

IV. Sustainable Practices | Corporate Governance

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5. Corporate Governance

“Business integrity” is the foundation of the sustainable operation of the enterprise, and it is the highest corporate culture and spirit of Winbond. Winbond is committed to formulating comprehensive corporate governance regulations and management processes, and continuously monitoring and improving processes. With the efforts of all colleagues, Winbond has been ranked in the top 20% since the first corporate governance evaluation. Winbond will continue to embrace the corporate culture founded on business integrity to establish our trustworthy and reputable company reputation.

2022 Performance Highlights



Publish the first independent **TCFD report**



Renewable energy investment **NT\$555 million**



The carbon emissions generated on Family Day were retired through the **purchase of blue carbon credits**



Signed a **NT\$ 20 billion** sustainability-linked loan, and maintained sustainable performance such as carbon reduction, power saving and corporate governance



100% coverage of integrity and ethics education and training



Winbond invested in the world's largest blue carbon project, and obtained **1,000** tons of CO₂e blue carbon credits

5.1 Corporate Governance

5.1.1 Board Operation

■ Board of Directors

For the operation of Winbond's Board of Directors, the power and authority are exercised in accordance with relevant laws and regulations and the resolutions of the shareholders' meeting. The directors create the maximum benefit for shareholders in line with the principle of sustainable operation. Winbond has established "Conflict of Interest Reporting and Recusal Instruction", "Insider Trading Prevention Procedure", "Instruction for Personal Finance Reporting by Employees at Specific Positions and Business Related Personnel and Suppliers", "Rules for Receiving or Providing Gifts and Entertainment", "Technical and Classified Data Management Instruction", "Anti-Trust Code of Conduct", etc. to prevent unethical behaviors. Winbond also has established "Ethical Management Violation Handling Instruction", which describes explicitly the methods and channels for filing a complaint, and vigorously promotes and implements the Instruction, which has been regularly reviewed and revised, while meting out disciplinary action against violators.

— Board Composition —

<p>Composition of Board of Directors</p>	<p>The 12th Board of Directors consists of 11 directors, including 4 independent directors and 2 female directors. Directors who do not hold managerial positions of the Winbond and its subsidiaries make up more than two-thirds of board members. There are 3 persons having a spousal relationship or a familial relationship within the second degree of kinship with the directors, which is less than half of the board members and is in compliance with Article 26-3 of the Securities and Exchange Act. Winbond's Chairman serving concurrently as CEO is to lead the management team to effectively implement the decisions of the Board of Directors. In response to the aforementioned circumstances, the number of independent directors on the Winbond Board of Directors has been increased from three to four, and more than half of the Board of Directors is not held by the company's managers.</p>
<p>Major Shareholders</p>	<p>Institutional directors Walsin Lihwa Corporation and Chin-Xin Investment Co., Ltd are major shareholders of the Winbond. Among them, Walsin Lihwa Corporation is a founder of the Winbond, also the largest shareholder and a director since Winbond's inception</p>
<p>2022 Board Attendance</p>	<p>In 2022, 7 meetings of the Board of Directors were convened, with an average attendance rate of 100%. Including actual attendance (99%) and proxy attendance (1%) According to the material topics in 2022, the total number of key major events communicated with the highest governance unit was 16 (business integrity, R&D innovation, productivity and business performance, energy and greenhouse gas, sustainable development and other topics).</p>
<p>Election of the Directors</p>	<ul style="list-style-type: none"> • The composition of the Board of Directors is independent and diverse. The nomination of directors follows a rigorous selection process, adopting a candidate nomination system and voting at the shareholders' meeting. Shareholders fully exercise their election rights. • The members of the Board of Directors all have rich experience in industry management. Their knowledge and professional experience cover different fields; being cross-generational and recruiting elites from different fields to uphold the goals of innovation and diversification • Wide age distribution • More than half of the independent directors serve no more than 3 consecutive terms • Participation of female directors <div style="text-align: right;">  <p>For more information about the members of the Winbond Board of Directors, please scan the QR CODE</p> </div>

Note For Board and Committee proposals that involved the interests of the directors themselves, the directors had explained the reasons for recusal at the meeting and refrained from discussing and voting on such proposals to ensure the avoidance and mitigation of conflicts of interest. For relevant information, please refer to pages 21 and 24 of Winbond's 2022 Annual Report.

— 12th Members of the board (term 2020/6~2023/5) —

Title	Name	Gender	Age distribution	Individual director background					Diversified fields			Independent director Ratio	Proportion of directors concurrently serving as managers of the parent company or subsidiaries
				Business management	Leadership and decision making	Knowledge of the industry	Finance and accounting	IT	Environment	Economy	People		
Chairman	Arthur Yu-Cheng Chiao	Male	60-70	●	●	●	●	●	▲	▲	▲	36%	27%
Vice Chairman	Tung-Yi Chan	Male	60-70	●	●	●		●	▲	▲	▲		
Director	Yung Chin	Female	60-70	●	●	●	●	●	▲	▲	▲		
Independent Director	Allen Hsu	Male	60-70	●	●	●	●			▲	▲		
Independent Director	Stephen T. Tso	Male	70-80	●	●	●		●	▲		▲		
Independent Director	Francis Tsai	Male	70-80	●	●	●	●	●		▲	▲		
Independent Director	Jerry Hsu	Male	40-50	●	●	●	●			▲	▲		
Director	Walsin Lihwa Corporation (Representative: Fred Pan)	Male	60-70	●	●	●	●		▲	▲	▲		
Director	Chin-Xin Investment Co., Ltd (Representative: Yuan-Mou Su)	Male	60-70	●	●	●	●	●	▲	▲	▲		
Director	Jamie Lin	Male	40-50	●	●	●	●	●		▲	▲		
Director	Wei-Hsin Ma	Female	50-60	●	●	●	●	●	▲	▲	▲		

Professional Excellence of Directors

The 11 directors all have extensive business operations experience. The ages of board members cover different generations, and their professional background covers different industries. All board members possess the ability to perform their duties, supervise, and give constructive feedback and strategies. The directors take classes outside themselves or participate in multi-faceted training courses organized by Winbond. Training hours for director education and training and environmental sustainability related courses (carbon credit, climate change, sustainable finance) were 24.5 hours and for courses related to corporate governance (corporate governance, risk management) were 9 hours. The total training hours from 2021 to the end of 2022 were 49.5 hours. In 2022, the directors obtained a certificate of study with an average of 10.41 hours.

— Directors' Remuneration and Evaluation of Board Performance —

01

The Remuneration Committee reviews the performance evaluation system for the Board of Directors on a regular basis

Winbond established the “[Rules for Remuneration of Directors and Performance Assessment of the Board of Directors](#)”

02

A self-evaluation is conducted by the directors in December every year. It is submitted to the Remuneration Committee and the Board of Directors

A self-evaluation is conducted on the performance of the Board as a whole, the performance of individual Board members, and the performance of the Functional Committees. Relevant results of the evaluation were submitted to the Remuneration Committee and the Board of Directors

03

A performance evaluation of the Board of Directors is conducted by an external professional institution once every 3 years

In May 2022, an external organization “Taiwan Corporate Governance Association” was authorized to conduct the performance evaluation of the Board of Directors

04

Result of the Board of Directors performance evaluation is taken into consideration when nominating directors

On December 14, 2022, the Board of Directors reported the external evaluation results and Winbond’s improvement plan

The results of the 2022 evaluation were submitted to the Remuneration Committee and the Board of Directors on March 14, 2023.

- **2022 self-evaluation results of the overall performance of the Board of Directors:**
The scores of the “election and continuing education of the directors” had dropped significantly compared to that in 2021
- **Strengthening in 2023 is aimed at:**
Continued provision of multi-faceted development courses

Note Information on performance evaluation of directors: Please see the [2022 external evaluation results of Winbond's Board performance](#)

5.1.2 Operations and Main Duties of the Functional Committees

In order to improve the supervision function of the Board of Directors and strengthen the management function, the Winbond’s Board of Directors has set up an Audit Committee, a Remuneration Committee, a Risk Management Committee and a ESG Committee. Each Functional Committee is responsible to the Board of Directors and submits proposals to the Board of Directors for resolution.

— Remuneration Committee —

- Composed of 4 independent directors, the convener is Mr. Stephen T. Tso
- In 2022, 4 meetings of the Remuneration Committee were convened, with an actual attendance rate of 100%.

Responsibilities: Responsible for setting and reviewing the performance evaluation and remuneration policy, system, standard, and structure as well as individual compensation for Winbond directors and managers. The “[Rules for Remuneration of Directors and Performance Assessment of the Board of Directors](#)” and “[Guidelines for Managers’ Remuneration and Performance Evaluation Management](#)” were also drawn up to maximize the long-term effectiveness of the Board and to ensure a close linkage between the managers’ compensation and the company’s sustainability performance (economic, environmental, social)

Note Winbond established the “Rules for Remuneration of Directors and Performance Assessment of the Board of Directors”, which specifies the basis for directors’ remuneration, and submits it to the Remuneration Committee every year for review to see if adjustments are required. Both the Audit Committee and the Remuneration Committee of Winbond is composed of all independent directors and are independent. Winbond does not have a remuneration clawback mechanism. For information on the remuneration of directors, President and Vice President, please refer to page 17 - page 19 of Winbond’s 2022 Annual Report.

— Audit Committee —

- Composed of 4 independent directors, the convener is Mr. Allen Hsu
- In 2022, 7 meetings of the Audit Committee were convened, with an average attendance rate of 100%. Including actual attendance (96%) and proxy attendance (4%)

Responsibilities: Supervises the fair presentation of the company’s financial statements, appointment (dismissal) of the CPA as well as the CPA’s independence and performance, and assists the Board of Directors in performing supervisory duties such as: Control of compliance with relevant laws and regulations and existing or potential risks by the company

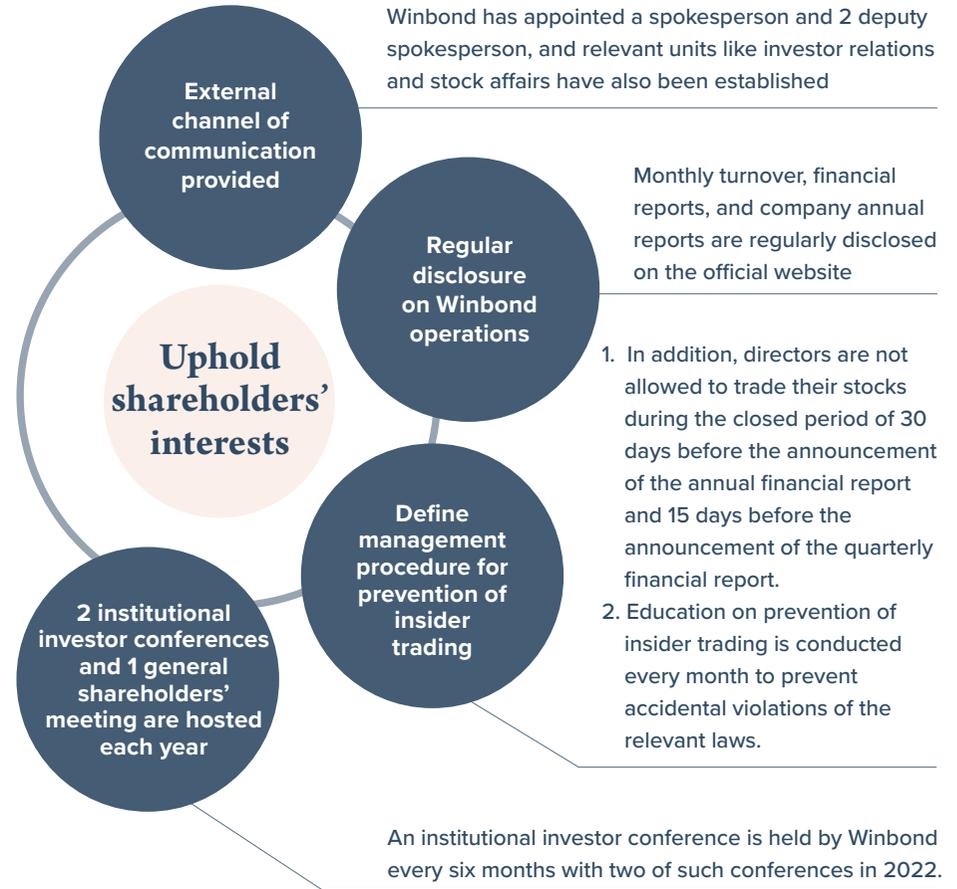
— ESG Committee —

- The committee consists of three directors, the President and five to seven senior executives of relevant departments, convened by the Chairman himself
- In 2022, 1 meeting of ESG Committee was convened, with an attendance rate of 100%.

Established the ESG office and five task forces, including Environmental Sustainability, Green Products, Human Rights and Social Inclusion, Sustainable Supply Chain, and Corporate Governance, regularly report to the Board of Directors every year (fourth quarter) on the implementation results of ESG Committee, thereby ensuring the promotion and implementation of works related to corporate sustainability. Regular meetings of ESG Committee are held every quarter, and the promotion centers governed by it report the implementation progress (results) of the current year and submit the implementation plan for the next year.

5.1.3 Shareholder Relations and Rights

To maintain shareholder relations and rights, Winbond mainly manages through the following four measures to ensure that the communication process with shareholders is smooth and in line with due process, the information is open and transparent, and the active and positive interaction between the company and shareholders is effectively maintained:



For more information on the rights and interests of shareholders, please refer to the videos and presentations from the institutional investor conferences

5.1.4 Internal Controls and Audits

Winbond's internal audit unit is directly under the Board of Directors. The appointment and dismissal of the audit chief shall be approved by the Audit Committee and the Board of Directors. In addition to reviewing and verifying the self-evaluation results of the internal control system for each unit and subsidiary, the internal audit unit also evaluates the control operations of various operating activities of Winbond's internal control system to measure the effectiveness and compliance of the existing internal control and its impact. The frequency and content of each periodic audit are determined according to the laws and regulations as well as the risk assessment; other important procedures or special cases may be audited by the auditing personnel at any time or irregularly.

The audit unit conducts audits according to the annual audit plan approved by the Board of Directors to determine the effectiveness of the internal control system's design and implementation. Audit findings are followed up until corrective actions have been completed to ensure the appropriate measures were taken by the relevant units timely. The audit chief reports to the independent director (convener of the Audit Committee) monthly after the completion of audit reports and the follow-up reports and delivers them to the independent directors for examination before the end of next month following the completion of the audit. The audit chief reports to the Board of Directors and Audit Committee quarterly. 2022 audit plan has been implemented in accordance with regulations, and audit results and follow-up improvements have been reported to the Audit Committee and the Board of Directors.

■ Illegal Business Activities Reporting Mechanism and Procedures

Winbond has established a complaint channel for stakeholders. The internal and external individuals may report to this channel anonymously or non-anonymously if employees engage in illegal activities, such as unfair business practices, bribery or earning illegal profits, fraud, and coercion. Reported cases are directly accepted by the audit unit of the Winbond and sent to the Audit Committee at the same time. The handling process is in accordance with the "Ethical Management Violation Handling Guidelines".

5.1.5 Tax Management

A unit responsible for tax governance has been established by Winbond to handle all tax reporting under the local tax laws and regulations. We also support government policies on business innovation, research and development, and tax credits by following

the government's special law on the repatriated offshore funds and use the funds for investment in the Kaohsiung Fab so as to increase the investment in Taiwan.

Winbond is committed to improving the transparency of tax information within the group. In order to stay in line with the global anti-tax avoidance trend, we actively update relevant tax knowledge and retain and consult external professional tax consultants to ensure proper compliance with tax regulations and reporting obligations.

■ Six Principles of Taxation Policy

1. Comply with local tax laws, report tax returns honestly, pay taxes on time, and fulfill our social responsibilities as taxpayers.
2. Local and international tax reforms are thoroughly assessed to determine the impact and develop a swift response.
3. Tax information is regularly disclosed in the financial statements and annual report to ensure information transparency.
4. Transactions between affiliated enterprises are based on the Arm's Length Principle, comply with the internationally accepted Transfer Pricing Guidelines defined by the Organization for Economic Cooperation and Development (OECD).
5. Winbond has built a relationship based on mutual trust and honest communications with the tax authorities.
6. All material transactions and decisions made by the company take the effect of tax and leases into account.

5.2 Business Integrity

"Business integrity" is Winbond's highest ethical standard. The human resources unit is responsible for the establishment and development of the corporate culture of business integrity, and making colleagues familiar with the content of business integrity through the formulation of regulations, continuous improvement, supervision and control, and education and training; regulations are also formulated, such as "Corporate Governance Best Practice Principles," "Ethical Corporate Management Best Practice Principles," "Sustainability Development Best Practice Principles," "Corporate Social Responsibility Manual," "Code of Ethics for Directors" and "Employee Code of Conduct," embedding business integrity into the company's culture.

An annual report on business integrity management promotion and training is presented to the Board by the HR in the fourth quarter of each year. Internal

cultural promotion, weekly articles on corporate philosophy, and promotion of policy announcements published on the employees' homepages are used to strengthen the implementation of education and training on labor rights, environmental protection, health and safety, ethical standards, and prevention of insider trading. Winbond strengthens internal ethical awareness to ensure compliance with corporate ethics and government regulations and implements sound business integrity management.



2022 Business Integrity Management Performance

- In 2022, the online course “Promotion of Ethics for Employees” was hosted, covering “business integrity” (insider trading prevention, fair trading, advertising and competition, identity protection, preventing retaliation, etc.) and labor rights, which was promoted to bases around the world. A total of 3,824 global employees have been trained, with a total of 1,530 hours. All directors and employees have completed the training.
- There were no economic or environmental violations at Winbond, nor were there any cases of corruption, anti-competitive behavior, or violations related to marketing and labeling.
- No complaints on violation of business integrity were submitted through the complaint channel in 2022.



5.3 Productivity and Business Performance

In 2022, Winbond’s consolidated revenue amounted to NT\$94.53 billion, a slight decrease of 5% from 2021; our consolidated net earnings after tax reached NT\$15 billion, and our after-tax EPS was NT\$3.25. We paid a consolidated income tax of NT\$4.03 billion, which accounted for 4.26% of our total revenue. For explanation and analysis of other categories of financial performance, please refer to [Winbond’s 2022 Annual Report](#).

— 2022 consolidated financial performance (Unit: NT\$ million) —

Item	2020	2021	2022
Election of the Directors	60,683	99,570	94,530
Non-operating revenue (expense)	185	(205)	1,512
Direct economic value [A]	60,868	99,365	96,042
Operating cost	43,643	57,089	51,479
Employee remuneration and benefit expenses (personnel expenses)	10,600	17,325	19,706
Payments to investors	788	1,175	4,482
Payments to the government	123	274	3,799
Community investment	10	6	7
Direct economic value distributed [B]	55,164	75,869	79,473
Residual economic value [A-B]	5,704	23,496	16,569
Net profit before tax	1,812	18,223	18,046
Net profit	1,519	15,000	14,987
Earnings (loss) per share (NT\$)	0.33	3.42	3.25

— 2022 Market Distribution —

	Asia	Europe	America	Other
Sales ratio (100%)	90.1%	3.8%	5.7%	0.4%

— Product categories and revenue ratios of their applications in 2022 —

	Dynamic random access memory (DRAM) products	Flash memory products	Logic products	Other
Sales ratio (100%)	23.20%	31.59%	44.05%	1.16%

Note Total wafer production was 2.1 (thousand pcs), while total die production was 3,397,345 (thousand pcs)

Note For Winbond's financial performance and sales volume in 2022, please refer to our [2022 Annual Report](#).

Investing in Taiwan

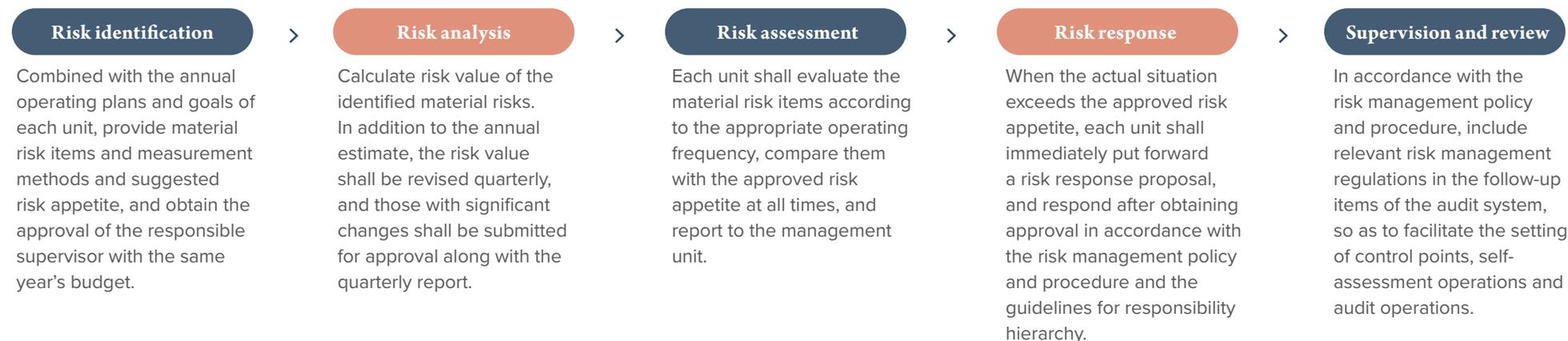
Winbond's headquarters and the first fab were established in the Central Taiwan Science Park. Echoing the programs for investing in Taiwan, in 2020, we applied for the "Action Plan for Welcoming Overseas Taiwanese Businesses to Return to Invest in Taiwan" for the first time to increase investment in the Central Taiwan Science Park (CTSP) Fab to expand production capacity and upgrade technology, implement intelligent automation equipment and provide high value-added products. Construction of Winbond's second fab was completed in the Kaohsiung Science Park in 2022. In March 2023, Winbond was granted the second approval of the "Action Plan for Welcoming Overseas Taiwanese Businesses to Return to Invest in Taiwan", which was binding to the syndicated loan contract signed in April 2023. The funds will be used to expand the production capacity of the Kaohsiung Fab and the CTSP Fab, upgrade advanced manufacturing process, purchase advanced equipment and develop our own innovative technologies to cope with the long-term growth trend of the memory industry. The Kaohsiung Fab will continue to recruit employees and encourage local talents born in southern Taiwan to return to their hometown to work. In addition to gathering semiconductor supply chain in the Kaohsiung area, we will further implement the concept of investing in Taiwan.



5.4 Risk Management

Winbond belongs to the semiconductor manufacturing industry. Natural disasters, accidents, man-made accidents, changes in international political and economic situations, the introduction of new technologies in the industry, and changes in policies and regulations, etc., may all cause serious impacts on our operations and finances. Therefore, Winbond has set up a Risk Management Committee under the Board of Directors, and organizes existing departments or risk responsible units to carry out risk management on the areas of operation they are responsible for. In addition to formulating sound internal management regulations and operating procedures, Winbond actively manages the three types of risks faced by contemporary enterprises: “operation”, “finance” and “information”, develops a comprehensive plan and process for pre-assessment, risk avoidance, loss prevention and crisis management, and regularly reports to the management and governance units to ensure that all corporate risk control goals are achieved.

Winbond has included climate change risk into the long-term operation and management of the enterprise, and in order to understand its impact on the environment and operations, since 2021, Winbond has adopted the Task Force on Climate-Related Financial Disclosures’ (TCFD) framework, and based on the observation on international regulatory trends and market outlook, every year, we regularly identify and disclose the financial impacts of climate-related risks and opportunities (both quantitative and qualitative), providing comments on the situation as well as proposing a management strategy. Winbond will continue to monitor the impact of risks brought by the climate, strengthen the company’s operational capabilities, promote various carbon reduction plans, improve energy efficiency, and steadily move towards sustainable development.



— Business Management Risk Analysis Table —

	Items for risk and opportunity identification	Description of impact assessment	Response measures	Performance management
I. Operational risk management	Abnormalities in product quality	Loss of customer trust and cancellation of product orders	When a product or manufacturing process fails to meet the requirements, employees responsible for corrective measures must be immediately notified to make sure that the defective product will not be shipped out to customers. Any products that may potentially be defective must be checked for defects and isolated. The responsible units shall analyze the cause of the defects and their adverse impact on the manufacturing process, as well as implement improvement measures	During the manufacturing process, products are subject to strict quality controls to improve product quality, which also helps us maintain long-term working relationships with our customers and improve customer satisfaction

	Items for risk and opportunity identification	Description of impact assessment	Response measures	Performance management		
I. Operational risk management	Rights Violations	Serious rights violations may constitute illegal behavior, and lead to the Winbond's management taking on civil or criminal liability. In less serious cases, violations may lead to financial or goodwill losses for the Winbond	<ul style="list-style-type: none"> Proactive Prevention When conducting product design and development, the RD department will closely work together with the intellectual property rights department to conduct relevant search, analysis and research on intellectual property rights. If necessary, it will obtain legal authorization or adopt methods such as design around, and strive to avoid infringement of intellectual property rights Effectively resolve violations after they happen: Upon alleged infringement in rare cases, the legal department will immediately clarify the facts with relevant units and actively protect the rights and interests of the company and customers 	From 2016 onwards, Winbond has avoided becoming involved in any litigation or disputes over violations of intellectual property rights (prior to 2016, Winbond has been involved in an extremely few number of litigation cases, which have all been resolved without major adverse impact on Winbond)	Green Products	Preface
	Patent Risk	Unsuccessful patent licensing negotiations increase the risk of patent litigation.	We proactively consult external lawyers to discuss and establish response measures to any potential events where a rights-holder asks for unreasonably high patent licensing fees or files a patent lawsuit against the Winbond, regardless if these actions are to protect intellectual property rights, purely based on business interests, or for any other unknown reason.	Acting under the principle of looking for a win-win resolution, and by showing mutual respect and taking reasonable actions when interacting with the rights-holder, Winbond has effectively managed patent risk, and there has not been any patent risk incidents which have adversely impacted the Winbond.	Environmental Sustainability	Winbond's Story
	Geopolitical risk	Under the co-opetition of world powers, policy and regulatory measures such as relevant restrictions or tariffs may have an impact on revenue.	Gradually construct local marketing talents to get closer to the market and provide customers with more timely services.	Due to strategic adjustments such as marketing, we are able to respond to changes in the division and reorganization of the global industrial chain in a timely manner	Sustainable Supply Chain	Contribution to Sustainability — Taking the Lead
	Export control	The rapid changes in the export of high-tech technologies and entity lists in various countries may affect shipments.	Establish an Internal Compliance Program (ICP) that incorporates the entity list, Export Control Classification Number (ECCN) and red alert management procedures for abnormal transactions	Incorporated relevant management regulations of the Taiwan Bureau of Foreign Trade and the US Bureau of Industry and Security (BIS) into the Internal Compliance Program to improve the overall delivery speed and management quality	Human Rights and Social Inclusion	
	Pandemic Risk	The pandemic can lead to employee health impacts, or cause losses through interruptions to business operations.	<ul style="list-style-type: none"> Implement pandemic prevention management regulations, such as practicing separate warehouses and different working shifts or work from home according to changes in the pandemic situation, maintaining indoor air circulation and regularly cleaning and disinfecting the environment Regular / irregular pandemic prevention meetings are chaired by senior executives, and rolling reviews are conducted on pandemic prevention management measures 	In 2022, the pandemic has not impacted employee health, or caused losses through interruptions to business operations		
	Exchange Rate Risk	The Winbond's foreign exchange gains and losses are mainly incurred from the foreign currency derived from import and export business operations, as well as the derivative financial products which are used to hedge against the exchange rate risk incurred from this foreign currency.	<ul style="list-style-type: none"> Transactions in derivative financial products are carried out with the purpose of hedging against the operational risks brought about by the Winbond's business operations, and derivative financial products have been chosen with this main goal in mind. Additionally, trading counterparties have been selected for their credit-worthiness, in order to avoid situations where counterparties are unable to fulfill contract obligations, leading to losses for the Winbond. In addition, low credit risk financial institutions with good relationships with the Winbond and the ability to provide the Winbond with professional information will be chosen as trading counterparties. The Winbond keeps abreast of financial market information, predicts market 	In 2022, risks from exchange rate changes and foreign exchange gains and losses remained within a controllable range	Corporate Governance	Appendix

	Items for risk and opportunity identification	Description of impact assessment	Response measures	Performance management		
II. Financial Risk Management			<p>trends, familiarizes itself with financial products and related regulations and trading techniques, and provides complete and timely information to Winbond management and relevant Winbond departments for reference.</p> <ul style="list-style-type: none"> The Winbond sets the limit of unrealized loss on all financial derivatives contracts to 20% of the contract value or 3% of stockholders' equity, whichever is lower. The Winbond's finance unit evaluates the Winbond's position on financial derivatives twice every month, and produces a report based on this evaluation which is submitted for review to the head of finance and senior management authorized by the Board of Directors, with hopes to predict the risk and potential losses from each transaction. 		Green Products	Preface
	Interest Rate Risk	Mainly arises from long-term borrowings with floating exchange rates, which have been made to meet operational needs such as manufacturing process upgrades or capacity expansions.	Strive to obtain favorable interest rate conditions based on the current market situation, in order to reduce the impact of interest rate fluctuations. Winbond issues New Taiwan Dollar-denominated corporate bonds at fixed interest rates, which are accounted at amortized cost and will therefore not affect cash flows or fair value during interest rate fluctuations.	<ul style="list-style-type: none"> In 2022, the Winbond's consolidated interest income was NT\$154,580 thousand, and the consolidated interest expenses were NT\$94,874 thousand Winbond shall closely monitor the effect of interest rate trends on cash flow in order to evaluate whether the impact of interest rate changes on the Winbond's operations remain within a controllable range 	Environmental Sustainability	Winbond's Story
III. Information Risk Management	Information Security	Threat detection, monitoring and early warning	<p>Improve information security awareness:</p> <ul style="list-style-type: none"> Monthly issuance of information security advocacy Quarterly information security education and training (social engineering training) Annual personal data protection education and training Information security current affairs or major event advocacy from time to time 	<ul style="list-style-type: none"> In 2022, the implementation rate of social engineering education and training courses reached more than 97%, and those who have not completed the training will be denied access to the Internet. A total of 7 information security advocacy were issued 	Sustainable Supply Chain	Contribution to Sustainability — Taking the Lead
			<p>Information security monitoring and abnormal event notification handling:</p> <ul style="list-style-type: none"> Provision of weekly monitoring records and analysis reports Conduct weekly information security monitoring meeting to discuss, review incidents and take countermeasures 	<ul style="list-style-type: none"> Strengthened the notification mechanism, automated the anti-virus notification and abnormal logins to cloud services, directly notifying the parties concerned to handle to speed up the processing time No major information security incidents and impacts in 2022 	Human Rights and Social Inclusion	
			<p>Weakness and vulnerability management:</p> <ul style="list-style-type: none"> The on-premises host performs vulnerability scanning operations on a quarterly basis, and regularly schedules downtime operations every month for major Microsoft update patching For external services, monitor risk with SSC cloud scanning tool 	<ul style="list-style-type: none"> Material risk vulnerabilities of the on-premises host have been patched as scheduled The average total score of the SSC cloud monitoring platform is > 90 points (level A); a total of 69 risks were patched, 30 of which were high / material risks 	Corporate Governance	Appendix

	Items for risk and opportunity identification	Description of impact assessment	Response measures	Performance management
III. Information Risk Management	Information Security	Threat detection, monitoring and early warning	Identity access control: <ul style="list-style-type: none"> • Cloud services use conditional access and multi-factor authentication. And only compliant devices and specific programs are allowed • Remote connection uses identity recognition + multi-factor authentication + device whitelist, only when the conditions are met can the connection be made 	For cloud login and remote access information daily reports, device unregistered and attempted logins were analyzed and investigated, and there were no material / high-risk events in 2022
			Code security: <ul style="list-style-type: none"> • The application department will perform code security checks during program development and will patch the high-risk codes to improve program security when launched 	A total of 7 new systems were launched in 2022, the high-risk code correction and improvement rate was 100%, and the program coverage rate of source code scanning was 100%
			Mail security: <ul style="list-style-type: none"> • Enhanced mail server security settings; DKIM settings can prevent emails from being forged and tampered with and DMARC settings can identify unauthorized domains 	All emails must be verified by legitimate email servers, and the success rate of external delivery is 100%

5.5 Green Investment

The whole world is facing the impact of climate change. As one of Taiwan's intensive electronics industry, we set up a green investment management unit to achieve the goal of green investment and create long-term value for investors and shareholders.



Green investment management unit

As the basic operating unit, the Finance Department further submits relevant proposals to the board of directors for resolution, and the board of directors to participate in relevant decision-making together



Responsibility

Assess the environmental, social and governance risks of investment projects, ensure that projects meet sustainable development goals, and make sustainable investment decisions

In 2022, Winbond carried out a comprehensive renewable energy usage plan for the future electricity consumption of the enterprise itself, and had an in-depth understanding of the status of various types of renewable energy industries and whether they could be applied to Winbond's electricity usage. In addition, in May 2022, Winbond invested in solar energy fields to slow down the occurrence of climate change with practical actions.

5.5.1 Investment in Green Energy

In May 2022, Winbond acquired a 15% equity in CHIA-HO Green Energy Corporation for NT\$555 million, whose main business is to develop solar energy fields. Considering that its parent company, Taiwan Cement Corporation, has valuable practical experience in the renewable energy industry, it will bring positive benefits to Winbond in fulfilling its corporate sustainable development goals, and help Winbond obtain part of the renewable energy electricity needed to move towards net-zero emissions goals.

5.5.2 Obtaining the Carbon Credit of the World's Largest Blue Carbon Project

In response to the international trend of carbon neutrality and the goal of net zero in 2050, Winbond obtained carbon credit from the Pakistan Mangrove Restoration Project in November 2022. This mangrove restoration project is a Delta Blue Carbon - 1 project, the largest blue carbon project in the world.

The Delta Blue Carbon - 1 project (DBC-1) is a reforestation and restoration project of mangroves and wetlands in the Indus Delta region of Pakistan. The project covers an area of 350,000 hectares and is expected to reduce carbon emissions by more than 142 million tons of carbon dioxide equivalent during the 60-year project period from 2015 to 2075.

The Indus Delta consists of a richly landscaped system of channels, low-lying islands, intertidal zones and mangroves. The mangroves here are the largest arid climate

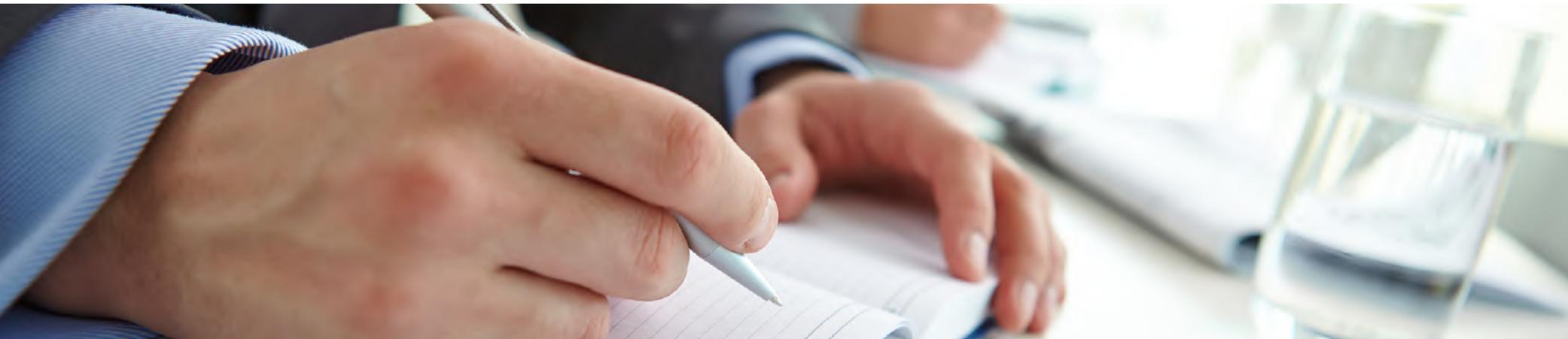
mangroves in the world and lie on the main migration routes of thousands of bird species. These mangroves have faced increased logging hazards in recent years, with major inducement of mangrove deforestation in the region being the use of mangroves as a source of fuel wood, fodder, and pasture for grazing, etc. Over 42,000 people live in the 60 coastal villages within the project area, over 70 percent of whom live below the poverty line, with many communities lacking access to clean drinking water, basic education, sanitation and sanitary facilities, and relying on agriculture as their primary income source; the depletion of freshwater has increased the salinity of mangrove and delta soils, and agricultural and coastal fisheries have gradually reduced their yields.

The DBC-1 project hopes to alleviate these problems and prevent biodiversity loss in this critical biodiversity area by regenerating mangroves and controlling the causes of mangrove deforestation and degradation, which will be achieved through the reforestation of more than 224,000 hectares of mangroves and by involving local communities in the planning and implementation of the project's activities. Local residents participate in conservation activities in various ways, including the mangrove supervision agreement, in which local residents are hired as supervisors, and the local residents also work as partners on the project in mangrove forest restoration, protection and sustainable management; other program actions include increasing education, sources of safe drinking water and health care, improving law enforcement, developing local businesses, microfinance programs, promoting gender equality, preserving historic heritage, and developing revenue streams.

While focusing on the semiconductor industry, Winbond hopes to invest continuous and stable resources to participate in global activities related to carbon emission reduction and contribute our strength to the sustainable survival and development of the earth.

5.6 Sustainability-Linked Loan

In April 2023, Winbond secured a NT\$20 billion sustainability-linked syndicated loan with 11 banks. It was the first syndicated loan linked to sustainability indicators arranged by Winbond with great support from the banks, representing the banks' confidence and recognition on Winbond's sustainability actions. In this project, the achievement of sustainability-linked indicators such as carbon reduction, electricity saving and corporate governance are assessed periodically, and the performance is directly linked to credit spread reduction. These all show that Winbond is willing to engage sustainability with practical actions and indicators, and strengthens its commitment and determination to the environment and society. At the same time, to strive on the sustainable society and environment with banks' finance vision and support on the sustainability-linked syndicated loan.



5.7 Climate Change Management

2021: Winbond introduced the Task Force on Climate-related Financial Disclosures (TCFD) framework for the first time to assess the risks and opportunities that climate change may bring by referring to the TCFD issued by the Financial Stability Board (FSB) TCFD task force, which was strengthened and refined in 2022.

2023: Winbond released its first TCFD Report, which examines Winbond’s operational resilience in the face of climate issues and strengthens its response to and practice of climate change.

— Climate Change Management Framework (TCFD) Implementation Overview —

Aspect	Winbond strategy / and actions	2022 implementation status
Governance	<ul style="list-style-type: none"> The Board of Directors, as the highest governance body for climate change, is responsible for guiding the company’s response to and decision-making on climate change The ESG Committee is established under the Board of Directors and chaired by the Chairman. It regularly reports to the Board of Directors every year on the implementation results of the ESG Committee related to climate change, etc., so as to ensure the promotion and implementation of the work related to the sustainable development of the enterprise 	<ul style="list-style-type: none"> Winbond restructured the “Winbond Corporate Social Responsibility (CSR) Implementation Committee” into the “ESG Committee” in May 2022. The level of committee was raised to the level of the Board of Directors The Board of Directors passed a number of important climate-related proposals and reports to actively respond to the risks and challenges brought about by climate change, including investment in CHIA-HO Green Energy Corporation, carbon credit trading planning and renewable energy planning proposals
Strategy	<ul style="list-style-type: none"> Discussion and identification of short-, medium- and long-term climate risks and opportunities by the interdepartmental TCFD Assessment of the possible impact on the company’s financial or operation aspects for major risks and opportunities with high impact and high probability of occurrence Scenario analysis for major transition risks and physical risks 	<ul style="list-style-type: none"> 4 major climate risks and 7 minor climate risks were identified, as well as 5 major climate opportunities and 4 minor climate opportunities Qualitative or quantitative analysis of the financial or operational impact of major risks and opportunities In terms of transition risks, three scenarios were used to simulate, including: (1) National Net-Zero Pathway ; (2) SSP1-1.9 scenario of IPCC AR6; (3) Science-Based Targets Net-zero path. Regarding physical risks, Winbond followed the IPCC climate risk model, considered the three risk factors of hazard, vulnerability and exposure, and evaluated the risk value of the three potentials of flooding, debris flows and landslides caused by extreme rainfall under the four warming scenarios of RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5
Risk Management	<ul style="list-style-type: none"> Manage climate-related risks and integrate processes into the company-wide risk management framework Establish a climate risk identification process with reference to the TCFD framework For major risks and opportunities with high impact and high probability of occurrence, relevant units are asked to review and develop mitigation and adaptation measures 	<ul style="list-style-type: none"> The Risk Management Committee under the Board of Directors of the Winbond has established sound internal management regulations and operating procedures by organizing the existing departments or risk responsible units to carry out risk management on the areas of operation they are responsible for, and has incorporated climate change risk into long-term business operation management The interdepartmental TCFD was established by appointing relevant members from five task forces under the Winbond’s ESG Committee, including Environmental Sustainability, Green Products, Human Rights and Social Inclusion, Sustainable Supply Chain, and Corporate Governance. The TCFD discussed the financial qualitative and quantitative impact of climate risk through 4 workshops Disclosed the climate risk and opportunity-related assessment results and response practices in the TCFD report for review by the Winbond ESG Committee and representatives of various department heads, as the basis for promoting climate mitigation and adaptation actions

Aspect	Winbond strategy / and actions	2022 implementation status
Metrics and Targets	<ul style="list-style-type: none"> • Set the corporate goals for renewable energy use and net-zero emissions • Promote climate risk mitigation and adaptation actions in terms of green products, sustainable supply chains, energy and greenhouse gas management, water resource management, etc. and set relevant management goals • Every year, statistics are gathered on the greenhouse gas emissions and water consumption of the CTSP Fab, and in 2022, the Kaohsiung Fab was included. In addition, the key performance indicators (KPI) - greenhouse gas emissions per unit of product and water recovery rate are set. Among them, the greenhouse gas emissions are verified by a third-party unit every year (ISO 14064-1) 	<ul style="list-style-type: none"> • The goal was to use 90% of renewable energy in the CTSP Fab (based on the electricity consumption in 2021), and achieve net zero emissions in 2050 • Invested in process research and development to reduce power consumption and increase productivity • Planned and implemented sustainable procurement strategies and activities, sustainable risk assessment and management, and digital management of supplier ESG activities • Through the ISO 50001 energy management system, the equipment for major energy use was optimized. In 2022, new measures saved about 35.9 million kWh of electricity per year • In 2022, the greenhouse gas emission per unit of product was 13.2 kg CO₂e/layer, and the company-wide water recovery rate was 80.5%, both meeting the self-defined target value



5.7.1 Climate Governance Framework

Winbond belongs to the semiconductor manufacturing industry. Natural disasters, accidents, man-made accidents, changes in international political and economic situations, the introduction of new technologies in the industry, and changes in policies and regulations, etc., may all cause serious impacts on our operations and finances. The Risk Management Committee and ESG Committee are set up under the Board of Directors to review the policy and structure of risk management and sustainable development

— Risk Management Committee —

Convener	Risk management is carried out by the existing department or risk responsible unit for the scope of work it is responsible for
Frequency	Regularly report to management and governance units
Responsibilities	The Winbond has established sound internal management guidelines and operating procedures, and has developed comprehensive plans and processes for pre-assessment, risk avoidance, loss prevention and crisis management

— ESG Committee —

Convener	Chaired by the Chairman
Frequency	Convened at least 2 times a year
Responsibilities	Under the ESG Committee, Winbond established the ESG Office and five task forces including Environmental Sustainability, Green Product, Human Rights and Social Inclusion, Sustainable Supply Chain, and Corporate Governance, thereby ensuring the promotion and implementation of works related to corporate sustainability.

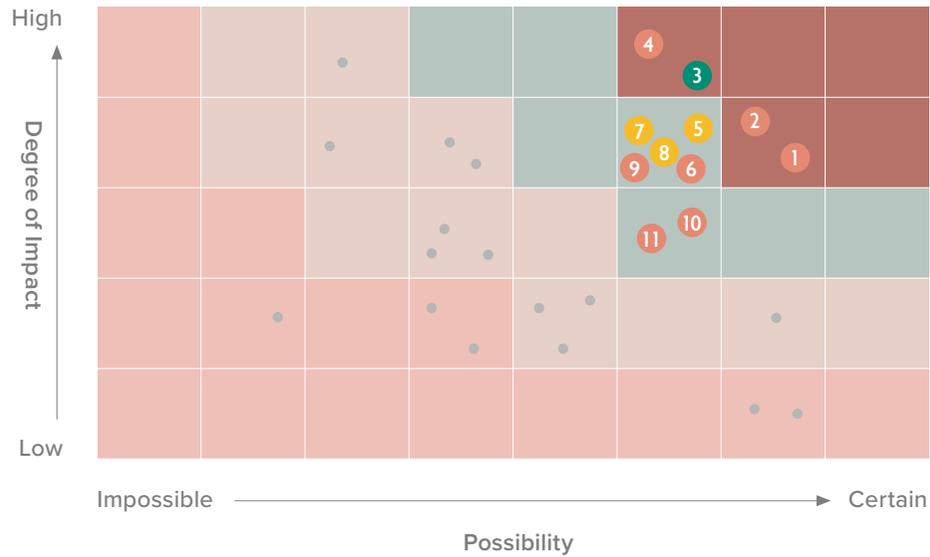
5.7.2 Identification Process for Climate Change Risks and Opportunities

In 2022, Winbond established a TCFD with more than 40 members, of whom more than 60% were above the department managerial level. The members of the task force were grouped according to the nature of their business, and each group discussed the climate change issues based on their business relevance. Through 4 workshops and educational training, 4 major climate risks and 7 minor climate risks were identified, as well as 5 major climate opportunities and 4 minor climate opportunities.



5.7.3 Major Climate Change Impacts and Responses

— Climate Risk Matrix —



Major Risks

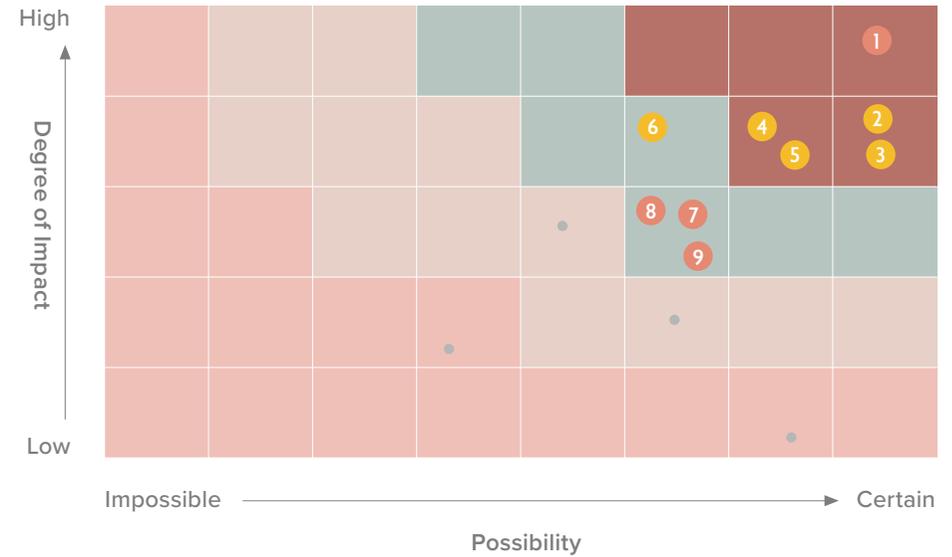
- 1 Demand for renewable energy
- 2 Carbon tax/carbon fee
- 3 Unstable electricity supply
- 4 Extreme rainfall and drought

Minor Risks

- 5 Changes in customer behavior
- 6 Greenhouse gas emissions regulations
- 7 Changes in rainfall patterns and distribution
- 8 Demand for low-carbon products and services
- 9 Changes in natural resource availability
- 10 Signing of Voluntary agreements
- 11 Fuel tax/energy tax

● Short-term 1-3 years ● Medium-term 3-5 years ● Long-term more than 5 years

— Climate Opportunity Matrix —



Major Opportunities

- 1 Changes in customer behavior
- 2 Participation in renewable energy projects
- 3 Process optimization and R&D innovation
- 4 Development of low-carbon products and services
- 5 Improvements in energy efficiency

Minor Opportunities

- 6 Water resource management
- 7 Use of recycled materials
- 8 Exploration of alternative and diverse resources
- 9 Participation in carbon credit markets

● Short-term 1-3 years ● Medium-term 3-5 years

— Major Climate Risks —

Type	Climate Risk	Time of Occurrence	Potential Financial or Operational Impacts <i>(-) represents a negative impact (+) represents a positive impact</i>	Response Measures
Transition Risks	Demand for renewable energy	Medium-term	<ul style="list-style-type: none"> Higher green electricity prices result in increased production costs (-) Reducing carbon emissions leads to a decrease in carbon tax/fees (+) Suppliers pass on their renewable energy expenditures, leading to increased procurement costs (-) Limited production due to difficulty in acquiring renewable energy (-) 	<ul style="list-style-type: none"> 90% green energy target for CTSP Fab in 2030 Planning to procure renewable energy electricity and evaluation of the purchase of T-RECs CTSP Fab has installed a 499kW rooftop renewable energy generation system and continues to assess the feasibility of installing additional renewable energy generation systems Investment in Chia-ho Green Energy Corporation in 2022, with ongoing evaluation of other renewable energy projects Planning to establish a Customer Green Energy Demand Survey System to accurately understand our customers' green energy demand Annual environmental surveys on key suppliers to identify carbon emissions sources, reduction plans, and management, with continuous monitoring
	Carbon tax/ carbon fee	Medium-term	<ul style="list-style-type: none"> Increase in indirect costs (-) Suppliers pass on their carbon tax/fee expenditures, leading to increased procurement costs(-) Limited capacity expansion(-) 	<ul style="list-style-type: none"> Company-wide target of net-zero emissions in 2050 Development of carbon emissions information platform for ongoing management and tracking, with plans to develop a carbon accounting system Planning to procure renewable energy electricity and evaluation of the purchase of T-RECs. Joining Singapore CIX platform to participate in carbon credit market and continuous monitoring of carbon offset mechanisms Implementation of ISO 50001 energy management system with 21 energy-saving measures completed in 2022, resulting in a savings of 35.9 million kWh of electricity and a reduction of 16,485 tons of greenhouse gas emissions Hold focused ESG exchanges to communicate supply chain decarbonization goals and encourage suppliers to reduce their carbon emissions
	Unstable electricity supply	Long-term	<ul style="list-style-type: none"> Production impacts lead to reduced revenue(-) Supplier supply disruptions affect Winbond's production(-) 	<ul style="list-style-type: none"> Planning for diversified power sources to mitigate the risks associated with electricity procurement and usage Installation of emergency power generator systems and uninterruptible power supply systems to establish backup power sources for at least 80% of the fab's electricity consumption Communicating electricity management measures to suppliers, including the need to establish emergency power distribution equipment and progressively increase the proportion of green energy
Physical Risks	Extreme rainfall and drought	Medium-term	<ul style="list-style-type: none"> Production impact leading to reduced revenue (-) Continuous operation of automated production lines with increased labor costs due to overtime payments in compliance with regulations (-) Supplier supply disruption affecting Winbond's production (-) Increased cost of natural disaster insurance (-) 	<ul style="list-style-type: none"> Promoting water conservation measures and installing water storage equipment Adopting automation in production processes to reduce the need for manual operations. Utilizing digital tools to enhance efficiency in remote work Communicating relevant response measures to suppliers, such as strengthening facility infrastructure and drainage systems, conducting regular flood response drills, increasing water recycling rates, and preparing alternative water sources

— Major Climate Opportunities —

Climate Opportunity	Time of Occurrence	Potential Financial or Operational Impacts	Response Measures
Changes in customer behavior	Medium-term	<ul style="list-style-type: none"> Product portfolio changes that accelerate positive development across entire supply chain Obtaining orders and expanding revenue Increased order stability and reduced revenue fluctuations Improved company reputation 	<ul style="list-style-type: none"> Promoting the introduction of new product designs (design in) to meet customer needs Increasing the portfolio of green or low-energy consumption products Establishment of carbon information platform to assess product carbon footprints and hotspots, and formulation of reduction pathways and optimization plans Evaluating and responding to customer requests for energy efficiency and carbon reductions, as well as requirements for renewable energy use Participation in domestic and international sustainability evaluations to enhance transparency and reputation in terms of sustainability practices
Participation in renewable energy projects	Short-term	<ul style="list-style-type: none"> Reduction in carbon emissions leading to a decrease in carbon tax/fee expenditures (+) Diversified sources of electricity to mitigate risks Support for compliance with renewable energy regulations and achieving corporate goals 	<ul style="list-style-type: none"> Planning to procure renewable energy electricity and evaluation of the purchase of T-RECs Investment in Chia-ho Green Energy Corporation in 2022, with ongoing evaluation of other renewable energy projects CTSP Fab installed a 499kW rooftop renewable energy generation system and continues to assess the feasibility of installing additional renewable energy generation systems
Process optimization and R&D innovation	Short-term	<ul style="list-style-type: none"> Reduction in carbon emissions leading to a decrease in carbon tax/fee expenditures (+) Reduction in water consumption leading to lower production costs Obtaining orders and expanding revenue 	<ul style="list-style-type: none"> Continuing investment in process development to reduce carbon emissions and water consumption Supporting packaging suppliers in innovating and optimizing their processes to reduce product carbon footprint, thereby enhancing Winbond's product competitiveness
Development of low-carbon products and services	Short-term	<ul style="list-style-type: none"> Increased product prices Expansion in market share and increase in revenue 	<ul style="list-style-type: none"> Investment in the design of green or low-energy consumption products, continuing research and development of innovations based on product carbon footprint analysis and verification Acceleration of process evolution to increase the portfolio of green or low-energy consumption products Understanding customer needs and evaluating the possibility of customization to provide low-carbon/green products
Improvements in energy efficiency	Short-term	<ul style="list-style-type: none"> Reduced production and operational costs 	<ul style="list-style-type: none"> In 2022, a focus on energy-saving initiatives in four major areas: new technology adoption, usage management, component replacement, and equipment upgrades Planning of multiple energy-saving projects for 2023, including the continuing replacement of natural gas boilers with electric boilers, replacement of rotating equipment, and implementation of energy-saving measures in the MAU water-washing system Implementation of ongoing energy-saving measures in office areas, such as adjusting the operating hours of air conditioning and exhaust systems and adjusting air conditioning according to space usage

Transition Climate Risk Scenario Analysis

Conduct transition risk simulations in three scenarios, including (1) National net-zero pathway, mainly assessing domestic regulatory risks; (2) The SSP1-1.9 very low GHG emission scenario in the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report; (3) Implement the annual 4.2% reduction rate required in the Science-Based Targets Net-zero (SBT-NZ).

External Scenario	Description	Assessed sources of emissions
National Net-Zero Pathway	Based on Taiwan's current net-zero target	Scope 1 + Scope 2
SSP1-1.9	Based on the SSP1-1.9 pathway in the IPCC Sixth Assessment Report	
SBT-NZ	Based on the emissions reduction pathway required to achieve the SBT's net-zero criteria by 2050	

It is expected that the issue of climate change may have a financial impact on Winbond in terms of regulations, technology, market and reputation. Among them, the introduction of carbon tax / fee and the use of renewable energy power due to the application of the terms for intensive electricity users are estimated to cause a financial impact of about 0.1~2% of revenue in 2030.

Carbon tax imposition		
External scenario	Assumption	Financial impact on revenue in 2030
National Net-Zero Pathway	Estimated at US\$2~10 per ton CO _{2e} from 2021 to 2050 by referring to SSP2-4.5	<0.1%
SSP1-1.9	It will reach about US\$650 per ton CO _{2e} in 2050 by referring to SSP1-1.9	1-2%
SBT-NZ		

Carbon fee imposition		
External scenario	Assumption	Financial impact on revenue in 2030
National Net-Zero Pathway	Estimated at NT\$1,500 per tCO _{2e}	<0.1%

Use of renewable energy power		
External scenario	Assumption	Financial impact on revenue in 2030
National Net-Zero Pathway	Procurement costs are estimated based on the average wholesale price of Taipower's renewable energy power plus power supply costs	<0.01%
SSP1-1.9		
SBT-NZ		

Physical Climate Risk Scenario Analysis

Winbond follows the IPCC climate risk model to assess the risks of flooding, debris flows and landslides under extreme rainfall conditions. By referring to the data of the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP), National Science and Technology Council (NSTC) and National Science and Technology Center for Disaster Reduction (NCDR), scenario simulation has been conducted with multiple climate models to avoid deviations in output results.

The results show that before the end of the 21st century, the risk value of Winbond's main fab areas and offices (including CTSP Fab, Kaohsiung Fab and Zhubei Building) under the four temperature rise scenarios is 0, that is, the possibility of flooding, debris flows and landslides is extremely low.