



股票代碼 4927

泰鼎國際股份有限公司
Apex International Co., Ltd.

2024 永續報告書




Sustainability Report

Published in June 2025

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Highlight of Sustainability

	<ul style="list-style-type: none"> Renewable energy usage: 3.08% Completed solar installation capacity: 8,297 kWp Wastewater recycling rate: 32.14%
	<ul style="list-style-type: none"> Female employee ratio: 57.37% Average employee training hours: 40.99 hours Community contribution in medical care and environmental initiatives
	<ul style="list-style-type: none"> 6%-20% ranking in the 11th (2024) Corporate Governance Evaluation (CGE) Top 5% of electronics companies with a market capitalization between NT\$5 billion and NT\$10 billion. Obtained ISO 14064-1 certification

Development Plan and Strategy

Short-term	<ul style="list-style-type: none"> 2025 Obtain ISO 14064-2 certification. 2026 Set Science-Based Targets (SBT). 2027 Obtain ISO 50001 certification. Reduce greenhouse gas emissions by 5% by 2027 (base year: 2022).
Mid and Long-term	<ul style="list-style-type: none"> 2035 Achieve 50% wastewater recovery rate. (AQUA Project) 2060 Achieve 50% renewable energy usage. (Solar Project)

Sustainable Development

2016	<ul style="list-style-type: none"> Established a greenhouse gas emissions inventory. Awarded the "Human Capital Investment Award" at the Asia Corporate Social Responsibility Awards (AREA). Listed in the Taiwan Corporate Governance 100 Index.
2017	<ul style="list-style-type: none"> Published the first Corporate Social Responsibility Report (CSR Report). Awarded the "Health and Wellness Promotion Award" at the AREA.
2019	<ul style="list-style-type: none"> Set greenhouse gas reduction targets.
2020	<ul style="list-style-type: none"> Received the 22nd Overseas Taiwanese Business Pillar Award. Ranked in the 6%-20% range in the CGE for five consecutive years.
2021	<ul style="list-style-type: none"> Launched the Solar Project. Obtained the Taiwan patent for "Anodic Sludge Removal Device, Method, Electronic Equipment, and Removal System." Awarded the "Health and Wellness Promotion Award" at the AREA. Ranked in the 6%-20% range in the CGE for six consecutive years. Awarded the Bronze Award in the Taiwan Corporate Sustainability Awards (TCSA) Sustainability Reporting Category.
2022	<ul style="list-style-type: none"> Launched the Aqua Project and LEAN Project. Established the Sustainable Development Committee. Reduced greenhouse gas emissions by 5% (Base year 2019). Awarded the "Health and Wellness Promotion Award" at the AREA. Ranked in the 6%-20% range in the CGE for seven consecutive years.
2023	<ul style="list-style-type: none"> Renamed the CSR Report to the "Sustainability Report." Obtained ISO/IEC 27001 certification. Awarded the Social Contribution Development at the AREA. Ranked in the 6%-20% range in the CGE for eight consecutive years. Awarded the Bronze Award in the TCSA Sustainability Reporting Category.
2024	<ul style="list-style-type: none"> Obtained ISO 14064-1 certification. Signed the Science Based Targets initiative (SBTi) commitment. Awarded the Corporate Sustainability Reporting at the AREA. Ranked in the top 5% of the CGE for the first time. Awarded the Silver Award in the TCSA Sustainability Reporting Category.

1. Introduction

1.1 About this Report

Reporting Period

This report is the 9th Sustainability Report published by Apex International Co., Ltd. (hereinafter referred to as "Apex"). Since 2016, the company has consistently prepared an annual Corporate Sustainability Report. In 2023, it was renamed the "Sustainability Report." The report is published every June, and the data and content disclosed in this report are based on the 2024 fiscal year (from January 1 to December 31, 2024). To ensure the completeness and comparability of the information, some data will be retroactively traced back to the 2022 fiscal year (from January 1 to December 31, 2022) and earlier periods.

Reporting Scope and Boundary

The boundaries and scope of this report include Apex International Co., Ltd. and its subsidiaries, comprising six operational locations. The operational regions encompass Taiwan, Thailand, mainland China, and Singapore. The boundary selection principle considers the nature of the business, industry relevance, and control. Financial data is derived from the audited consolidated financial statements of Apex by KPMG, which include six subsidiary companies. Environmental and social data also align with those of the consolidated financial entities.

Data collection and measurement

This report's information and statistical data are derived from self-conducted surveys and statistics. The performance data presented in this report are aggregated by relevant department personnel through daily operational management data, education and training, issue discussions, and interviews with various units in accordance with the requirements of GRI guidelines and indicators and presented in commonly used numerical descriptions.

Report Writing Guidelines

This report is prepared following the GRI Standards issued by the Global Reporting Initiative (GRI). It draws upon the reporting frameworks of the Task Force on Climate-Related Financial Disclosures (TCFD), established by the Financial Stability Board (FSB), and the standards of the Sustainability Accounting Standards Board (SASB).

Assurance Statement

This report has been verified by the third-party assurance provider, AFNOR Asia, in accordance with the AA1000 AS v3 assurance standard, achieving Type 2 Moderate Level assurance. This ensures that the content disclosed in this report complies with the GRI Standards and the AA1000 Accountability Principles (AA1000 AP). Please refer to the Verification Statement within this report for further details.

Contact Information

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1.2 Letter from The Sustainable Development Committee Chairperson

As industries and lifestyles evolve, we are entering a new business era driven by our pursuit of long-term development and our continued commitment to environmental and social responsibility. Against this backdrop, Apex firmly believes that a company should not only focus on business growth and shareholder value but also actively consider its impact on society and the environment—becoming a key force in promoting positive cycles and sustainable prosperity.

Sustainability has always been one of Apex' s core values. We recognize that true long-term success can only be achieved through balanced progress in environmental protection, social inclusion, and corporate governance. Therefore, we integrate sustainability goals into daily operations and decision-making, formulating clear strategies based on our sustainability roadmap to turn our commitments into action—driving growth through innovation and realizing value through responsibility.

In terms of information transparency, Apex continues to enhance its disclosure standards to ensure stakeholders have timely access to key information. In addition to live-streaming shareholder meetings, full recordings are uploaded immediately afterward. The company also proactively discloses financial information and annual reports ahead of schedule, publishing bilingual financial statements to uphold transparency and timeliness. Since 2016, Apex has voluntarily issued bilingual Sustainability Reports, and starting in 2024, it has published annual TCFD reports, aligning with international frameworks to strengthen governance and transparency and ensure investors and stakeholders receive critical information promptly.

In environmental sustainability, we have established three key pillars. Through clear strategies and phased targets, we are implementing concrete action plans to fulfill our commitment to sustainable corporate operations:

1. Carbon Reduction and Renewable Energy Advancement: The “LEAN Project” and “SOLAR Project” have been launched, with 2022 as the baseline year and a 5% carbon reduction target set for 2027. At the same time, the proportion of renewable energy use will increase progressively, reaching 5% by 2025, 10% by 2035, 30% by 2045, and 50% by 2060, driving the transition of our energy structure.

2. Energy Efficiency Enhancement: We continue to implement the ISO 50001 Energy Management System to strengthen energy monitoring and improvement processes systematically. Under the “LEAN Project,” six key measures have been introduced to review and optimize equipment performance, resulting in an average monthly energy consumption reduction of 13.39% compared to the baseline period. This significantly improves overall energy efficiency and gradually reduces carbon intensity, achieving dual benefits in energy conservation and emission reduction.
3. Resource Circulation Management: Through the “AQUA Project,” a water resource recycling initiative, we continue to optimize process water use and wastewater treatment systems. The goal is to achieve a 50% process water recycling rate by 2035, realizing circular economy principles and sustainable water resource utilization.

Apex allocates annual charitable funds to support local hospitals, communities, and schools. The company hosts charity fairs, Songkran celebrations, and employee recognition events to foster a positive workplace and strengthen team cohesion. Apex also contributes to education, healthcare, and social welfare, embodying its “people-oriented and socially responsible” philosophy.

Apex promotes a diverse and inclusive culture, with women comprising 29.11% of management. These efforts strengthen belonging and innovation across the company.

Strong governance underpins sustainability. Apex earned a Management Level B rating in the 2024 CDP Water Security Questionnaire, the AREA for Social Empowerment, and the Silver Award at the 17th TCSA Sustainability Reporting Awards.

Committed to integrity and transparency, Apex enhances oversight through functional committees, ensuring compliance and governance aligned with international standards.

Despite its progress, Apex recognizes ongoing challenges such as climate change and resource scarcity. Guided by innovation, responsibility, and shared prosperity, Apex will deepen ESG actions, strengthen decarbonization and energy-saving efforts, and collaborate with stakeholders for a sustainable future.

1.3 Promoting and Managing Sustainability

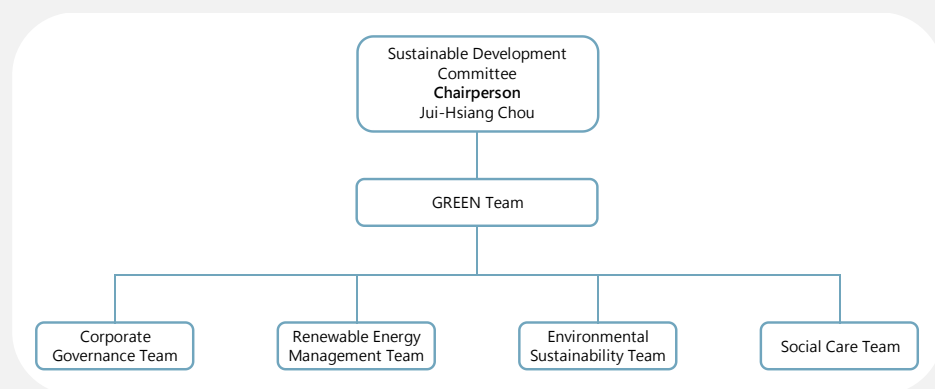
Sustainable Concept

Tenet	Apex's culture is people-oriented, emphasizing the integration of Western management discipline with Eastern philosophical spirit, balancing "emotion" and "reason." In the face of changes in both internal and external environments, the "Middle Path" is our guiding principle. We adhere to the "Middle Path" in our operations, responding to all changes accordingly.
Mission	To create value for stakeholders and foster mutually beneficial, win-win relationships, sustainability and resilience are the long-term goals we strive to achieve.
Vision	Manufacture single side~20-layer PCB and HDI Plan the optimal production and sales balance strategy to meet customer demands for price and quality while simultaneously controlling risks.

Organization Structure

The Board of Directors is the company's highest governing body, responsible for approving climate-related risk and opportunity policies, key sustainability strategies, and the annual sustainability report. Through the Sustainability Development Committee, the Board oversees and monitors related matters.

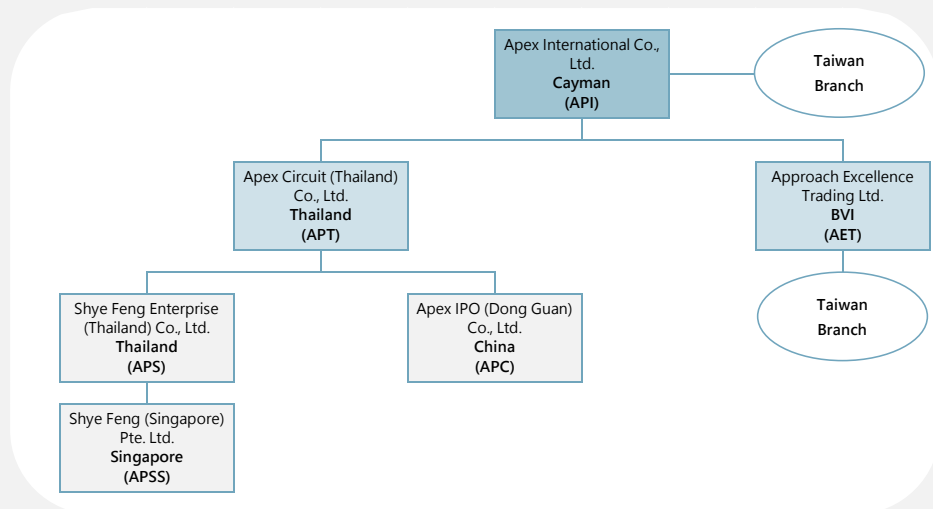
The Committee, composed of board members, serves as the top decision-making body for climate and sustainability issues. Management follows the approved directions to assess major risks and opportunities, set strategies and long-term goals, and implement control measures.



Sustainable Development Management Process



1.4 Company Overview



Establishment Date	October 28, 2009	Company Registration	Cayman Islands
Headquarters	Taiwan	Apex International Co., Ltd.	(Acronym: Apex)
Branch office	Taiwan	Approach Excellence Trading Ltd.	(Acronym: AET)
Subsidiary	Thailand	Apex Circuit (Thailand) Co., Ltd.	(Acronym: APT)
	Thailand	Shye Feng Enterprise (Thailand) Co., Ltd.	(Acronym: APS)
	China	Apex IPO (Dong Guan) Ltd.	(Acronym: APC)
	Singapore	Shye Feng (Singapore) PTE. LTD.	(Acronym: APSS)
Paid-Up Capital	NTD 2.19 Billion		
Consolidated Revenue	NTD 12.46 Billion		
Employees	8,227 People		
Products	Single-Sided, Double-Sided, Multi-Layer, Printed Circuit Board (PCB) and HDI		
Production Facilities	APT: APEX1, APEX2, APEX3 APS		

Products and Application



Home Appliances
Display, Smart
speaker, DVD

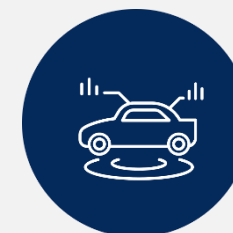


PC-Related
Printer, HDD,
Notebook

Communication
Gateways,
Switch, Tuner



Auto Parts
Audio,
Navigation,
Control system



Outlook



Consumer Electronics
TV, Smart home,
Recreation



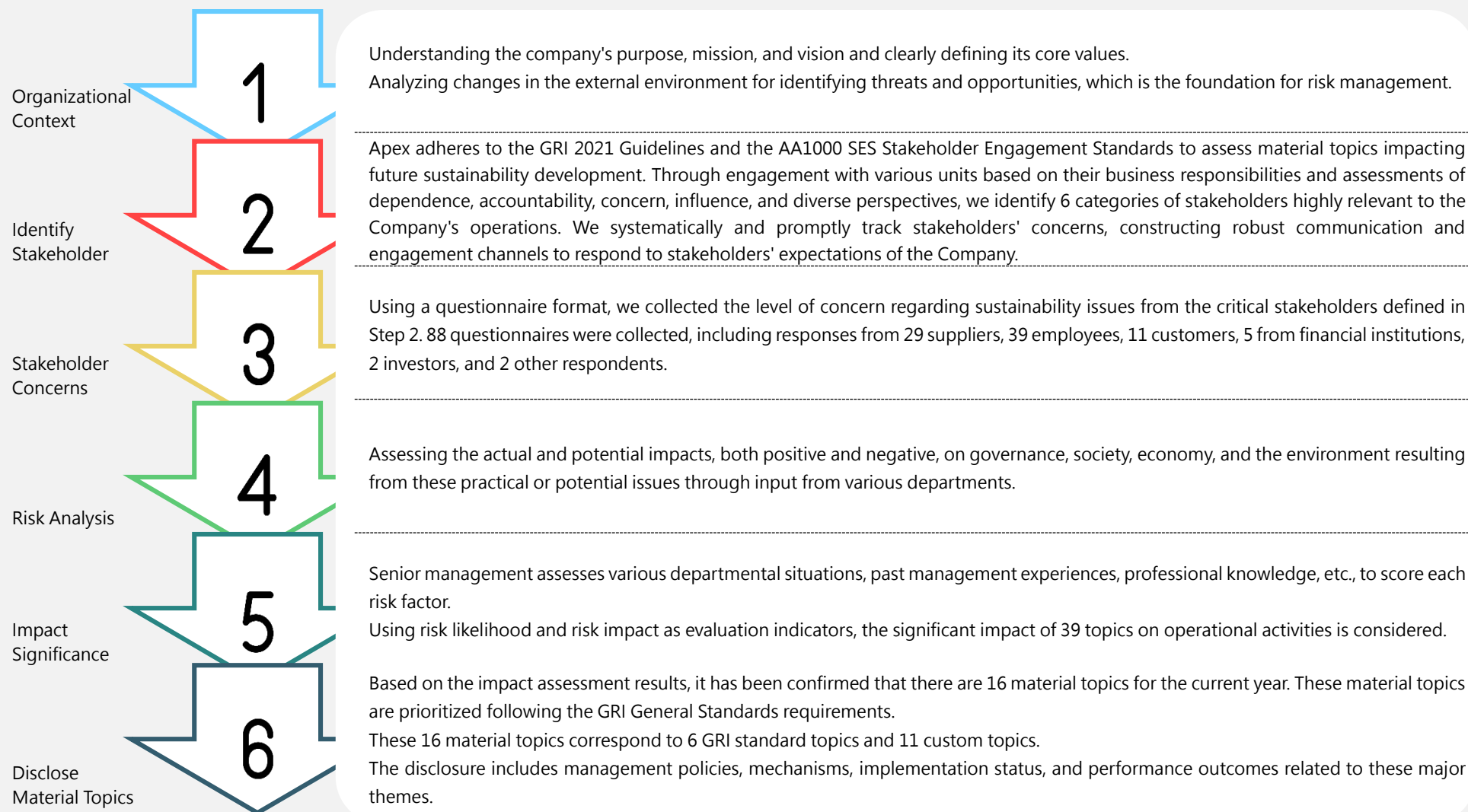
EV Applications
Navigation, Audio,
Control system, EV



Satellite/5G Applications
Antenna, Server, Switch

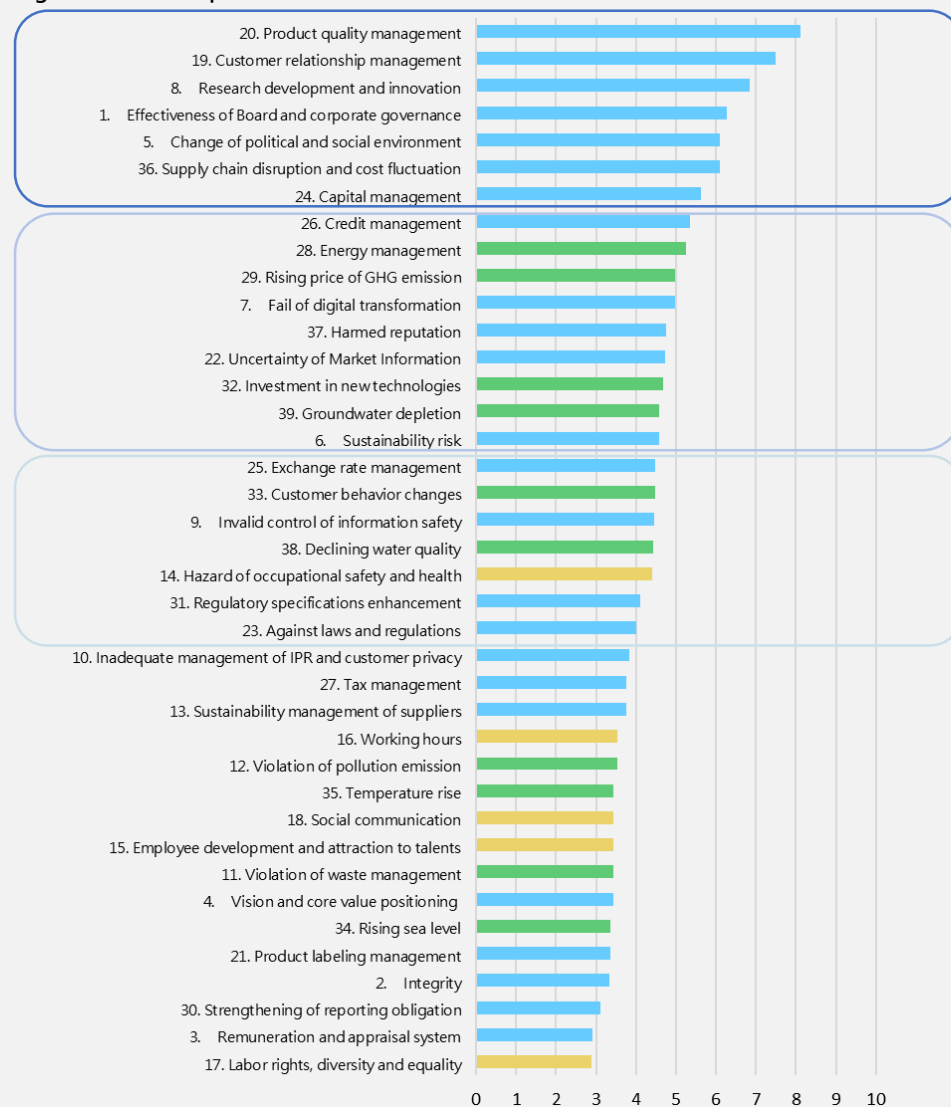
2. Materiality Analysis and Stakeholder Engagement

2.1 Materiality Analysis Process

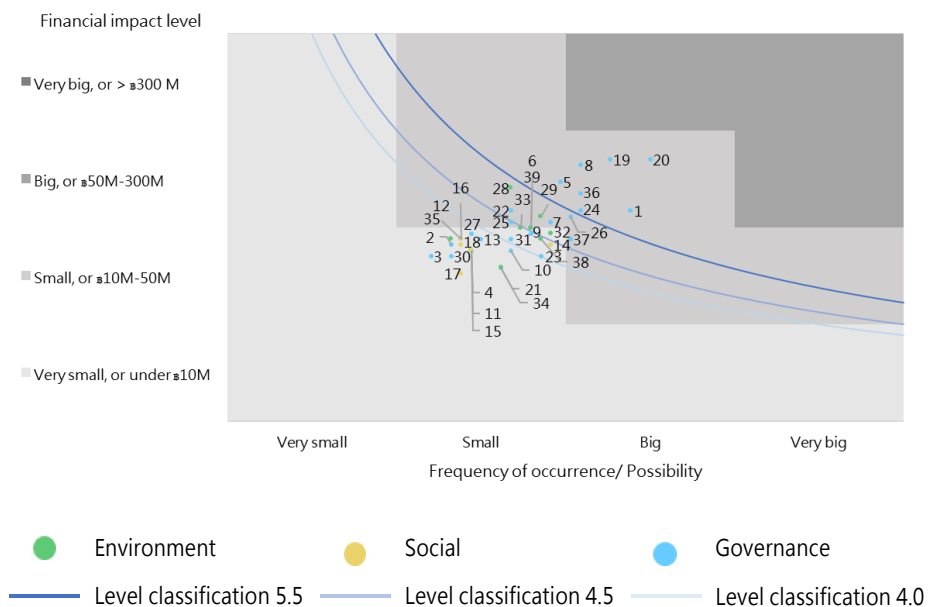


2.3 Risk Appetite

Significance of Impact









Risk Level Matrix



Risk level		Classification	Amount
A	Highest risk	≥ 5.5	7
B	High risk	≥ 4.5, but < 5.5	9
C	Moderate risk	≥ 4.0, but < 4.5	7
D	Low risk	<4.0	16

2.4 Impact Identification and Value Chain

2024 Material Topics	Materiality		GRI Topic /Custom Topics	Value Chain Impact			Positive and Negative Impacts	Disclosure Sections	UN SDGs
	2024	2023		Upstream	Operations	Downstream			
Product quality management	A	A	Custom Topic	✓	✓	✓	Negative: potential impacts are (1) difficulty of introducing new products which block business development; (2) present orders could drain. Positive: catch the trend of movement of industry then introduce more orders from European and American areas. °	3.3 Products and Services	
Customer relationship management	A	A	Custom Topic		✓		Negatives: Inaccurate judgment of market demand, misplaced production and sales planning, failure to take customer complaints seriously, resulting in loss of orders or obstruction of new product development. Positive: Make good use of existing scale and industry trends, inject new orders to maintain scale and niche advantages, and create shareholder value.	3.6 Customer Service	  
Research development and innovation	A	A	Custom Topic	✓	✓	✓	Negative: insufficient competitiveness may lead lose orders. Positive: beneficial to marketing development, energy saving and efficiency increasing, increase job opportunity and shareholder value.	3.3 Products and Services	 
Effectiveness of Board and corporate governance	A	A	2-18 Evaluation of the Performance of the Highest Governance Body	✓	✓	✓	Negative: declining of governance effectiveness would impact operation significantly, it could be strategic mistake, major operation loss or damage of survival ability. Positive: good governance effectiveness could increase scale, continuous growing profit and shareholder value.	3 Corporate Governance	
Change of political and social environment	A	A	Custom Topic	✓	✓	✓	Negative: rising uncertainty level of market demand will control ability of orders decline; population structure and social environment change will make recruiting harder which affect integral competitiveness. Positive: based on existed scale advantage, strengthen linkage to society and counter parties then keep competitive advantage and inject new blood of orders and talents.	5 Social Prosperity	

2024 Material Topics	Materiality		GRI Topic /Custom Topics		Value Chain Impact			Positive and Negative Impacts	Disclosure Sections	UN SDGs
	2024	2023			Upstream	Operations	Downstream			
Supply chain disruption and cost fluctuation	A	A	308	Supplier Environmental Assessment	✓	✓	✓	Negative: (1) unstable plans and implementation of material preparation; (2) trends of fragmentation of global market, pandemic disease, carbon cost and climate change make regional supply unstable. In addition, metal and material price are affected by political and economic situation that make range and frequency of price fluctuation of materials bigger. Purchase department face significant challenge of cost control. Positive: the irreversible change of international politics has pushed the industry to move to south-east Asia which indirectly induces joint of suppliers.	3.4 Industry Supply Chain	
			414	Supplier Social Assessment						
Capital management	B	B	Custom Topic			✓		Negative: insufficient working capital will disrupt operations. Positive: well management of capital can expand operation leverage and create room for business upgrade.	3.2 Financial Performance	
Credit management	B	B	Custom Topic			✓		Negative: fail of account receivable management, declining investor confidence. Positive: helpful to capital management.	3.2 Financial Performance	
Use of renewable energy sources	B	B	302	Energy		✓	✓	Negative: unstable supply of energy and its price would directly impact operating cost; trend of increasing electricity price is certain and clear; if supply of electricity is not stable, cost of shut down is quite big. Positive: speed up innovation of reducing cost or increasing efficiency; to think of possibility of self-owned power plant in the future.	4 Sustainable Environment	
Rising price of GHG emission	B	B	305	Emissions	✓	✓	✓	Negative: carbon fee could be reflected in energy cost, material cost, management cost, regulation fee cost and transportation cost etc. That it may increase operation cost gradually. Positive: speed up innovation of reducing cost or increasing efficiency.	4 Sustainable Environment	

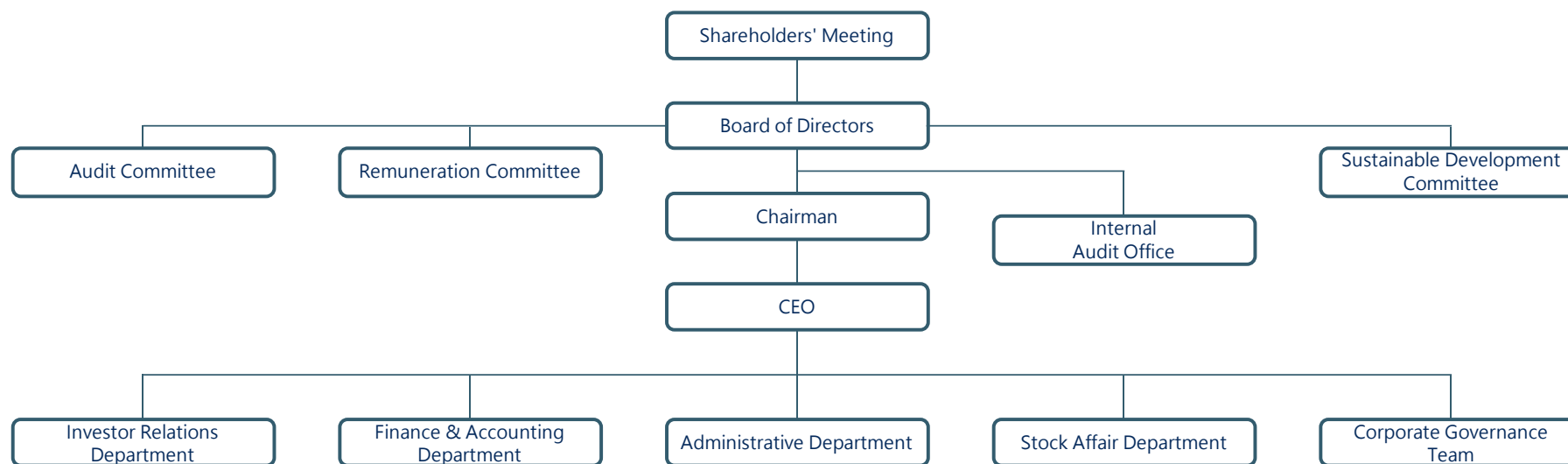
Highlight of Sustainability		Introduction		Materiality Analysis and Stakeholder Engagement		Corporate Governance	Sustainable Environment	Social Prosperity	Appendix
2024 Material Topics	Materiality		GRI Topic /Custom Topics	Value Chain Impact			Positive and Negative Impacts	Disclosure Sections	UN SDGs
	2024	2023		Upstream	Operations	Downstream			
Fail of digital transformation	B	-	Custom Topic		✓		Negative: operating efficiency being behind the industry; mistake of data generation. Positive: promotion of operating efficiency; data and number generation being instant and correct which indirectly could support innovation.	3.3 Products and Services	
Harmed reputation	B	-	Custom Topic		✓		Negative: possibly lead shut down, losing talents, losing capital. Positive: based on existed scale and goodwill advantage, keep input ESG relative improvement to enlarge operating advantage in ASEAN area and inject momentum of growth.	3.7 Ethics and Integrity	
Uncertainty of Market Information	B	B	Custom Topic	✓	✓	✓	Negative: increasing uncertainty of market information would possibly lead mistake in planning of balancing production and sales which indirectly increase risk of stock and cash flow. Positive: we have scale advantage on quantity of purchase and amount of financing, therefore if we could well plan and well utilize the scale advantage, it could increase negotiation room	3.4 Industry Supply Chain	
Investment in new technologies	B	-	Custom Topic		✓		Negative: lagging of installment or development of new technology which lead losing orders or operating difficulty. Positive: seek technical transformation under trend of carbon reduction which may possibly bring in potential orders and helpful to business development.	3.3 Products and Services	
Sustainability risk	B	B	Custom Topic	✓	✓	✓	Negative: Production halts, operational shutdowns. Positive: Improving water resource efficiency can lead to tax benefits and reduce long-term operating costs.	3.7 Ethics and Integrity	
Groundwater depletion	B	-	303		✓	✓	Negative: overly chase after short-term performance would harm long-term competitiveness. Positive: think of operating strategy by macro and chronic aspect to improve competitive base.	4 Sustainable Environment	

2.5 Stakeholder Communication

Stakeholder	Concerned Topic	Response Department	Communication Channels	Frequency	Communication status in 2024
Society	Compliance level Research development and innovation Labor rights, diversity and equality Occupational safety and health Product labelling	<ul style="list-style-type: none"> RBA Team ADM HR 	Compliance with Relevant Regulations	Irregular	1. Engage in community outreach activities
			Website Announcements	Irregular	2. Comply with environmental regulations
			Community Maintenance, Public Welfare Activities	Irregular	3. Continuously improve water resource and waste management systems
			Interaction with Local Government	Irregular	4. Plant greenery
					5. Support women's employment
Customer	Research development and innovation Risk management Integrity Quality management Information safety Digital transformation	<ul style="list-style-type: none"> BIZ QA ADM R&D PUR 	Phone Calls, Email Correspondence, Meetings, Site Visits	Irregular	1. Enhance sustainability reporting content
			Internal and External Audits	Irregular	2. Respond to CDP questionnaire
			Customer Satisfaction Surveys	Semi-annual	3. Continuously improve water resource and waste management systems
			International Regulations (RoHS, HF, Etc.) Compliance Assessments, Compliance Assessments of Customer-Requested Items	Irregular	
Employee	Sustainability risk Research development and innovation Impact on goodwill Reporting obligation Pollution and waste management	<ul style="list-style-type: none"> Employee Welfare Committee ADM HR 	Email Notifications, Facebook Announcements, Line Official Account Announcements, Intranet Announcements	Irregular	1. Enhance sustainability reporting content
			Employee Welfare Committee Meetings, Internal Meetings, Complaint Box	Irregular	2. Compliance with regulations, no major compliance incidents
			Employee Satisfaction Surveys (Reply: 4,647)	Yearly	3. Link compensation with performance and conduct regular performance reviews
			Occupational Physical Check-ups	Yearly	4. Obtain various certifications such as ISO to ensure quality of management
			Safety Awareness Campaigns, Safety and Occupational Committees; ISO45001 Committee	Irregular	5. Actively embrace digitalization in operations
			Fire Drills	Yearly	
			Employee Training (Average 40.99 hours per person)	Annual Plan	

Highlight of Sustainability	Introduction	Materiality Analysis and Stakeholder Engagement	Corporate Governance	Sustainable Environment	Social Prosperity	Appendix
Stakeholder	Concerned Topic	Response Department	Communication Channels		Frequency	Communication status in 2024
Government	Impact on goodwill Integrity Vision and mission Water resource management Pollution and waste management	<ul style="list-style-type: none"> Board Corporate Governance F&A ADM 	Official letters, Media, Official Website, Email, MOPS, Seminars		Irregular	1. Participate in advocacy and seminars organized by regulatory authorities
			TCFD Report, ESG Report		Yearly	2. Compliance with regulations, no major compliance incidents
			Compliance with Relevant Regulations		Irregular	3. Conduct annual risk management analysis
						4. Receive ESG-related awards and international ratings
			Corporate Governance Evaluation		Yearly	5. Rank in the 6~20% of the 11th(Y2024) CGE
Shareholder	Compliance level Research development and innovation Risk management Impact on goodwill Quality management Customer relationship management	<ul style="list-style-type: none"> IR 	Shareholders' Meetings, Annual Report, ESG Report		Yearly	1. Shareholders' meeting
			Earning Call, Spokesman Window, Mops, Official Website		Irregular	2. Enhance sustainability reporting disclosure content 3. Publish significant information and various announcements in accordance with laws and regulations
Supplier	Compliance level Risk management Occupational safety and health Quality management Customer relationship management	<ul style="list-style-type: none"> PUR PD QA 	Supplier Audit, Acceptance Review		Yearly	1. Compliance with regulations, no major compliance incidents
			Phone Calls, Emails, Meetings		Irregular	2. Obtain various certifications such as ISO to ensure quality management, occupational health and safety management, and labor rights

3. Corporate Governance



Material Topic	Effectiveness Corporate Governance
Policies and Commitments	Memorandum of Association and Articles of Association Principle of Corporate Governance Compliance with the Establishment of the Board of Directors and the Board's Exercise of Powers Ethical Corporate Management Best Practice Principles Code of Ethics for Directors and Officers
Governance Structure	Corporate governance team, Remuneration committee, Audit committee and Internal audit unit
Management Actions	Establish corporate governance regulations Conduct annual board performance evaluations (including individual director self-assessment, board self-assessment, and functional committee self-assessment) Conduct a comprehensive board performance evaluation by engaging external professionals every 3 years

Execution objectives	Annual Corporate Governance Evaluation 6%~20%	
Stakeholder Engagement	Stakeholders	Society, Customers, Employees, Government, Shareholders
	Communication Channels	Society: Website announcements, participation in community events Customers: Customer satisfaction surveys, periodic communication Employees: Platform announcements, internal meetings, complaint mailbox, educational training programs Government: Corporate Governance Evaluation, correspondence Shareholders: Reporting and contact form via the official website
Performance in 2024	<ul style="list-style-type: none"> Rank in the 6~20% of the 11th(Y2024) CGE The Performance Evaluation Of Apex Board Of Directors 	

3.1 Board Governance

Board of Directors Selection

According to Apex' s Memorandum and Association, the Directors (including Independent Directors) shall be nominated by adopting the candidate nomination system specified in the Applicable Public Company Rules as long as the shares are listed on the TPEX or the TWSE. The rules and procedures of the nomination of candidates shall comply with the procedure approved by the Board of Directors and ordinary resolution, provided that such procedure shall comply with the Law, Memorandum of Association, Articles of Association, and the Applicable Public Company Rules. (The information on the director selection, please refer to the [company's website](#).)

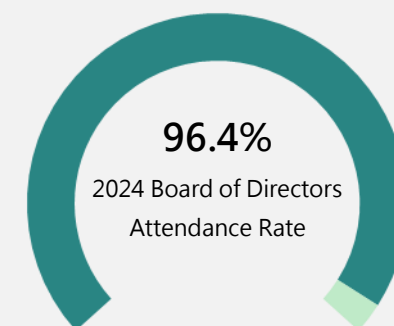
Composition of the Board of Directors

Name		Chairman ¹	Director	Director	Director	Director	Director	Director	Independent Director	Independent Director	Independent Director	Independent Director
Diversified Core Items		Shu-Mu Wang	Jui-Hsiang Chou	Yung-Yuan Cheng	Shun-Chung Lee	Sen-Tien Wu	Somkiat Krajangjaeng	Tu-Chuan Chen	Chau-Chin Su	Yung-Tsai Chen	Jesadavat Priebjrvat	Ray-Hua Horng
Date Elected		May 24, 2022										
Basic Requirements	Nationality	R.O.C.	R.O.C.	R.O.C.	R.O.C.	R.O.C.	Thailand	R.O.C.	R.O.C.	R.O.C.	Thailand	R.O.C.
	Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Female
	Age	65	65	66	55	56	63	64	69	64	68	60
Professional Background	Bank					✓				✓		
	Securities									✓	✓	
	Accounting & Finance	✓	✓			✓				✓	✓	
Professional Knowledge	Industry Experience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Marketing	✓	✓		✓	✓				✓	✓	
	Risk Management	✓	✓	✓		✓					✓	
Independence ²		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Diversity of board members

The composition of the board of directors is determined with professional background, gender, age and education taken into consideration and also diversified for the purpose of complementation to increase the overall capacity of the board. Proceed in accordance with paragraph 3 of Article 20 of the Company's "Principle of Corporate Governance", the composition of the board of directors shall be determined by taking diversity into consideration and formulating an appropriate policy on diversity based on the company's business operations, operating dynamics, and development needs. It is advisable that the policy include, without being limited to, the following two general standards:

- (1) Basic requirements and values: Gender, age, nationality, and culture.
- (2) Professional knowledge and skills: A professional background (e.g., law, accounting, industry, finance, marketing and technology), professional skills, and industry experience.



¹ Currently serving concurrently as APT Chief Strategy Officer, and by Article 15 of the Company' s Rules and Procedure of Board of Directors Meetings, will recuse from related discussions and voting.

² None of the directors are spouses or relatives within the second degree of kinship, in compliance with Article 26-3, Paragraph 3, and Article 26-4 of the Securities and Exchange Act.

Board of Directors Operations

Board Responsibilities	Apex's Board of Directors is accountable for the shareholders' meeting. The operations and arrangements of its corporate governance system should ensure that the Board exercises its powers in accordance with laws, the company's articles of association, or resolutions of the shareholders' meeting.
Developing Vision	Embrace the initiative of sustainable development, align with international standards, and actively engage with society to foster a virtuous cycle.
Sustainable Development Strategy	Understanding significant issues of concern to stakeholders, capturing internal and external information, proposing strategies, overseeing implementation, and enhancing relevant information disclosure.

Directors Professional Development

Directors and executives of the company, in accordance with Taiwan regulations, each completed a minimum of 6 hours of training, achieving a 100% completion rate. The total training hours for the year 2024 amounted to 99 hours.

Course	Total Hour	Participants
Trends and Risk Management in Digital Technology and Artificial Intelligence	99	28
Driving Business Growth through Performance Management		
Corporate Governance Series Forum		
2024 CATHAY SUSTAINABLE FINANCE AND CLIMATE CHANGE SUMMIT		
NVIDIA's Three-Gigabit Miracle: New Thinking on the Semiconductor Industry Revolution Behind Artificial Intelligence		
Continuing Education Course for Accounting Supervisors of Issuers, Securities Dealers and Stock Exchanges		
2024 Insider Trading Prevention Seminar		
2024 Seminar of Shareholding Trading and Law Compliance for Insiders		

The Performance Evaluation of the Board of Directors

According to the "Board Performance Evaluation Measures," Apex conducted a comprehensive assessment of the board's performance, including individual self-assessment by directors, an internal evaluation of the board by its members, an internal assessment of various functional committees by the board, and an external evaluation conducted every three years to ensure the effectiveness of the board's operations.

The 2024 internal evaluation results were favorable, significantly contributing to the advancement of corporate governance and enhancing the effectiveness of the Board of Directors. Each of the company's functional committees comprises professionals who actively participate in meetings and provide valuable recommendations to support business operations.

In 2022, an external evaluation conducted by the Taiwan Investor Relations Institute (TIRI) recommended promoting diversity in board composition, improving board meeting formats, and enhancing director training programs. In response to these recommendations, Apex proposed measures to gradually improve and strengthen the board's functions.

(Please refer to the [company's website](#) for detailed assessment information.)

Executive Compensation and Incentives

To align with the company's sustainability vision, variable compensation for senior executives is linked to sustainability performance and integrated into the annual evaluation mechanism. This reinforces ESG strategy implementation, fulfills the company's sustainability philosophy, and advances phased goals. Annual performance reviews assess executives' operational and sustainability outcomes to determine compensation, bonuses, and retention, ensuring alignment with long-term sustainable growth.

The Compensation Committee establishes and reviews remuneration policies for directors and executives in line with regulations, adjusting them based on annual and long-term objectives. It recommends to the Board individual compensation packages to ensure a fair balance between performance and sustainable value.

Department heads and vice presidents or above must appoint deputies to strengthen succession through training and mentoring. Employees are encouraged to pursue continuous learning to enhance talent development and professional growth.

Functional Committees

	Audit Committee	Remuneration Committee	Sustainable Development Committee
Composition of Members	4 Independent Directors	2 Independent Directors and 1 External Expert	1 Director and 2 Independent Directors
Key Functions	<ul style="list-style-type: none"> Assist the Board of Directors in fulfilling its oversight responsibilities Compliance with relevant regulations Proper expression of financial statements oversight Execution of internal control system within the company 	<ul style="list-style-type: none"> Review the Company's compensation committee regulations and propose amendments. Establish and periodically review annual and long-term performance objectives and the policies, systems, standards, and structures for compensation for directors and executives. Assess directors' and executives' achievement of performance objectives regularly and, based on the evaluation results obtained from performance evaluation criteria, establish the content and amount of their individual compensation. 	<ul style="list-style-type: none"> Formulate sustainability policies. Guide, monitor, and review the effectiveness of sustainability initiatives and report to the board of directors. Promote and oversee the implementation of enterprise risk management. Handle other matters as instructed by the board of directors after resolution.
Meeting Activities in 2024	The Audit Committee met 5 times in 2024 Attendance Rate 100%	The Remuneration Committee met 2 times in 2024 Attendance Rate 100%	Held 2 meeting in 2024 Attendance Rate 83.33%
Implementation Status in 2024	<p>The Audit Committee regularly communicates with internal audit and external auditors. Please click and refer to the company's website:</p> <ul style="list-style-type: none"> Communication of Independent Directors, Auditing Office and Accountants The operational status of the Audit Committee in 2024 	<p>The Remuneration Committee regularly reviews the compensation system and performance evaluation methods for employees, directors, and executives. Please click and refer to the company's website:</p> <ul style="list-style-type: none"> The operational status of the Remuneration Committee in 2024 	<p>Regularly monitor the operation of corporate governance, corporate social responsibility, and the implementation of integrity management. Please click and refer to the company's website:</p> <ul style="list-style-type: none"> The operational status of the Sustainable Development Committee in 2024

3.2 Financial Performance

Material Topic	Capital management	
Policies and Commitments	<ul style="list-style-type: none"> Regularly conduct financial and internal systems audits and provide reports. 	
Governance Structure	Financial & Accounting Department, Audit Committee	
Management Actions	<ul style="list-style-type: none"> Periodically review long-term/short-term capital arrangements and manage financing channels and financial tools. 	
Execution objectives	<ul style="list-style-type: none"> Independent directors, audit executives, and accountants regularly communicate and conduct audits to examine and assess the reliability and integrity of financial and operational information; review existing systems to ensure compliance with significant policies, plans, procedures, laws, and regulations; inspect methods of asset safeguarding to verify the existence of assets; evaluate the economic efficiency of resource utilization. 	
Stakeholder Engagement	Stakeholders	Customers, Government, Shareholders, Suppliers
	Communication Channels	Customers: Internal and external audits Government: Compliance with relevant regulations Shareholders: Shareholders' meetings, annual reports Suppliers: Supplier audits
Performance in 2024	Please click and refer to the company's website: <ul style="list-style-type: none"> Financial Information Quarterly Financial Report 	

Material Topic	Credit management	
Policies and Commitments	<ul style="list-style-type: none"> Regularly conduct financial and internal system audits and provide reports. 	
Governance Structure	Financial & Accounting Department, Audit Committee, Business Department	
Management Actions	<ul style="list-style-type: none"> Regularly analyze accounts receivable ageing and review with business units to monitor customer dynamics proactively; conduct periodic credit reviews for existing customers; perform credit checks for new customer applications; finance department continuously monitors macroeconomic and industry changes. Continuously engage with professional institutions (such as banks and accounting firms) to enhance credit management mechanisms. 	
Execution objectives	<ul style="list-style-type: none"> Independent directors, audit executives, and accountants regularly communicate and conduct audits to examine and assess the reliability and integrity of financial and operational information; review existing systems to ensure compliance with significant policies, plans, procedures, laws, and regulations; inspect methods of asset safeguarding to verify the existence of assets; evaluate the economic efficiency of resource utilization. 	
Stakeholder Engagement	Stakeholders	Customers, Shareholders
	Communication Channels	Customers: Internal and external audits Shareholders: Shareholders' meetings, annual reports
Performance in 2024	Please click and refer to the company's website: <ul style="list-style-type: none"> Financial Information Quarterly Financial Report 	

Consolidated Statement of Comprehensive Income in the Most Recent 3 Years

Unit: Thousands of NTD

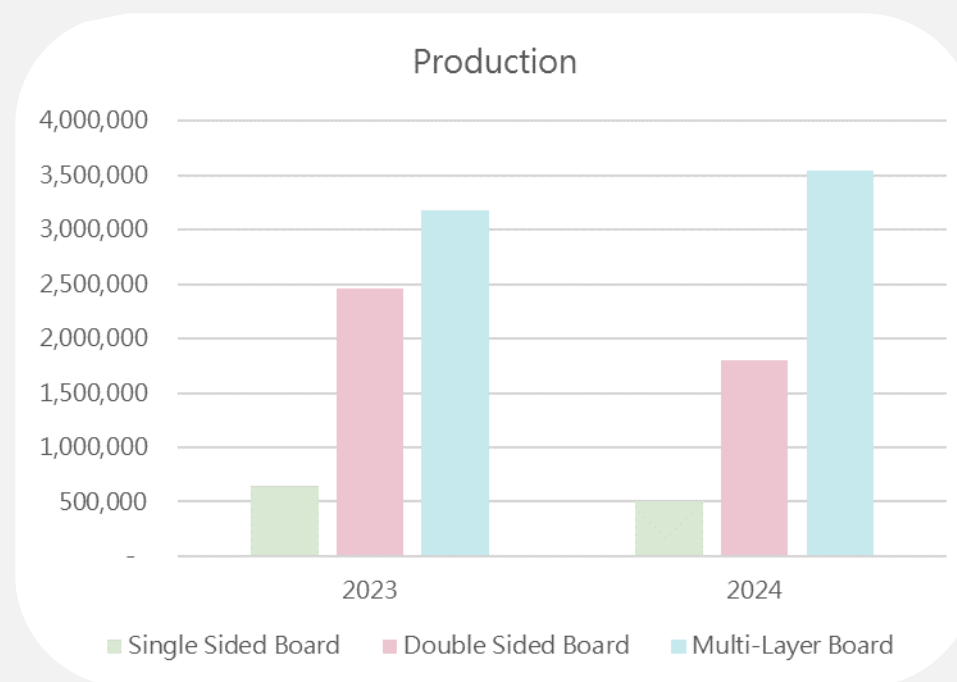
Subject	Year	2022	2023	2024
Revenue		14,906,225	12,628,251	12,459,179
Operating cost		12,076,878	11,599,833	12,155,379
Gross profit		2,829,347	1,028,418	303,800
Operating expenses				
Marketing expenses		975,651	845,964	816,517
Administrative expenses		742,145	774,367	874,838
R&D expenses		53,600	57,095	68,757
Anticipated impairment loss of credit		46,627	(44,506)	14,366
Total operating expenses		1,818,023	1,632,920	1,774,478
Net profit		1,011,324	(604,502)	(1,470,678)
Total non-operating income and expenses		(65,685)	(201,105)	(333,696)
Profit before tax		945,639	(805,607)	(1,804,374)
Less: Tax expense		67,272	(5,655)	(7,043)
Current Year's Net Profit/Loss		878,367	(799,952)	(1,797,331)
Current Year's Other Comprehensive Income (after-tax net amount)		489,070	83,202	453,254
Total Current Year's Comprehensive Income		1,367,437	(716,750)	(1,344,077)
Basic earnings per share		4.60	-4.2	-9.21
Diluted earnings per share		4.60	-4.2	-9.21

Note: In 2024, the total amount related to tax reductions and credits received from the governments of Taiwan and Thailand amounted to NTD 1,452,530 thousand.

Production Value in the Most Recent Two Years

Unit: square meter, NT\$ thousand

Production Value Main Product	Year	2023		2024	
		Production	Output Value	Production	Output Value
Single Sided Board		641,914	459,245	503,198	385,833
Double Sided Board		2,462,312	4,231,267	1,802,136	3,097,890
Multi-Layer Board		3,180,244	9,610,423	3,546,578	10,345,982
Total		6,284,471	14,300,935	5,851,912	13,829,705



3.3 Products and Services

Material Topic	Product quality management	
Policies and Commitments	<ul style="list-style-type: none"> Enhance and improve the quality control personnel's quality management knowledge through employee training and education. Regularly pursue ISO 9001 certification for quality management systems. 	
Governance Structure	Quality Assurance Department, Manufacturing Department, Management Information System Department, Research & Development Department, Business Department	
Management Actions	<ul style="list-style-type: none"> Promote implementation of quality concept (14Q project) Improve quality management system and innovate management method (method for handling different quality specs in the same factory). 	
Execution objectives	<ul style="list-style-type: none"> Strengthening employee quality awareness (14Q project) Achieve a customer satisfaction rating of 45 points (out of 50) 	
Stakeholder Engagement	Stakeholders	Customers, Employees, Suppliers
	Communication Channels	Customers: Customer satisfaction surveys Employees: Advocacy activities, Employee training Suppliers: Supplier audits, Acceptance reviews
Performance in 2024	<ul style="list-style-type: none"> All factory locations have successfully obtained ISO 9001:2015 Customer satisfaction with quality ratings: APT 43.4 · APS 46.0 (Out of 50) Host 14Q Day to reinforce quality awareness 	

Material Topic	Research development and innovation	
Policies and Commitments	<ul style="list-style-type: none"> Continuously enhance product and manufacturing capabilities Protect own and respect others' intellectual property rights 	
Governance Structure	Quality Assurance Department, Manufacturing Department, Management Information System Department, Research & Development Department, Business Department	
Management Actions	<ul style="list-style-type: none"> Continuously review manufacturing capabilities and quality management Invest in research and development and new equipment Improve the collaboration system between industry and education to nurture talent Strengthen awareness of intellectual property rights Apply for invention patents 	
Execution objectives	<ul style="list-style-type: none"> Initiate industry-academia collaboration Enhance technology or product development 	
Stakeholder Engagement	Stakeholders	Customers, Employees, Shareholders
	Communication Channels	Customers: Phone calls, Email correspondence, Meetings, Site visits Employees: Employee education and training Stakeholders: Earning call, Spokesman window, Shareholders' meetings
Performance in 2024	R&D expenses NTD 68,757 million	

Material Topic	Fail of digital transformation	
Policies and Commitments	<ul style="list-style-type: none"> Continuously review and enhance the development of information systems. 	
Governance Structure	Management Information System Department	
Management Actions	<ul style="list-style-type: none"> The MIS department has a dedicated contact point to assist with the gradual improvement of the information operating system and support the digital needs of each department. Continuously assess the timeline, necessity, and feasibility of upgrading the overall information system over the long term. 	
Execution objectives	<ul style="list-style-type: none"> Employee Satisfaction Survey – Areas Employees Hope the Company Will Improve Technology and Technical Capabilities: less than 10% 	
Stakeholder Engagement	Stakeholders	Employees
	Communication Channels	Employees: Employee education and training, Employee Satisfaction Survey
Performance in 2024	<ul style="list-style-type: none"> Employee Satisfaction Survey – Areas Employees Hope the Company Will Improve Technology and Technical Capabilities: 8.31% 	

Business of Apex and its Subsidiaries

Apex's business strategy is centered around understanding market demands and delivering products of stable quality. This approach emphasizes high standards in production management and forward-looking operational strategies, complemented by an efficient and harmonious corporate culture. This enables the company's products to offer a diverse range of applications in the consumer electronics market.

The primary focus is on the manufacturing and sale of double-sided and multilayer rigid printed circuit boards, which are used in LCD TVs, set-top boxes, hard drives, printers, wireless transmission equipment, TFT panels, automotive multimedia products, and more. Apex's products are not only manufactured and sold in Thailand but have also expanded to become suppliers to international consumer electronics brands.

Health Safety and Products

Apex is committed to producing products that meet health, safety, and quality requirements. The company strictly adheres to international regulations such as RoHS, REACH, and Halogen Free in inspecting materials, production processes, and emissions. The percentage of product sales complying with RoHS reaches 100%. Apex also incorporates these standards into employee training programs to ensure that employees have a thorough understanding of product ingredients and engineering manufacturing standards.

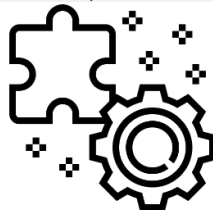
(Please refer to page 24. [International Certifications and Awards for relevant certifications.](#))

Quality Policy

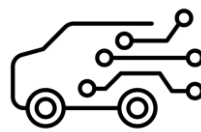
In order to provide customers with stable supply and product quality, Apex emphasizes strict quality control throughout the design, production, testing, and delivery processes. We aim to enable our customers to gain a competitive edge in the fiercely competitive market. Therefore, we are committed to (1) meeting customer requirements, (2) providing high-quality products to downstream manufacturers, (3) adhering to quality standards and delivering on time, taking pride in customer satisfaction, and (4) continuously improving and innovating quality control processes.



Quality Control



Process Management



Digital Technology

New Products and Upcoming Service Offerings

Consumer products such as LCD TVs, set-top boxes, and home entertainment continue to experience moderate growth, while almost all Japanese brand manufacturers are facing a shrinking market share. Apex has started developing new products such as automotive components, small-scale WI-FI and RF applications, and PCB transformers. By leveraging its new factories and upgraded production capacity, the Company aims to gain an advantage in these product categories and expand its involvement beyond the existing orders for LCD TVs and set-top boxes from Korean customers. In addition to ongoing research and development efforts for new products and technologies, Apex will continue to focus on the traditional market for hardboard PCBs to meet customer demands.

On the other hand, Apex will establish a Product traceability system to enhance quality improvement processes and risk management. The Company will also develop automated processes to improve quality stability.

Technologies and products developed

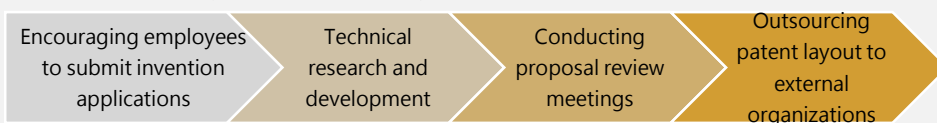
Year	Development Result	
2020	<ul style="list-style-type: none"> Gold finger process had been done MES system implement Acquired ISO17025 Lab Certification 	
2021	<ul style="list-style-type: none"> Auto Plating line Micro PAD 160x200um product Zero emission micro etching process 	
2022	<ul style="list-style-type: none"> Micro PAD 180x200um function tester development Thicker copper (3-5oz) board process development Microvia (diameter < 0.15mm and aspect ratio 1) 	
2023	<ul style="list-style-type: none"> 10-20 Layer (Thickness < 2.0) multilayer PCB develop Single build-up HDI Micro LED TV PCB 	<ul style="list-style-type: none"> Plasma de smear process High Tg (up to 220C), Low loss (Df < 0.005) material process
2024	<ul style="list-style-type: none"> Process development for 3 buildups (multiple pressing cycle) HDI PCB (3-n-3) Process development for 65-micron Line/Space Implementing "Pinless" CCD Layup for high layer board Improvement of registration accuracy of high layer PCBs (Server, Graphic card) 	

Intellectual Property Management Plan

To ensure the Company's intellectual property, strengthen its competitive advantages, achieve operational goals, increase profits, and ensure sustainable operations, the Company will actively assist R&D personnel in the right of R&D results and strive to promote internal intellectual property management plans to continue accumulating the Company's intellectual property volume, and promote the Company to use intellectual property as an advantage to its customers.

The Company regularly reports matters related to intellectual property to the board of directors every year, and the latest date of submission is December 20, 2024.

Intellectual Property and Patent Management Process



Patents

As of November 30, 2024, the performance of the intellectual property rights of the Company is as follows:

- In 2021, a Republic of China invention patent titled "ANODE SLUDGE REMOVAL DEVICE, CLEANING METHOD, ELECTRONIC DEVICE AND CLEANING SYSTEM" has been granted under patent number No. I738115.
- In 2022, a People's Republic of China invention patent titled "ANODE SLUDGE REMOVAL DEVICE, CLEANING METHOD AND CLEANING SYSTEM" has been granted under patent number No. 5139485.

Trade Secret Management



Employee personal account password login to computer equipment



Management of magnetic card access for company personnel entry and exit



Employees are contractually bound to maintain the confidentiality of the Company's trade secrets

International Certifications and Awards for relevant certifications

Apex is committed to protecting the rights and interests of customers and laborers and maintaining the safety, hygiene, and quality management of the production process. It has also been recognized by inspection agencies and partners.

Certificates	Valid Period	Range
ISO 14001 : 2015 Environmental Management Systems	11 Oct. 2023 - 10 Oct. 2026	Apex 1
	28 Dec. 2022 - 27 Dec. 2025	Apex 2&3
	19 Mar. 2024 - 18 Mar. 2027	Apex S
ISO 9001 : 2015 Quality Management Systems	19 Jul. 2023 - 18 Jul. 2026	Apex 1
	12 Dec. 2023 - 11 Dec. 2026	Apex 2&3
	19 Mar. 2024 - 18 Mar. 2027	Apex S
ISO 45001 : 2018 Occupational Health and Safety Management Systems	31 Jan. 2023 - 30 Jan. 2026	Apex 1
	31 Jan. 2023 - 30 Jan. 2026	Apex 2&3
IATF 16949 : 2016 International Automotive Task Force to harmonize quality management system	19 Jul. 2023 - 18 Jul. 2026	Apex 1
	05 Jan. 2024 - 11 Dec. 2026	Apex 2&3
TLS 8001 : 2020 Thailand Labor Standard	15 Feb. 2025 - 14 Feb. 2028	Apex 1
	15 Feb. 2025 - 14 Feb. 2028	Apex 2&3
Fire Drills Certificate	Issue Date: 25 Nov. 2021	Apex 1
	Issue Date: 01 Dec. 2021	Apex 2&3
	Issue Date: 03 Dec. 2021	Apex S
ISO/IEC 27001:2013 Information Security Management System	27 Aug. 2023 – 31 Oct. 2025	Apex
ISO 14064-1:2018 GHG Inventory Standard	2023 emission data: 14 May 2024	Apex
	2024 emission data: 07 May 2025	Apex

3.4 Industry Supply Chain

Material Topic	Supply chain disruption and cost fluctuation	
Policies and Commitments	<ul style="list-style-type: none"> Require suppliers to comply with environmental protection regulations. Require suppliers of processed raw materials to provide statements ensuring that their products do not contain internationally prohibited substances harmful to the environment. Audit whether manufacturers have established or achieved environmental management systems and environmental objectives (ISO 14001 or RC14001). Procure conflict-free raw materials. 	
Governance Structure	Management Information System Department, Business Department, Sustainable Development Committee	
Management Actions	<ul style="list-style-type: none"> Plan and establish supplier development and evaluation processes. Conduct annual assessments of critical suppliers, provide guidance for improvement to those who fail to meet requirements, and reduce transaction volumes or cease transactions with suppliers who fail to improve over the long term. Monitor industry movement dynamics, increase the selection and auditing of localized suppliers, and explore innovative collaboration models. 	
Execution objectives	<ul style="list-style-type: none"> Percentage of local suppliers in Thailand 	
Stakeholder Engagement	Stakeholders	Customers, Suppliers
	Communication Channels	Customers: Compliance assessment with international regulations and customer requirements Suppliers: Supplier audits, acceptance reviews
Performance in 2024	The percentage of local suppliers in Thailand is 40.54%	

Material Topic	Uncertainty of market information	
Policies and Commitments	<ul style="list-style-type: none"> Strengthen negotiation skills, customer relationships, and market analysis through employee training Conduct regular stakeholder communication 	
Governance Structure	Business Department, Manufacturing Department, Administrative Department, Financial & Accounting Department	
Management Actions	<ul style="list-style-type: none"> Enhance management rigor in existing processes such as market analysis, customer and distributor management, and logistics management to improve the ability to assess market changes. Supplement education and training content in negotiation, customer relationship management, and market analysis, and establish channels for collecting political and economic trend analysis information. 	
Execution objectives	<ul style="list-style-type: none"> Factory output Employee training 	
Stakeholder Engagement	Stakeholders	Customers, Employees, Suppliers
	Communication Channels	Customers: Compliance assessment with international regulations and customer requirements. Employees: Employee training. Suppliers: Supplier audits, acceptance reviews.
Performance in 2024	Factory output value 13,829,705 thousand NT dollar Total employee training hours 337,214 hours	

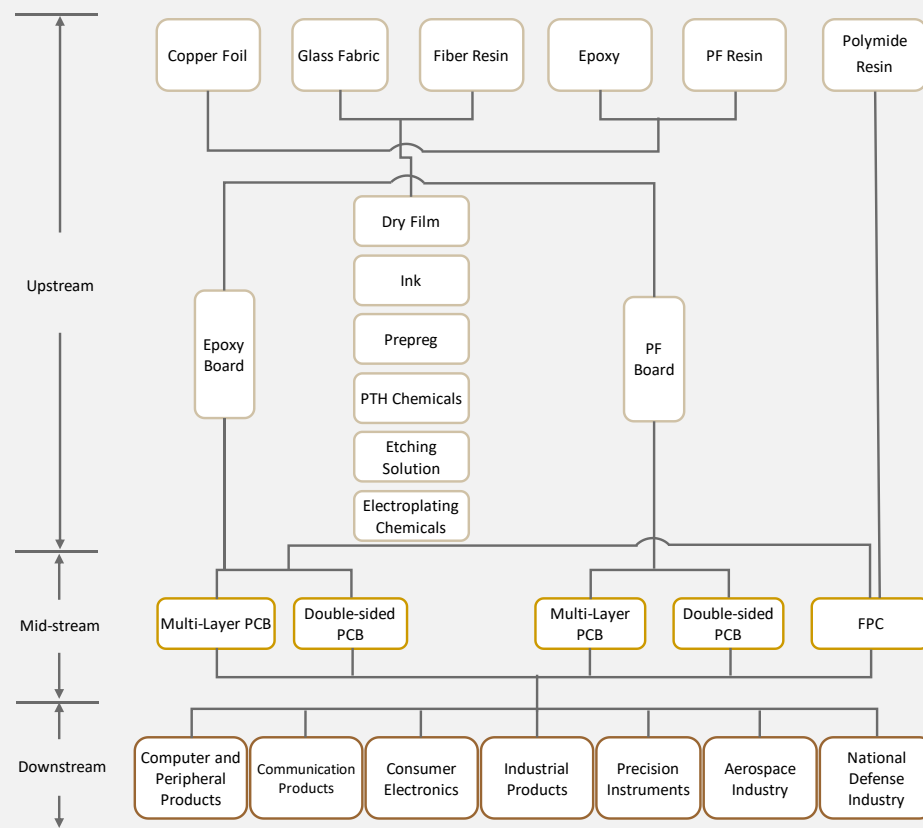
The Roles in the Industry Value Chain

Printed Circuit Boards (PCBs) are the largest value-generating industry in the global electronic components sector and serve as a fundamental industry for manufacturing electronic information products. Apex primarily focuses on the production of double-sided and multi-layer PCBs, positioning itself in the industry's midstream. Upstream has related components and materials, such as various substrates, copper foils, and films. Downstream industries encompass information technology, communications, consumer electronics, semiconductor products, industrial control equipment, automotive, medical instruments, aerospace, and defense industries. The upstream raw material supply is moderately concentrated, and there are long-term cooperative relationships with our company and its subsidiaries, ensuring stable and sufficient material sources. The downstream industry has a wide range of applications, and the development of both upstream and downstream sectors is robust.

In recent years, the shipments of electronic terminal products, including smartphones, computers, and televisions, have not grown significantly, actually with a recession, while the overall PCB output value maintains its growth. 5G infrastructure in the early stage is a crucial point. In the future, as the application of high-end PCB products such as 5G and AI continues to be promising, it is expected that the market competition for high-end products will continue to intensify. In terms of product structure, the current multi-layer PCB market still dominates the market. With the rapid development of electronic circuit industry technology, the integrated functions of components have become more and more extensive. Electronic products have become more prominent in the high density of PCBs, and high-end PCB products such as high multi-layer boards, HDI boards, flexible boards, and package substrates have gradually taken over market dominance.

Apex's major multi-layer board products are consumer electronic products, and its market will experience moderate growth because the Group's current revenue generation in this area is still relatively low. Therefore, if Apex can meet the market's product requirements and enhance process capability, there is considerable room for growth. The main competitors of such conventional hardboards are manufacturers in Mainland China, including Taiwan-funded plants and China-funded plants. In recent years, companies in Mainland China have increasingly strengthened their competitiveness through government support, self-technology upgrading, and the gradual integration of upstream and downstream industries. However, in recent years, the increasingly stringent environmental protection ban in mainland China has increased the cost of environmental protection.

Apex Supply Chain



Reference: Material and Chemical Research Laboratories, Industrial Technology Research Institute

Five business concepts



3.5 Supplier Management Policy

Apex operates as the main operations body and has established long-term close relationships with suppliers based on mutual trust and mutual benefit, aiming for win-win outcomes. Among them, raw material suppliers have a significant impact on product production. Therefore, Apex attaches great importance to suppliers' compliance with environmental protection regulations: suppliers must comply with local government regulations related to air pollution prevention, water pollution prevention, and waste and toxic substances management. In case of violations, they must promptly submit improvement plans. In addition, Apex also requires suppliers of process raw materials to provide statements ensuring that their products do not contain internationally prohibited substances harmful to the environment, ensuring that the products meet customer and international legal requirements, such as EU RoHS, products do not contain perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), and the EU REACH directive. When conducting supplier environmental audits, procurement supervisors will request improvements from the suppliers if significant deficiencies are found. Establishing an environmental management system and ecological objectives and auditing suppliers to assess whether they have ISO 14001 or RC14001 are also part of Apex's supplier management policies. Apex strictly adheres to the RBA Code of Conduct, which also drives suppliers to respond accordingly, procuring non-conflict minerals and advocating for humanitarianism and the practice of human dignity, fulfilling corporate social responsibilities, and avoiding the use of raw materials extracted in situations involving armed conflict and human rights violations.

The Supplier Management Implementation

Apex' s procurement department conducts annual assessments and audits of major suppliers. In 2024, audits and comprehensive performance evaluations were completed in line with the company' s supplier audit process. New suppliers were also assessed. Evaluations consider ESG sustainability factors, referencing the RBA Code of Conduct, ISO 14001, ISO 9001, and ISO 45001 certifications to ensure both parties meet responsibilities in quality, environmental protection, and the elimination of forced labor. Suppliers not meeting Apex' s standards will receive guidance and follow-up. If non-compliance continues, Apex may reduce or terminate business based on the situation.

Local Procurement

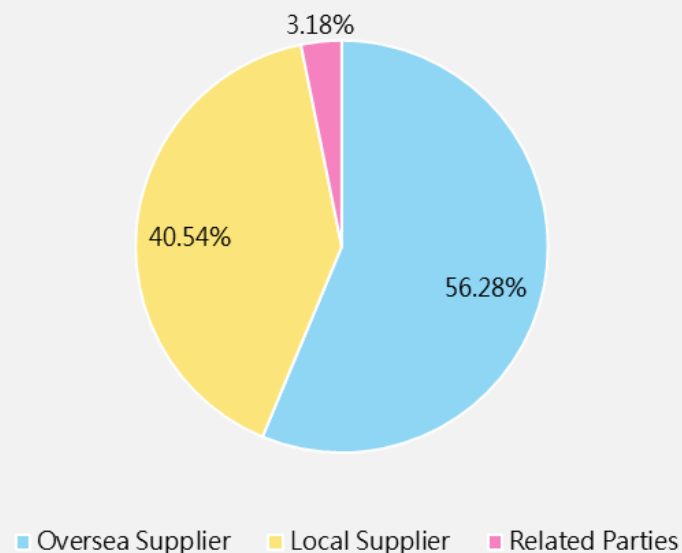
In recent years, with the formal launch of the ASEAN Economic Community (AEC), Thailand has not only enjoyed advantages in exporting to ASEAN countries but also participates in zero-tariff border trade, making the trade environment in Thailand more open and convenient. Additionally, Thailand's land transportation system has undergone significant improvements in recent years, resulting in a substantial reduction in transportation time to any region of mainland China from Thailand, making it faster and more convenient than ever before. This has shortened delivery times and reduced associated costs, enhancing the competitiveness of Thai businesses.

Regarding local procurement, our company collaborates with domestic suppliers in Thailand to procure the necessary materials and services. This collaboration meets production needs and effectively saves waiting time, improving production efficiency.

In 2024, Apex' s purchases from Thai suppliers accounted for 40.54% of the total annual procurement value. In terms of the number of suppliers, local Thai suppliers represented 68.38%, marking a slight increase from the previous year. Among our top ten suppliers, 42.13% of the procurement value also came from local vendors. This reflects our strong emphasis on and trust in the local supply chain.

Thailand's PCB industry supply chain has continued to grow in recent years. Considering that using local materials can significantly reduce carbon emissions during transportation, support local economic development, and increase employment opportunities, we will continue to promote the proportion of local procurement as a procurement goal for Apex and further strengthen cooperation with local suppliers.

Local Supplier Procurement Ratio



3.6 Customer Service

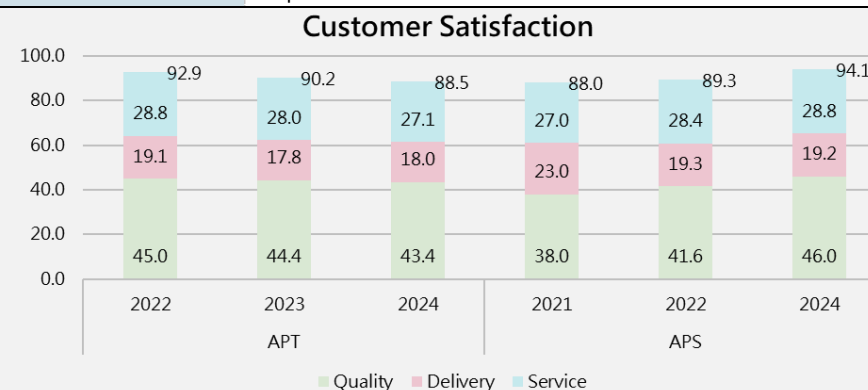
Material Topic	Customer relationship management	
Policies and Commitments	<ul style="list-style-type: none"> Provide diverse communication channels for customers 	
Governance Structure	Business Department	
Management Actions	<ul style="list-style-type: none"> Review market demand regularly, interact frequently with customers and agents to confirm feasibility, periodically review customer complaint content and progress, and manage core issues. Supplement negotiation, customer relationship management, and market analysis training content and establish channels for collecting political and economic trend analysis information. 	
Execution objectives	<ul style="list-style-type: none"> Achieve a customer overall satisfaction score of 93. 	
Stakeholder Engagement	Stakeholders	Customers, Employees
	Communication Channels	Customers: Irregular communication, customer satisfaction surveys Employees: Employee training
Performance in 2024	<ul style="list-style-type: none"> Customer overall satisfaction score. (Out of 100) APT 88.5 APS 94.1 	

Customer Satisfaction

Apex values customer needs and expectations. We improve internal processes by gathering customer feedback through irregular communication to continuously enhance satisfaction. We also regularly use satisfaction surveys to collect customer opinions for further improvements.

All Apex products are labeled in compliance with relevant regulations and international standards, including RoHS and HF markings. Moreover, we are ISO 9001 certified, ensuring our continued presence on our customers' supplier lists. In 2023, there were no significant legal violations³.

Evaluation Frequency	Once every six months
Scope	Apex' s main PCB product customers
Assessment Content	Product quality, product delivery speed, service
Handling Procedure	Analyzing the survey results and reporting customer feedback information directly to the management level to improve internal or external processes
Regular Communication	Dedicated service window to promptly address customer feedback and provide comprehensive product information
Improvements	In 2024, APT' s overall and quality satisfaction fell below target. The Sales Department has proposed corresponding improvement plans and will enhance training and implement improvements based on customer feedback.



Note: Score allocation is 50% for quality, 30% for delivery, and 20% for service.

³ All major violations mentioned in this report are defined as those subject to fines of at least NT\$1,000,000.

3.7 Ethics and Integrity

Material Topic	Sustainability risk	
Policies and Commitments	<ul style="list-style-type: none"> Principle of Corporate Governance Principle of Sustainability Development Ethical Corporate Management Best Practice Principles Risk Management Policy and Procedure 	
Governance Structure	Sustainable development committee, Corporate governance team, Audit committee and Internal audit unit	
Management Actions	<ul style="list-style-type: none"> Establish and adhere to internal control systems related to corporate governance to maintain diversity in decision-making processes. Execute all significant investment projects in accordance with internal control management regulations, with adequate management and discussion by executives. Provide multiple internal channels for employees to voice their opinions. Continuously enhance risk management mechanisms. 	
Execution objectives	<ul style="list-style-type: none"> Conduct risk management and provide reports on execution status yearly Annual Corporate Governance Evaluation 6%~20% Morningstar Sustainability Rating: Low Risk 	
Stakeholder Engagement	Stakeholders	Employees, Government, Shareholders
	Communication Channels	Employees: Internal meetings, complaint mailbox, employee satisfaction surveys Government: TCFD and risk management reports, compliance with relevant regulations Shareholders: Compliance with relevant regulations
Performance in 2024	<ul style="list-style-type: none"> 2024 TCFD and Risk Management Rank in the 6~20% of the 11th(Y2024) CGE Morningstar Sustainability Rating: Medium Risk (Last update: Dec 16 2024) 	

Material Topic	Harmed reputation	
Policies and Commitments	<ul style="list-style-type: none"> Principle of Corporate Governance Principle of Sustainability Development Ethical Corporate Management Best Practice Principles Risk Management Policy and Procedure 	
Governance Structure	Sustainable development committee, Corporate governance team, Internal audit unit	
Management Actions	<ul style="list-style-type: none"> Continuously and effectively manage operational activities and related ESG initiatives Continuously enhance the risk management mechanism, with reference to international risk management standards Incorporate sustainability information into internal control policies Continue strengthening the risk management framework Engage with stakeholders through diverse communication channels 	
Execution objectives	<ul style="list-style-type: none"> Conduct risk management and provide reports on execution status yearly Annual Corporate Governance Evaluation 6%~20% No major legal violations 	
Stakeholder Engagement	Stakeholders	Society, Customers, Employees, Government, Shareholders, Suppliers
	Communication Channels	Society: Compliance with relevant regulations; community engagement Customers: Conformance assessments for international regulations and customer requirements Employees: Internal meetings; employee training and education Government: TCFD climate-related financial disclosures and risk management reporting; regulatory compliance Shareholders: Compliance with relevant regulations Suppliers: Supplier audits
Performance in 2024	<ul style="list-style-type: none"> 2024 TCFD and Risk Management Rank in the 6~20% of the 11th(Y2024) CGE No major legal violations in 2024 	

Integrity Management

Integrity and honesty have always been the core values of Apex's corporate culture and the foremost principle of its business philosophy. The Company is committed to conducting all business activities with integrity and prohibits corruption and fraudulent behavior. Apex's board of directors establishes policies and regulations related to integrity management and constantly monitors the development of domestic and international corporate governance systems to review and improve the corporate governance system established by the Company, thereby enhancing corporate governance effectiveness. (Please refer to the company's website: [Major Internal Policies](#))

Promotion and Implementation

The Company has clearly defined policies in its Integrity Management Code to prevent conflicts of interest. Independent directors regularly review audit reports and communicate with audit supervisors to understand any conflicts of interest within the company. Communication channels with stakeholders are kept open. The Company has established a reporting system overseen by independent directors and audit managers to address ethical issues and inspections. The channels include:

Internal: CEO BOX, BROTHER BOX

External: Contact information for the audit manager is disclosed on the company's official website.

Through the reporting system, no ethical issues occurred in 2024, and regular audit checks did not reveal any abnormal matters related to the following topics:

- The benefits of external providers
- Commitments to external
- Political donations
- Large-scale donations
- Protection of trade secrets and intellectual property
- Private transactions
- Compliance with international regulations
- Insider trading
- Customer/Supplier ethical issues

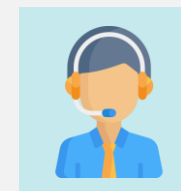
Investigation Procedures and Reporting Channels

The Company has established standard operating procedures for reporting matters, where the reporting acceptance, investigation process, and results should all be documented in writing and retained for five years. Matters involving general employees should be reported to department heads, while those involving directors or senior executives should be reported to independent directors. Upon verifying the validity of reported matters, relevant units must review internal control systems and operational procedures, proposing improvement measures to prevent the recurrence of similar behaviors. The dedicated unit responsible for handling reports should report the reported matters, their handling methods, and subsequent review and improvement measures to the board of directors.

Compliance with regulations

Apex strictly adheres to local laws at all operational sites and actively participates in various global initiatives or conventions covering multiple areas such as environment and human rights. Through establishing multiple internal regulations by the board of directors, Apex rigorously binds company personnel, demonstrating zero tolerance for unlawful conduct. In the event of suspicious behavior or potential violations of Apex's code of conduct by any employee or representative, the Company has established a whistleblowing inbox on its website for internal and external parties to report misconduct anonymously. The Company's audit manager directly handles reported matters.

In 2024, Apex did not experience any major integrity violations in its operations, nor were there any significant incidents involving infringement of customer privacy, environmental protection violations, or human rights issues. No involvement in anti-competitive behavior or lawsuits related to antitrust and monopoly regulations, and no associated financial losses.



Reporting Channel

TEL: (02) 2717-0032

E-mail: ethics@apex-intl.com.tw

4. Sustainable Environment

As a major manufacturer of printed circuit boards in Thailand, Apex recognizes climate change's risks and potential impacts and the importance of green sustainability for corporate development. Therefore, Apex is committed to environmental protection and energy conservation, aiming to integrate production with environmental protection, optimize energy and resource use efficiency, and reduce carbon emissions and waste generation.

Apex has proposed a GREEN Project consisting of three main elements: renewable energy, water resource recycling, and reduction of GHG emissions. Firstly, the plan involves adopting ISO 14064 certification standards, developing an internal carbon footprint information collection platform, establishing a more comprehensive carbon inventory mechanism, and deepening the investigation of other GHG to develop carbon reduction plans. Secondly, Apex actively seeks alternative energy sources, building on the foundation of its Sandbox and Solar Project, collaborating with energy-saving organizations and equipment manufacturers to explore more energy-saving opportunities, expand the breadth of renewable energy programs, and strengthen carbon reduction policies. Thirdly, addressing the issue of waste pollution management, Apex plans to reduce waste generation through new processes and developments, coupled with the Apex wastewater recycling project to enhance waste management and water resource management systems, moving towards resource recycling.

In addition to launching various large-scale environmental-friendly projects by relevant departments, the management team at Apex is also committed to raising employees' awareness of carbon reduction, integrating environmental sustainability and corporate social responsibility into employees' thinking patterns, and leading employees to participate in green actions to protect the environment in their daily practices.

Aqua Project

Target	2025	Achieving 30%
Wastewater Recycling Rate	2030	Achieving 40%
	2035	Achieving 50%

Performance in 2024:

The average monthly recycling rate reached 32.14% in 2024.



Solar Project

Renewable energy usage ratio target

2025	5%	2045	30%
2035	10%	2060	50%

Performance in 2024:

Renewable energy usage ratio in 2024 was 3.08%.



GHG Emission

Target	2027	Reduce 5% GHG emission (Base year 2022)
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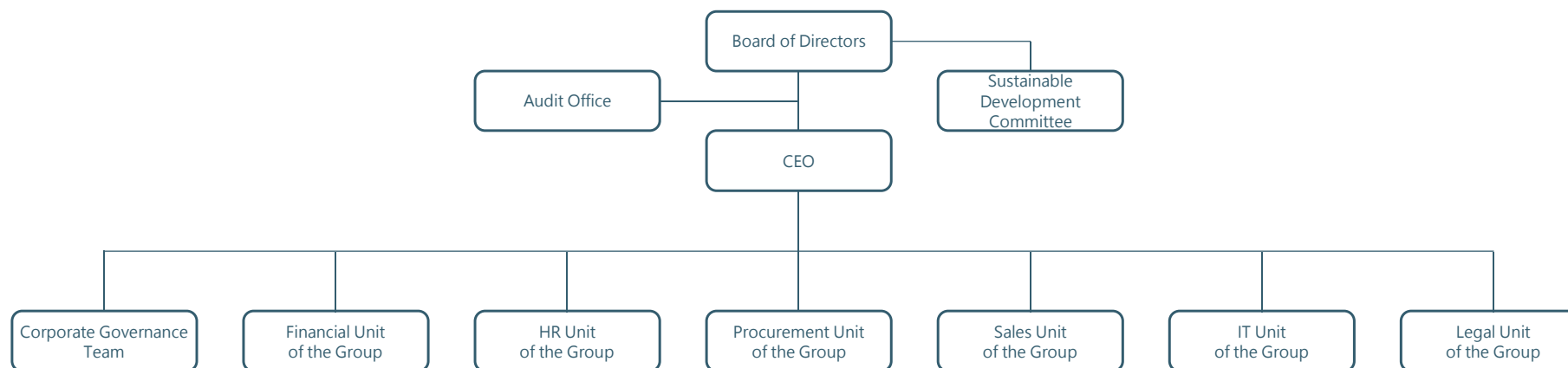
Performance in 2024:

Emissions from Category 1+2: 166,543.6 t CO₂e



4.1 Climate Change Risks and Opportunities

Management of Climate-Related Risks and Opportunities



Within the company's risk management organizational structure, the Board of Directors serves as the highest governing body for managing climate-related risks and opportunities. Its primary responsibilities include approving risk management policies, procedures, and frameworks; ensuring alignment between business strategies and policies; and fostering the establishment and development of enterprise risk management mechanisms and culture. The Board also oversees the effective operation of the overall management system and ensures the provision of adequate resources to support risk management.

The promotion and execution of climate-related risk and opportunity management are led by the CEO, who convenes key departments and senior personnel to plan, implement, and supervise related management activities. Based on the assessment of relevant risks and opportunities, corresponding strategies and objectives are formulated, with ongoing analysis and control. Relevant training programs are also planned to enhance overall risk awareness and culture.

Operational units are responsible for identifying, analyzing, assessing, and responding to risks within their departments and are required to report regularly to the risk management implementation unit to ensure the effective execution of risk management policies and control procedures.

The auditing unit audits the effectiveness of control management at the operational level according to the audit plan. An internal self-inspection is also conducted annually. The review of risk management implementation is handled by the Sustainability Development Committee, which provides necessary improvement recommendations and reports the audit results to the Board of Directors annually, submitting them for review.

Climate Risk Scenarios

Climate risk scenarios in this assessment combine Shared Socioeconomic Pathways (SSPs) and Representative Concentration Pathways (RCPs). Scenarios are simulated to evaluate policy implementation's social and economic impacts, considering future GHG concentrations and radiative forcing from other climate model inputs to estimate various degrees of global warming scenarios.

The scenario used in this report, SSP2-4.5, falls into the moderate category. This indicates a focus on regional economic and security issues over broader development, with uneven development among countries leading to unclear policy effectiveness. Despite efforts from global and national institutions, progress towards sustainable development goals remains slow. RCP 4.5 represents a moderate emissions scenario, with CO₂ emissions declining only by the mid-century and unable to achieve net-zero emissions before 2100, aligning more closely with the current development path.

Climate change risks and opportunities impact the Company's strategic and financial planning. Therefore, Apex follows TCFD recommendations to assess the resilience of climate strategies by analyzing transition and physical risk types alongside climate opportunities within a moderate scenario context. The scenario is set as follows:

The scenario description of moderate global warming (SSP2-4.5) in the Intergovernmental Panel on Climate Change's 6th Assessment Report is as follows:	
Temperature	Estimation indicates a continuous rise in global temperatures in the future. Under the moderate scenario of global warming (SSP2-4.5), it is projected that the global temperature will exceed 2°C relative to the period from 1850 to 1900 during the 21st century and may even approach 3°C. The average temperature rise in Thailand is forecasted to be 1.6°C and 2.4°C by the middle and end of this century, respectively.
Extreme heat	Future temperature changes will be more significant and pronounced. In 1995, the median number of days with temperatures above 35°C across Thailand was 44. Under the SSP2-4.5, it is anticipated that by the end of this century, the median number of days with temperatures above 35°C in Thailand will reach 195 days.
Intense rainfall	Under the moderate global warming scenario (SSP2-4.5), Thailand's average daily maximum rainfall is expected to increase by approximately 4.99% and 11.01% by the middle and end of this century, respectively.
Rising sea levels	The global average sea level will continue to rise in the 21st century. Under the SSP2-4.5, the possible range of global average sea level rise by the end of this century is estimated to be 0.66–1.33 meters.

1.5°C scenario, Thailand's Climate Change Master Plan (2015-2050), Taiwan's 2050 Net Zero Emissions Pathway and Strategies, Taiwan's Climate Change Adaptation Act scenario estimates, etc.	
Carbon tax imposition	According to the Climate Change Adaptation Act, the Taiwan government imposes carbon fees on businesses. The estimated short-term rates are 300 NTD per ton of CO ₂ ^e , the mid-term rates are 500 NTD per ton of CO ₂ ^e , and the long-term rates range from 750 to 1500NTD per ton of CO ₂ ^e .
Implementation of Thailand's V-ETS	Since 2013, Thailand has been promoting the voluntary carbon emission trading system (V-ETS), which sets upper limits on direct and energy-related indirect carbon emissions for high-carbon industries and plans to implement a nationwide mandatory ETS policy.
Enhanced regulatory standards	The Thailand Climate Change Master Plan (2015-2050) proposes comprehensive enhancements to green building standards, building energy efficiency standards, lighting and air conditioning standards, and promoting efficient transportation systems, aiming to restrict GHG emissions while achieving economic expansion simultaneously.
Energy shortages	The National Economic and Social Development Council (NESDB) of Thailand's analysis indicates that Thailand's regional energy resources can only provide reserves for 20 years.
Shifts in customer behavior	Customers demand carbon reduction strategies or evidence of carbon neutrality for mid to long-term periods.
Government-provided subsidies	The Taiwan government provides subsidies to businesses for carbon reduction, renewable energy, energy storage systems, carbon capture, and other related measures under the Climate Change Adaptation Act.

Risk and Opportunity Analysis

(1) Impact Identification and Analysis (Positive and Negative)

Identified enterprise-level risks are analyzed to understand their nature and characteristics, and to distinguish between positive and negative impacts. This facilitates subsequent qualitative and quantitative assessments.

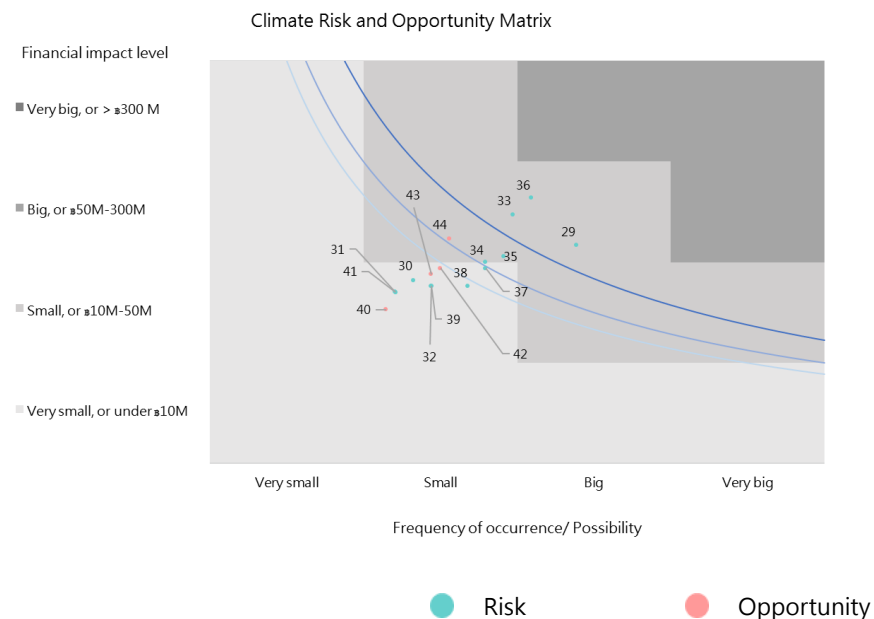
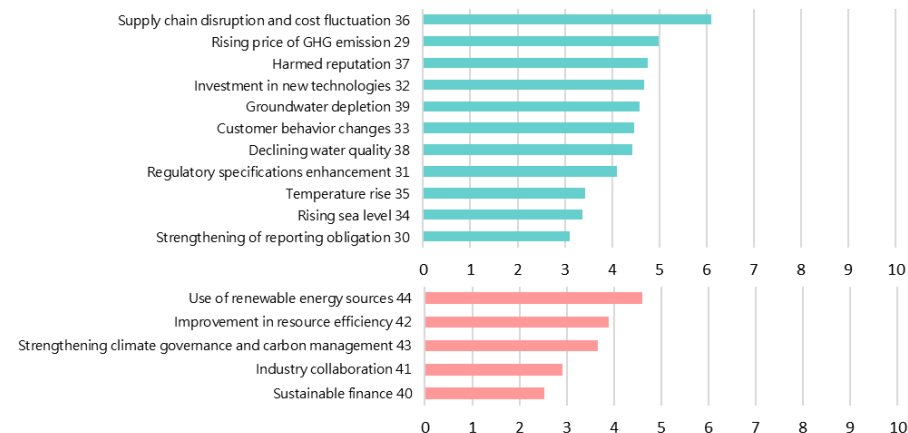
(2) Definition of Assessment Indicators: Frequency/Likelihood & Impact Severity

- Past managerial experience and professional knowledge of participants
- Depth and efficiency of risk management implementation
- Consideration and establishment of qualitative and quantitative indicators based on likelihood or frequency of occurrence

(3) Assessment and Response

(4) Monitoring and Review

- Enterprise-level risks are reviewed and discussed with the Chief Sustainability Officer after risk management procedures are executed by participants and their respective departments.
- The effectiveness of current risk controls, ongoing projects, and future strategies are regularly monitored by responsible personnel and summarized in Q4 for reporting to the Chief Sustainability Officer.
- This execution report is also submitted to the Sustainability Development Committee and the Board of Directors for review and discussion.
- The effectiveness of operational-level risk control is audited by the internal audit unit according to the audit plan. Additionally, the company performs annual self-assessments. Audit results are submitted to the Audit Committee and the Board of Directors for review. No major deficiencies were identified this year.



Explanation and Response Strategies

Category	Topic	Positive/ Negative Impact	Management Measures	Level
Transition-Market	Supply chain disruption and cost fluctuation	Please refer to <u>"2.4 Impact Identification and Value Chain"</u> for the same topic.	Please refer to <u>"3.4 Industry Supply Chain"</u>	A
Transition-Policy & Legal	Rising price of GHG emission	Please refer to <u>"2.4 Impact Identification and Value Chain"</u> for the same topic.	Please refer to <u>"4 Sustainable Environment"</u>	B
Transition-Reputation	Harmed reputation	Please refer to <u>"2.4 Impact Identification and Value Chain"</u> for the same topic.	Please refer to <u>"3.7 Ethics and Integrity"</u>	B
Transition-Technology	Investment in new technologies	Please refer to <u>"2.4 Impact Identification and Value Chain"</u> for the same topic.	Please refer to <u>"4 Sustainable Environment"</u>	B
Opportunity	Use of renewable energy sources	Positive: (1) Reduce greenhouse gas emission risks; (2) Enhance energy resource performance; (3) Improve corporate image and increase company market value.	Engage in renewable energy procurement and investment, gradually increasing the proportion of renewable energy usage annually.	B
Physical-Chronic	Groundwater depletion	Please refer to <u>"2.4 Impact Identification and Value Chain"</u> for the same topic.	Please refer to <u>"4 Sustainable Environment"</u>	B
Transition-Market	Customer behavior changes	Negative: Loss of business orders Positive: The existing ESG foundation is good, we could take advantage of the trend of industry movement and then increase orders.	Short-term: Proactively engage with customers and suppliers to align expectations on various ESG indicators and establish audit implementation timelines. Mid-to-long term: Identify opportunities for innovation and transformation in management models.	C
Physical-Chronic	Declining water quality	Negative: Production disruptions, occupational safety hazards, fines, and damage to corporate image.	Short-term: Established internal water management workflows and review mechanisms to monitor water intake treatment; invested in a wastewater treatment system to ensure compliance with discharge standards and enable reuse. Mid-to-long term: Continuously monitor external research findings; track the development of the electronics industry clusters in Thailand or ASEAN, and assess the feasibility of additional plant locations as needed.	C
Transition-Policy & Legal	Regulatory specifications enhancement	Negative: Under the trend of carbon reduction and ESG, enterprises often need time-seeking tools or solutions. Sometimes even there is no ready-made tool or solution in the market. In other words, it takes time. Therefore, lagging of standards may lead drain of competitiveness, which further leads to losing orders and rising operation cost. Positive: Response or predict possible standard and requirement to keep competitive advantage and support future expansion.	Short-term: Department heads periodically monitor regulatory changes within their scope of operations and assess potential impacts on current practices; ESG-related projects have been initiated, and training programs are underway. Mid-to-long term: Continuously propose feasible improvement projects and proactively prepare for an increasingly stringent external environment.	C

Category	Topic	Positive/ Negative Impact	Management Measures	Level
Opportunity	Improvement in resource efficiency	Negative: System maintenance and depreciation costs Positive: (1) Reduce production costs; (2) Achieve better performance or incentives in evaluations, government fees, subsidy programs, etc.	Through internal and external initiatives, we plan adjustments to production equipment and the replacement of components to actively improve operational efficiency and reduce energy consumption. We also aim to enhance the efficiency of the wastewater recycling system and maximize the value of waste.	D
Opportunity	Strengthening climate governance and carbon management	Positive: It helps the company's operational decision-making to be more comprehensive, reduces decision-making risks associated with climate issues, and accelerates the company's implementation of net-zero goals.	Organize promotional activities on an ad hoc basis. Provide relevant training programs to employees at all levels.	D
Physical-Chronic	Temperature rise	Negatives: The weather in the factory area is becoming increasingly severe, and power rationing may occur due to extremely high temperatures, resulting in shutdowns that affect facilities and production efficiency.	Short-term: A well-structured facility management model and system have been established, with maintenance budgets and schedules planned based on past experience, internal knowledge, and supplier recommendations. Mid-to-long term: Explore innovative building materials and supplier services related to advanced facility solutions.	D
Physical-Chronic	Rising sea level	Negative: Climate is more severe which affects facilities and production efficiency. Positive: To evaluate other possible areas for factory and linkage to emerging industry clusters.	Short-term: A comprehensive facility management model and system have been established, with maintenance budgets and schedules planned based on past experience, internal expertise, and supplier recommendations. A business continuity team has been formed to regularly assess major hazard risks and relevant external information, with close attention to specific studies on sea level rise. Mid-to-long term: Continue monitoring external research findings and track the development of electronics industry clusters in Thailand or the ASEAN region, while evaluating the feasibility of establishing additional plant locations when appropriate.	D
Transition-Policy & Legal	Strengthening of reporting obligation	Negative: Fine; reimbursement from investors; harm to financing ability. Positive: To increase trust level from society can help operating development and market value.	Short-term: Relevant internal control policies have been established, with no major deficiencies identified by regulatory authorities or auditors. Mid-to-long term: Continue studying updated reporting standards and regulatory changes, and conduct internal training programs.	D
Opportunity	Industry collaboration	Positive: (1) Accelerate the development process of carbon reduction schemes, reducing implementation costs; (2) Collaborative improvement of carbon management capabilities across the supply chain.	Participate in courses offered by industry associations to gain insights into sustainability improvement practices. Promote sustainable supply chain management and actively respond to customer expectations.	D
Opportunity	Sustainable finance	Negative: Increase the cost of various assessments. Positive: Opportunities provided by financial institutions can result in interest cost savings.	Engage in ESG, CDP disclosures, management, and evaluations to enhance the company's access to financial market credit, low-interest loans, and other financing opportunities.	D

Material Topic	Energy management									
Policies and Commitments	<ul style="list-style-type: none">Comply with customer requirements and local government regulations.Continuously implement energy-saving improvements for high-energy-consuming equipment and departments.Increase the proportion of renewable energy use.									
Governance Structure	Sustainable Development Committee, Financial & Accounting Department									
Management Actions	<ul style="list-style-type: none">Energy-saving improvement plans for high-energy-consuming equipment and departments.Installation and expansion of solar energy facilities for self-generation.Implementation of ISO 50001 certification.									
Execution objectives	<ul style="list-style-type: none">Renewable energy usage ratio target <table><tr><td>2025</td><td>5%</td></tr><tr><td>2035</td><td>10%</td></tr><tr><td>2045</td><td>30%</td></tr><tr><td>2060</td><td>50%</td></tr></table>		2025	5%	2035	10%	2045	30%	2060	50%
2025	5%									
2035	10%									
2045	30%									
2060	50%									
Stakeholder Engagement	Stakeholders	Customers, Government, Suppliers								
	Communication Channels	Customers: Compliance with customer audits and international regulations. Government: Regular disclosure of climate-related actions. Suppliers: Supplier audits.								
Performance in 2024	Self-generated solar power: 9,660.36 MWp Renewable energy usage ratio reaches 3.08%.									

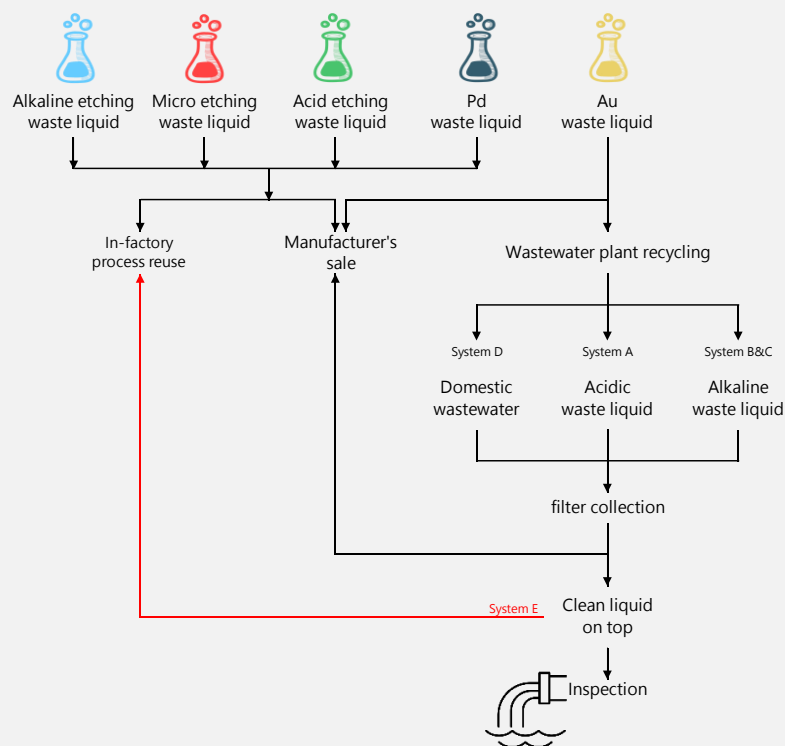
Material Topic	Rising price of GHG emission	
Policies and Commitments	<ul style="list-style-type: none"> Comply with customer requirements and local government regulations. Continuously implement energy-saving improvements for high-energy-consuming equipment and departments. 	
Governance Structure	Sustainable Development Committee, Financial & Accounting Department	
Management Actions	<ul style="list-style-type: none"> Continuously conduct GHG inventories. Plan to adopt ISO 50001 certification. Develop a timeline for the introduction of carbon foot printing and carbon pricing; adjust carbon strategies during the implementation process. 	
Execution objectives	<ul style="list-style-type: none"> 2027 Reduce 5% GHG emissions (Base year 2022) 	
Stakeholder Engagement	Stakeholders	Customers, Government, Suppliers
	Communication Channels	Customers: Compliance with customer audits and international regulations. Government: Regular disclosure of climate-related actions. Suppliers: Supplier audits.
Performance in 2024	GHG emission performance Scope 1: 14,395.79 tons CO ₂ e Scope 2: 152,147.81 tons CO ₂ e	

Material Topic	Investment in new technologies	
Policies and Commitments	<ul style="list-style-type: none"> Seek technologies and materials that contribute to carbon reduction Continuously improve products and manufacturing capabilities 	
Governance Structure	Sustainable Development Committee, Quality Assurance Department, Manufacturing Department, Management Information System Department, Research & Development Department	
Management Actions	<ul style="list-style-type: none"> Continuously review manufacturing capabilities and quality management Invest in R&D and new equipment Implement energy-saving improvement plans for energy-intensive equipment and departments Install and expand solar power systems for on-site electricity generation 	
Execution objectives	<ul style="list-style-type: none"> 2027 Reduce 5% GHG emissions (Base year 2022) 	
Stakeholder Engagement	Stakeholders	Customers, Employees, Shareholders
	Communication Channels	Customers: Phone calls, Email correspondence, Meetings, Site visits Employees: Employee education and training Stakeholders: Earning call, Spokesman window, Shareholders' meetings
Performance in 2024	<ul style="list-style-type: none"> R&D expenses NTD 68,757 million Self-generated solar power: 9,660.36 MWp GHG Emissions from Scope 1+2: 166,543.6 tons CO₂^e 	

Material Topic	Groundwater depletion	
Policies and Commitments	<ul style="list-style-type: none"> Comply with environmental regulations and relevant international standards to protect the natural environment Actively improve wastewater utilization rate 	
Governance Structure	Sustainable Development Committee, Manufacturing Department	
Management Actions	<ul style="list-style-type: none"> Establish water management workflows and review mechanisms Plan maintenance budgets and schedules Form a business continuity team to regularly assess major hazard risks and relevant external information AQUA Project 	
Execution objectives	<ul style="list-style-type: none"> Wastewater Recycling Rate 2025 Achieving 30% 2030 Achieving 40% 2035 Achieving 50% 	
Stakeholder Engagement	Stakeholders	Society, Customers, Government
	Communication Channels	Society: Compliance with relevant regulations; community engagement Customers: Compliance assessments for international regulations and customer requirements Government: TCFD and risk management reports, compliance with relevant regulations
Performance in 2024	The average monthly recycling rate reached 32.14% in 2024	

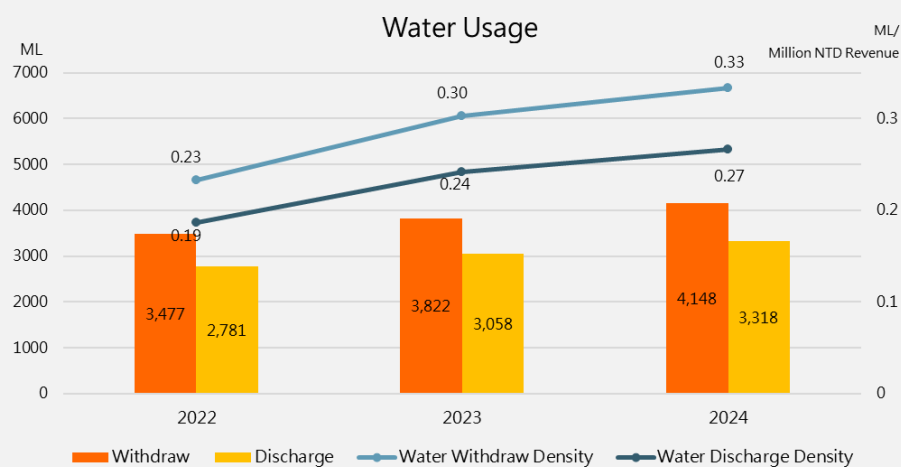
4.2 Management of Water Resources and Wastes

PCB manufacturing processes rely on stable water resources, electricity, and chemicals, with complex wastewater characteristics and process flows. Apex initiated the Aqua Project in 2022, establishing a dedicated water resources task force and collaborating with suppliers to segregate liquids from various methods. These liquids undergo physical, chemical, and biological treatments for reuse or are sold to recycling companies to ensure resource recycling. Discharges that cannot be reused or sold are controlled within standard parameters per industrial zone regulations and discharged into designated channels according to rules.



Apex's water sources are obtained from third parties, specifically local water supply companies and industrial zone treatment plants. In 2024, Apex's withdrawal water was 4,148 megaliters, with a discharge of 3,318 megaliters. In 2023, withdraw water was 3,822 megaliters, with a discharge of 3,058 megaliters.

Category	Unit	2022	2023	2024
Water Withdraw	Megaliter (ML)	3,477	3,822	4,148
	Thousand Cubic Meter (1,000m ³)	3,477	3,822	4,148
Water Discharge	Megaliter (ML)	2,781	3,058	3,318
	Thousand Cubic Meter (1,000m ³)	2,781	3,058	3,318
Water Consumption	Megaliter (ML)	695	764	830
	Thousand Cubic Meter (1,000m ³)	695	764	830



Apex utilizes the Aqueduct Water Risk Atlas, a water risk assessment tool developed by the World Resources Institute (WRI), to regularly assess water stress at all production sites. Currently, all production sites in Thailand are located in areas of high water stress. To address this, we continuously work to improve wastewater recycling rates, sourcing all water from local municipal water suppliers and industrial estate treatment plants. After use in various processes, wastewater is discharged into temporary storage tanks according to process types, aiming to maximize resource reuse:

- Alkaline etching solution is treated with RecoCell equipment for electrolysis to recover copper from waste liquid. The processed alkaline etching solution is then returned to the respective process.
- Certified vendors handle acidic etching solutions in the industrial area, where electrolysis is used to recover the remaining copper from waste liquid, maximizing resource value.
- Other process wastewater is filtered through RO systems, and over 90% of it is recycled for reuse in the original process.
- Wastewater sediment sludge is produced by mixing remaining industrial wastewater with domestic sewage, followed by sedimentation and filtration. Certified contractors within the industrial zone then treat the resulting sludge.
- Before discharging wastewater to treatment plants, the parameters of discharged wastewater are controlled within standard limits according to industrial area regulations.

In 2024, Apex's water intake was 4,148 megaliters, with water consumption estimated at approximately 830 megaliters and wastewater discharge at 3,318 megaliters.

All discharge pathways comply with the regulations of the industrial estates and are directed to designated pipelines. From water acquisition to discharge, all processes adhere to the relevant industrial standards and legal requirements of Thailand, ensuring environmental protection. In 2024, there were no major incidents of non-compliance with applicable laws and regulations.

Based on past experience, the current production sites are not considered to be at high risk of water scarcity. However, to mitigate potential impacts such as production downtime and delivery delays to customers, Apex has implemented water resource risk management measures. These include maintaining regular and backup water supply vendors to reduce the impact of water shortages on production continuity.

Treatment Method			Recycled/Treatment Amount			Unit
			2022	2023	2024	
Micro Etching Waste Liquid		Use RecoCell equipment for electrolytic recycling and reuse	-	74.75 tons	3,769	m³
Acidic Etching Waste Liquid		Use equipment for electrolytic recycling and reuse	-	-	13,893	m³
		Sale waste liquid	9,510	5,755	7,713	tons
Water Discharge		Discharge to the wastewater treatment plant in the industrial zone	2.78	3.06	3.32	ML
Non-hazardous	General Waste	Garbage cleaning and landfill by the government	6,044	7,910	5,075	tons
	Food Scraps	Waste clearance agency dispose and reuse	578	641	800	tons

Treatment Method			Recycled/Treatment Amount			Unit
			2022	2023	2024	
Hazardous	Copper plate, Copper column	Sell it, after undertaking the processing procedures	123	641	694.9	tons
	Pd waste liquid	Sell it, after undertaking the processing procedures	-	93	1,403	g
	Gold resin	Sell it, after undertaking the processing procedures	-	29	547	g
	Precipitation	Discharged by a qualified company in the industrial zone	196	165	636	tons
	Rubbish	Discharged by a qualified company in the industrial zone	6,816	4,323	4,647	tons

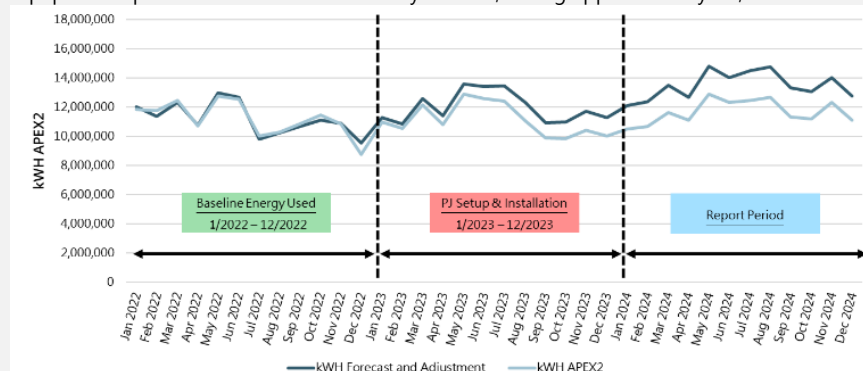
4.3 Energy Efficiency and Policy

Since 2022, Apex has gradually implemented its solar energy initiative, with some solar installations already operational. In 2024, solar energy usage increased by 61.27% compared to the previous year, accounting for 3.08% of total energy consumption. During the year, installed systems generated a total of 9,660.36 MWp of solar energy.

Energy		Unit	2022	2023	2024	
Non-Renewable Energy	Outsourcing Energy	MWh	283,679	288,995	304,355	96.91%
		GJ	1,021,244	1,040,382	1,095,677	
	Diesel	L	413,624	486,022	199,281	0.00%
		GJ	15.06	17.7	7.26	
	Petrol	L	36,301	50,568	62,206	0.00%
		GJ	1.14	1.59	1.96	
	LPG	L	2,210,103	2,217,774	2,210,524	0.01%
		GJ	111.01	111.4	111.03	
Renewable Energy	Self-Generated Solar Power	MWh	1,491	5,990	9,660	3.08%
		GJ	5,367	21,562	34,777	
Total		GJ	1,026,738	1,062,075	1,130,575	
Energy intensity	GJ/ Million NTD Revenue		68.88	84.10	90.74	

Lean Project

The project was implemented from 2022 to 2023 and focused on six key measures to improve equipment operational efficiency. As a result, the average monthly energy consumption for equipment operation in 2024 decreased by 13.39%, saving approximately 78,026.4GJ annually.



Solar Project

Solar Plant	2022	2023	2024	2025	2026-2028
Phase 1 Completed	2,771				
		2,351			
			3,175		
Phase 2	Rooftop Apex 3-PPA			1,300	
	Rooftop Apex 1				4,454
Phase 3	New AREA				4,500
	Rooftop Apex 4				2,000
Solar Capacity (kWp)		2,771	2,351	3,175	1,300
Accumulate Solar Capacity (kWp)		2,771	5,122	8,297	9,597
GHG Reduction (Tons)		2,022	3,739	6,055	7,004
					14,999

The Solar Project is being implemented in three phases from 2021 to 2028 to install solar energy systems. Upon completion of all phases, Apex' s total installed solar capacity is expected about 21MWp, equivalent to an annual reduction of about 15,000 tons of greenhouse gas emissions. Compared to the company' s 2021 GHG inventory baseline, this reduction represents more than an 8% decrease in carbon emissions.

In 2024, Apex made an additional investment of approximately NT\$119 million in major green energy and sustainability-related equipment, specifically in solar power systems, bringing the cumulative installed capacity to 8,297 kWp. Beyond its commitment to sustainable development, Apex also fostered internal engagement during the solar panel installation process by inviting professional vendors to design and lead safety-focused training sessions. Employees were encouraged to participate, helping to build team cohesion and a sense of pride and honor in being part of the Apex Family.

4.4 Mitigating Global Warming

Apex recognizes the global focus on climate change and greenhouse gas emissions, as well as the importance of taking action across all sectors to reduce emissions. In 2016, Apex established a greenhouse gas inventory as the basis for its reduction targets, with 2019 set as the base year, aiming to reduce greenhouse gas emissions by 5% (Scope 1 + Scope 2) within the next five years. By the end of 2022, Apex had successfully achieved this target. In 2023, a new phased target was set, using 2022 as the base year, aiming for a 5% reduction in greenhouse gas emissions within the next five years. However, adjustments to the product mix in 2024 affected the year's emissions.

Apex's manufacturing processes consume large amounts of electricity. With the implementation of the FA Goal, the energy consumption of some equipment has gradually decreased. Through the execution of the GREEN Project, Apex continues to improve the production and usage ratio of renewable energy. The first phase of the solar power generation project has been fully operational, achieving a carbon reduction of approximately 4,829 tons in 2024. The solar power project is divided into three phases, aiming to effectively reduce electricity purchases and carbon emissions in the future.

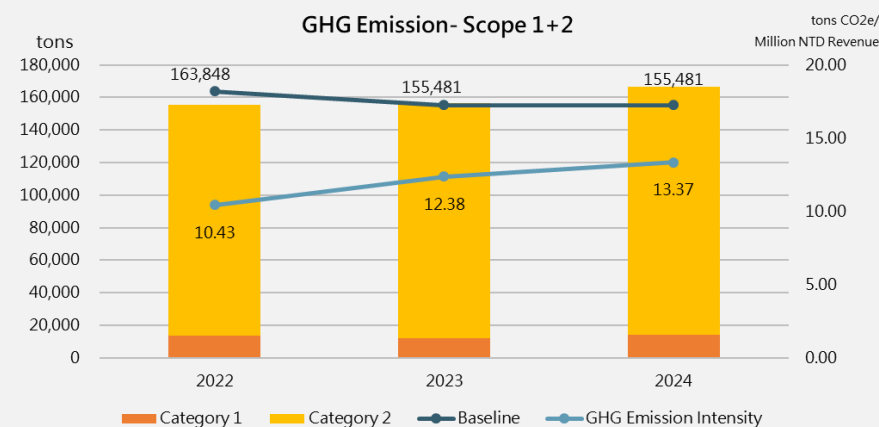
Apex adopts ISO 14064-1:2018 as its reporting standard to establish its greenhouse gas inventory. This standard covers CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃ applicable to Apex's operational control approach. Data collection is conducted by region. If the group operates only an office without a manufacturing site in that region, only the electricity consumption of the local office is collected. For calculation, Taiwan uses the latest annual electricity emission factor announced by the Bureau of Energy, Ministry of Economic Affairs; China follows the emission factor specified in the "Notice on Key Work for the Management of Enterprise Greenhouse Gas Emission Reporting in 2022" by the Ministry of Ecology and Environment; and Thailand uses the emission factor published by TGO-CFO. The Global Warming Potential (GWP) values used are referenced from IPCC AR6.

Other indirect greenhouse gas emissions mainly come from the supply chain. Therefore, Apex has collaborated with suppliers to carry out Scope 3 greenhouse gas inventories, aiming to expand the scope of assessment to better control Scope 3 emissions.

GHG Emissions Situation

Unit: tons CO₂e

Scope	2022	2023	2024
Scope 1 (A)	13,667	11,937	14,396
Scope 2 (B)	141,814	144,389	152,148
Subtotal (A)+(B)	155,481	156,326	166,544
GHG Emission Intensity (A+B)/Million NTD Revenue	10.43	12.38	13.37
Scope 3 (C)	18,312	17,199	20,516
Others ⁴ (D)	5	5,720	7,527
Total (A+B+C+D)	173,798	179,245	194,587



⁴ Emissions containing R-22 and biogenic CO₂

4.5 Compliance with Environmental Regulations

The company is committed to corporate social responsibility and dedicated to complying with all environmental regulations to ensure that our operations align with the principles of sustainable development. We fully recognize the importance of environmental protection for both business and societal progress. Accordingly, we actively implement various measures to ensure compliance with domestic and international environmental laws and continuously optimize our environmental management systems to minimize ecological impact.

First and foremost, all of our facilities strictly adhere to environmental protection laws throughout the production process to ensure that operations do not negatively impact the environment. To date, the company has not incurred any significant losses (including penalties or compensation) due to environmental pollution, nor has it been subject to disciplinary action by regulatory authorities. This demonstrates our strong sense of discipline and responsibility in environmental management. Additionally, we have established comprehensive environmental management systems and regularly review and improve them to maintain compliance and reduce environmental risks.

Secondly, to ensure environmental quality, we conduct at least one third-party noise and air pollution inspection each year. Through professional environmental monitoring agencies, we ensure that emissions comply with regulatory requirements and that potential environmental risks can be promptly identified and addressed. In addition, we continuously invest in environmental protection technologies and equipment to reduce the environmental impact of our operations and safeguard the environmental quality of the surrounding communities.

Regarding product-related environmental regulations, the company strictly complies with the EU's Restriction of Hazardous Substances Directive (RoHS) and the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation. We ensure that our products do not contain or limit the use of hazardous substances and meet international environmental and health requirements. Our supply chain fully complies with relevant regulations to ensure that raw material sourcing, manufacturing, and final products all meet environmental standards, thereby reducing our ecological footprint.

In addition, the company actively supports biodiversity conservation by protecting the natural environment and ecosystems at each facility in accordance with local regulations and international initiatives. We take steps to avoid disrupting natural habitats and harming wildlife to preserve local biodiversity. Employees are also encouraged to participate in conservation activities, such as tree planting and beach cleanups, embedding ecological awareness into our corporate culture.

The company regards compliance with environmental regulations and the protection of biodiversity as fundamental responsibilities of its business operations. Through regular monitoring, internal management, supply chain collaboration, and employee engagement, we strive to ensure environmental sustainability. We will continue to raise our environmental management standards, promote green production, and implement eco-friendly measures to contribute to the long-term protection of the global environment and natural resources.



5. Social Prosperity

Material Topic	Change of political and social environment	
Policies and Commitments	<ul style="list-style-type: none"> Advocating for employee rights and stability through the Employee Welfare Committee. Implementing fair compensation policies and comprehensive training programs to nurture and retain talent. 	
Governance Structure	Corp. & Legal Department, Management Information System Department and Administrative Department	
Management Actions	<ul style="list-style-type: none"> Interacting with external stakeholders through procurement, sales, finance, and other departments to gather market intelligence for analysis and feedback to management for planning and management activities. Establishing channels for gathering and analyzing political and economic trends; devising mature education-industry collaboration models; enhancing the quantification system for employee competencies. Convening regular meetings of the Employee Welfare Committee. 	
Execution objectives	<ul style="list-style-type: none"> Annual employee turnover rate⁵ below 40%. 	
Stakeholder Engagement	Stakeholders	Society, Customers, Employees, Government, Shareholders, Suppliers
	Communication Channels	Society: Community maintenance, charity events, communication with local government Customers: Periodic communication, assessment of compliance with requested items Employees: Employee welfare committee meetings, employee education and training Government: Regulatory compliance Shareholders: Shareholders' meetings, annual reports, sustainability reports, spokesperson window Suppliers: Periodic communication, supplier audits
Performance in 2024	Annual employee turnover rate 33.98%	

⁵ Employee turnover rate = (Number of resignations + Number of layoffs and retirements) / (End-of-period

5.1 Happy Workplace

Apex is like one big family. The top management of Apex prioritizes the safety, profession, and health of all employees, including those from outsourcing partners. Employees are seen as vital resources for maintaining the successful operation of Apex, hence the company's commitment to zero workplace accidents and its emphasis on employees' physical and mental well-being, workplace rights, environmental hygiene, and safety. We strive to create a happy and safe working environment, providing employees with diverse and equal opportunities and fair compensation and fostering mutual trust and respect in the labor-management relationship.

Apex has an Employee Welfare Committee elected through democratic processes and organizes charity events periodically to support vulnerable groups. Following laws and various initiatives, the Company has established internal regulations to ensure equal and fair treatment regardless of gender, race, socioeconomic status, age, marital status, or family situation, ensuring equal opportunities for employment, working conditions, salaries, benefits, training, performance evaluations, and promotions. A harmonious and pleasant work atmosphere is crucial for maximizing the benefits of teamwork. To facilitate smooth communication and consensus-building between management and employees, Apex consistently prioritizes reasonable salary levels, a good working environment, and effective communication channels.

Employees can voice their suggestions and concerns to the management team through channels like the CEO BOX and BROTHER BOX. In 2024, Apex did not receive any significant complaint letters. The labor-management relationship at Apex is harmonious, with no major labor disputes. Apex has established fair salary and compensation policies and performance evaluation mechanisms, including performance assessments that are aligned with the company's sustainable business objectives.

Apex has established a Safety and Occupational Committee, conducting regular inspections to ensure compliance with safety regulations and minimize workplace safety hazards. Additionally, Apex regularly provides health check-ups for employees to promote their physical and mental well-being. Apex's subsidiary, APT, has also obtained ISO 45001 certification for creating a healthy and safe working environment.

headcount + Number of resignations + Number of layoffs and retirements).

Personnel Distribution

All Apex employees have signed employment contracts, and there are no temporary, dispatched, or non-employee workers. The following table provides information based on the number of employees as of December 31, 2024, including the average length of service, average age, and educational level of Apex employees.

Year		2022	2023	2024
Number of Employees	Manager and above	124	142	158
	Production Departments	4,535	3,501	3,864
	General Employees	2,758	3,872	4,205
	Total	7,417	7,515	8,227
Position	Manager and above	124 ⁶	142 ⁷	158 ⁸
	General Employees	7,293	7,038	8,069
Gender	Male	3,126	3,247	3,507
	Female	4,291	4,268	4,720
Regional	Taiwan	10	10	10
	China	3	3	17
	Thailand	7,404	7,515	8,200
Employee Structure	Over 50 years old	123	114	141
	30-50 years old	1,390	3,203	3,483
	Under 30 years old	5,131	5,904	4,603
Average Age		29.60	30.10	30.12
Average Seniority		3.60	4.00	3.94
Education Level	Master and above	16	15	17
	University	575	1,687	1,957
	Senior High School	4,070	3,176	3,493
	Below Senior High School	2,756	2,637	2,760

⁶ 86 Thai, which is 69.35% of Manager and above. 39 females, which is 31.45% of Manager and above.

⁷ 93 Thai, which is 65.49% of Manager and above. 41 females, which is 28.87% of Manager and above.

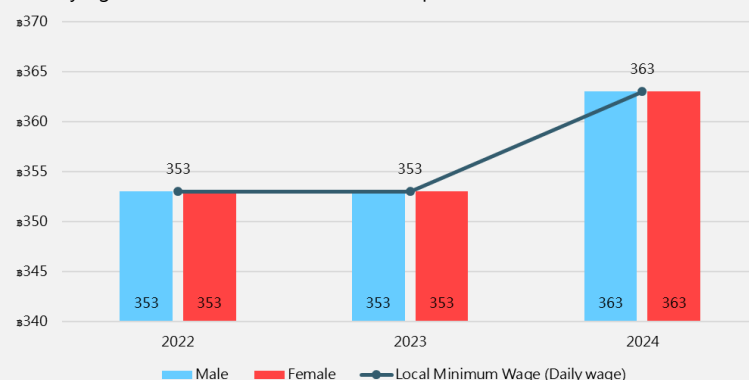
2024									
Gender/People (%)	Male				Female				SUM
	Thai	Chinese	Korean	Others	Thai	Chinese	Korean	Others	
Manager and above	0.73	0.47	0.10	0.10	0.47	0.09	-	-	1.96
Engineer	3.46	0.26	-	-	1.46	0.07	-	-	5.25
R&D	0.07	0.01	-	-	0.07	-	-	-	0.16
IT	0.23	-	-	-	0.19	-	-	-	0.43
Others	37.01	0.19	0.02	0.01	54.71	0.24	-	0.01	92.21
SUM	41.51	0.94	0.12	0.11	56.91	0.40	-	0.01	100

2023									
Gender/People (%)	Male				Female				SUM
	Thai	Chinese	Korean	Others	Thai	Chinese	Korean	Others	
Manager and above	0.79	0.45	0.04	0.09	0.48	0.07	-	-	1.92
Engineer	3.66	0.15	-	-	1.42	0.01	-	-	5.24
R&D	0.09	0.01	-	-	0.12	-	-	-	0.23
IT	0.28	-	-	-	0.13	-	-	-	0.41
Others	37.37	0.23	0.04	0.01	54.34	0.2	-	0.01	92.20
SUM	42.19	0.84	0.08	0.10	56.49	0.28	-	0.01	100

⁸ 99 Thai, which is 62.66% of Manager and above. 46 females, which is 29.11% of Manager and above.

Employee Compensation Policy

The Company offers fair and market-competitive compensation based on corporate profitability, performance evaluation results, and consideration for long-term employee development to attract, retain, and motivate top talents and reward employees who create performance and make long-term contributions. We are committed to maintaining a stable employee livelihood through robust compensation and fostering a friendly work environment, positively impacting employee morale and operational stability. Upholding sustainability principles and practicing corporate social responsibility is our mission, and we strive to integrate environmental friendliness and social benefits at every level, laying the foundation for sustainable operations.



Note: The ratio of the starting salary of grassroots personnel to the local minimum salary is 1.00, which is the same for both males and females.

To embody the principle of shared achievements, the company allocates up to 2% of annual profits as employee compensation. Annual performance evaluations determine salary adjustments and bonuses based on individual performance, responsibility, and potential. Apex ensures fair pay based on education, experience, expertise, tenure, and performance, with no discrimination by age, gender, race, religion, political stance, marital status, or union membership.

According to internal statistics, the ratio of Highest-Paid Individual to Median Employee annual total compensation is 33.16, while the ratio of their annual compensation increase rates is 9.35. Given the company's structure—with few senior managers and many frontline employees—these differences reflect role responsibilities and performance-linked design. The company will continue reviewing its pay structure to ensure fairness and reasonableness.

New Hires and Employee Turnover

The majority of Apex's workforce consists of employees under the age of 30, a group typically in the career exploration phase and therefore the most mobile. They represent the highest proportion of both new hires and resignations. Employees aged 30 to 50 exhibit relatively stable retention rates and form the backbone of the company. To increase retention among younger employees, Apex continuously enhances its training programs, strengthens career development planning, and improves compensation and benefits systems. (Refer to [Employee Development Program](#) and [Employee Welfare Policy](#))

Category		New Hires		Employee Turnover	
		Number	Ratio	Number	Ratio
Male	Under 30 years old	1,716	34.69%	1,396	32.96%
	31-50 years old	394	7.96%	448	10.58%
	51years old	4	0.08%	7	0.17%
Female	Under 30 years old	2,201	44.49%	1,719	40.59%
	31-50 years old	630	12.73%	663	15.66%
	51years old	2	0.04%	2	0.05%
SUM		4,947	100%	4,235	100%

Retirement System and Implementation Status

The retirement system for employees complies with relevant local laws as follows:

- I. **Thailand area:** Section 118 of Chapter 11 of the Thai Labor Protection Act provides retirement benefits to local employees. This constitutes a defined benefit plan wherein employees meeting the retirement criteria are eligible for a retirement benefit equivalent to a certain number of days' salaries based on their tenure. The related liability has been recognized in the [financial statements](#) based on actuarial reports prepared by qualified actuaries in the local area.
- II. **Taiwan area:** Employees in Taiwan are subject to the Labor Pension Act, which allocates a portion equivalent to 6% of monthly wages as retirement benefits to individual retirement accounts managed by the Bureau of Labor Insurance.

Employee Development Program

The employee training and development program is designed to enhance employee skills and serves as a crucial policy for attracting top talents. Apex provides comprehensive education, training, and development plans for employees, aiming to foster a sense of belonging and promote a culture of teamwork within the company through continuous learning. We encourage employees to participate in various company projects, fostering self-expectations and enhancing the company's competitive edge.

Project			2022	2023	2024
New Employee Training	Male	Training Hours (Hours)	40,800	45,576	50,184
		Trainees (People)	15,300	17,091	18,819
	Female	Training Hours (Hours)	54,840	58,536	67,536
		Trainees (People)	20,565	21,951	25,326
Professional Training	Male	Training Hours (Hours)	57,702	156,861	102,593
		Trainees (People)	10,338	25,210	16,677
	Female	Training Hours (Hours)	80,739	196,602	116,778
		Trainees (People)	14,521	32,136	19,266
Director and Manager Training	Male	Training Hours (Hours)	94	75	78
		Trainees (People)	28	22	22
	Female	Training Hours (Hours)	14	39	45
		Trainees (People)	5	9	10
Total	Male	Training Hours (Hours)	98,596	174,027	152,855
		Trainees (People)	25,666	42,323	35,518
	Female	Training Hours (Hours)	135,593	255,177	184,359
		Trainees (People)	35,091	54,096	44,602
	Total Training Hours (Hours)		234,189	429,204	337,214
	Total Trainees (People)		60,757	96,419	80,120

Employee Welfare Policy

As the electronics components industry falls under labor-intensive sectors, labor relations are crucial, with stakeholders prioritizing this issue. Therefore, Apex has established labor-related regulations that adhere to international standards such as TLS and the Responsible Business Alliance (RBA) Code of Conduct, aiming for zero labor complaints.

Apex ensures fair and equal treatment for all employees and implements a voluntary overtime application system. The HR department collaborates with department heads to formulate annual education and training plans based on departmental objectives and competency requirements. Clear promotion assessment criteria for each job level are defined to promote talent development, retention, and utilization. Apex takes a comprehensive approach to employee compensation, benefits, and communication, fostering personal achievements and development and enriching employees' spiritual growth to achieve work-life balance.

Remuneration System	<ul style="list-style-type: none"> Employee compensation Seniority awards Employee retirement system in compliance with local regulations
Welfare Policy	<ul style="list-style-type: none"> Shuttle bus service for commuting Provision of employee uniforms The employee cafeteria provides three meals Perfect attendance bonus Medical and funeral assistance Annual sports events and employee parties Maternity leave and benefits during pregnancy Employee loans Provision of medical insurance for all employees
Employee Care and Communication	<ul style="list-style-type: none"> Employee Welfare Committee Official website CEO BOX BROTHER BOX, etc.

Employee Organization

Although Apex has not established a labor union, the company has formed a variety of employee organizations to safeguard employee rights and has implemented relevant regulations accordingly. Apex maintains harmonious labor relations, with no major labor disputes on record. The company places strong emphasis on employee well-being and designs responsive measures in accordance with environmental and organizational changes to meet employee needs. A dedicated Employee Welfare Committee has been established to support employee benefits, encourage open communication, advocate for fair working conditions and development opportunities, and ensure the health and well-being of all staff—fostering a shared path of growth for both the company and its employees.

Committee		Safety & Occupational Committee			ISO 45001 Committee:		
Member Distribution		2022	2023	2024	2022	2023	2024
APT	Assistant Manager Level or above	64	55	67	226	234	230
	Others	67	79	76	-	-	2
APS	Assistant Manager Level or above	5	3	5	-	-	-
	Others	12	16	13	-	-	-
SUM		148	153	161	226	234	232

Human Rights Education and Training

Apex actively promotes training programs on RBA (Responsible Business Alliance) and TLS (Thai Labor Standards) to enhance employee awareness of corporate social responsibility and labor rights. The RBA training emphasizes ethical business conduct and environmental standards, ensuring that company operations align with international norms. The TLS training emphasizes compliance with Thai labor laws to safeguard employees' fundamental rights and promote a positive work environment.

Through these initiatives, Apex demonstrates its commitment to the physical and mental well-being of its employees and upholds its responsibility to consumers through both product quality and the treatment of its employees.

In 2024, Apex recorded a total of 774 training hours related to human rights education.

Course	Hours	People	APEX 1		APEX 2		APEX 3	
			Male	Female	Male	Female	Male	Female
Internal Audit RBA&TLS (RBA Version 8.0 (2024) & TLS 8001:2563)	6	63	8	9	31	8	5	2
Responsible Business Alliance (RBA) Version 8.0 (2024) & TLS 8001:2563)	6	66	8	9	33	7	5	4

Employee satisfaction survey

For employees, communication is conducted through employee satisfaction questionnaires, which are divided into four major items: work and development, team and culture, human rights issues, and welfare and resources. The survey statistics will end on July 31, 2024.

Survey Target	All employees
Responses Collected	4,647
Conducted By	Human Resources Department
Frequency	Annually
Survey Period	January 1 to December 31, 2023
Overall Satisfaction Rate	78%
Key Concerns	Occupational health and safety, management systems, training and development, accommodation resources, and improvement of work efficiency
Improvement Measures	Revise training programs to strengthen relevant content and enhance supervision and implementation of management practices.

Actions on Human Rights Issues



The completion rate of human rights education courses for new employees this year is 99.15%.



In 2024, 74 advocacy sessions were conducted on human rights protection and related complaint channels.



Annual health check-ups are provided for employees. The completion rate of employee health check-ups for 2024 is 98.72%.

Human Rights Policy Commitment

To uphold and safeguard fundamental human rights, Apex recognizes and supports the spirit and basic principles of human rights protection as articulated in various international human rights conventions, including the International Labor Organization Declaration on Fundamental Principles and Rights at Work, International Labor Organization Conventions, International Labor Organization Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, OECD Guidelines for Multinational Enterprises, Universal Declaration of Human Rights, and United Nations Global Compact Ten Principles. This commitment reflects our responsibility to respect and protect human rights and to comply with labor-related regulations in the countries where the company operates. Therefore, Apex has established the Human Rights Policy Management Measures.

Concerns	Goal and Practice	Measures	Appeal Channel
Providing a Safe and Healthy Environment	Implementing workplace safety and occupational disease prevention, providing employees with a safe, healthy, and hygienic work environment.	Conducting safety and health work, providing education and training, organizing employee health check-ups, or hosting various health promotion activities.	Employee Welfare Committee
Prohibiting Child Labor	Refusing to employ any child under the age of 18.	Following national hiring regulations, only applicants at least 18 years old are considered for any position, and thorough checks are conducted during recruitment to avoid oversight.	The business website "Irregular Business Conduct Reporting" allows external individuals to report or file complaints.
Prohibiting Forced Labor	Adhering to RBA regulations on freedom of employment choice, strictly complying with local government labor laws, and international standards to eliminate forced or involuntary labor.	According to local government labor laws, overtime work is voluntary and may not be enforced in any form. Employees are entitled to compensatory time off or overtime pay as required by law.	The business website "Irregular Business Conduct Reporting" allows external individuals to report or file complaints.
Eliminating Unlawful Discrimination	Ensuring no discrimination against employees based on race, class, language, ideology, religion, political affiliation, birthplace, gender, sexual orientation, age, marital status, appearance, facial features, disabilities, astrological sign, blood type, or union membership, to effectively safeguard employees' workplace rights and provide a workplace environment that is dignified and equitable.	Establishing the "Procedures to Human Rights Policy and Management" to safeguard employees' human rights and eliminate unlawful discrimination.	The business website "Irregular Business Conduct Reporting" allows external individuals to report or file complaints.
Promoting Employee Well-being	Offering legitimate and diverse activities to enhance the balance between employees' work and life.	The Welfare Committee organizes recreational activities for all employees at least once a year and conducts monthly care activities for new colleagues, inviting department heads to participate. These activities enhance employee morale and a sense of belonging through interactive team-building games.	Employee Welfare Committee CEO BOX BROTHER BOX
Maintaining a Harassment-Free Workplace	Ensuring a work environment free from sexual harassment for all employees.	Through advocacy and public announcements, employees are made aware of their responsibility to help ensure a harassment-free workplace during their duties, and avenues for complaints, such as hotlines and email, are disclosed to foster a friendly work environment.	CEO BOX BROTHER BOX

5.2 Workplace Health and Safety

Apex prioritizes workplace safety and health by providing medical rooms and emergency personnel in all areas. Equipment and supplies are checked and updated monthly, with local medical partnerships ensuring timely assistance. In 2024, there were 42 workplace injuries, mainly due to equipment misuse and chemical splashes. Relevant departments will strengthen training and operational guidance to reduce incidents.

Apex has established ISO 45001 and the Safety & Occupational Committee to supervise occupational safety management, ensuring international standards are met. The ISO 45001 Committee manages hazard identification and risk classification, provides operational guidelines, and enhances risk awareness to lower accident rates. An Emergency Response Center and annual drills further strengthen response capabilities.

Apex promotes employee health through regular check-ups and wellness programs, such as massage services, smoking cessation campaigns, and sports activities. It implements high-risk operation controls, contractor management, and safety monitoring to minimize risks. Loss prevention and emergency drills ensure effective response readiness.

The Safety & Occupational Committee, with employee-elected members, holds monthly labor-management meetings to address safety issues, focusing on high-risk areas and enhancing training to prevent incidents. These efforts build a strong safety culture, ensuring employee well-being and supporting sustainable operations.

Safety and Health Indicators Statistics

Statistical Indicators	Gender	2022	2023	2024	Unit
Number of Work-Related Injuries ⁹	Male	37	35	28	Case
	Female	22	10	14	Case
	Sum	59	45	42 ¹⁰	Case
Number of Work-Related Occupational Diseases ¹¹	Male	0	0	0	Case
	Female	0	0	0	Case
Lost Workdays ¹²	Male	450	393	352	Day
	Female	188	117	246	Day
Total Absenteeism Days ¹³	Male	42,930	38,908	27,374	Day
	Female	54,065	44,680	33,692	Day
Total Working Hours ¹⁴	Male	7,317,34	7,608,503	8,301,330	Hours
	Female	9,707,517	10,101,047	11,150,141	Hours
Death Toll	Male	0	0	0	People
	Female	0	0	0	People



⁹ Number of work-related injury: All occupational injuries, including traffic accidents, are included in the calculation.

¹⁰ All incidents occurred at the Thailand facilities, with no workplace injuries happening in API, AET, APC or APSS.

¹¹ Number of occupational disease: Ill on health arising from exposure to hazards at work.

¹² Lost workdays: The number of days' employees apply for work-related injury leave.

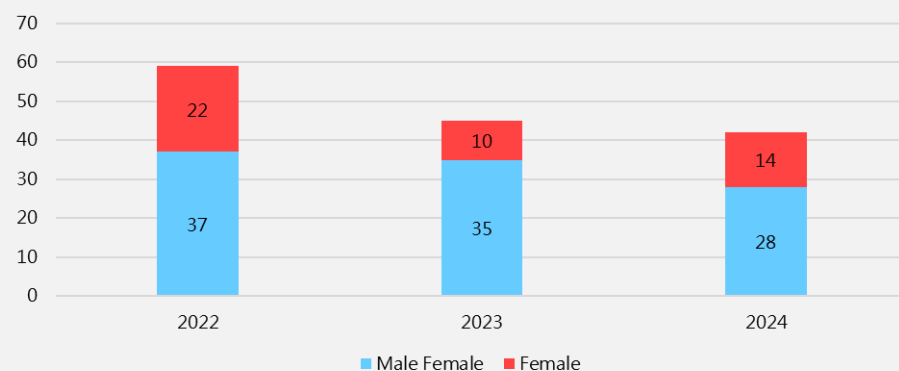
¹³ Total absenteeism days: The total number of days absent due to sick leave, personal leave, and work-

related injury leave, excluding annual leave, public holidays, marriage, bereavement, maternity, and paternity leave.

¹⁴ Total working hours: The total hours of work expected for each year are calculated as follows:
For daily wage employees: The sum of total working hours per month.
For monthly salary employees: The total number of working days in the month *8 hours *the number of employees on duty at the end of the month.

Statistical Indicators	Gender	200,000 hours ¹⁵		
		2022	2023	2024
Injury Rate (IR) ¹⁶	Male	1.01	0.92	0.67
	Female	0.45	0.20	0.25
Occupational Disease Rate (ODR) ¹⁷	Male	-	-	-
	Female	-	-	-
Lost Day Rate (LDR) ¹⁸	Male	12.30	10.33	8.48
	Female	3.87	3.72	4.41
Absentee Rate (AR) ¹⁹	Male	0.05	0.04	0.03
	Female	0.04	0.04	0.02

Work-Related Injury



5.3 Social Participation

Apex' s culture is deeply influenced by Eastern philosophy, emphasizing compassion and gratitude—values not only rooted in the company' s principles but also reflective of the Eastern virtues we aspire to uphold. This people-centered cultural philosophy is embedded in our operations and has become a source of soft power, driving our active participation in social initiatives. Guided by this spirit, Apex enhances employee well-being internally, fostering emotional connection and engagement so that every team member feels supported and cared for by the company.

Beyond internal employee welfare, Apex is equally committed to giving back to society, striving to make a positive impact across education, healthcare, charitable work, and social welfare. We believe that corporations should shoulder social responsibilities and promote public welfare through tangible actions. Apex not only provides financial support for education and local school development, but also actively participates in a variety of community service programs aimed at improving living conditions for disadvantaged groups and enhancing overall community well-being. We are also deeply involved in healthcare initiatives, offering resources and support to local hospitals in need.

In its social outreach, Apex maintains close ties with the communities in which it operates. We support local development through diverse means—from environmental conservation and public infrastructure development to volunteer services and charitable donations—each initiative reflecting our deep care for society. We also encourage employees to join in these community engagement efforts, which strengthens team cohesion and builds stronger emotional bonds with the communities we serve.

Apex firmly believes that corporate success should be measured not only by economic performance but also by its contributions to society and shared growth. In doing so, we help foster social harmony and drive the long-term sustainability of our business.

hours.

¹⁸ Lost Day Rate (LDR): The total lost workdays / the total working hours *200,000 hours.

¹⁹ Absentee Rate (AR): The total absenteeism days / the total working hours *200,000 hours.

¹⁵ The coefficient of 200,000 is derived from each group of 100 employees working 50 weeks per year, with 40 hours weekly.

¹⁶ Injury Rate (IR) : The cases of work-related injuries / the total working hours *200,000 hours.

¹⁷ Occupational Disease Rate (ODR) : The cases of occupational disease / the total working hours *200,000

Basic First Aid Training Course

Apex was invited to a local school to conduct a Basic First Aid Training Course for the school's teachers and staff, serving as the main instructor for the event.

The course aimed to enhance the participants' ability to respond to emergencies and provide essential first aid. It covered practical skills such as assessing vital signs and equipped attendees to react promptly and appropriately during health emergencies involving students or colleagues.

This initiative also strengthened the campus safety network and highlighted the positive impact of collaboration between private enterprises and educational institutions in promoting community health and safety.



Medical Supplies Donation

The Company visited the Samut Sakhon Provincial Public Health Office and Khok Kham Subdistrict Health Promoting Hospital in the company's local area to donate medicines and medical equipment. This initiative aims to strengthen grassroots healthcare resources and improve the quality of medical care in the region.

The donated items were carefully selected and prepared by a professional team to ensure they meet the practical needs of the community healthcare facilities. Through this tangible act of giving back, the company supports healthcare equity and helps create better access to medical care and improved treatment environments for residents.

This donation not only assists in the operations of local medical institutions but also reinforces collaboration with public health authorities—working together to enhance overall public health and well-being.



Saving Lives Through Blood Donation

The Company has long been committed to promoting public welfare and social care, with blood donation being one of the company's key ongoing initiatives.

In 2024, Apex collaborated closely with Sirirak Hospital and the Samut Sakhon Industrial Estate, organizing multiple blood donation drives across various locations, including the Sinsakhon and Samut Sakhon plants, as well as external industrial estate events.

These efforts drew participation from over 370 employees, with 279 successful blood donors, demonstrating strong employee engagement and the company's dedication to saving lives through collective action.



Canal Dredging Initiative

Apex participated in a local community canal dredging project, aimed at improving the water quality around the industrial area. By cleaning and clearing the canal, the project enhances water flow, reduces stagnation and pollution, and helps create a "clear, environmentally-friendly waterway" for better living and ecological conditions for local residents.

As one of the participating companies, Apex actively contributed manpower to the cleanup efforts and collaborated closely with local community representatives—demonstrating its commitment to supporting environmental improvement through meaningful, hands-on action.



6. Appendix

6.1 GRI Standards Table

Statement of Use	Apex International Co., Ltd. has reported the content covering the period from January 1, 2024, to December 31, 2024, in accordance with the GRI Standards.
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Sector Standard	N/A

GRI Standards	Disclosure Item	Chapter	Page
GRI 2: General Disclosure 2021	2-1 Organizational detail	1.1 About this Report 1.4 Company Overview	4 7
	2-2 Entities included in the organization' s sustainability reporting	1.4 Company Overview	7
	2-3 Reporting period, frequency and contact point	1.1 About this Report	4
	2-4 Restatements of information	This report contains no restatements of the information.	
	2-5 External assurance	6.6 Verification Statement	63
	2-6 Activities, value chain and other business relationships	3.3 Products and Services 3.4 Industry Supply Chain	22 25
	2-7 Employees	5.1 Happy Workplace	45
	2-8 Workers who are not employees	5.1 Happy Workplace	45
	2-9 Governance structure and composition	3.1 Board Governance	17
	2-10 Nomination and selection of the highest governance body	3.1 Board Governance	17
	2-11 Chair of the highest governance body	3.1 Board Governance	17
	2-12 Role of the highest governance body in overseeing the management of impacts	3.1 Board Governance	17
	2-13 Delegation of responsibility for managing impacts	1.3 Promoting and Managing Sustainability	6
	2-14 Role of the highest governance body in sustainability reporting	1.3 Promoting and Managing Sustainability	6
	2-15 Conflicts of interest	3.7 Ethics and Integrity	30
	2-16 Communication of critical concerns	2.5 Stakeholder Communication	14
	2-17 The collective knowledge of the highest governance body	3.1 Board Governance	17
	2-18 Evaluation of the performance of the highest governance body	3.1 Board Governance	17

GRI Standards	Disclosure Item		Chapter	Page
GRI 2: General Disclosure 2021	2-19	Remuneration policies	3.1 Board Governance	17
	2-20	Process to determine remuneration	3.1 Board Governance	17
	2-21	Annual total compensation ratio	Confidentiality constraints.	
	2-22	Statement on sustainable development strategy	1.2 Letter from The Sustainable Development Committee Chairperson	5
	2-23	Policy commitments	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
	2-24	Embedding policy commitments	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
	2-25	Processes to remediate negative impacts	2 Materiality Analysis and Stakeholder Engagement	8
	2-26	Mechanisms for seeking advice and raising concerns	3.7 Ethics and Integrity	30
	2-27	Compliance with laws and regulations	3.7 Ethics and Integrity	30
			4.5 Compliance with Environmental Regulations	44
			5.1 Happy Workplace	45
GRI 3: Material Topics 2021	2-28	Membership associations	Members of TPCA (Taiwan Printed Circuit Association).	
	2-29	Approach to stakeholder engagement	2.5 Stakeholder Communication	14
	2-30	Collective bargaining agreements	5.1 Happy Workplace	45
	3-1	Process to determine material topics	2.1 Material Analysis Process	8
	3-2	List of material topics	2.4 Impact Identification and Value Chain	11
	3-3	Management of material topics- Effectiveness of Board and Corporate Governance	3 Corporate Governance	16
		Management of material topics- Capital management	3.2 Financial Performance	20
		Management of material topics- Credit management	3.2 Financial Performance	20
		Management of material topics- Product quality management	3.3 Products and Services	22
		Management of material topics- Research development and innovation	3.3 Products and Services	22
		Management of material topics- Fail of digital transformation	3.3 Products and Services	22
		Management of material topics- Supply chain disruption and cost fluctuation	3.4 Industry Supply Chain	25

GRI Standards		Disclosure Item	Chapter	Page
GRI 3: Material Topics 2021	3-3	Management of material topics- Uncertainty of market information	3.4 Industry Supply Chain	25
		Management of material topics- Customer relationship management	3.6 Customer Service	29
		Management of material topics- Sustainability risk	3.7 Ethics and Integrity	30
		Management of material topics- Harmed reputation	3.7 Ethics and Integrity	30
		Management of material topics- Energy management	4.1 Climate Change Risks and Opportunities	33
		Management of material topics- Rising price of GHG emission	4.1 Climate Change Risks and Opportunities	33
		Management of material topics- Investment in new technologies	4.1 Climate Change Risks and Opportunities	33
		Management of material topics- Groundwater depletion	4.1 Climate Change Risks and Opportunities	33
		Management of material topics- Change of political and social environment	5 Social Prosperity	45
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	3.2 Financial Performance	20
	201-2	Financial implications and other risks and opportunities due to climate change	4.1 Climate Change Risks and Opportunities	33
	201-3	Defined benefit plan obligations and other retirement plans	5.1 Happy Workplace	45
	201-4	Financial assistance received from government	3.2 Financial Performance	20
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	5.1 Happy Workplace	45
	202-2	Proportion of senior management hired from the local community	5.1 Happy Workplace	45
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	3.5 Supplier Management Policy	27
GRI 205: Anti-corruption 2016	205-3	Confirmed incidents of corruption and actions taken	3.7 Ethics and Integrity	30
GRI 206: Anti-competitive behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	3.7 Ethics and Integrity	30
GRI 302: Energy 2016	302-1	Energy consumption within the organization	4.3 Energy Efficiency and Policy	42
	302-2	Energy consumption outside of the organization	Information unavailable / incomplete	
	302-3	Energy intensity	4.3 Energy Efficiency and Policy	42
	302-4	Reduction of energy consumption	4.3 Energy Efficiency and Policy	42
	302-5	Reductions in energy requirements of products and services	Not applicable: Our business model operates on a B2B basis, and therefore this item is not applicable.	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	4.2 Management of Water Resources and Wastes	40

GRI Standards	Disclosure Item		Chapter	Page
GRI 303: Water and Effluents 2018	303-2	Management of water discharge-related impacts	4.2 Management of Water Resources and Wastes	40
	303-3	Water withdrawal	4.2 Management of Water Resources and Wastes	40
	303-4	Water discharge	4.2 Management of Water Resources and Wastes	40
	303-5	Water consumption	4.2 Management of Water Resources and Wastes	40
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	4.4 Mitigating Global Warming	43
	305-2	Energy indirect (Scope 2) GHG emissions	4.4 Mitigating Global Warming	43
	305-3	Other indirect (Scope 3) GHG emissions	4.4 Mitigating Global Warming	43
	305-4	GHG emissions intensity	4.4 Mitigating Global Warming	43
	305-5	Reduction of GHG emissions	4.4 Mitigating Global Warming	43
GRI 306: Waste 2021	306-1	Waste generation and significant waste-related impacts	4.2 Management of Water Resources and Wastes	40
	306-2	Management of significant waste-related impacts	4.2 Management of Water Resources and Wastes	40
	306-3	Waste generated	4.2 Management of Water Resources and Wastes	40
	306-4	Waste diverted from disposal	4.2 Management of Water Resources and Wastes	40
	306-5	Waste directed to disposal	4.2 Management of Water Resources and Wastes	40
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	5.1 Happy Workplace	45
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.1 Happy Workplace	45
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	5.1 Happy Workplace	45
	403-2	Hazard identification, risk assessment, and incident investigation	5.2 Workplace Health and Safety	51
	403-3	Occupational health services	5.2 Workplace Health and Safety	51
	403-4	Worker participation, consultation, and communication on occupational health and safety	5.1 Happy Workplace	45
	403-5	Worker training on occupational health and safety	5.1 Happy Workplace	45
	403-6	Promotion of worker health	5.2 Workplace Health and Safety	51
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.2 Workplace Health and Safety	51
	403-9	Work-related injuries	5.2 Workplace Health and Safety	51

GRI Standards	Disclosure Item		Chapter	Page
GRI 403: Occupational Health and Safety 2018	403-10	Work-related ill health	5.2 Workplace Health and Safety	51
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	5.1 Happy Workplace	45
	404-2	Programs for upgrading employee skills and transition assistance programs	5.1 Happy Workplace	45
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	5.1 Happy Workplace 3.1 Board Governance	45 17
	405-2	Ratio of basic salary and remuneration of women to men	5.1 Happy Workplace	45
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	3.7 Ethics and Integrity	30
			5.1 Happy Workplace	45
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	5.3 Social Participation	52
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	5.1 Happy Workplace	45
GRI 416: Customer Health and Safety 2016	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	3.3 Products and Services	22
			3.7 Ethics and Integrity	30
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	3.3 Products and Services	22
			3.7 Ethics and Integrity	30
	417-2	Incidents of non-compliance concerning product and service information and labeling	3.3 Products and Services 3.7 Ethics and Integrity	22 30
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	3.7 Ethics and Integrity	30

6.2 Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies

Item		Chapter	Page
1.	Description of the monitoring and governance of climate-related risks and opportunities by the Board of Directors and management.	<u>1.3 Promoting and Managing Sustainability</u>	6
2.	Description of how the identified climate risks and opportunities affect the operations, strategies, and finances of companies (short term, medium term, and long term).	<u>4.1 Climate Change Risks and Opportunities</u>	33
3.	Description of the financial impacts of extreme climate events and transitional actions.	<u>4.1 Climate Change Risks and Opportunities</u>	33
4.	Description of how the identification, evaluation, and management of climate risks are integrated in the overall risk management system.	<u>2.1 Material Analysis Process</u>	8
5.	If scenario analysis is used to assess resilience against climate change risks, the scenario, parameters, assumptions, analysis factors, and major financial impacts should be described.	<u>4.1 Climate Change Risks and Opportunities</u>	33
6.	If there is a transitional plan for responding to climate-related risks, the content of the plan and the indicators and targets for identifying and managing physical risks and transition risks should be described.	<u>4.1 Climate Change Risks and Opportunities</u>	33
7.	If the internal carbon pricing is used as a planning tool, the basis of the pricing should be stated.	The system is still under planning.	
8.	If climate-related goals are set, information on the covered activities, scope of GHG emissions, planning timeline, and progress achieved annually should be stated. If carbon offsets or Renewable Energy Certificates (RECs) are used to achieve the goals, the source and quantity of carbon offsets or the number of RECs used for carbon reduction should be stated.	<u>4. Sustainable Environment</u>	32
9.	GHG inventory and assurance.	<u>4.4 Mitigating Global Warming</u>	43

6.3 Sustainability Disclosure Indicator - Electronics Components

Indicators	Category	Unit	Chapter	Page
1. Total energy consumption, percentage of externally purchased electricity, and usage rate of renewable energy	Quantitative	Billion joules (GJ) Percentage (%)	4.3 Energy Efficiency and Policy	42
2. Total water intake and total water consumption	Quantitative	Thousand cubic meters (m ³)	4.2 Management of Water Resources and Wastes	40
3. Weight and recycling percentage of generated hazardous waste	Quantitative	ton %	4.2 Management of Water Resources and Wastes	40
4. Describe the types, number of affected people, and percentage of occupational disasters	Quantitative	Quantity Percentage (%)	5.2 Workplace Health and Safety	51
5. Disclosure of product lifecycle management: Including the weight of end-of-life products and electronic waste and the percentage of recycling ^{Note}	Quantitative	ton Percentage (%)	Our company operates under a B-to-B business model and does not have a related product waste recycling process. For handling other types of waste, please refer to “4.2 Management of Water Resources and Wastes”	
6. Description of the risk management related to using key materials	Discussion and Analysis	N/A	Risks and Mitigation Measures for Purchasing Centralization: Our company specializes in manufacturing double-layer and multi-layer PCBs, with critical raw materials including copper foil substrate, film, and copper foil. We have maintained long-standing relationships with our primary raw material suppliers. In addition to fostering good cooperation, we ensure the procurement of critical raw materials from at least two suppliers. Therefore, our supply sources remain stable, and we have not encountered any shortages or disruptions in supply that could affect production.	
7. Total amount of monetary loss resulting from legal actions related to anti-competitive behaviors	Quantitative	Report Currency	3.7 Ethics and Integrity	30
8. Production capacities of main products according to product type	Quantitative	m ²	3.2 Financial Performance	20

Note: This includes the sale of scraps and other recycling processes. Related information should be provided

6.4 SASB Content Index

Indicators	No.	Descriptions of Indicators	Chapter	Page
Industry activities	TC-HW-000.A	Production capacities of different product types	<u>3.2 Financial Performance</u>	20
	TC-HW-000.B	Plant area	The APT facilities in the Samut Sakhon industrial zone are around 35 thousand sqm, and in the Sinsakhon industrial zone, they are around 105 thousand sqm. The APS facility, a single-side PCB, is around 8.5 thousand sqm.	
	TC-HW-000.C	Production percentage of self owned facilities	100%	
Product safety	TC-HW-230a.1	Description of approach to identifying and addressing product data security risks	<u>3.3 Products and Services</u>	22
Employee diversity and inclusion	TC-HW-330a.1	Gender and racial/ethnic group ratios of management, technical staff, and all other employees	<u>5.1 Happy Workplace</u>	45
Product life cycle	TC-HW-410a.1	Percentage of revenue from products comply with IEC 62474, RoHS and other applicable regulation and laws	Currently, customers consider RoHS a management standard for controlled and prohibited materials. The percentage of revenues that meet this standard was 100%.	
	TC-HW-410a.2	Percentage of revenue from products that comply with EPEAT registration or equivalent standards	0%, our product does not fit the specifications of EPEAT.	
	TC-HW-410a.3	Percentage of revenue from products that comply with ENERGY STAR® criteria	0%, our product does not fit the specifications of ENERGY STAR® criteria.	
	TC-HW-410a.4	Weight and percentage of recycled end-of-life products and e-waste	0%, our Company operates under a B-to-B business model. For handling other types of waste, please refer to “4.2 <u>Management of Water Resources and Wastes</u> ”	
Supply chain management and sources of raw materials	TC-HW-430a.1	The percentage of first-tier supplier facilities that have undergone the RBA Verification Assessment Process (VAP) or equivalent process for (a) all facilities and (b) high-risk facilities	0%, we have a plan for the sustainable audit of suppliers to upgrade our social responsibility shortly.	
	TC-HW-430a.2	(1) The non-compliance rate of first-tier suppliers with the RBA Verification Assessment Process (VAP) or equivalent procedure, and (2) the rate of corrective measures taken for (a) priority non-compliances and (b) other non-compliances.	0%, we have a plan for the sustainable audit of suppliers to upgrade our social responsibility shortly.	
Material procurement	TC-HW-440a.1	Description of the risk management for key materials	We have policies and procedures for managing conflict minerals and hazardous materials to eliminate relative hazardous risks from purchase sources. At present, we use questionnaires to suppliers for confirmation.	

Note: Using the SASB Indicators for the Hardware Standard of the Technology and Communication Industry, version 2018-10.

6.5 TCFD indicator comparison table

	Disclosure Item	Chapter	Page
Governance	Describe the board' s oversight of climate-related risks and opportunities.	4.1 Climate Change Risks and Opportunities	33
	Describe management' s role in assessing and managing climate-related risks and opportunities.	4.1 Climate Change Risks and Opportunities	33
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	4.1 Climate Change Risks and Opportunities	33
	Describe the impact of climate-related risks and opportunities on the organization' s businesses, strategy, and financial planning.	4.1 Climate Change Risks and Opportunities	33
	Describe the resilience of the organization' s strategy, taking into consideration different climate-related scenarios.	4.1 Climate Change Risks and Opportunities	33
Risk Management	Describe the organization' s processes for identifying and assessing climate-related risks.	4.1 Climate Change Risks and Opportunities	33
	Describe the organization' s processes for managing climate-related risks.	4.1 Climate Change Risks and Opportunities	33
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization' s overall risk management.	4.1 Climate Change Risks and Opportunities	33
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	4.1 Climate Change Risks and Opportunities	33
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	4.1 Climate Change Risks and Opportunities	33
		4.4 Mitigating Global Warming	43
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	4.2 Management of Water Resources and Wastes	40
		4.3 Energy Efficiency and Policy	42
		4.4 Mitigating Global Warming	43

6.6 Verification Statement



Independent Assurance Statement

APEX INTERNATIONAL CO., LTD. 2024 SUSTAINABILITY REPORT

The AFNOR GROUP was established in 1926. We are the National Standardization Body of France, a permanent council member in ISO and one of the leading certification bodies in the world. This assurance work was carried out by AFNOR ASIA LTD., a subsidiary of AFNOR GROUP. All the members of the verification team have professional backgrounds and have accepted AA1000 AS, AFAQ 26000, ISO 9001, ISO 14001, ISO 14064, ISO 45001, ISO 50001, and other sustainability-related international standard trainings. All assigned verifiers have been approved as the lead auditors or verifiers. AFNOR ASIA LTD. (hereinafter referred to as AFNOR ASIA) and APEX INTERNATIONAL CO., LTD. (hereinafter referred to as APEX) are independent entities. Except for the contents described in this independent assurance statement, AFNOR ASIA LTD. is not involved in the preparation process of the sustainability report of APEX.

RESPONSIBILITIES

APEX is responsible for reporting its economic, environmental, and social operating activities and performance in Taiwan and oversea operating locations in its sustainability report (hereinafter referred to as "the Report") in accordance with the declared sustainability reporting standards.

AFNOR ASIA is responsible for providing an independent assurance statement to APEX and its stakeholders in accordance with the described scope and method. This statement is for APEX use only and is not responsible for any other purpose.

SCOPE AND CRITERIA

The assurance scope of the agreement between APEX and AFNOR ASIA includes:

1. The scope of assurance operation is consistent with the scope disclosed in the 「APEX INTERNATIONAL CO., LTD. 2024 SUSTAINABILITY REPORT」.
2. AFNOR ASIA performs assurance operation according to the Type 2 assurance of the AA1000 assurance standard (v3), reviewing and evaluating APEX's compliance with the AA1000 Accountability Principles (2018), and presenting findings and conclusions on the reliability and quality of specific performance information.
3. The assurance operation includes reviewing and evaluating APEX's relevant processes, systems and controls and available performance information, as well as compliance with the following reporting criteria:
 - GRI Standards.

METHODOLOGY

- The Report is reported in reference with the GRI Standards, and the content of the Report is reviewed for compliance with the GRI Guidelines for general disclosure and specific topic disclosure.



- The verification team interviewed relevant personnel to confirm the communication and response mechanism for stakeholders and the decision-making process for material topics, but did not directly contact external stakeholders.
- All documents, data and information related to the preparation of the Report were verified by the verification team through interviews with relevant personnel.
- The process of reviewing organizational outputs, collecting and managing qualitative and quantitative data disclosed in reports based on a sampling plan.
- By interviewing the responsible personnel of each group, examining and reviewing the relevant documents, materials and information, the verification team evaluated the reasonableness of the sources of supporting materials and evidence for the contents of the Report.

CONCLUSION

◆ AA1000 Accountability Principles

Inclusivity

APEX has a high degree of implementation in the application of the inclusivity principle, especially in the institutionalization of negotiation mechanisms, the establishment of multiple communication channels and the use of participation output, demonstrating its sincerity and strength in long-term mutual trust and cooperation with stakeholders.

Materiality

APEX has an overall good implementation of the materiality principle, especially in terms of cross-departmental integration mechanisms, diversity of data sources, quantitative analysis methods and disclosure transparency, and demonstrated mature system operations.

Responsiveness

APEX has demonstrated institutionalization, cross-departmental integration and effective management of material issues under the responsiveness principle. The Reports are consistent and transparent in responding to issues, and reflect the organization's action strategy for responding to stakeholder concerns in its governance structure and risk management processes.

Impact

APEX presents a process for effectively identifying and fairly assessing impacts that include a range of environmental, social and governance topics from a wide range of sources. The impact of its operational activities is measured and evaluated through a combination of qualitative and quantitative objectives.

Findings and conclusions concerning the reliability and quality of specified performance information

Based on the results of the review, it was confirmed that APEX regularly collects and compiles



specific performance information through internal management systems and processes. The economic, environmental, and social indicators of the organization disclosed in the Report have been fully verified in terms of their sources, information collection, and statistical results during the verification process, and no significant errors have been found.

◆ Global Reporting Initiative Sustainability Reporting Standards

Based on the results of the review, it is confirmed that the general disclosures, specific topic disclosures, and material topics management disclosures in the Report have complied with the requirements of the GRI Standards. In the future, the organization can continue to combine other international disclosure requirements, optimize and consolidate the operational performance of each operating location, and fully disclose information on sustainable issues to stakeholders.

ASSURANCE OPINION

AFNOR ASIA has developed a complete sustainability reporting assurance standard based on the verification guidelines of the AA1000 Assurance Standard (v3) and the GRI Standards. Based on the sufficient evidence provided by APEX and the facts seen during on-site verification, we adhere to the principle of fairness and issue a statement on the global sustainability reporting standards followed by the organization. In our opinion, the information and data presented in the Report by APEX provides a fair and balanced representation. We believe the focuses on economic, social, and environmental indicators in APEX in 2024 are well represented.

ASSURANCE LEVEL

In accordance with the AA1000 Assurance Standard (v3), we verified this assurance statement corresponding to a moderate level. The scope and methods are as described in this statement.

For and on behalf of AFNOR :

Dr. August Tasi

The Director for Certification and Assessment

Jun.23.2025

Verification team: Chia Ling Wang (Lead Verifier), Chung Pen Chen (Verifier), YU TAI CHIANG (Verifier).

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<http://www.asia.afnor.org>



AA1000
Licensed Report
000-84/V3-IDHK2

6.7 ISO14064-1 Verification Statement

2024

2023

Statement TH24/00000312

SGS

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2024 of
APEX CIRCUIT (THAILAND) CO., LTD.

39/234-236 Moo 2, RAMA 2 Road, Bangkrachao, Amphur Muang, Samutsakhon 74000, Thailand

has been verified in accordance with ISO 14064-3:2019 as
meeting the requirements of

ISO 14064-1:2018

Direct emissions (Category 1)
14,395.79 tonnes of CO₂e

Energy indirect emissions (Category 2)
152,147.81 tonnes of CO₂e

Indirect emissions (Category 3,4,5,6)
20,516.47 tonnes of CO₂e

Total direct emissions and indirect emissions
187,060.07 tonnes of CO₂e

Authorized by

Montree T.

Montree Tangtermsirikul
General Manager
Date: 07 May 2025

SGS 14064-1
SGS (Thailand) Ltd
238 TRR Tower, 19th-21st Floor, Naradhiwas Rajanagarindra Road,
Chong Nonsi, Yannawa, Bangkok 10120 Thailand
t (02) 6781813 f (02) 6780620 www.sgs.com

This Statement is not valid without the full verification scope, objectives, criteria and
findings available on pages 2 to 7 this Statement.

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Statement TH24/00000312GG

SGS

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2023 of
APEX CIRCUIT (THAILAND) CO., LTD.

39/234-236 Moo 2, RAMA 2 Road, Bangkrachao, Amphur
Muangsamutsakhon, Samutsakhon 74000, Thailand

has been verified in accordance with ISO 14064-3:2019 as
meeting the requirements of

ISO 14064-1:2018

Direct GHG Emissions (Category 1) = **11,937.01** tonnes of CO₂e
Indirect GHG Emissions (Category 2) = **144,389.45** tonnes of CO₂e
Indirect GHG Emissions (Category 3-6) = **17,199.44** tonnes of CO₂e

Authorized by

Montree T.

Montree Tangtermsirikul
General Manager
Date: 14 May 2024

SGS 14064-1
SGS (Thailand) Ltd
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Bangkok 10120, Thailand
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This Statement is not valid without the full verification scope, objectives, criteria and
findings available on pages 2 to 7 this Statement.

Page 1 of 7