,413	471	4,046	578	5,854	389	13,769
General Training	10,220	67,614	11,734	76,143	13,851	67,330	16,386	70,636
Skills Training	1,070	26,860	1,451	41,348	2,317	66,365	1,723	35,477
Management Training	2,923	7,660	3,361	7,721	2,772	6,434	5,490	14,770
Total	14,753	106,547	17,017	129,258	19,518	145,983	23,988	134,652



Governance Data

Composition of the Board of Directors

Item	Unit	2020	2021	2022	2023	Remarks
Total Board Member Seats	seat	7	7	7	7	
Independent Director Seats		3	3	3	3	
Female Director Seats		1	1	1	1	
Attendance rate of Board meeting	%	100	100	100	96	

Achievements of Research and Development

Item	Unit	2020	2021	2022	2023	Remarks
Proportion of R&D expenses	%	2.36	3.61	2.93	3.63	Note: Proportion of R&D expenses = Consolidated R&D expenses in thousands of NT\$ / Consolidated revenue in thousands of NT\$
Cumulative number of domestic and overseas patents	Number of Patents	117	125	152	309	



5.5 TCFD Disclosure Index

Risks and Opportunities of Climate Change to the Company and Related Measures Taken by the Company

Item	Implementation status
1. Describe the board of directors' and management's oversight and governance of climate-related risks and opportunities	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
2. Describe how the identified climate risks and opportunities affect the business, strategy, and finance of the business (short, medium and long term).	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
3. Describe the financial impacts of extreme weather events and transformational actions.	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
4. Describe how climate risk identification, assessment, and management processes are integrated into the overall risk management system.	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
5. If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described.	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
6. If there is a transition plan for managing climate-related risks, describe the content of the plan, and the indicators and targets used to identify and manage physical risks and transition risks.	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
7. If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	The Company currently has no plans for internal carbon pricing.
8. If climate-related targets have been set, the activities covered, the scope of greenhouse gas emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve relevant targets, the source and quantity of carbon credits or RECs to be offset should be specified.	3-2 Task Force on Climate-Related Financial Disclosures (TCFD)
9. Greenhouse gas inventory and assurance status and reduction targets, strategy, and concrete action plan (separately fill out in points 1-1 and 1-2 below).	See Tables 1-1 and 1-2 below.



GHG Inventory and Assurance Status for the Most Recent 2 Fiscal Years

1-1 GHG Inventory Information

Describe the emission volume (metric tons CO₂e), intensity (metric tons CO₂e/NT\$ million), and data coverage of greenhouse gases in the most recent 2 fiscal years.

The scope of information to be disclosed by the Company in accordance with the requirements of the Sustainable Development Roadmap for TPEX-listed Companies includes the following:

- 1.The parent company shall begin conducting GHG inventory in 2025.
- 2.Subsidiaries included in the consolidated financial statements shall begin conducting GHG inventory in 2026.

The Company and its subsidiaries have established a GHG inventory mechanism in accordance with the ISO 14064-1 standards for GHG inventories published by the International Organization for Standardization (ISO). Since 2022, the Company has conducted regular annual inventories of GHG emissions for the parent company, and since 2023, it has included the subsidiaries covered by the consolidated financial statements. This ensures a comprehensive understanding of GHG usage and emissions, and verifies the effectiveness of emission reduction measures. Additionally, the GHG inventory data for the most recent two fiscal years have been aggregated using the operational control approach, including both the Company and all subsidiaries covered by the consolidated financial statements, as detailed below:

Year		2022		2023	
Item		Emission Volume (metric tons CO ₂ e)	Intensity (metric tons CO ₂ e /NT\$ million)	Emission Volume (metric tons CO ₂ e)	Intensity (metric tons CO ₂ e /NT\$ million)
The Company	Scope 1 Direct GHG emissions	568	/	1,138	/
	Scope 2 Indirect GHG emissions	14,409		15,806	
	Subtotal	14,977		16,944	
All subsidiaries in the consolidated financial report	Scope 1 Direct GHG emissions	1,859		2,452	
	Scope 2 Indirect GHG emissions	39,870		28,363	
	Subtotal	41,729		30,815	
Total		56,706	3.929	47,759	4.124

1-1-1 GHG Assurance Information

Describe the status of assurance for the most recent 2 fiscal years, including the scope of assurance, assurance institutions, assurance standards, and assurance opinion.

The scope of assurance to be executed in accordance with the requirements of the Sustainable Development Roadmap for TPEX-listed Companies includes the following:

- 1.The parent company shall begin conducting GHG assurance in 2027.
- 2.Subsidiaries included in the consolidated financial statements shall begin conducting GHG assurance in 2028.

As disclosed in Table 1-1, the total GHG emissions for the parent company in 2022 and 2023 fall within the assurance scope, accounting for 100% of the total emissions of the parent company entity for each respective year. In 2022, assurance was conducted by DNV Business Assurance Co.,



Ltd. with a reasonable assurance opinion. In 2023, the assurance scope for subsidiaries included in the consolidated financial statements accounted for 100% of the total emissions of those subsidiaries for that year. The parent company was assured by DNV Business Assurance Co., Ltd., while the subsidiaries in the consolidated financial statements were assured by Malaysia's Bureau Veritas Certification (M) Sdn. Bhd., Singapore's TÜV SÜD PSB Pte Ltd., and China's CTI Certification Co., LTD. All assurance activities were conducted in accordance with ISO 14064-3:2019, as published by ISO, with reasonable assurance opinions provided in all cases.

1-2 Greenhouse Gas Reduction Targets, Strategy, and Concrete Action Plan

Specify the greenhouse gas reduction base year and its data, the reduction targets, strategy and concrete action plan, and the status of achievement of the reduction targets.

Reduction base year and goals for GHG

To plan GHG reduction strategies, the Company and its subsidiaries completed the GHG inventory in 2023 using the consolidated financial report as the boundary, making 2023 the base year. Scope 1 and Scope 2 emissions for the base year are 3,590 tons CO₂e and 44,169 tons CO₂e, respectively. The Company and its subsidiaries aim to reduce emissions by 20% by 2028 compared to the base year through the following specific actions, with the goal of achieving carbon neutrality by 2050.

GHG reduction strategy and concrete action plan

The Company and its subsidiaries have integrated carbon management into their operational strategies. By using a carbon management platform, they systematically integrate emissions data across the Group, providing real-time access to the information needed for carbon management. This platform also enables comprehensive oversight of various GHG reduction initiatives, including improving energy efficiency, purchasing energy-saving equipment, installing solar power systems, and reducing GHG emissions at the raw material source. These measures ensure that reduction efforts stay on track while minimizing carbon emission impacts and enhancing operational competitiveness.

To ensure that management, the execution team, and all employees work together to achieve GHG reduction targets and improve energy efficiency, key project goals have been incorporated into the Group's operational performance indicators. These indicators serve as the basis for employee performance evaluations and bonuses, reinforcing a culture of accountability in management.

Achievement of GHG reduction goals

Plant	Measures and Performance in 2023
Taiwan Plant 1	Chiller replacement achieved annual energy savings of 416,976 kWh (equivalent to 1,501 GJ).
Taiwan Plant 2	Air compressor replacement achieved annual energy savings of 719,268 kWh (equivalent to 2,589 GJ).
Suzhou Plant	Adjusting the frequency of the air conditioning fans, turning off the humidifier outside of winter, and shutting down power-consuming equipment during holidays achieves annual energy savings of 3,278 MWh (equivalent to 11,801 GJ).
Malaysia Plant	Replacing traditional fluorescent lamps with LED lamps, installing solar streetlights, and replacing turbo air compressors achieved annual energy savings of 1,083,660 kWh (equivalent to 3,901 GJ).
Total	19,792GJ



5.6 Third Party Assurance Statement

Assurance Statement of Sustainability Report



Independent Assurance Statement

Scope and Approach

Chang Wah Technology Co., Ltd. ("CWTC" or "the Company") commissioned DNV Business Assurance Co., Ltd. ("DNV" or "we") to undertake independent assurance over the Company's 2023 Sustainability Report for the year ended 31 December 2023 ("the Report"). The Report is prepared in accordance with the reporting principles and requirements of the Global Reporting Initiative (GRI) Standards, which also serve as the basis of our verification.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing the evaluation of reporting principles with a Type 1, moderate level of assurance, according to the AA1000 Assurance Standard v3.

We understand that the reported financial data and information are based on the data from the Company's financial statements on the consolidated basis, which are subject to a separate independent audit process. The economic data and information have been obtained from the certified financial statements of the Company and were not in the scope of our assurance, as DNV has relied on relevant information as accurate for the purposes of our scope of work. In addition, the Company's data on greenhouse gas emissions is not within the current scope of work as the results had been verified by other assurance engagements.

The Report also incorporated disclosures with reference to relevant sustainability reporting guidelines, such as the Sustainability Accounting Standards Board's (SASB) Sustainability Accounting Standard for the Semiconductors Industry, and the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Responsibilities of Chang Wah Technology Co., Ltd. and the Assurance Provider

The management of CWTC has sole responsibility for the preparation of the Report in accordance with the stated criteria and for the design, implementation, and maintenance of necessary internal controls. In performing our assurance work, our responsibility is to the management of CWTC. Our statement, however, represents our independent opinion and is intended to inform all of CWTC's stakeholders.

DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. We have no particular contractual or other affiliations that could lead to conflicts of interest against the current assurance engagement under the established policies and procedures to ensure unwavering adherence to the independence principle.

Our assurance engagement is based on the assumption that the data and information provided by the Company are complete, sufficient, and authentic. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Basis of Our Opinion

A multi-disciplinary team of sustainability and assurance specialists performed work at the Company's headquarters and site level. We undertook the following activities:

- Review of the current sustainability issues that could affect CWTC and are of interest to stakeholders.
- Review of CWTC's stakeholder engagement approach and recent outputs.
- Review of information provided to us by CWTC on its reporting processes and management relating to the Principles.
- Conducted interview with the selected senior management responsible for the management of sustainability issues and stakeholder relationships to understand the level of commitment and recent stakeholders' feedback.
- Conducted on-site visits to CWTC's Plant 2 in Kaohsiung, Taiwan and data checks on the Company's main manufacturing sites in Taiwan (Kaohsiung), China (Suzhou and Chengdu) and Malaysia, as well as affiliated offices to assess the systems and processes for implementing sustainability initiatives and preparing site-level data.
- Review of supporting evidence for key claims and 2023 data in the Report, as reported information beyond 2023 is not within the scope of the current engagement. Our checking processes were prioritised according to the materiality of issues at the consolidated corporate level. In addition, we were able to conduct interviews with the corporate functions involved, considering the nature and management of the sustainability issues concerned.
- Review of the processes for gathering and consolidating the specified performance data and, for a sample, checking the data consolidation. Where data on financial performance and greenhouse gas emissions had been checked by other assurance providers or engagements, we tested the transcription from these sources to the Report.
- An independent assessment of CWTC's reporting in accordance with the Global Reporting Initiative (GRI) Standards.
- The verification was conducted based only on the Chinese version Report.



Opinion

On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe CWTC's adherence to the Principles.

In terms of the reliability of the performance data, in accordance with moderate level assurance requirements, nothing came to our attention to suggest that these data have not been properly collated from the information reported at the operational level nor that the assumptions used were inappropriate.

Observations

Without effecting our assurance opinion, we also provide the following observations.

- Continual advancement of the internal data collection and consolidation protocols is recommended to lay a solid foundation for the Company's sustainability initiatives and well-grounded monitoring and reporting.
- Provided the extensive geographical distribution of CWTC's operations, we also encourage the Company to continuously consider local operating contexts when devising longer-term sustainability strategies and targets at the consolidated corporate level.
- As the concept of impact has been reaffirmed, continued efforts in advancing impact management methodologies across the Company's material topics and among its stakeholders are recommended accordingly.

Stakeholder Inclusiveness and Responsiveness

The Company has identified the expectations of stakeholders through internally devised mechanisms in dialogue with different groups of stakeholders. The stakeholder concerns are well identified and documented, and the significant sustainability issues identified through this process are reflected in the Report.

Sustainability Context

The Report provides an accurate and fair representation of the level of implementation of related corporate sustainability policies and meets the requirements of the GRI Standards.

Materiality

The process developed internally has not missed out any significant, known material issues, and these issues are fairly covered in the Report. A methodology has been developed to evaluate the priority of these issues.

Completeness

The Report covers performance data against the GRI Standards disclosures that are identified as material within the Company's reporting boundary. The information in the Report includes the Company's most significant initiatives or events that occurred in the reporting period.

Accuracy and Reliability

The Company has developed the data flow for capturing and reporting its sustainability performance. In accordance with moderate level assurance requirements, we conclude that no systematic errors were detected which causes us to believe that the specified sustainability data and information presented in the Report are not reliable.

Impact

The Company presents the impacts related to its identified material topics by measuring and monitoring impacts through appropriate performance metrics demonstrating outcomes and outputs of its value creation processes. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Impact.

For and on behalf of DNV Business Assurance Co., Ltd.

Date: 04 July, 2024

Yu Chung Chen
Lead Verifier
Business Assurance
DNV Taiwan

David Hsieh
District Manager
Business Assurance
DNV Taiwan

Statement Number: C687524-2023-AG-TWN-DNV