ADVANTECH

Enabling an Intelligent Planet

2024

Climate and Nature-Related Financial Disclosures Report

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Message from the Executive Management：Advantech's Nature and Climate Vision

As a global leader in industrial automation and IoT solutions, Advantech acknowledges that climate change and biodiversity issues have a profound impact on its business development. With climate change intensifying, global demand for energy efficiency, environmental protection, and sustainable development continues to rise, combined with Advantech's internal commitment to corporate sustainability performance. Advantech designated 2019 as the baseline year for science-based carbon reduction targets*1 and launched continuous ISO 14064 greenhouse gas inventory and verification programs at core facilities. Since then, the company has continuously enhanced its climate change response measures annually, including: establishing a board-level ESG Corporate Sustainability Development Committee (SDC) and dedicated units, adopting Science-Based Targets (SBT) aligned with international goals below 2°C, conducting annual Task Force on Climate-related Financial Disclosures (TCFD) risk and opportunity assessments, joining the RE100 global initiative and investing in renewable energy, obtaining the first product carbon footprint ISO 14067 certification, committing to the Task Force on Nature-related Financial Disclosures (TNFD) initiative, and launching biodiversity risk assessments across the value chain. Through proactive measures in organizational operations and products, Advantech addresses climate change and nature-related risks.

Since 2021, Advantech has implemented TCFD to systematically measure climate risks and opportunities facing the company, conducting in-depth assessments of climate change risks within existing risk management procedures in the comprehensive operational risk mapping, and starting in 2023, Advantech applied to become TNFD Adopters, using risk assessment tools to identify biodiversity risks in its operations, supply chain, and downstream customers. In Q3 2025, the company will integrate climate and nature-related "dependencies, impacts" and "opportunities, risks" to publish its first "Climate and Nature-related Financial Disclosure Report," enhancing sustainability disclosure and governance.

Enable an Intelligent and Sustainable Planet: Promoting Sustainability Through Technology

Advantech's ESG sustainability vision is: "Enable an intelligent and sustainable planet."Advantech is committed to addressing climate change and natural issues based on our core business. IoT technology can help enterprises monitor environmental changes, optimize energy use, and reduce product carbon footprints, working together with supply chains and customers to jointly address the challenges brought about by climate change. Advantech's recent performance in promoting sustainable products includes: new eco design products achieving Silver medal reaching 60%, mass-produced products achieving eco design Silver meda/Advantech Energy Saving Seal accounting for 14.04% of annual revenue, products under 5kg achieving 90% replacement rate of packaging materials from EPE to paper-plastic, and Advantech has further introduced sustainable raw materials to reduce product carbon footprints and enhance market competitiveness.

In renewable energy advancement, Advantech's renewable electricity reached 9.46% in 2024, with electricity consumption primarily distributed between Taiwan headquarters facilities and Kunshan manufacturing park, which together account for over 90% of Advantech's global electricity consumption. The Kunshan manufacturing park follows a plan (photovoltaic generation and renewable energy certificate procurement) to increase renewable energy use by 5% annually. Advantech's headquarters signed a renewable energy procurement contracts with a general energy service provider. It is projected that will supply approximately 40 million kWh of renewable energy through a long-term power purchase agreement model within the next six years, assisting Advantech in achieving its future renewable energy usage targets. Other overseas operational sites also adopt location-appropriate approaches, including direct renewable energy procurement, installation of solar photovoltaic facilities, or procurement of renewable energy certificates

Strengthening Advantech's Climate Change Resilience Enhancement Measures

Advantech focuses climate-related risks and opportunities on three major aspects: operational (reduction, natural disasters), product (including supply chain), and market, actively promoting risk management and opportunity transformation. At the operational level, Advantech continues to focus on improving energy efficiency, promoting the use of renewable energy, and developing plans for extreme weather disaster prevention to reduce the potential impacts of production interruptions and equipment damage. In product and supply chain aspects, the focus is on low-carbon design, low-carbon product development, and green procurement, actively assisting suppliers in enhancing carbon management capabilities through supplier engagement, education and

training, and capacity building programs to create a resilient sustainable supply chain. On the market side, the company captures new business opportunities brought by global net-zero and low-carbon demand, promoting numerous one-stop solutions for low-carbon, energy-saving, and smart manufacturing to accelerate green transformation. This report will further disclose risk identification, opportunity analysis, and specific actions across the aforementioned aspects.

Creating Positive Natural Impact

Biodiversity loss may also affect Advantech's supply chain stability and market demand. Particularly with Advantech's operations spanning 27 countries worldwide, greater attention must be paid to global environmental and biodiversity issues, considering how the core business can combine with biodiversity to create positive impact or mitigate and prevent negative impacts.
Since 2023, Advantech has publicly committed to publishing a complete TNFD report by 2026. Starting from 2023, the company has actively organized volunteer participation activities themed around biodiversity, covering topics including beach cleaning, tree planting, invasive species removal, wetland conservation, and biodiversity. Business-driven biodiversity measures include collaboration with National Taiwan University on bird sound tracking and monitoring projects. In 2024, a window strike mitigation program was launched at the Linkou plant. In 2025, a biodiversity survey of the Linkou plant will be conducted to develop biodiversity action plans for operational sites. Looking forward to gradually demonstrating positive natural impact through years of accumulated efforts.

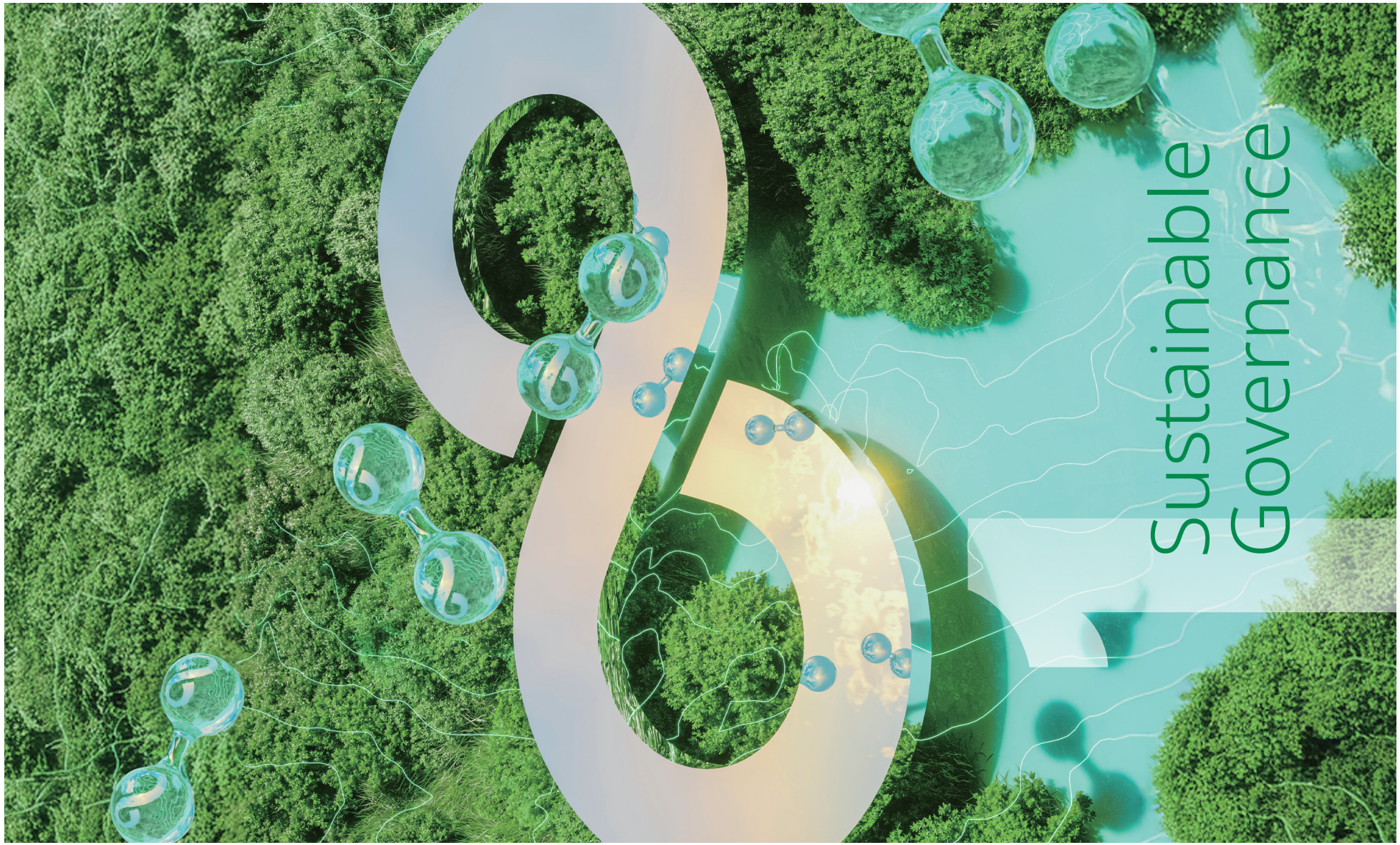
*Note 1: Starting in 2025, to implement carbon reduction plans more vigorously. 2022 will be adopted as the new baseline year, and we will adopt the 1.5°C Science-Based Targets (SBT) as our carbon reduction goal for the next decade and continue to promote global RBUs, RE100, and other relevant initiatives.

Aspect	TC+NFD Recommended Disclosure Items	Advantech's implementation progress
Governance	A. The Board oversight of climate-related risks and opportunities and nature-related dependencies, impacts, and risks and opportunities	Advantech's Board of Directors serves as the highest supervisory body for the company's sustainability risk management, responsible for overseeing climate and nature governance-related matters. Under the Board, there is the Corporate Sustainability Development Committee (SDC), composed of the Chairman and other directors, as well as the ESG Corporate Sustainability Development Office, led by the President of the General Business Management Division, and other functional committees that collaborate to promote sustainability work and ensure steady progress. The Board members have long been concerned with nature and climate change issues, with related knowledge deeply embedded in their professional competencies. The Board's responsibilities encompass management of climate and nature risks and opportunities, monitoring of environmental indicators (such as water resources, electricity, waste, and greenhouse gases), internal carbon pricing, renewable energy procurement, ecological projects in neighboring communities, and supervision of related budgets and project implementation. Since 2023, Advantech has published its "No Deforestation and Biodiversity Commitment," formally incorporating biodiversity into the company's overall governance framework. Currently, climate and nature-related risk and opportunity assessments have been completed, and multiple projects are being promoted based on assessment results. Related progress and achievements are reported to the Board quarterly, with the Board providing decision-making and oversight. In corporate human rights practices, Advantech has established global human rights policies and commitments. Through the "Protect, Respect, and Remedy" aspects of the human rights management framework, employees, suppliers, contractors, partners, and our operating environment can all reduce human rights risks through Advantech's efforts or mitigate the impact of human rights incidents through remedial measures. Advantech ensures that its existing suppliers consistently meet the company's standards for quality and sustainability through a comprehensive supplier management system. All critical suppliers are required to sign the Supplier Code of Conduct Agreement and undergo a supplier profile review to ensure compliance with Advantech's supply chain management standards.To further strengthen sustainable management practices, Advantech conducts ESG risk assessments for key suppliers. These assessments include human rights-related issues such as labor rights and occupational health and safety. The company maintains a 100% evaluation rate for these suppliers and plans to increase the proportion of on-site audits in the future to ensure continuous improvement in both operational and sustainability performance. For supply chain human rights management, Advantech also reviews compliance with labor regulations and scans for negative social impact records to maintain positive impacts on human rights and social aspects.In the management of conflict mineral sourcing and procurement, Advantech strictly adheres to the Responsible Business Alliance (RBA) Code of Conduct and enforces a strict no-conflict minerals policy. Advantech is committed to not sourcing metals from Conflict-Affected and High-Risk Areas (CAHRAs) and requires its suppliers to comply with this policy as well, ensuring that the entire supply chain respects human rights and does not contribute to conflict-related activities. As of 2024, 100% of Advantech's key suppliers have signed the Declaration of Non-Use of Conflict Minerals, and all of Advantech's products are confirmed to be free of conflict minerals. Detailed content can be found in Section 1.2 & 3.2 of this report
	B. Management's role in assessing and managing climate-related risks and opportunities and nature-related dependencies, impacts, risks and opportunities	
	C. The organization's human rights policies and engagement activities with Indigenous Peoples, local communities, and other affected stakeholders when assessing and responding to nature-related dependencies, impacts, risks and opportunities, and the oversight by the board and management	

Aspect	TC+NFD Recommended Disclosure Items	Advantech's implementation progress
Strategy	A. Organization's identified short, medium, and long-term climate-related risks and opportunities and nature-related dependencies, impacts, risks and opportunities.	Advantech follows the TCFD and TNFD frameworks to identify short, medium, and long-term climate and nature-related dependencies, impacts, risks and opportunities, and analyzes their effects on operations, value chains, strategy and financial planning. In terms of risk and opportunity identification, the climate aspect focuses on risks such as extreme weather, supply chain disruptions and market reputation that may be encountered in operations, while the nature aspect uses the WWF BRF tool to analyze 52 operational sites and 32 supplier sites, as well as downstream clients, identified based on the top five revenue-generating customers for each of the company's five major product lines and the top ten customers by total annual revenue. Duplicate entries across these two categories are removed to form the final list. evaluating 33 biodiversity risk indicators to identify high-risk areas and potential impacts. Regarding financial and strategic impacts, Advantech incorporates different climate scenarios including STEP, IEA 1.5DS, RCP4.5, and RCP8.5 for various climate issues, and selects 3 climate risks and 1 low-carbon product opportunity for financial impact assessment as the basis for strategic resilience and resource allocation. In terms of natural opportunities, through cross-departmental discussions and questionnaires, Advantech has identified 4 major opportunities: flood protection facilities, green production, supplier due diligence and low-impact product design, strengthening sustainable competitiveness. Furthermore, Advantech has completed the inventory and risk assessment of operations and investment sites within protected areas, and established corresponding management mechanisms to ensure that corporate operational risks in ecologically sensitive areas are controllable and strategies have long-term resilience. We utilize the Biodiversity Risk Filter (BRF)—a risk analysis tool and database developed by the World Wide Fund for Nature (WWF)—to assess physical and reputational risks related to biodiversity, using a location-specific approach. Advantech applies the BRF system to evaluate biodiversity risk indicators across its operational sites, suppliers, and downstream clients. Any location with indicators classified as High or Very High risk is identified as a material risk. The assessment generates results across 10 risk categories, along with a distribution of risk levels. For all identified high-risk items, further evaluation is conducted, followed by the development and discussion of appropriate action plans. For detailed content, please refer to sections 2.1、2.2 and 2.3 of this report.
	B. Impact of climate and nature-related dependencies, impacts, and risks and opportunities on the organization's operations, value chain, strategy, financial planning, transition plans or other analysis.	
	C. Resilience of the organization's strategy, taking into consideration different climate and nature-related scenarios (including 2°C or more stringent scenarios.)	
	D. Organization's upstream, own operations and downstream / investment and financing activities assets and operational activity locations in protected areas.	

Aspect	TC+NFD Recommended Disclosure Items	Advantech's implementation progress
Risk management	A(i) Organization's processes for identifying and assessing climate-related risks in its operations and nature-related dependencies, impacts, risks and opportunities A(ii) Organization's processes for identifying and assessing nature-related dependencies, impacts, risks and opportunities in upstream and downstream / investment and financing activities	Advantech follows the TCFD and TNFD frameworks to construct systematic processes for identifying, assessing, managing climate and nature-related dependencies, impacts, risks and opportunities, covering our own operations, supply chains, customers, investment and financing activities, and formally integrates these processes into the overall corporate risk management framework. For our own operations, Advantech conducts risk factor collection and issue screening, and identifies potential impacts on operations, finance and strategy through materiality assessment, financial impact analysis and scenario modeling, while regularly monitoring risk changes and adjusting response strategies. Regarding natural issues, Advantech utilizes the WWF BRF tool to conduct biodiversity risk identification for operational sites in Taiwan and China, identifying the operation sites and risk types with high potential risk, and conducting in-depth analysis for supply chains and major customers, incorporating supplier due diligence and sustainable cooperation strategies. The company also regularly inventories and manages operations and investment activities located in highly sensitive areas (such as protected areas), assessing their dependencies and impacts on natural resources. The overall management process covers risk identification, analysis, tracking and strategy formulation. The decision maker is Sustainability Development Committee (SDC), and reports to the Board of Directors via the SDC, ensuring that climate and nature-related risk management is highly integrated with the company's overall strategy and operational planning, enhancing overall corporate resilience and sustainable competitiveness. For detailed content, please refer to sections 1.2, 2.1 and 2.3 of this report.
	B. Organization's processes for managing climate-related risks and nature-related dependencies, impacts, risks and opportunities	
	C. The methods that organization integrates climate and nature-related risk identification, assessment and management processes into its overall risk management system	

Aspect	TC+NFD Recommended Disclosure Items	Advantech's implementation progress
Indicators and targets	A. Indicators used by the organization to assess climate and nature-related risks and opportunities in line with its strategy and risk management processes	opportunities, incorporating them into the overall strategy and risk management processes. Climate indicators cover climate change strategy and action, greenhouse gas inventory and energy management action, eco design and sustainability liability of product, waste management and circular economy; nature indicators cover waste treatment, supplier due diligence and other aspects, with short, medium and long-term targets established based on various indicators to implement climate and nature risk control. To ensure effective management of climate and nature risks and target achievement, Advantech has established mechanisms and KPIs covering renewable energy, energy conservation, eco design, sustainable procurement, raw material traceability and supply chain management (including ESG management in various aspects, carbon management, etc.), and links executive level supervisors performance with ESG results to strengthen organizational commitment and execution. Progress and target achievement are regularly compiled and disclosed in sustainability reports, with gradual improvements in global site coverage and data quality, thereby enhancing risk transparency and management effectiveness. For detailed content, please refer to sections 1.1, 1.2, 2.3, 3.1, 3.2 and 4.1 of this report.
	B. Scope 1, Scope 2, and Scope 3 greenhouse gas emissions and related risks, and indicators used by the organization to assess and manage nature-related dependencies and impacts	
	C. Targets and performance against targets used by the organization to manage climate-related risks and opportunities and nature-related dependencies, impacts, risks and opportunities	

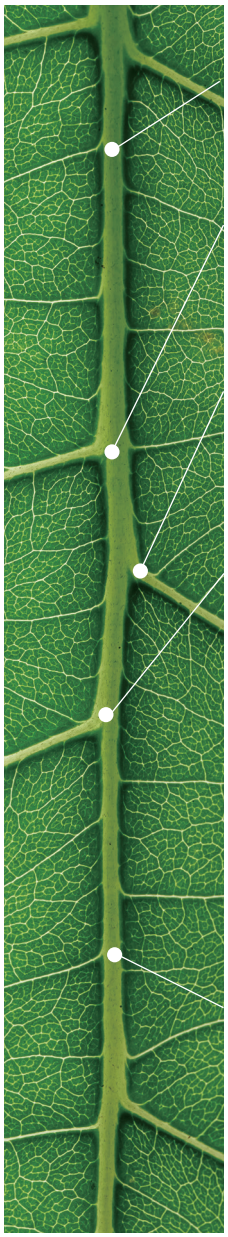

Sustainable Governance

1.1 Climate and Nature Vision

Climate and Nature Position

As the world's largest provider of industrial computers and IoT technology and services, Advantech understands our responsibility to the global environment and established the ESG Corporate Sustainability Development Office in 2020, and formally established the Board-level Sustainability Development Committee (SDC) in July 2022. Progressively improving sustainability performance according to the competent authority and internal, external stakeholders' expectations, with particular emphasis on responding to positive and negative impacts of climate change and nature. Advantech has included climate change as one of the major risks in sustainable operation, and manages it according to two major aspects: “mitigation” and “adaptation.” In terms of positive and negative impacts of nature, regarding negative impacts, the major natural risks identified include: tropical cyclones, landslides, pollution, air quality, extreme heat, and protected and reserved areas. Facing these negative impacts from natural and climate physical factors, Advantech will incorporate management mechanisms and take action.
Advantech continues to invest in renewable energy, energy-efficient products and solutions, combining energy management core business and dedicating to product carbon reduction, creating positive impacts and opportunities based on nature and climate; and strengthening connections with external stakeholders, including cooperation with universities and colleges, combining Advantech's core business to assist biodiversity protection. Advantech's positions and global commitments on climate and natural issues are described as follows.

Advantech's Historical Response Process and Results to Nature and Climate Change



2019

- Initiate the ISO 14064 GHG inventory and verification plan for Taiwan and Kunshan
- Advantech's Science-Based Targets (SBT) base year
- CDP climate change rating of "B"

2020

- Formation of the ESG Corporate Sustainable Development Committee and ESG Corporate Sustainability Development Office
- Introduce the eco product plan to produce low-carbon products
- CDP climate change rating of "B"

2021

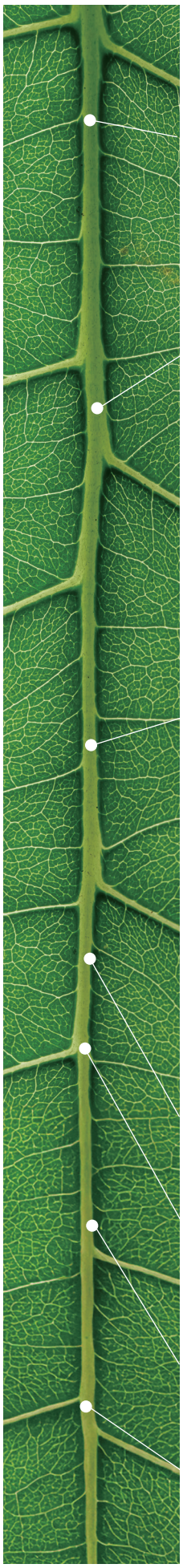
- Pass the international Science-Based Targets (SBT) of less than 2°C
- Commit to support the Task Force on Climate-related Financial Disclosures (TCFD)
- Low-carbon investment in a 10 MW solar power plant to supply ACL
- CDP climate change rating of "B"

2022

- Establishment of the Sustainable Development Committee (SDC) at the Board level
- Complete TCFD-related risks and opportunities assessment
- Launch the ISO 14064 Greenhouse Gas (GHG) Scope 3 full category inventory and verification plan
- Kunshan plant obtained green factory certification
- CDP climate change rating of "B"

2023

- Commitment to climate change strategy and net-zero vision
- Pass commitment to RE100 goals and actively promote the use of renewable energy in all RBUs around the world
- The Board of Directors approved the linkage of senior management compensation to ESG achievements.
- Initiate the GHG inventory and verification plan of subsidiaries
- Initiate the collection of electricity consumption data for significant locations of operation in Taiwan and Kunshan using iEMS
- ACL obtained green factory certification
- Taiwan and Kunshan operating locations obtained ISO 50001 certification
- Obtained the first product carbon footprint ISO 14067 certification
- CDP climate change rating of "B"
- Began focusing on biodiversity and forest protection issues, and joined the Taiwan Nature Positive Initiative (TNPI), regularly participating in member learning activities and advocacy activities
- Published biodiversity commitment, setting environmental ecological Net Positive Impact (NPI) achievement target year as 2050
- Published no deforestation commitment, setting a target of fully implementing the no deforestation commitment at all direct operating locations worldwide by 2025
- Joined the TNFD commitment and committed to publishing the 2025 fiscal year TNFD report in 2026



- In forest conservation progress, sponsored the Taiwan Forestry Restoration Association's "Taichung Dadu Plateau Ecological Afforestation Program," is expected to have environmental education, forest fire prevention benefits, and carbon sequestration benefits
- Collaborated with National Taiwan University on IoT for Biodiversity bird sound monitoring and AI automatic identification solutions

2024

- Link senior management compensation to the results of ESG climate change topics
- Implement the Internal Carbon Pricing (ICP) plan and define Advantech's carbon pricing
- Promote the GHG inventory and verification plan of subsidiaries in Asia
- Completed the global iEMS to monitor and analyze the electricity consumption of significant locations of operation around the world
- Increase the use of renewable energy across global RBU locations
- Calculate the representative product's carbon footprint of each business group and complete the application of Advantech's methodology
- Develop eco packaging materials, eco materials, and energy-saving product design by including them in the LCA assessment
- CDP climate change rating of "B"
- First conducted biodiversity risk assessment, starting with own operational sites and upstream supply chain

2025

- Increase the quantification of the GHG inventory and verification ratio at overseas significant locations of operation
- Apply the latest IPCC assessment report to update climate scenarios and incorporated natural risk and opportunity assessments, with external disclosure of the 2024 Advantech Climate- and Nature-related Financial Disclosures Report.
- Update the international Science-Based Targets (SBT) to align with 1.5°C and achieve net zero
- Continue to increase the use of renewable energy across global RBU locations, targeting a 20% adoption rate
- Implement an Internal Carbon Pricing (ICP) carbon fee pilot program to boost carbon reduction efforts and achieve carbon reduction goals
- Utilize AI technology to complete the product carbon footprint calculation system 1.0 platform and apply it to the eco product promotion plan
- Launch a supply chain carbon management empowerment plan to train key suppliers
- Extended biodiversity risk assessment to downstream customers to complete the upstream, midstream, and downstream survey assessment
- First conducted biodiversity survey at the Advantech Linkou plant to understand the basic biodiversity status of the plant site and the surrounding areas; survey results used as basis for planning and implementing Advantech Linkou plant biodiversity projects
- First published TC(N)FD report
- Strengthened biodiversity conservation around Advantech's operational sites and maintained urban green spaces, will fully utilize adopted sites for employee volunteer activities or ESG-themed activities in the future

2026

- Complete the global ISO 14064 GHG inventory and verification plan

2030

- Achieve the SBT targets of 60% reduction in Scope 1 and 2 carbon intensity; 49% reduction in Scope 3 product carbon intensity.
- Achieve 50% renewable energy usage in Taiwan and Kunshan
- Set goal to fully implement biodiversity commitment at all global direct operational sites by 2030

2040

- Achieve the RE100 target of 100% global renewable energy use

2050

- Achieve net zero
- Executed biodiversity risk assessment work in 2023-2024, and set the environmental ecological Net Positive Impact (NPI) achievement target year as 2050 based on assessment results

Net-Zero Planning Targets

Advantech's climate change policy is consistent with the Paris Agreement's goal of limiting global temperature rise to below 1.5°C. Following the adoption and commitment to the international Science-Based Targets (SBT) in 2021, Advantech joined the RE100 initiative in 2023, committing to achieving the goal by 2040, viewing renewable energy as a crucial strategy for moving towards net zero, and setting a net-zero target for 2050. Starting in 2025, to implement carbon reduction plans more vigorously, we will adopt the 1.5°C Science-Based Targets (SBT) as our carbon reduction goal for the next decade and continue to promote global RBUs, RE100, and other relevant initiatives.

Important Climate Transition Milestones

SCIENCE BASED TARGETS ▶ RE100 ▶ Net Zero ▶

Joined Science Based Targets initiative and committed to achieving the target by **2030**	Joined the **RE100** nitiative and committed to achieving the target by **2040**	Announced **2050** net-zero emissions target

Net-Zero Commitment

Achieve net zero

2050
Achieve net zero

Expand the use of renewable energy

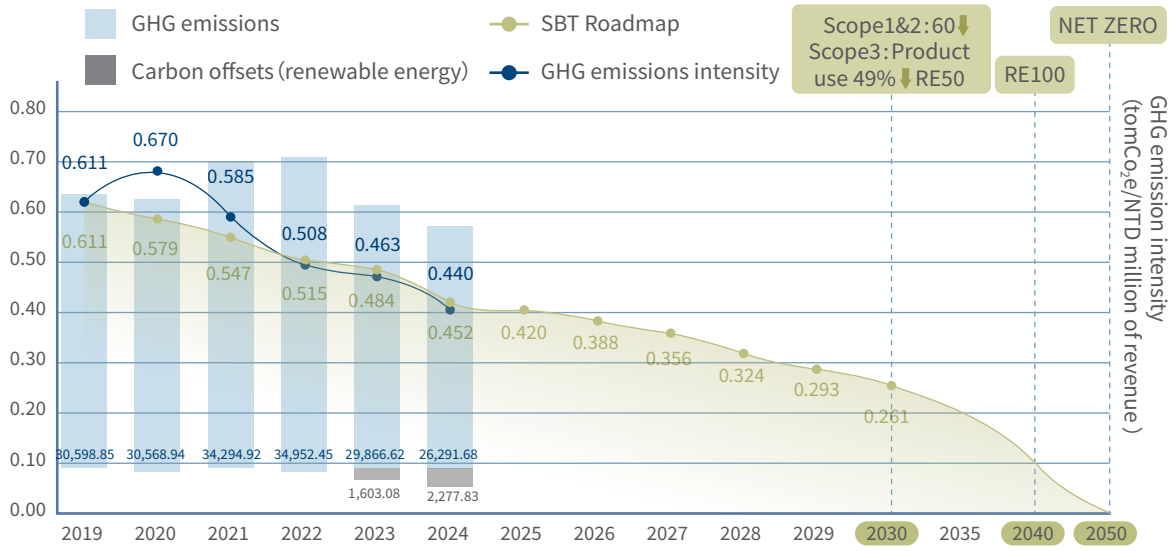
2030
Taiwan and Kunshan plant's renewable energy usage rate reaches 50%

2040
Global renewable energy usage rate reaches 100%，achieving RE100 target.

Enhance energy efficiency

2030
Scope 1 and 2 carbon intensity reduction of 60%
Reduce the carbon intensity of Scope 3 products by 49%

Advantech's Roadmap to Net-Zero GHG Emissions



Continues to expand manufacturing capacity construction, energy use increases, reducing greenhouse gas emissions through improved energy use efficiency

The use of renewable energy in major production sites has increased, resulting in the overall trend of decreased carbon emissions

Activation of alternative GHG solutions and acquisition of carbon rights

GHG reduction & net-zero strategy：

Phase one: Advantech continues to expand its manufacturing capacity, leading to an increase in energy consumption. We aim to reduce GHG emissions by improving energy efficiency.

Phase two: Core production sites (Linkou AIoT Co-Creation Campus and Kunshan Manufacturing Center) continue to increase the use of renewable energy to reduce carbon emissions

Phase three: Activate GHG alternative solutions, advanced low-carbon technologies, and obtain carbon credits to achieve the net-zero target.

Reinforce internal carbon pricing and low-carbon product promotion strategy

Furthermore, to expedite the achievement of the net-zero target, Advantech launched the Internal Carbon Price (ICP) project in 2024. By calculating and evaluating the cost of carbon emissions and introducing an internal price, incorporating it into the organization's cost-benefit evaluation mechanism, a shadow price was set at NTD 1,700-3,000/ metric ton of CO_2e. The Company intends to incorporate low-carbon production and investment decisions in 2025 to strengthen carbon risk management, prepare for future regulations and international carbon trading mechanisms, enhance carbon reduction efforts, and meet carbon reduction goals. Meanwhile, to strengthen carbon reduction actions, Advantech will align the carbon reduction direction for the next 10 years with the 1.5℃ international Science-Based Targets (SBT), and continue to promote global RBUs to join RE100 and other initiatives. In recent years, ESG has become an unavoidable issue for enterprises, and Advantech's board members have actively acquired ESG-related knowledge to ensure their strategic development recommendations for Advantech can keep pace with the times and support continuous corporate growth.

Overview of directors' ESG continuing education for 2024：

Director	Organizer	ESG continuing education	Total hours of continuing education
Wesley Liu	Taiwan Corporate Governance Association	An exploration of corporate employee remuneration strategy and tool application	3
Chaney Ho	TWSE	2024 Cathay Sustainable Finance and Climate Change Summit	6
Benson Liu	Taiwan Corporate Governance Association	20th (2024) Corporate Governance Summit	6
		Seminar on Strengthening Resilience and Sustainability Governance	2
Chan-Jane Lin	Taiwan Corporate Governance Association	Co-Creating the Green Ecosystem: Megatrend and Vision-TCX Operations and Prospects	1
		Seminar on Strengthening Resilience and Sustainability Governance	2

ESG Performance and Incentive Mechanism

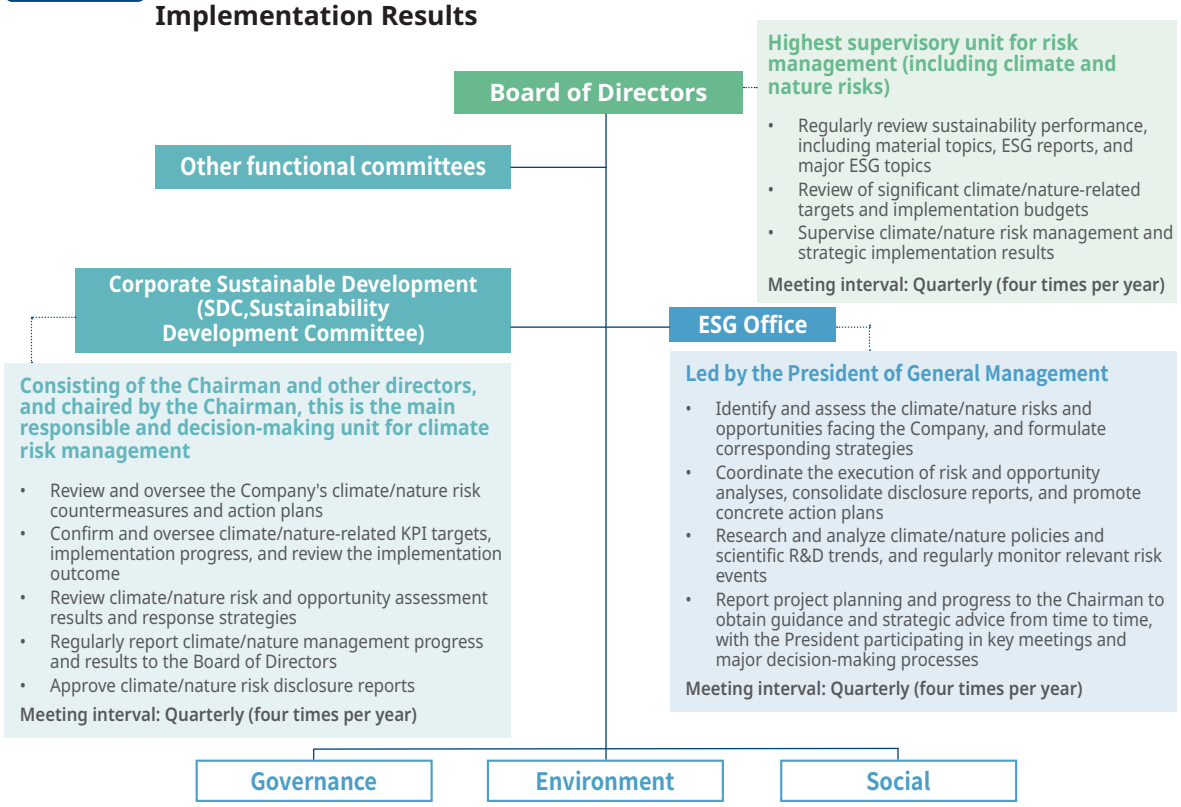
Advantech has continued to advance its vision of "Enable an Intelligent and Sustainable Planet". In 2022, they established and implemented an ESG KPI mechanism for senior executives, including the Chairman, Co-Governance President, senior management, responsible managers, members of the ESG Corporate Sustainability Development Office, and other accountable colleagues. This mechanism includes ESG sustainability indicators such as environmental, social, and governance aspects. Major performance evaluation items for 2024 are planned. The incentives and remuneration are mainly based on Employee Stock Option Plans (ESOPs) supplemented by performance bonuses. The calculation period is Q1 of each year, with distribution taking place in Q2 and Q3. At the same time, goals and promotion plans are set and regularly evaluated by benchmarking domestic and international sustainability trends, Advantech's operations and risk management mechanisms. Payments are made based on sustainable goals, quantitative indicators, and actual performance. In 2024, as part of the execution results, Advantech awarded over 14,000 shares and over NTD 3.4 million in cash incentives to senior management, junior and middle management, and frontline staff for their excellent ESG performance.

1.2 Organizational Governance Framework

Nature and Climate Governance and Management Framework

Advantech's ESG organizational structure is based on clear division of responsibilities to ensure effective management of climate and nature-related risks and opportunities. The Board of Directors serves as the highest risk management institution, responsible for overseeing all major risks including climate change and nature-related risks. The Chairman, as SDC Chair, leads and oversees the strategy formulation and implementation of climate and nature-related issues. SDC is composed of senior management personnel, responsible for reviewing analysis results of climate and nature risks and opportunities, and monitoring the implementation of targets. The ESG Corporate Sustainability Development Office and other functional committees (including compensation, audit committee, and internal audit units) are responsible for specifically implementing climate and nature risk assessment, strategic planning, and monitoring, with the ESG Corporate Sustainability Office coordinating departments to ensure response measures are implemented. The responsibilities of each unit, along with recent implementation details, are summarized below.

Governace Advantech Climate and Nature Governance Mechanisms and Recent Implementation Results



2021

Initiated energy transition: Commitment to renewable energy and infrastructure deployment

The Board of Directors approved renewable energy targets, allocated budgets for renewable energy PPAs, and formed partnerships for solar power plant projects

2022

Bolstering awareness: ESG risk governance capacity building

The Board of Directors received ICT industry climate change, sustainability trends, and risk management training

2023

Governance evolution: Institutionalizing ESG performance and nature-related commitments

Chairman approved 2024-2026 ESG KPIs linked financial incentive mechanism, including nature, RE100, and various environmental indicators (water, electricity, waste, VOC) Report to and engage with management quarterly

Climate

The Board of Directors reviewed the annual ESG performance, covering RE100 progress, carbon footprint, GHG inventory, and responses to the EU carbon tariff

Nature

Published a no-deforestation commitment and a biodiversity commitment Launched biodiversity volunteer activities at the Taiwan headquarters and RBUs Building on the strength of our core business, Advantech collaborated with National Taiwan University on the AIoT for Biodiversity project to advance forest research and species conservation Present the above nature-related performance updates at the fourth quarter Board meeting and the quarterly Sustainability Development Committee (SDC) meeting

2024

Integrated implementation: ESG empowerment, quantitative analysis, and project advancement

ESG performance review: Report to and engage with management quarterly Board members participated in nature and climate-related training (Cathay Sustainable Finance Forum and Taiwan Carbon Solution Exchange training)

Climate

Climate risk and opportunity identification and financial quantification Updated the Science-Based Target Initiative (SBTi) Signed renewable energy procurement contracts (40 million kWh over 6 years)

Nature

Nature risk and opportunity identification and qualitative analysis (including the supply chain) Present the above nature-related performance updates at the fourth quarter Board meeting and the quarterly Sustainability Development Committee (SDC) meeting

2025

Stepping up the effort: Nature risk assessment and TCNFD disclosure

Published TCNFD report

Nature

In 2025, the Company will launch the biodiversity risk assessment project (focusing on downstream customers)
In 2025, Advantech will launch a biodiversity survey project at our Linkou Co-Creation Intelligent Park
Advantech continues to carry out biodiversity volunteer activities at the Taiwan Headquarters and RBUs in conjunction with the nation's major annual festivals
Present the above nature-related performance updates at the quarterly Sustainability Development Committee (SDC) meeting

Strategy Advantech Climate and Nature-related Risk and Opportunity Identification and Analysis Process

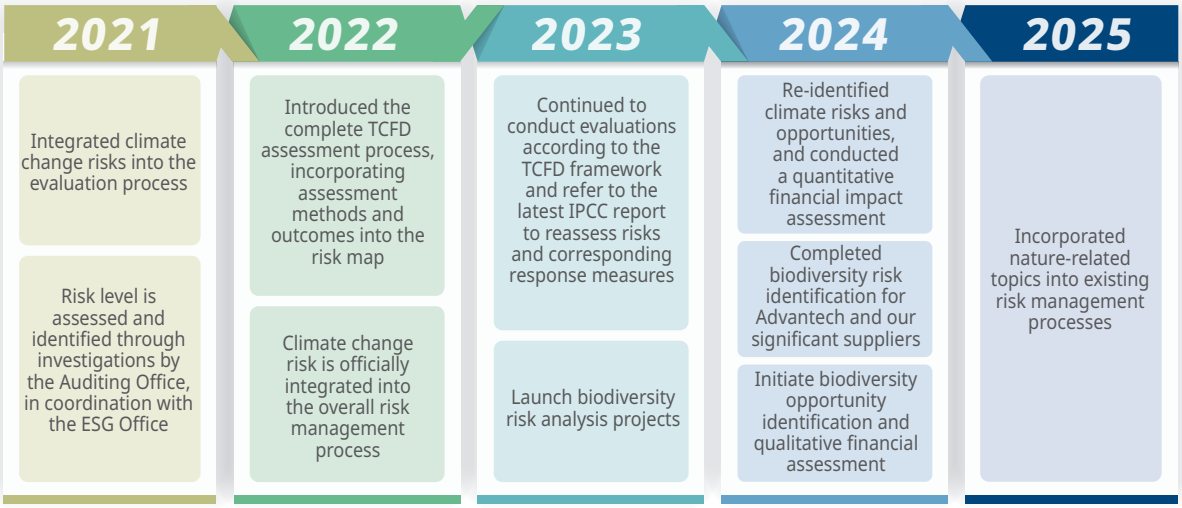
	Climate change	Biodiversity
Risk and opportunity identification	Referring to risk and opportunity topics in TCFD guidance and industry analysis, the Company summarized 13 risks and 10 opportunities	Using the Biodiversity Risk Filter (BRF) tool, Advantech analyzed biodiversity risks and identified 10 key biodiversity risk topics across the locations of operation for the Company and our main suppliers.
	Through physical workshops supplemented by the materiality risk matrix, the Company selected 7 major risks and 3 opportunities	Referring to the TNFD guidelines and considering the identified major risks along with the Company's resources, such as product development and external collaborations, summarized 13 potential opportunities
	Selected 4 risk and opportunity topics for financial quantification	Through physical workshops supplemented by the materiality risk matrix, the Company selected 4 major opportunities
Impact assessment	Assessed potential financial impacts of major risks and opportunities	Assess potential impacts of major risks and opportunities
Financial assessment & scenario analysis	Qualitative: The Company developed prevention and improvement measures and formulated KPIs based on the foregoing evaluations Quantitative: Analyzed carbon reduction potential and financial impact using the IEA's 1.5DS and STEP analysis. Furthermore, the Company applied the IPCC's RCP4.5 and RCP8.5 scenarios to assess the financial impact of physical risks on Advantech, incorporating resilience evaluation of its adaptation strategies.	Qualitative: The Company developed prevention and improvement measures and formulated KPIs based on the foregoing evaluations.

Risk management Advantech Climate and Nature Risk Management Process and Management Status

Evaluation and management process

1. Collect and review climate/biodiversity risk and opportunity factors relevant to the Company
2. Assess material topics based on impact level and likelihood ratings
3. Monitor changes in risk levels
4. Review and formulate response strategies
5. Report to the SDC committee for decision-making and review relevant disclosures
6. SDC committee regularly reports to enable the Board of Directors to oversee climate risk management progress and review relevant major decisions

Advantech's annual progress



Climate and Nature Metrics and Targets

Advantech Nature and Climate Implementation Metrics and Implementation Status

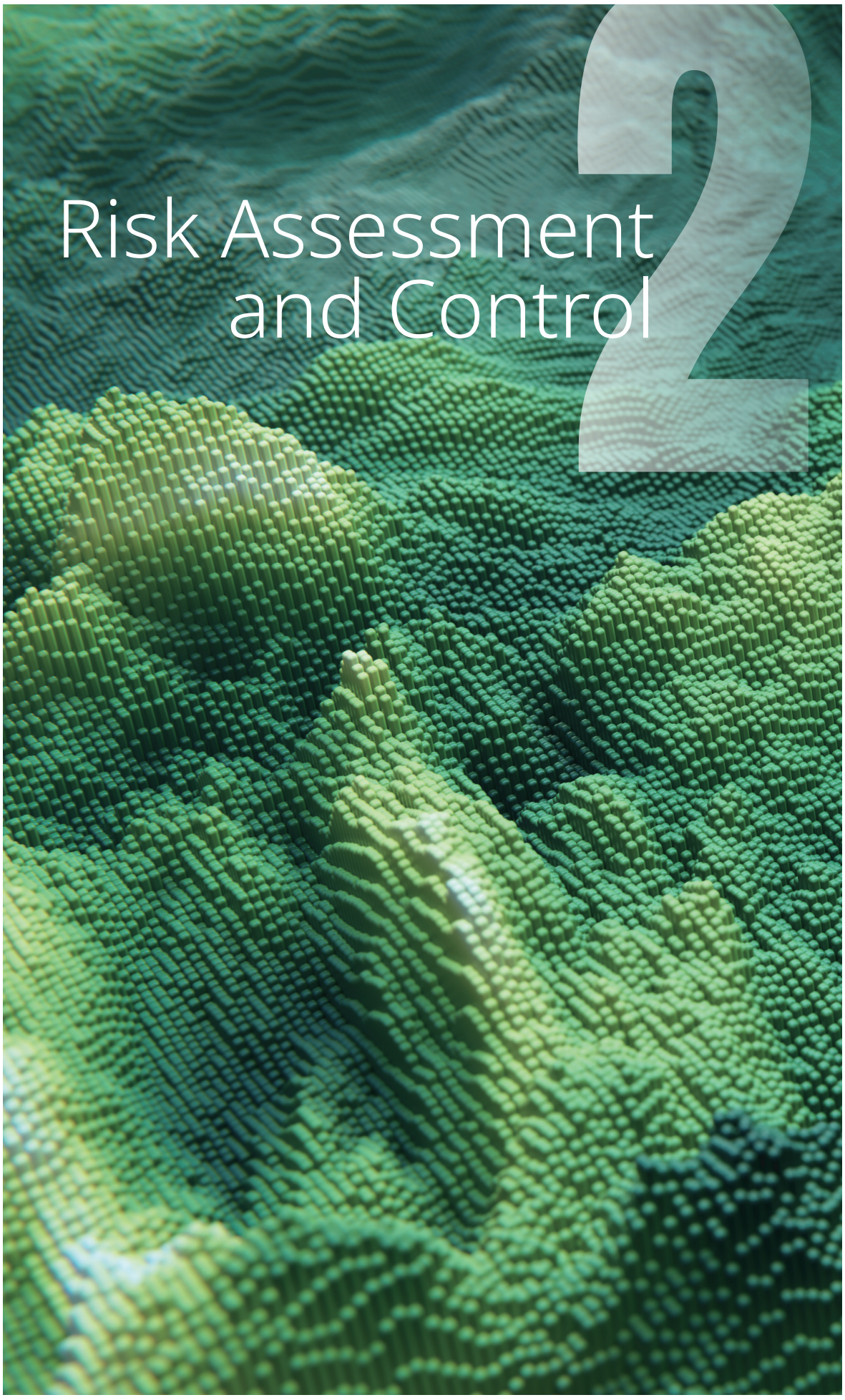
Indicators and targets	
Disclosure aspect	**Advantech's implementation progress**
Scope 1, 2, and 3 GHG emissions and targets	• First passed SBT carbon reduction target review in 2021; launched SBT recalculations in 2024, and is expected to pass the 1.5°C target setting in 2025 • Advantech Taiwan and Kunshan both complete the ISO 14064-1 GHG inventory, verification, and target tracking every year • In 2024, a GHG inventory and verification for the Japanese and Korean subsidiaries was completed. We will continue to expand the scope of overseas significant locations of operation
Other climate-related management indicators and targets	• Commit to joining the RE100 initiative and set the net-zero target by 2050 • We have set targets for energy conservation, renewable energy usage, water conservation, waste reduction, percentage of eco products in revenue, and energy efficiency improvement for product power supplies • Already implemented the ISO 50001 energy management system to conduct energy efficiency management, while management indicators and targets will continue to be formulated for relevant strategies • Already implemented life cycle assessment (LCA) and carbon footprint evaluation for our main products, as well as developed an internal product carbon footprint system and platform, which will be applied to the eco low-carbon product program
Promoting Global Direct Operations Biodiversity Commitment Targets	• Executed upstream, midstream, and downstream biodiversity risk assessment work in 2024-2025 • Organized multiple volunteer activities themed on biodiversity related issues, deepening employee awareness and practice on biodiversity issues • Conducted biodiversity survey of Advantech Linkou plant base to anchor future ecological issue themes of the plant • Installed bird-friendly window facilities, significantly reducing window strike incidents at Linkou plant • Cooperated with New Taipei City Government to adopt the Linkou area coastline, regularly organizing annual beach cleanup family days to find back a clean coastal ecosystem

Promoting Global Direct Operations No-Deforestation Commitment Targets	• Advantech global promotes a paperless office environment to reduce paper waste • For office paper, packaging paper material, and daily paper use, we also require the use of suppliers certified by the Forest Stewardship Council (FSC), other forest-friendly paper materials, or recycled eco-friendly paper materials and eco-friendly ink printing • Product cardboard packaging material provides customers with Forest Stewardship Council (FSC) certified options • Organized global employee volunteer activities themed on forest conservation, deepening employee awareness and practice on biodiversity issues • Cooperated with Taipei City Government to adopt Ruiguang Park next to Advantech Neihu headquarters for urban forest conservation • Cooperated with Tse-Xin Organic Agriculture Foundation and Taiwan Forestry Restoration Association for tree planting and afforestation in mountainous or coastal areas near Advantech operational sites

*Note: According to ISO 14064-1, the GHG scope names correspond to categories as follows: Scope 1 corresponds to Category 1, Scope 2 corresponds to Category 2, and Scope 3 corresponds to Categories 3~6.

Nature-Related Risks, Opportunities, and Human Rights

After identification, all Advantech global operational sites, supply chains and customers within the identification scope do not located in biodiversity sensitive areas of various levels, mostly located in highly urbanized areas such as science parks or common commercial office buildings, so there is no risk of ecological harm at actual operational locations, nor any risks or conflicts with local indigenous peoples. According to Advantech's human rights commitment disclosure, Advantech's human rights commitments related to the theme cover indigenous peoples and employees (including foreign employees), providing corresponding labor protection and customized measures, such as: foreign employee hometown festival celebrations, Chinese language learning courses, etc. Regarding supplier-related labor rights and impacts, please refer to Section 3.2.



2 Risk Assessment and Control

2.1 Climate Risk Identification

Climate risk identification mechanism and considerations

Advantech identifies climate-related risks and opportunities based on the TCFD framework, evaluating both the level of impact and timeframes to assess potential effects on the Company and its value chain. We identify our major risks and opportunities, their corresponding potential occurrence scenarios, and the level of impact based on the definition of risks and opportunities in the TCFD guidelines, along with the gathering of diverse issues, cross-departmental discussions, and external consultations to analyze potential financial impacts. We focus on operational aspects (including reduction and natural disasters), product aspects (such as the supply chain), and market aspects based on industry characteristics and international developments. This allows us to identify company-wide climate risks and opportunities, facilitating the precise formulation of relevant response strategies.

TCFD risk and opportunity evaluation process

Advantech's risk and opportunity evaluation process begins with a group-wide perspective, identifying major climate-related risks and opportunities through a systematic approach involving topic identification, information collection, analysis, and evaluation. Both qualitative and quantitative methods are applied to manage these potential risks and opportunities, which are then integrated with implementation measures to ensure alignment with the Company's business strategy and Sustainable Development Goals (SDGs). The specific process can be broken down into the following steps:

1. Collection of Risk and Climate Factors

By following the TCFD framework, Advantech considers local regulations (such as carbon fees or taxes applicable to its locations of operation, carbon tariff mechanisms, renewable energy requirements, sustainable materials, plastic reduction, and product energy efficiency regulations), as well as market trends (including customer demand for low-carbon products, product carbon footprint disclosures, and human rights concerns), domestic and international literature, and peer-related issues (such as low-carbon technology development, supply chain engagement, international ratings such a CDP and DJSI, and initiatives such as SBTi and RE100), to track and compile potential risks and opportunities that may impact its operations, products, and markets. After data collection, Advantech focused on 13 risks and 10 opportunities to conduct materiality analysis, evaluating their materiality and financial impact.

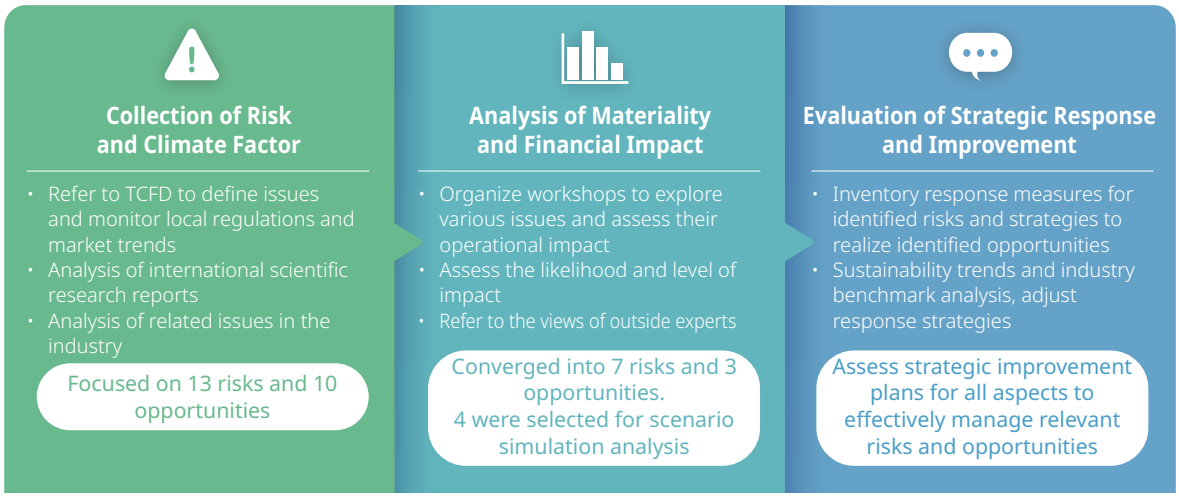
2. Materiality and Financial Impact Analysis

Advantech conducts cross-departmental workshops by inviting relevant personnel from departments such as operations, factory management, general affairs, EHS, R&D, procurement, quality, and investment to discuss the context of various issues, assess their potential operational impact, and analyze the likelihood and severity of such impacts. After a preliminary analysis, Advantech narrowed the evaluation scope down to 7 risks and 3 opportunities, and 4 of them were chosen for scenario simulation analysis to predict possible future development scenarios more accurately and develop response strategies accordingly.

3.Evaluation of Strategic Response and Improvement

After completing the materiality analysis and risk and opportunity scenario simulation, Advantech inventoried and evaluated the existing response measures, as well as conducted comparisons and adjustments based on sustainable development trends and industry benchmarks. Enhance capabilities in risk management and seizing opportunities through this improvement response strategy. The relevant results and disclosures are reviewed by the SDC, which regularly reports to the Board of Directors to oversee the progress of climate risk management and review significant decisions. This ensures that the Company can continue to refine its response plans, as well as improve its adaptability and resilience to future market risks.

TCFD risk and opportunity evaluation process



Risk and opportunity considerations

Category	Risk type	Serial number	Risk/opportunity issues
Physical risk	Acute	R2	Climate-related physical risks
	Chronic	R3	Water resource shortage
Transition risk	Policies and laws	R1	Legal and policy risks
	Policies and laws, markets	R4	Energy supply shortage
	Market	R5	Supply chain disruptions
	Policies and laws	R6	Regulatory penalty risks and increased cost pressure due to EU requirements for plastic content disclosure
	Policies and laws, technologies	R7	Risk of increased costs and extended timelines due to eco product testing and certification
	Technology	R8	Low carbon/energy-saving technology R&D costs and risks
	Market, reputation	R9	Order loss risks and supplier collaboration challenges under energy-saving and carbon reduction requirements
	Market	R10	Changes in customer behavior and preferences
	Policies and laws	R11	Increasingly stringent international review standards and regulations
	Market	R12	Risks associated with intensifying competition
	Reputation	R13	Market ESG image and reputational risks

Opportunities	Resource efficiency	O1	Resource efficiency improvement
	Resilience	O2	Intelligent climate risk management
	Products and services, markets, resilience	O3	Green certification and sustainable supply chain
	Products and services, market	O4	Low-carbon products shape Advantech's sustainability image, enhance marketing in the low-carbon market, and expand the customer base
	Products and services, market	O5	Establish and engage in product carbon footprint calculations to elevate the Company's competitiveness in green business opportunities
	Products and services, market	O6	Innovative eco product design and sustainable raw material applications
	Market, resilience	O7	Market opportunities derived from complying with international environmental initiatives (such as SBTi, CDP, etc.)
	Resilience	O8	Increasing market demand for climate mitigation and climate adaptation-related solutions
	Energy source	O9	Participation in renewable energy infrastructure construction and increasing demand for energy monitoring
	Products and services, market	O10	Low-carbon products needed for market expansion

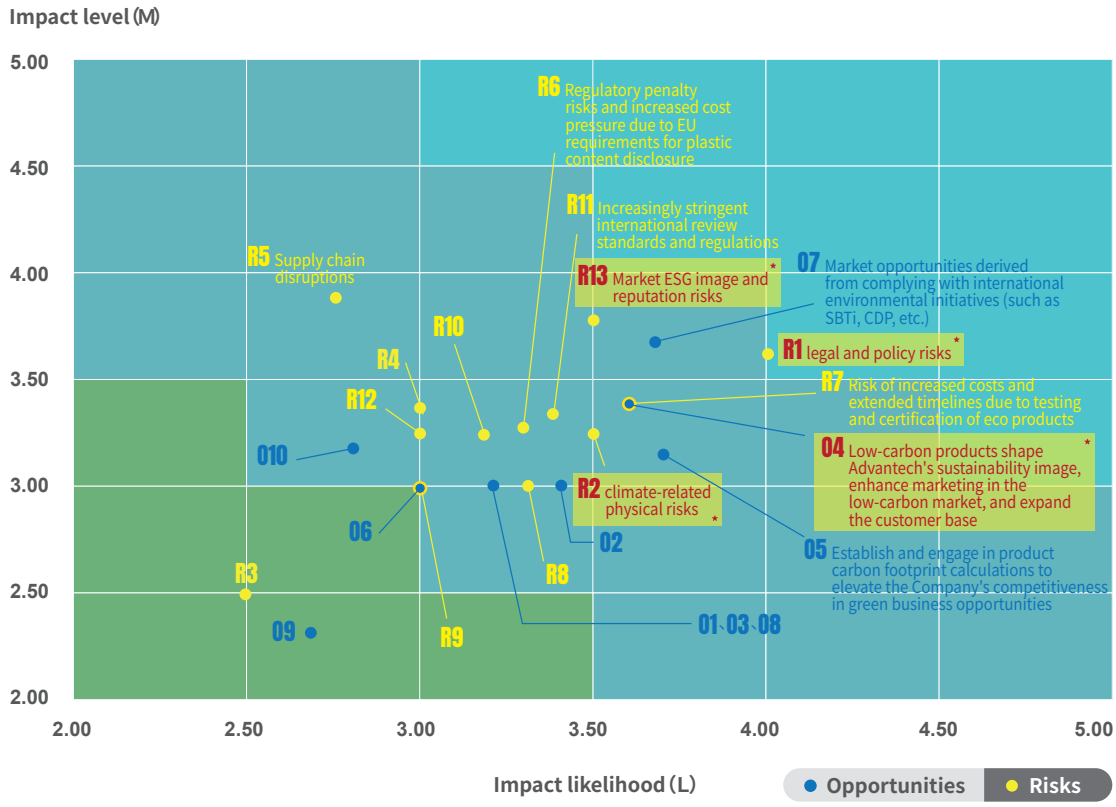
Risk and opportunity description

- Transition risk: Refers to policy, law, technology, market, and reputational risks during the transition to a low-carbon economy.
- Physical risks: Refer to the risks resulting from the direct impacts of climate change. These may stem from acute events, such as extreme weather (e.g., storms and floods), or chronic changes, such as gradual changes in long-term climate patterns (e.g., temperature increases and sea level rise). These risks may directly damage properties, disrupt operations and supply chains, and impact people's health and safety.
- Climate opportunities: Refer to potential benefits or new possibilities as a result of climate change. These opportunities may include: Improvements to resource efficiency, energy sources, products and services, markets, and resilience.

Climate risk and opportunity evaluation outcome (matrix)

Advantech applies the impact level (M) and likelihood of impact (L) of climate risks/opportunities as two axes to portray the relative position of each risk and opportunity. In addition, Advantech conducts a qualitative assessment using the level of impact (M) multiplied by the impact likelihood (L), and divides the calculated value into 5 levels to determine the materiality of each risk and opportunity for Advantech. For issues with higher materiality, aside from assessing the issue's occurrence period and its impact on operations, Advantech will also provide a detailed description of the corresponding response measures.

TCFD climate risk and opportunity evaluation matrix



Risk and opportunity description

1. Extremely high risk/opportunity: 16 < "Impact likelihood (L) X Level of Impact (M)" < 25
2. High risk/opportunity: 9 < "Impact likelihood (L) X Level of Impact (M)" < 16
3. Moderate risk/opportunity: 4 < "Impact likelihood (L) X Level of Impact (M)" < 9
4. Low risk/opportunity: 1 < "Impact likelihood(L) X Level of Impact (M)" < 4
5. Extremely low risk/opportunity: "Impact likelihood (L) X Level of Impact (M)" < 1

List of material climate risks and opportunities

Through the above materiality assessment process, Advantech prioritized the evaluation and management of 7 risk- and 3 opportunity-related issues this year. The corresponding strategies for addressing these climate risks and opportunities are summarized in the table below:

Climate risks and opportunities and response strategies

Operational aspect

Category：Transition risk	Impact timeline：Short-term	Financial impact： • Increased operating costs • Increased capital expenditure • Reduced revenue
Risk or opportunity topics： R1 legal and policy risks	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Rising operating cost: More rigorous emissions regulations (such as Taiwan's carbon fee and the EU's CBAM) increase costs	• Introduce energy-saving and carbon reduction measures (energy-efficient equipment, LED lights, automatic temperature and humidity control, and recycling and reuse of consumables)

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Equipment replacement and renewable energy investment pressure: To obtain international certifications and meet customers' sustainability needs, the Company replaces energy-intensive equipment and invests in renewable energy, resulting in increased expenditures. • System design and maintenance burden: To meet carbon data collection requirements, we must invest in resources to establish and maintain relevant systems • Product pricing adjustment risk: After the implementation of carbon pricing, Advantech's financial system must be adjusted to reflect Internal Carbon Pricing. As a result, product prices are increased, and our market competitiveness is diminished.	• Establish a systematic approach for collecting Scope 1, 2, and 3 emissions data to lower future carbon taxes through precise monitoring of carbon emissions data • Building on the established shadow price, we will continue to finalize the Internal Carbon Pricing mechanism, integrating carbon emission costs into the Company's financial system to accurately reflect these costs in product pricing and cost structures • Join the RE100 initiative and commit to achieving 100% renewable energy usage by 2040 to lower carbon emissions

Category：Physical risk	Impact timeline：Medium-term	Financial impact： • Increased operating costs • Increased capital expenditure • Reduced revenue • Reduced assets
Risk or opportunity topics： R2 climate-related physical risks	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Operational disruptions and production risks: Extreme weather events (such as typhoons and floods) may lead to factory shutdowns, damage to equipment, as well as increased costs and delivery-related risks • Increased facility and equipment maintenance costs: In response to climate risks, it is necessary to bolster flood control and drainage systems, reinforce building structures, and address the potential acceleration of equipment aging due to high temperatures, all of which will increase costs. • Inventory damage and financial losses: Typhoons and floods can damage inventory, leading to financial losses • Increased expenditure in disaster prevention and insurance: To mitigate the impact of extreme weather, we must invest in disaster prevention equipment, improve our emergency response capabilities, and purchase additional insurance coverage to diversify financial risks • Earthquake-resistant building and maintenance pressure: Earthquake-resistant designs are needed for new factories, while old factories must undergo seismic retrofitting, leading to increased expenditures	• Analyze the impact of climate change and formulate emergency response plans • Formulate a business continuity management protocol to respond to and address major incidents, thereby mitigating and minimizing negative impacts • Emergency power supply maintenance, and regularly maintain the power supply system to prevent blackouts from disrupting operations • Upgrade emergency response equipment and install additional backup systems, such as backup power generators, to enhance the Company's emergency response capabilities • Strengthen disaster prevention facilities, improve drainage systems, and install rainwater infiltration prevention measures to minimize natural disaster-related losses • Risk transfers and diversification, purchase property insurance to transfer potential financial risks and ensure asset safety

Product aspect

Category：Transition risk	Impact timeline：Medium-term	Financial impact： • Increased operating costs • Operational disruptions • Reduced revenue
Risk or opportunity topics： R5 Supply chain disruptions	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Rising operational and supply chain costs: In response to climate risks and political factors, we must allocate resources to establish alternative supply chains, which can lead to increased costs • Inventory and capital pressure: Supply chain disruptions may result in capital and cash flow pressures and increased storage management costs • Product development delays: Fluctuations in the supply chain may necessitate component redesigns and supplier changes, in turn delaying product development schedules and time-to-market • Production and delivery uncertainties: Supply chain disruptions can increase the risk of production plan interruptions and delay the delivery of products	• Introduce eco packaging materials and eco designs to form an eco packaging material supply chain • Form partnerships with suppliers in different locations to enhance supply chain resilience • Design backup mechanisms to prevent supply chain disruptions (such as advancing shipments, setting safety stock levels based on material categories, diversifying suppliers, and preparing alternative materials)

Category：Transition risk	Impact timeline：Short-term	Financial impact： • Increased operating costs • Increased compliance expenditures
Risk or opportunity topics： R6 Regulatory penalty risks and increased cost pressure due to EU requirements for plastic content disclosure	Impact level：Medium	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Regulatory and penalty risks: European countries require the disclosure of plastic content (including the weight of components and outer packaging), and failure to comply will result in fines • Rising material and supply chain costs: In response to local regulations and sustainability trends, the use of sustainable materials and green packaging will result in increased procurement and production costs • Increased design and development costs: Regional regulatory compliance requires redesigning product packaging and external components, resulting in longer development timelines and higher costs • Data transparency and management burden: To meet sustainability and compliance requirements, a cross-departmental database must be created, which will in turn increase labor, technology, and maintenance costs • Risk of diminished market competitiveness: Rising material and design costs may diminish the Company's market competitiveness	• Introduce eco packaging materials and eco designs, and form an eco material supply chain • Establish a component recycled material supply chain and regularly review environmental certifications of supply chain materials • Formulate dedicated material number classification rules for Cable, Plastic, Sheet Metal, and Metal, to differentiate between sustainable and conventional materials • Establish relevant data, statistical, and computing platforms

Product aspect

Category：Transition risk	Impact timeline：Short-term	Financial impact：• Increased operating costs
Risk or opportunity topics： R7 Risk of increased costs and extended timelines due to testing and certification of eco products	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Increased costs due to differences in certification standards and compliance requirements: Meeting green and energy efficiency standards across various regions requires additional investment in testing and design modifications, leading to higher management, design, and material costs • Risks of higher certification fees and delayed product launches: Acquiring green certification requires paying corresponding fees, and the lengthy certification process may have an impact on the product's time-to-market and market share • Risks of delayed time-to-market and revenue concentration: If products fail to meet international energy efficiency standards (such as EU ErP and US Energy Star), they may be barred from key markets (like Europe and the United States), resulting in concentrated revenue sources and increasing vulnerability to regional policies and market fluctuations	• Establish a component recycled material supply chain and regularly review environmental certifications of supply chain materials • Formulate dedicated material number classification rules for Cable, Plastic, Sheet Metal, and Metal, to differentiate between sustainable and conventional materials • Establish a product carbon footprint calculation system and platform, which can be applied to the eco product program • To comply with mandatory regulatory requirements in product design, we have created internal verification resources and implemented a management system to monitor external certification-related expenses

Category：Opportunities	Impact timeline：Medium-term	Financial impact：• Increased revenue • Increased market value
Risk or opportunity topics： O4 Low-carbon products shape Advantech's sustainability image, enhance marketing in the low-carbon market, and expand the customer base	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Enhance sustainability image and marketing: Develop low-carbon products to strengthen market positioning and showcase our achievements through energy-saving and carbon reduction solutions (e.g., WISE-IoT iEMS), thereby enhancing international buyers' awareness of and trust in Advantech • Expand the international customer base: Launch low-carbon products to meet the demands of the international market and thereby increase market share • Market competitive advantages and internal innovation: With low-carbon products as the core, we will strengthen sustainable supply chain partnership and promote cross-departmental collaboration through product design and promotion, thereby generating brand differentiation advantages and increasing product value	• Introduce eco packaging materials and eco designs, and form an eco material supply chain • Establish a product carbon footprint calculation system and platform, and implement internal carbon pricing to facilitate the launch of low-carbon products • Continue to invest resources in the R&D of low-carbon technologies in response to market needs. For instance, design products with higher performance and lower energy consumption. Also, establish relevant reward mechanisms to encourage low-carbon innovation and creative thinking. • In addition to the R&D of low-carbon products, Advantech's technical advantages in IIoT and edge computing are combined to provide integrated low-carbon solutions, thereby fostering differentiated advantages in low-carbon products. • Highlight the low-carbon products' sustainable values and environmental contributions in marketing activities (such as presenting the products' carbon footprint data and energy-saving effectiveness).

Product aspect

Category：Opportunities	Impact timeline：Short-term	Financial impact： • Increased revenue • Increased market value
Risk or opportunity topics： O5 Establish and engage in product carbon footprint calculations to elevate the Company's competitiveness in green business opportunities	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Improve market competitiveness and brand image: Meet market demands by establishing a carbon footprint calculation system, in turn boosting customer confidence in Advantech, enhancing product value, and creating green business opportunities. Moreover, compliance with environmental regulations further bolsters Advantech's sustainability image • Support eco supply chain development: Use Advantech's CarbonR solution to streamline the carbon footprint calculation process and help supply chain partners to achieve carbon reduction goals, thereby enhancing the partnership	• Establish Advantech's product carbon footprint methodology and complete the carbon footprint inventory of various business groups' representative products • Establish Advantech's internal product carbon footprint evaluation system and proactively provide customers with relevant information to improve carbon footprint disclosure transparency • Evaluate the depth of material selection through LCA and identified the key materials contributing to the carbon footprint • Promote Advantech's CarbonR solution, assist supply chain partners in calculating carbon emissions and product carbon footprint, as well as offer relevant training and technical support to reinforce the partnership

Market

Category：Transition	Impact timeline：Short-term	Financial impact： • Increased operating costs • Reduced revenue • Increased compliance expenditures
Risk or opportunity topics： R11 Increasingly stringent international review standards and regulations	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Regulatory risks: As global regulations become more stringent (such as the CBAM and the CCA in the United States), failure to respond accordingly may result in legal risks, fines, and even market entry restrictions • Loss of market entry opportunities: If value chain partners are unable to provide solutions in response to relevant regulations, market entry opportunities will be reduced	• Local laws and regulations are considered when procuring raw materials during the product design stage to meet various regulatory requirements • Relevant regulations are incorporated into the new product development evaluation process to assess suitability in advance • Regularly audit factories and suppliers to ensure alignment with international trends and customer requirements • Identify suitable existing ESG response solutions from internal BUs or external partners and offer them to strategic partners and invested companies to address carbon emission-related needs across the supply chain

Market

Category：Transition risk	Impact timeline：Medium-term	Financial impact： • Increased operating costs • Increased capital expenditure • Reduced revenue
Risk or opportunity topics： R13 Market ESG image and reputation risks	Impact level：Medium	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Brand value and customer trust: Failure to effectively manage climate risks or demonstrate adequate ESG performance may negatively impact the Company's market reputation and erode stakeholders' trust, including that of customers, shareholders, and investors • Climate risks: Inadequate assessment of climate risks may disrupt factory operations during natural disasters such as typhoons or earthquakes, thereby damaging the Company's reputation	• Regularly conduct employee education and training on ESG developments and trends to enhance their ESG awareness and foster a culture of sustainability • Introduce energy-saving and carbon reduction equipment with temperature and humidity regulation functions into hardware facilities • By joining RE100, setting SBT, and participating in sustainability ratings such as DJSI, CDP, and EcoVadis, we aim to disclose our ESG performance and enhance our corporate sustainability value

Category：Opportunities	Impact timeline：Medium-term	Financial impact： • Increased revenue • Increased capital • Increased market value
Risk or opportunity topics： O7 Market opportunities derived from complying with international environmental initiatives (such as SBTi, CDP, etc.)	Impact level：High	

Advantech's risks or opportunities	Advantech's countermeasures and actions
• Global market deployment: Participation in major evaluations and initiatives, along with voluntary compliance with local environmental regulations, facilitates the introduction of Advantech's ESG-rated products to the market and enhances our brand image • Reinforce the sustainability image and attract sustainable investment: Enhance ESG performance through active engagement in international environmental initiatives (such as SBTi, CDP, and RE100) and attract sustainable investment. And by doing so, strengthen brand image and supply chain stability	• Implement product solutions that comply with international environmental regulations, including energy management, ESG information integration systems, carbon emission inventory, raw material supply chain management, and carbon footprint system implementation, etc. • Strategically invest in ESG-related fields through small equity investments to mitigate risks and explore market opportunities • By joining RE100, setting SBT, and participating in sustainability ratings such as DJSI, CDP, and EcoVadis, we aim to disclose our ESG performance and enhance our corporate sustainability value

*Note:
1. Impact timeline: Based on the potential occurrence, impacts are categorized as "short-term (< 3 years), mid-term (3 – 5 years), and long-term (> 5 years)."
2. Impact level: An internal evaluation, based on the likelihood of occurrence and level of impact, categorizes the impact level as "high, medium, or low."

2.2 Climate-related Financial Impact

Climate risk and opportunity-related financial impact assessment

Every three years, Advantech follows the TCFD recommendations to analyze and assess the impact of various scenarios related to transition and physical risk types on the Company's operations. The analysis results are incorporated into the strategy resilience assessment to reflect Advantech's response mechanisms for various climate-related opportunities and risks on time. Furthermore, based on the foregoing climate risk and opportunity identification outcome, Advantech has chosen 1 physical risk: climate-related physical risk (R2), 2 transition risks: legal and policy risk (R1), market ESG image and reputational risk (R13), and 1 opportunity: low-carbon products shaping Advantech's sustainable image, enhancing low-carbon market marketing and customer expansion (O4) for financial impact assessment. The summarized results of the financial impact assessment are shown below, while the assumptions, calculation methods, and calculation results for each item will be described separately in the subsequent climate scenario analysis chapter.

Risk type	Climate scenarios used	Evaluation
Transition risk	1.5DS、STEPS	Operational impacts of policies, regulations, and market ESG image on the Company
Physical risk	RCP4.5、RCP8.5	Operational impacts of extreme weather events (typhoons/floods caused by heavy rainfall) on the Company

	Risk and opportunity issues	Assessment scope/ region	Assessment item description	Year	Assessment results*	
Transition risk	Legal and policy risks	Advantech Taiwan, Kunshan, and AJP	• Renewable energy substitute fee payment • Carbon fee collection	2030	• STEP scenario: NTD 68,663,138 • IEA 1.5DS scenario: NTD 187,564,574	Average annual management costs: NTD 6,217,526
				2035	• STEP scenario: NTD 227,265,171 • IEA 1.5DS scenario: NTD 441,453,013	
	Market ESG image and reputational risks	Advantech Group	• Increased financing costs caused by not obtaining sustainability-linked loans • Impact on revenue due to poor sustainability performance	2025	Annual impact scale: NTD 59,907,158	Average annual management costs: NTD 11,283,703

	Risk and opportunity issues	Assessment scope/ region	Assessment item description	Year	Assessment results*	
Physical risk	Climate-related physical risks	Advantech Taiwan, Kunshan, AJP, and AKR	• Production interruption • Damage to factory equipment • Impossible or late reporting to work	2030	Single-year impact • RCP4.5 scenario: NTD 21,348,542 • RCP8.5 scenario: NTD 21,631,559	Average annual management costs: NTD 5,408,167
				2050	Single-year impact • RCP4.5 scenario: NTD 22,692,370 • RCP8.5 scenario: NTD 23,510,820	
Opportunities	Low-carbon products shape Advantech's sustainability image, enhance marketing in the low-carbon market, and expand the customer base	Advantech Group	• Revenue generated by customers increasing their usage of low-carbon products	2025	Financial opportunities: NTD 707,258,810	Average annual management costs: NTD 57,792,607
				2030	Financial opportunities: NTD 791,456,288	

*Note:

- 1.5DS represents an aggressive emission reduction scenario, reaching net-zero around 2050, representing a temperature increase of 1.5℃
- STEPS (Stated Policies Scenario) represents emissions based on current government regulations in various countries, reaching net-zero around 2070~2080, representing a temperature increase of 2.7℃
- RCP4.5 represents a radiative forcing that will reach approximately 4.5Wm^{-2} by the end of the century, representing the GHG emission reduction targets achieved by the current policies of various countries around the world, resulting in a temperature increase of about 2.7℃
- RCP8.5 represents a radiative forcing that continues to increase to greater than 8.5Wm^{-2}, representing a scenario where countries worldwide take no actions for reduction, resulting in a temperature increase of roughly 4.4℃
- The above assessment outcome represents the single-year impacts, not the cumulative impacts

Climate scenario analysis

Climate risks and opportunities and response strategies

Advantech utilized 5 risk and opportunity issues to analyze the financial impact of 2 transition risks and 1 opportunity on future operations.

Risk/opportunity topics	Transition pathway	Financial impact
Legal and policy risks (R1)	Renewable energy substitute fee payment	Increase in operating costs due to the renewable energy substitute fee payment
	Carbon fee collection	Increase in financial operating costs due to carbon fee collection
Market ESG image and reputational risks (R13)	Increase in financing costs	Increase in financing costs if sustainability-linked loans are not secured
	Decrease in customer orders due to poor sustainability performance	Operational losses resulting from reduced customer orders due to poor sustainability evaluation performance
Low-carbon products shape Advantech's sustainability image, enhance marketing in the low-carbon market, and expand the customer base (O4)	Existing customers' increased demand for low-carbon products	Increase in revenue driven by customers' growing demand for low-carbon products

Transition risk path 1：Legal and policy risks (R1)

Assessment scope	Advantech's six significant locations of operation (RBUs)
Year of assessment	2030、2035
Key assumptions	The potential impacts of government regulations on Advantech include the tightening of regulations for major electricity consumers requiring the adoption of a certain percentage of renewable energy, amendments to the Climate Change Response Act, and the implementation of carbon tax/fee-related laws. Failure to comply may require the payment of substitute fees or carbon emission-related charges, leading to an increase in the Company's operating costs.
Calculation method	To assess the potential financial risks arising from future regulatory changes, Advantech referred to multiple indicators to conduct potential cost estimation. In particular, the renewable energy substitute fee is based on the Major Electricity Consumers Clause and calculated according to the contracted capacity and electricity consumption ratio to cover renewable energy-related expenses. Advantech evaluates the carbon fee based on the current carbon pricing mechanisms in various countries (STEP carbon fee) and the carbon price under the International Energy Agency (IEA) 1.5°C scenario (1.5DS carbon fee). Advantech applies the abovementioned indicators to assess and understand the potential impact of climate-related regulations on its operations.

*Note:

- This assessment covered all six of Advantech's significant locations of operation (RBUs). However, upon evaluating the emission profiles and regulatory developments in regions such as the EU, the US, and Korea, which have implemented Emissions Trading Systems (ETS), it was determined that these frameworks generally provide free allowances and are primarily targeted at high-carbon emission industries. Given that most of Advantech's facilities are assembly plants with relatively low emissions, the likelihood of being subject to such regulatory schemes in the near term is low. Consequently, the assessed financial impact is considered extremely low. Consequently, financial impact assessment was not conducted for the above locations in the financial impact section, with only the Taiwan, China, and Japan locations being included in the assessment.
- Taiwan's carbon fee is based on the government's announced rate; China's carbon fee is estimated using data from the IEA; and Japan's carbon fee is derived from information on the "Tax for Climate Change Mitigation"

Scenario	Impact assessment	Financial impact	
STEPS (Existing policy implementation scenario)	To assess the potential impact of existing government regulations and carbon fee policies on Advantech's overall operations from 2025 to 2035, the evaluation parameters include Taiwan's renewable energy substitute fee regulations, the Ministry of Environment's carbon fee projections, the carbon price corridor for China under the "IEA's 2024 World Energy Outlook" and its Stated Policies Scenario (STEPS), and Japan's actual carbon price, converted from its "Tax for Climate Change Mitigation."	The increase in operating costs due to the payment of renewable energy substitute fees and the collection of carbon fees is estimated to have an impact of NTD 68,663,138 in 2030, and an impact of NTD 227,265,171 in 2035	The estimated annual average manage costs are NTD 6,217,526, including: Investment and maintenance costs for energy-saving equipment, investment costs for energy-saving technology research and development, costs for implementing and verifying energy management systems, investment and maintenance costs for self-generated solar power equipment, and investment costs for renewable energy power plants, as well as expenses for purchased renewable energy
1.5DS (Net zero scenario)	To assess the potential impact of more stringent government regulations under a Net-Zero scenario on Advantech's overall operations between 2025 and 2035, the evaluation references include the carbon price corridors for emerging markets and developing economies committed to achieving net-zero, as well as those for developed economies, as outlined in the "IEA's 2024 World Energy Outlook Net Zero" by 2050 scenario	The increase in operating costs due to the collection of carbon fees is expected to have an impact of NTD 187,564,574 in 2030, and an impact of NTD 441,453,013 in 2035	

Transition risk **path 2：Market ESG image and reputational risks (R13)**

Assessment scope	Advantech Group
Year of assessment	2025
Key assumptions	Overall assessment of the impact of Advantech's low-carbon sustainability performance on revenue and financing costs
Calculation method	Advantech utilizes information on sustainable financing conditions and sustainability rating performance to estimate ESG image risk. The assessment considers potential increases in financing costs due to ineligibility for sustainability-linked loans, as well as possible customer attrition and revenue loss resulting from poor sustainability ratings, thereby evaluating the financial risks related to Advantech's sustainable reputation and financial standing

Scenario	Impact assessment	Financial impact
ESG image and reputation management scenario (Referencing historical scenarios)	Assess the impact of Advantech's market ESG image and reputation (low-carbon or sustainability performance) on revenue and financing costs, including increased costs in bank financing and the willingness of customers to place orders influenced by environmental sustainability performance, which may lead to increased operating costs or reduced revenue for the Company	The estimated annual impact cost of enhancing Advantech's ESG image and reputation is NTD 59,907,158; the estimated average annual management cost is NTD 11,283,703, which includes education and training costs, personnel costs for the sustainability transformation management, and costs for implementing and verifying sustainability-related management systems

Transition opportunity **path 3: Low-carbon products shape Advantech's sustainability image, enhance marketing in the low-carbon market, and expand the customer base (O4)**

Assessment scope	Advantech Group
Year of assessment	2025, 2030
Key assumptions	Overall assessment of the financial impact of revenue growth driven by Advantech's low-carbon products.
Calculation method	Advantech uses data such as the revenue generated by customers increasing their usage of low-carbon products to estimate the positive financial opportunities brought by low-carbon products

Scenario	Impact assessment	Financial impact
Low-carbon products and market scenarios (Referencing historical scenarios)	Evaluate Advantech's low-carbon product-related revenue as a financial opportunity for low-carbon products through 2030	The increased revenue related to Advantech's low-carbon products is expected to have an impact of NTD 707,258,810 in 2025 and NTD 791,456,288 in 2030; the estimated average annual management cost is NTD 57,792,607, mainly for R&D expenses

2. Physical risks and opportunities - Identify impacts and potential financial impacts

Advantech uses 3 risk issues to analyze the financial impact of 1 physical risk scenario on future operations

Risk topic	Physical risk	Financial impact
Climate-related physical risks (R2)	Production interruption	Revenue loss due to production interruption
	Damage to factory equipment	Increase in financial operating costs due to damaged plant equipment repairs and replacement costs
	Impossible or late reporting to work	Financial losses resulting from personnel being unable or delayed in reporting to work

Transition risk path 1：Climate-related physical risks (R2)

Assessment scope	Advantech six significant locations of operation (RBUs)
Year of assessment	2030, 2050
Key assumptions	We assessed the financial impact of extreme climate events (typhoons/tropical cyclones) on Advantech's operational production, without considering the impact of other physical risks (such as rising temperatures and droughts)
Calculation method	Advantech integrates historical disaster loss data with climate change scenario analyses to assess the financial impact of climate-related physical risks, focusing on three key aspects: production disruptions, damage to plant equipment, and delayed or unavailable workforce. Based on historical extreme weather events and referencing information from the Climate Impact Explorer, the rate of change in economic losses caused by tropical cyclones under the RCP4.5 and the RCP8.5 scenarios is introduced to assess potential revenue losses, labor costs, and equipment repair expenses in 2030 and 2050 compared to 2025. This information serves as the quantitative basis for Advantech's assessment of the financial impact of physical climate risks on its operations

*Note:

- This assessment included all six of Advantech's significant locations of operation (RBUs). However, considering the geographical differences among Advantech's major global locations, only the 4 locations situated in the Pacific Ring, including Taiwan, China, Japan, and South Korea, are more likely to be affected by tropical cyclones. As a result, only these 4 locations were included in the financial impact assessment.
- Data limitations and assumptions:
  - The scenario references the Climate Impact Explorer's Annual Expected Damage from Tropical Cyclones
  - Financial parameter assumptions: Based on the above scenarios, the estimated rate of increase in economic losses caused by tropical cyclones at Advantech's various locations in 2030 and 2050 is compared to 2025
  - Data Limitation: Since climate simulation forecasts are typically presented as ranges, the median values were used in this analysis. Additionally, we integrated the geographic coordinates of each site along with the average national change rates to estimate the projected economic loss variation rates for Advantech's sites in 2030 and 2050, relative to 2025.

Scenario	Impact assessment	Financial impact	
RCP8.5 (The most severe warming scenario)	To assess the overall operational production financial impact caused by extreme climate events (typhoons/tropical cyclones) on Advantech from 2030 to 2050 under a severe warming scenario, the analysis applies the national average rate of change and regional information for each country under RCP8.5 provided by the database, converting it to the rate of change in economic loss caused by extreme climate events (typhoons/tropical cyclones) in Advantech's location compared to 2025	The costs of plant equipment damage, production disruption, and a delayed or unavailable workforce, etc., lead to an increase in operating costs. The estimated impact amount for 2030 is NTD 21,631,559, and the estimated impact amount for 2050 is NTD 23,510,820	The estimated average annual management cost is NTD 5,408,167, which includes expenses for equipment/server room establishment or improvement, equipment maintenance and flood retention pond maintenance, as well as the implementation and verification of sustainability-related management systems
RCP4.5 (BAU scenario)	To assess the overall operational production financial impact caused by extreme climate events (typhoons/tropical cyclones) on Advantech from 2030 to 2050 under an existing warming scenario, the analysis uses the RCP4.5 information for each country provided by the database, converting it to the rate of change in economic loss caused by extreme climate events (typhoons/tropical cyclones) in Advantech's location compared to 2025	The costs of plant equipment damage, production disruption, and a delayed or unavailable workforce, etc., lead to an increase in operating costs. The estimated impact amount for 2030 is NTD 21,348,542, and the estimated impact amount for 2050 is NTD 22,692,370	

2.3 Nature-related Risk Identification and Financial Disclosure

Advantech has disclosed the results of its biodiversity risk assessment since 2024 and plans to continue doing so biennially, covering its locations of operation, upstream suppliers, and downstream customers. The next biodiversity risk assessment will be carried out in 2026.

Mechanism and Process for Identifying Natural Risks and Opportunities

In this chapter, the identification scope includes a total of 52 locations of operation in Taiwan (ACL) and Advantech China (AKMC), as well as 32 locations of operation of Taiwanese and Chinese suppliers (the identification scope focuses on industries with high procurement amounts and quantities, irreplaceability, and potential environmental or biodiversity impacts). The customer identification scope includes the top five revenue-generating customers from each of the year's top five product lines, as well as the top ten customers by total annual revenue. Duplicate entries across these categories in the list are removed.

We adopted the Biodiversity Risk Filter (BRF) developed by the World Wide Fund for Nature (WWF), using a location-specific approach to assess biodiversity-related risks, covering both physical and reputational risks.

For our locations of operation, suppliers, and downstream customers, Advantech utilizes the BRF (Biodiversity Risk Filter) system to score 33 risk indicators. After importing and analyzing the data through the BRF system, the items with a "high" or "very high" score for any location within the scope are identified as major risks, resulting in 10 categories of risks, with varying numbers of locations at different risk levels in each category. Evaluate the identified high-risk items and discuss corresponding actions to be taken in the future. In the analysis results, Advantech defines major risk as cases where 50% or more of the assessed locations fall into the high or very high risk categories. The major risks for each location are outlined below, followed by the setting of management indicators and subsequent investigation to determine potential risks.

The major risks for the Company's locations of operation, for Advantech's Taiwan locations, include: landslides and debris flow, tropical cyclones; for Advantech's China locations: including water quality status, air quality status, wildfire risks, extreme high temperatures, tropical cyclones, labor human rights, and media scrutiny; for Advantech's supply chain, major risks at Taiwan locations include: landslides and debris flow, tropical cyclones, pollution, and protected areas/reserves; China locations include: wildfire risks, extremely high temperatures, tropical cyclones, pollution, and labor human rights. Advantech's downstream customers face 10 major risks; however, customer locations and names are not disclosed due to the sensitivity of the information. The 10 major risks are: labor rights,internationally designated areas of concern,protected biodiversity conservation areas, air conditions, landslides, wildfire risk, extremely high temperatures, tropical cyclones, and pollution. Lastly, the distribution of locations for each high-risk indicator is illustrated through graphical representations.

Concerning nature-related opportunities, this year's nature-related opportunity issues were derived by extending the BRF risk items and through cross-departmental workshops for discussions and questionnaire responses. 4 major opportunities were identified and ultimately approved for discussion based on the scores given by the participants. These include disaster-resistant infrastructure and flood control design for plant areas, green production to minimize pollution and ecological impact, supplier due diligence, and eco products. Relevant details will be elaborated below.

The qualitative information described in this chapter is disclosed voluntarily and has not been verified by a third party. In the future, the disclosure quality and verification needs will be enhanced as necessary.

Results of Natural Risk Assessment for Advantech's Operational Locations, Upstream Suppliers, and Downstream Customers

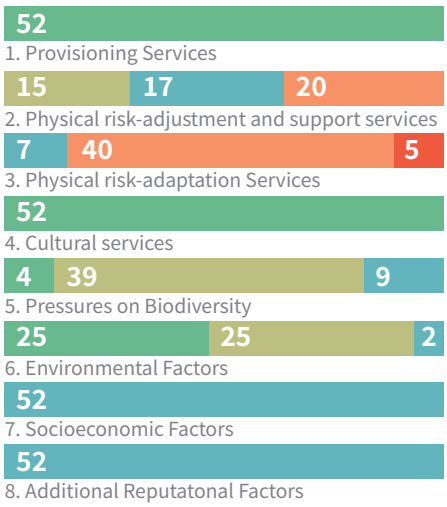
BRF risk group		Physical Risk						
		2.2 Water Condition	2.3 Air Condition	3.1 landslides	3.2 Fire Hazard	3.5 Extreme Heat	3.6 Tropical Cyclones	5.4 Pollution
High risk/Very high risk percentage	Advantech Taiwan locations			100%			100%	
	Advantech China locations	50%	50%		62%	90%	83%	
	Advantech supply chain Taiwan locations			100%			100%	100%
	Advantech supply chain China locations				53%	100%	100%	100%
	Downstream customers					53%		84%

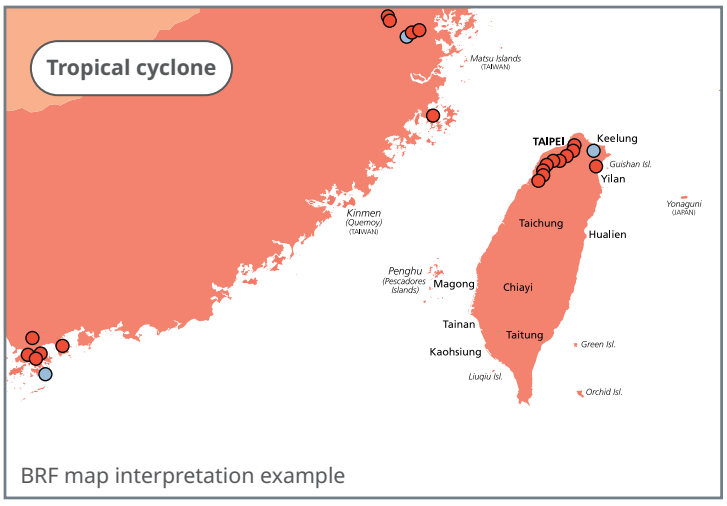
BRF risk group		Physical Risk						
		2.2 Water Condition	2.3 Air Condition	3.1 landslides	3.2 Fire Hazard	3.5 Extreme Heat	3.6 Tropical Cyclones	5.4 Pollution
Very high risk percentage	Advantech Taiwan locations			80%			100%	
	Advantech China locations						50%	
	Advantech supply chain Taiwan locations			93%			100%	
	Advantech supply chain China locations						100%	100%

BRF risk group		Reputational Risk		
		6.1 Protected/Conserved Areas	7.3 Labor/Human Rights	8.1 Media Scrutiny
High risk/Very high risk percentage	Advantech Taiwan locations		100%	80%
	Advantech China locations		100%	98%
	Advantech supply chain Taiwan locations	93%	100%	
	Advantech supply chain China locations		100%	
	Downstream customers			

BRF risk group		Reputational Risk		
		6.1 Protected/Conserved Areas	7.3 Labor/Human Rights	8.1 Media Scrutiny
Very high risk percentage	Advantech Taiwan locations			
	Advantech China locations			
	Advantech supply chain Taiwan locations			
	Advantech supply chain China locations			
	Downstream customers			

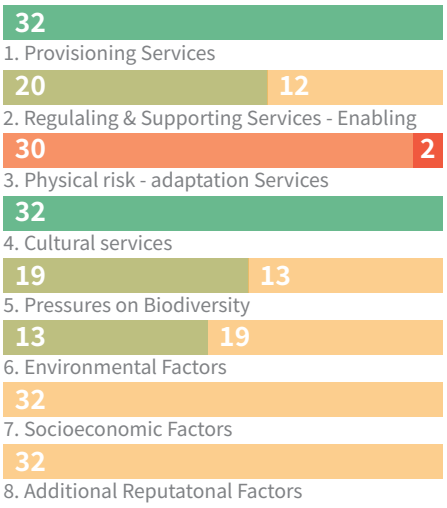
Figure X Risk overview for Advantech locations of operation

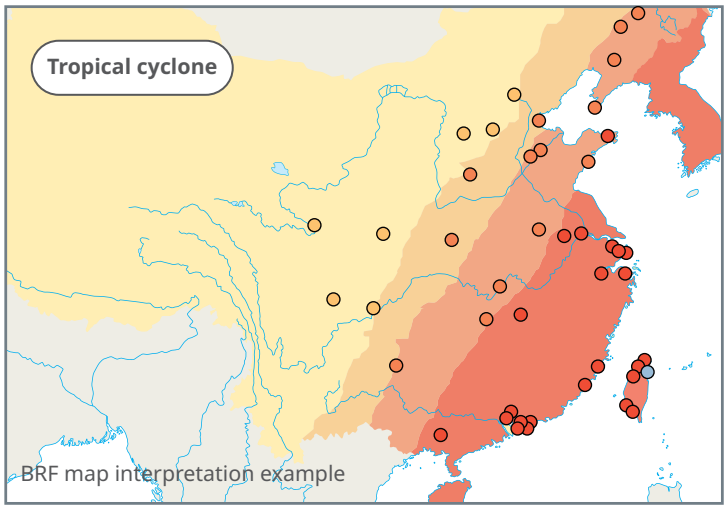




BRF map interpretation example

Figure X Risk overview for Advantech supply chain





Nature-related risk identification outcome for Advantech's downstream customers

Site Name	1.1 Water Availability	1.3 Limited Wild Flora & Fauna Availability	2.3 Air Condition	3.1 Landslides	3.2 Wildfire Hazard	3.5 Extreme Heat	3.6 Tropical Cyclones	5.4 Pollution
	S1_1	S1_3	S2_3	S3_1	S3_2	S3_5	S3_6	S5_4
a	2.6	No dependency or impact	3	2.5	2.5	2.5	2	4.5
b	1.7		No dependency or impact	4	2.5	2	2	2.67
c	3.1		4	2.5	3.5	3	4	3.08
d	2.5	4	2.5	2.5	2.5	3.5	2.5	3.92
e	2	No dependency or impact	3	2	3.5	4	3.5	2.25
f	2.7		2.5	2	2.5	3	2.5	3.75
g	3.6	4	2.5	4	3	3	4	4.33
h	2.5	No dependency or impact	3.5	2.5	3	3	2.5	4.42
i	2.9	3	3	2.5	2.5	3.5	2.5	3.92
j	3.4	No dependency or impact	2.5	2.5	3.5	3.5	3	3.92
k	4.3		2.5	4	4	3	2.5	3.92
l	3.6		3.5	2.5	3	3.5	4	4.67
m	2.9		2.5	2.5	2.5	2	2	3.67
n	3.2		3.5	2.5	3	4	4	4.58
o	4.3		3.5	2.5	3	3.5	2.5	4.58
p	4.3		3.5	2.5	3	3.5	2.5	4.58
q	2.5		3.5	2.5	3	3.5	4	4.58
r	3		3.5	3.5	3	3.5	4	4.58
s	3		3	4	3	3	4	4.25

Site Name	6.1 Protected/ Conserved Areas	7.3 Labor/Human Right	8.1 Midia Scrutiny	8.3 Sites of International Interest
	S6_1	S7_3	S8_1	S8_3
a	3.5	1.5	3	3.5
b	3.5	1.5	2.5	3.5
c	1	3.5	4	No dependency or impact
d	2.5	1.5	3	1.5
e	1.5	1.5	4	No dependency or impact
f	2.5	1.5	3	1.5
g	3.5	1.5	2.5	3.5
h	2.5	2.5	2.5	3.5
i	3	1.5	3	1.5
j	2.5	1.5	3	1.5
k	3	1.5	4	1.5
l	2.5	1.5	3	3.5
m	2.5	1.5	2.5	3.5
n	2	3.5	3	1.5
o	2	3.5	3	1.5
p	2	3.5	3	1.5
q	2	3.5	3	1.5
r	3	3.5	3	3.5
s	2.5	3.5	3	1.5

Number of sites by top 10 risk indicators

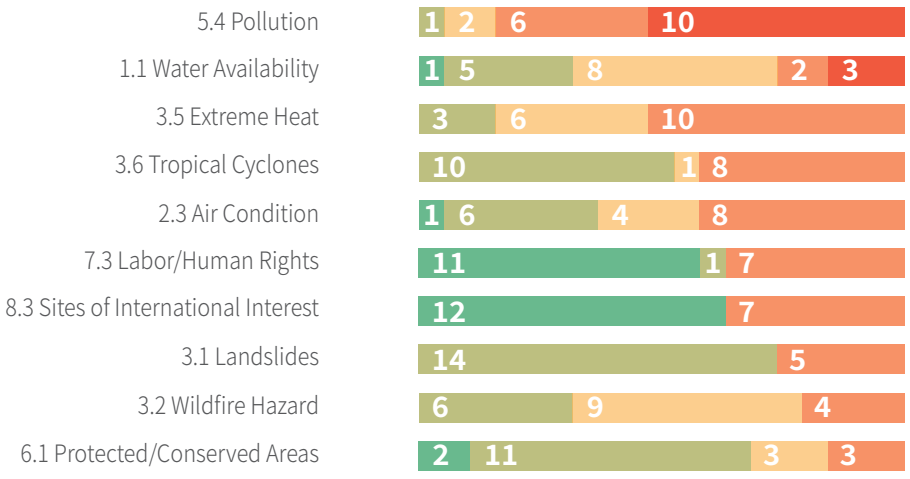


Figure X Risk overview for Advantech's customers

List of material nature-related risks and opportunities

Through the abovementioned BRF, stakeholder engagement workshops, and questionnaire survey evaluation process, Advantech prioritized 14 risk issues and 4 opportunity issues for assessment and management (Note: The identification of opportunities did not include risk items from the customer side). Furthermore, its nature-related risks, opportunities, and corresponding strategies will be summarized below. As Advantech has adopted the BRF system to identify nature-related risks and opportunities, the existing 33 risk indicators of the BRF are used to categorize dependency/impact/other risk items in response to the LEAP methodology.

In the report, the identification of key opportunities was conducted through internal stakeholder engagement in the form of in-person workshops and online questionnaires. Regarding the materiality of these opportunities, and considering Advantech's industry context and operational conditions, the focus inevitably centers on future sustainability business opportunities. These include strengthening the sustainable supply chain and providing low-carbon, eco-friendly products or solutions; lowering the environmental impact of manufacturing operations while improving resilience to extreme weather events; and mitigating negative impacts on ecosystems and the environment throughout the production process. The following section will describe the financial impact information of major risks and opportunities.

Nature dependency risk items

Following the recommendations of ENCORE Drivers and the TNFD guidelines, the above major nature-related risk issues are categorized into dependency risk items below.

Dependency related Risk (high-risk/extremely high-risk locations)		Adjustment and support services: Promoting	
		Water quality status	Air quality status
Advantech locations of operation	Major risks Number of locations of operation in Taiwan	-	-
	Major risks Number of locations of operation in China	21 (50%)	40 (95%)
Advantech Supply Chain	Major risks Number of locations of operation in Taiwan	-	-
	Major risks Number of locations of operation in China	-	-
Advantech's customers		-	-

Dependency related Risk (high-risk/extremely high-risk locations)		Adjustment services: Mitigating impact				
		Landslides/ debris flow	Wildfire risks	Extremely high temperatures	Tropical cyclone	Pollution
Advantech locations of operation	Major risks Number of locations of operation in Taiwan	10 (100%)	-	-	10 (100%)	-
	Major risks Number of locations of operation in China	-	26 (62%)	38 (90%)	35 (83%)	-
Advantech Supply Chain	Major risks Number of locations of operation in Taiwan	15 (100%)	-	-	15 (100%)	-
	Major risks Number of locations of operation in China	-	9 (53%)	17 (100%)	17 (100%)	-
Advantech's customers		-	-	10 (53%)	-	16 (84%)

*Note:
In the table, “21 (50%)” refers to the number of locations with major risks and the percentage of such locations within the specified category. All figures and percentages in the table follow this format.

Nature-related impacts and other risk items

Impact-related risks		Biodiversity pressure
		Pollution
Advantech supply chain	Major risks Number of supply chain locations in Taiwan	15 (100%)
	Major risks Number of supply chain locations in China	17 (100%)
Advantech locations of operation	Major risks Number of locations of operation in Taiwan	-
	Major risks Number of locations of operation in China	-
Advantech's customers		16 (84%)

Other items that cannot be categorized as dependency related or impact related

Other uncategorized items	Environmental factors	Socio-economic factors	Other reputational factors	
	Protected areas/ reserves	Labor/human rights	Media scrutiny	Proximity to well-known international destinations or heritage regions
Major risks Number of locations of operation in Taiwan	-	-	-	-
Major risks Number of locations of operation in China	-	42 (100%)	41 (98%)	-
Major risks Number of locations of operation in Taiwan	14 (93%)	-	-	-
Major risks Number of locations of operation in China	-	17 (100%)	-	-
Customers	3 (16%)	7 (37%)	3 (16%)	7 (37%)

*Protected areas, reserves, labor human rights, and other reputational factors are categorized as reputational risks and are part of the BRF's assessment items. They are not required to be included in the TNFD framework. In the BRF tool, labor and human rights issues, as well as media scrutiny, are assessed on a broader geographical scale, which makes it difficult to capture finer local details. However, these issues are still disclosed as follow-up items.
*Within other reputational factors, the proximity to well-known international destinations or heritage regions is identified via the assessed customers and was also screened by BRF to match the results of locations that meet the criterion (≥3.4)

Summary of major risks for each of Advantech's locations of operation, suppliers, and downstream customers:

Locations	**Taiwan headquarters**	Landslides, debris flow, and tropical cyclones
	ACN、AKMC、AKTC	Water quality status, air quality status, wildfire risks, extremely high temperatures, tropical cyclones, labor human rights, and media scrutiny
Supply Chain	**Taiwan headquarters**	Landslides, debris flow, tropical cyclones, pollution, protected areas, and reserves
	ACN、AKMC、AKTC	China locations: Wildfire risks, extremely high temperatures, tropical cyclones, pollution, and labor human rights
Customers		air conditions, landslides, wildfire risk, extremely high temperatures, tropical cyclones, pollution, labor rights, internationally designated areas of concern, and protected areas/reserves

The nature-related risks and opportunities and corresponding strategies are outlined in the following table:

Qualitative analysis of nature-related risks and opportunities and corresponding strategies

Risks	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Corresponding costs and response strategy
Water quality status	In the event of extreme disasters such as typhoons, heavy rainfall, and droughts, the water quality may not meet the required standards, resulting in the risk of water outages and production shutdowns. If the local water quality fails to meet the required standards over the long run, it may lead to more stringent sewage regulations, resulting in increased equipment investment costs or fines	• Reduced revenue: Sewage discharge from local plants may cause source water quality to fall below regulatory standards, potentially resulting in mandated plant suspension or closure, in turn directly affecting the Company's production and operations, leading to lost revenue • Legal liability: Industrial sewage discharge that fails to meet local regulatory requirements may result in criminal liability and potential litigation costs and fines	Own operations	Increased operating expenses/capital expenditure: To comply with regulatory requirements and fulfill its environmental responsibility, the Company must increase spending on R&D, the procurement or upgrade of water quality monitoring equipment, and equipment maintenance, to reduce pollution and improve water quality
Air quality	Poor air quality in offices and plants may affect employees' long-term health and safety, lead to more stringent regulations, production disruptions, and increased fines	• Reduced revenue: The Company must adjust or suspend production processes to comply with air quality and emission regulations, which may result in production interruptions or reduced efficiency, ultimately affecting output and revenue • Legal liability: If the Company's waste gas emissions fail to meet local regulatory requirements, it may face criminal liability, potential litigation costs, and fines • Increased personnel costs: If air quality problems persist and affect the long-term health of employees, the Company may incur increased medical compensation expenses	Own operations	Increased operating expenses/capital expenditure: To comply with regulatory requirements and fulfill its environmental responsibility, the Company must increase spending on R&D, the procurement or upgrade of air quality monitoring equipment, and equipment maintenance, to reduce emissions and improve air quality

Risks	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Corresponding costs and response strategy
Landslides/debris flow	When extreme disasters such as typhoons/ heavy rainfall occur, they affect the safety of factory buildings and suppliers' production	• Reduced revenue: Debris flow may cause (1) Damage to suppliers' equipment or plant and affect material delivery (2) Transportation delays or disruptions caused by road collapses, potentially impacting product delivery schedules and resulting in revenue losses • Increased operating expenses/ capital expenditure: Physical assets of the Company or suppliers are damaged by natural disasters, or the building safety of the plant area is affected, resulting in the Company or suppliers having to pay for repair costs, upgrading hardware equipment, and building reconstruction or renovation expenses	Own operations Suppliers	Increased capital expenditure: The Company or its suppliers must invest in equipment or upgrade buildings to enhance resilience against losses caused by landslides or debris flows
Extremely high temperatures	Extremely high temperatures may affect employees' health and safety, cause equipment overheating and production interruption, thereby leading to increased operating costs and production setbacks	• Reduced revenue: High-temperature environments may slow down the operational efficiency of hardware equipment, as well as the work efficiency and productivity of employees, thereby slowing down production at the Company's facilities or those of its suppliers, in turn affecting product shipments and revenue • Increased operating expenses/ capital expenditure: Hardware equipment may be damaged due to excessive temperatures, and the Company or suppliers may need to pay for repair costs or update/ replace equipment • Increased personnel costs: High temperatures may lead to heatstroke or other health issues among employees, resulting in higher expenses for the Company or its suppliers related to occupational accidents, injury compensation, and health insurance	Own operations Suppliers	Increased capital expenditure: To cope with high temperatures, the Company or suppliers must invest more resources in cooling systems, such as updating equipment and improving the working environment to minimize the impact of high temperatures

Risks	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Corresponding costs and response strategy
Tropical cyclone	Wind disasters lead to disruptions in production and transportation at locations of operation, affecting the safety of factory buildings and equipment, causing property damage, and may also lead to employee casualties and increase safety risks	• Operational disruptions and production risks: Extreme weather events (such as typhoons and floods) may lead to factory shutdowns, damage to equipment, as well as increased costs and delivery-related risks • Increased facility and equipment maintenance costs: In response to climate risks, it is necessary to bolster flood control and drainage systems, reinforce building structures, and address the potential acceleration of equipment aging due to high temperatures, all of which will increase costs. • Inventory damage and financial losses: Typhoons and floods can damage inventory, leading to financial losses • Increased expenditure in disaster prevention and insurance: To mitigate the impact of extreme weather, we must invest in disaster prevention equipment, improve our emergency response capabilities, and purchase additional insurance coverage to diversify financial risks • Earthquake-resistant building and maintenance pressure: Earthquake-resistant designs are needed for new factories, while old factories must undergo seismic retrofitting, leading to increased expenditures	Own operations Suppliers	Increased capital expenditure: The Company or suppliers must invest in the upgrading of equipment or buildings to cope with the losses caused by tropical cyclones and enhance resilience

Risks	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Corresponding costs and response strategy
Pollution	Emissions and waste generated by suppliers during production and operations may cause environmental pollution, impacting the health and safety of their employees. This may lead to increased investment in equipment or higher fines for suppliers, thereby raising the Company's procurement costs and the risk of potentially needing to replace suppliers.	• Reduced revenue: If the Company fails to address the suppliers' pollution problem in time (1) It may face closure and material supply interruption, in turn affecting production and delivery (2) Disagreement with partners' philosophies, resulting in the termination of technical or supply partnership, hindering the Company's development or production, and affecting revenue (3) Customers may consider suppliers' non-compliance and choose products from competitors who share similar ideals, leading to a loss of orders • Decreased investor confidence: The Company's supply chain management and sustainable procurement practices are important considerations for investors. The environmental pollution issues caused by suppliers may undermine these efforts and lower the investors' willingness to invest • Switching costs: If the Company is severely affected by a supplier's environmental impact, transitioning to a new supplier may entail considerable economic costs	Suppliers	Increased supplier costs: Non-compliance with environmental regulations by suppliers may result in increased expenditures for the Company, as it undertakes supplier counseling and audit processes to fulfill its environmental protection responsibilities
Protected areas/reserves	If supplier operations are located near protection areas, the Company's reputation may be adversely affected	• Reduced revenue: If suppliers' locations of operation are located near protected areas/reserves, leading to forced business suspension, customers may consider suppliers' non-compliance and choose products from competitors who share similar ideals, leading to a loss of orders • Decreased investor confidence: The Company's supply chain management and sustainable procurement practices are important considerations for investors. The environmental pollution issues caused by suppliers may undermine these efforts and lower the investors' willingness to invest • Switching costs: If the Company is severely affected by a supplier's environmental impact, transitioning to a new supplier may entail considerable economic costs		Increased supplier costs: Non-compliance with environmental regulations by suppliers may result in increased expenditures for the Company, as it undertakes supplier counseling and audit processes to fulfill its environmental protection responsibilities

Risks	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Corresponding costs and response strategy
Labor/human rights	If suppliers demonstrate poor labor and human rights practices that jeopardize employee health and safety or negatively impact local communities and the environment, it may adversely affect the Company's reputation	• Reduced revenue: The Company or suppliers violate labor and human rights, end up damaging brand image, or being perceived as failing to fulfill supply chain management responsibilities (1) Disagreement with partners' philosophies, resulting in the termination of technical or supply partnership, affecting technology and the supply chain, hindering the Company's development or production, and affecting revenue (2) Customers may turn to support more socially responsible competitors, leading to reduced revenue • Legal liability: The Company may face litigation or fines for violating labor-related laws or being involved in human rights disputes • Decreased investor confidence: Due to the Company or suppliers being involved in labor and human rights disputes, which may affect investors' decisions and reduce investors' willingness to invest • Switching costs: If the Company is severely affected by a supplier's social responsibility-related impact, transitioning to a new supplier may entail considerable economic costs	Own operations Suppliers	• Increased legal expenses: Negative publicity or misconduct related to labor and human rights can attract the attention of regulatory authorities, resulting in heightened investigations and potential legal and litigation costs • Increased public relations expenses: When negative publicity emerges, the Company may need to allocate additional manpower and financial resources to public relations efforts to restore its brand image and rebuild consumer trust
Media scrutiny	Failure to address environmental destruction may attract media scrutiny, resulting in negative ecological and social publicity that damages the Company's reputation and erodes public trust	• Reduced revenue: Negative ecological and social publicity can tarnish the Company's reputation, potentially leading to the loss of business partners, disruptions in product production, or customers turning to competitors' products or services, and ultimately impacting the Company's revenue • Decreased investor confidence: Due to the Company or suppliers' negative impact on the environment or society, which may affect investors' decisions and reduce investors' willingness to invest	Own operations	• Increased legal expenses: Negative publicity can attract the attention of regulatory authorities, resulting in heightened investigations and potential legal and litigation costs • Increased public relations expenses: When negative publicity emerges, the Company may need to allocate additional manpower and financial resources to public relations efforts to restore its brand image and rebuild consumer trust

Opportunities	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Response costs
Disaster-resistant infrastructure and flood control design for plant areas	Enhance disaster-resistant infrastructure and flood control design for offices and plant areas, formulate emergency response measures for wind and water disasters to improve resilience against natural disasters, and strengthen disaster prevention equipment and repair mechanisms to ensure operational stability, decrease disaster risks, and mitigate losses to the plant and community.	• Reduced property loss: Equipment and facilities damaged by disasters will be minimized through comprehensive design and measures, which can reduce equipment replacement or repair interval • Stable revenue: Reduce the possibility of operational disruptions caused by natural disasters, or lost revenue due to production shutdowns	Own operations Suppliers	Increased capital expenditure: To bolster the disaster-resistant infrastructure and flood control design of the Company or plant area, additional investment is required for the renovation and upgrade of buildings and related facilities
Green production lowers pollution and ecological impact	Stipulate eco product design standards covering the entire lifecycle, from raw materials to recycling, and implement green procurement policies. Collaborate with suppliers to promote eco-friendly production practices, aiming to reduce packaging of upstream components, minimize waste, and lower pollution emissions. Regular ESG risk assessments should be performed, including the collection of supplier pollution indicators and records of environmental violations, to prevent negative environmental incidents. These efforts contribute to the goal of sustainable development by enhancing corporate image, decreasing downstream treatment costs, and promoting resource recycling.	• Avoid legal liabilities: Ensure that the manufacturing processes of suppliers and the Company's operations comply with environmental regulations to minimize the risk of legal liabilities, such as fines, compensation, or lawsuits resulting from non-compliant behavior • Attract investment: Vigorous promotion of green production and procurement policies can boost the Company's public image, potentially increasing investors' willingness to invest • Increased revenue: This opportunity appeals to customers and consumers who value environmental responsibility and sustainable development, and who identify with the Company's values and practices. As a result, it can help expand market share and boost revenue	Own operations Suppliers	• Increased operational expenditure/capital expenditure: New R&D technologies and production equipment must be invested in to implement a green production chain • Increased supplier management costs: ESG-related supplier evaluation items must be strengthened, and relevant education and training must be provided to supplier management colleagues and suppliers to enhance their capabilities

Opportunities	Description of potential financial impact on the Company	Financial impact description (negative)	Impact target	Response costs
Supplier due diligence	Formulate a "Supplier Code of Conduct" that requires suppliers to disclose major risks related to legal compliance, occupational health and safety, human rights, and labor practices. Conduct human rights due diligence and perform biennial ESG risk assessments to enhance supply chain management and ensure compliance. These efforts aim to drive the sustainable transformation of the entire supply chain and build trust among external stakeholders.	• Avoid legal liabilities: Ensure that the Supplier Code of Conduct complies with applicable regulations to minimize the risk of joint liability for non-compliant behavior within the supply chain. These include fines, compensation claims, or litigation • Stable revenue: Performing social responsibility due diligence on suppliers can ensure the stability of the supply chain, maintain the Company's production activities, as well as enhance customer confidence and loyalty to the Company's products • Attract investment: Regular due diligence of the supply chain can ensure the stability of materials, increase investor confidence, and attract additional capital	Own operations Suppliers	Increased supplier management costs: ESG-related supplier evaluation items must be strengthened, and relevant education and training must be provided to supplier management colleagues and suppliers to enhance their capabilities
Eco products	Implement sustainable raw material management through eco-design, design verification, and the use of eco-friendly materials. Develop internal eco design standards and continue to enhance product energy efficiency by formulating green standards for both software and hardware. These efforts aim to develop low-carbon, high-efficiency products that can meet market demands, thereby attracting more customers and increasing orders.	• Increased revenue: Eco products reflect the current trend and growing demand for low-carbon solutions, which is expected to expand market opportunities, boost competitiveness, and stimulate revenue growth • Attract investment: The strategic development of eco products reflects current environmental trends, showcases forward-looking vision, meets strong market demand, and delivers sound performance, thereby attracting investment	Own operations	Increased operational expenditure: The Company must invest in the design and R&D of eco products

3 Climate and Nature Development Strategy

3.1 Climate Impact and Adaptation

Advantech has included climate change as one of the major risks in corporate sustainable operation, and manages it according to two major aspects: “mitigation” and “adaptation.” In terms of impact mitigation and adaptation, approaches can be taken from two pathways: one is GHG and energy resource management, the other is plant infrastructure and water resource management. Meanwhile, we actively build adaptive capacity and further analyze climate change opportunities, accumulating and deepening our R&D capabilities. We continuously invest in renewable energy, energy-saving products and solutions, and integrate energy management into our core business to promote energy-saving sustainability.

GHG and Energy Resource Control

GHG inventory check

To foster a low carbon emission business environment, Advantech has established the “Greenhouse Gas Inventory Implementation Committee.” The committee follows the quantification, supervision, reporting, and verification procedures outlined in Taiwan’s Climate Change Response Act and the ISO 14064-1 standard to promote ongoing GHG inventory and reduction efforts, aiming to reduce both direct and indirect emissions year by year. We joined the Carbon Disclosure Project (CDP) since 2015 to disclose the Company's annual carbon reduction plans and performance. In 2024, Advantech achieved a Level B rating.

Value chain GHG emissions include direct emissions related to Advantech and indirect emissions from upstream and downstream, namely Scope 1 direct emissions, Scope 2 energy indirect emissions, and Scope 3 other indirect emissions. Beginning in 2024, except for Taiwan and the Kunshan plant, China, Advantech has progressively conducted GHG inventory at its overseas significant locations of operation and production sites. Two new locations, AJMC (Japan) and AKSC (Korea), were included in 2024. In the future, other overseas significant locations of operation and production sites will also be incorporated.

To find key factors for climate change mitigation, in addition to GHG emissions from our own operations, Advantech has been conducting materiality identification of other indirect emission sources according to ISO14064-1 inventory methods since 2019, and establishing related inventory methodologies to identify key emission spots, then set reduction targets, and gradually implement reduction measures. Advantech's Taiwan and China Kunshan Scope 3 emissions in 2024 are shown in the table below. In particular, Advantech's Scope 3 GHG emissions per unit of revenue in 2024 decreased by 16.9% compared to 2023. This is mainly attributed to a significant reduction of 22.6% in C11 (Use of Sold Products, which corresponds to a reduction of 202,927.42 metric tons of CO2e.) In the future, we will continue to promote internal energy-saving labels, product energy-saving design, power efficiency enhancement, and internal carbon pricing to further lower Scope 3 emissions.

Scope 1 and Scope 2 GHG emissions by Advantech's significant locations of operation and production plants in 2024

Region	Scope 1 Direct GHG emissions	Scope 2 Indirect GHG emissions from energy		Total	
		Market-based	Location-based	Market-based	Location-based
ACL	804.3931	9,222.2612	9,222.2612	10,026.6543	10,026.6543
AKMC	2,531.4193	11,974.1196	14,195.6172	14,505.5389	16,727.0365
AJMC	150.3177	1,203.5099	1,203.5099	1,353.8276	1,353.8276
AKSC	9.7673	158.4522	158.4522	168.2195	168.2195
ANA	23.7654	168.3008	168.3008	192.0662	192.0662
AEU	45.3768	0	56.3275	45.3768	101.7043
Total (tons CO_2e)	3,565.0395	22,726.6437	25,004.4689	26,291.6832	28,569.5084

*Note 1: ANA and AEU's GHG inventories have not yet undergone third-party verification.
*Note 2: In the market-based calculation, the GHG emissions from renewable energy sources in Kunshan, AEU, and ANA were calculated with the electricity carbon emission coefficient of 0.

Identification and emissions of Scope 3 GHG at Advantech Taiwan and the Kunshan plant

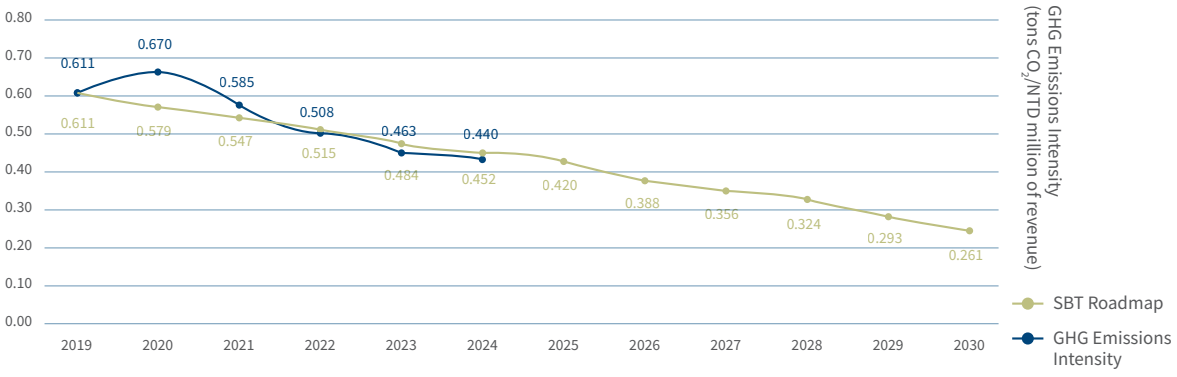
Scope 3/Items by Category	Verification scope description	Emissions from ACL (Metric tons CO_2e)	Emissions from the Kunshan plant, China (Metric tons CO_2e)
C1/Category 4	Purchased Goods and Services	170,478.9531	147,641.4656
C2/Category 4	Capital Goods	4,329.4307	1,281.4052
C3/Category 4	Fuel and Energy-related Upstream	1,825.8036	1,084.0499
C4/Category 3	Material Transportation	35.6019	344.4792
C5/Category 4	Waste Generated in Operations	40.0910	25.8684
C6/Category 3	Business Travel	125.9435	36.2100
C7/Category 3	Employee Commuting	466.4475	265.3049
C8/Category 4	Upstream Leased Assets	52.1071	0
C9/Category 3	Product Transportation	1.4836	93.5695
C10/Category 5	Processing of Product	0	0
C11/Category 5	Use of Product	513,625.6319	Included in the headquarters in Taiwan
C12/Category 5	End-of-Life Treatment of Product	9.6846	Included in the headquarters in Taiwan
C13/Category 5	Downstream Leased Assets	0	0
C14/Category 5	Franchises	0	0
C15/Category 5	Investments	9,178.8698	Included in the headquarters in Taiwan
Total			750,942.4011

*Note :
1. GHG Protocol Scope 3 categories C1 to C15 correspond to ISO 14064-1:2018 categories 3 to 6
2. Use of product and end-of-life treatment of product are within the scope of Advantech's global inventory

GHG Reduction Effectiveness

Advantech passed Science-Based Targets (SBT) aligned with international goals below 2°C in 2021, set 2019 as the baseline year, committing to achieve targets to reduce Scope 1 and 2 carbon intensity by 60% by 2030, and reduce Scope 3 product use carbon intensity by 49%. In recent years, the company has controlled and optimized energy use efficiency through regular energy project meetings, energy management policy formulation, ISO 50001 energy management system, and iEMS intelligent energy management platform, continuously improving energy use efficiency and reducing GHG emissions. In 2024, the average GHG emissions per unit revenue (Scope 1 and 2) for Advantech's significant locations of operation and production plants was 0.440 tons CO2e/NTD million, achieving a 28.0% emissions reduction compared to 2019. The steady annual progress in carbon reduction demonstrates Advantech's outstanding achievements in improving energy efficiency and reducing carbon emissions, with annual reduction trends shown in the chart below. Looking ahead, Advantech will continue to promote carbon reduction and energy-saving projects, and actively work toward RE100 and comprehensive carbon reduction long-term goals through strengthening employee education and training, expanding renewable energy use, setting more challenging SBT targets (1.5°C), and implementing internal carbon pricing.

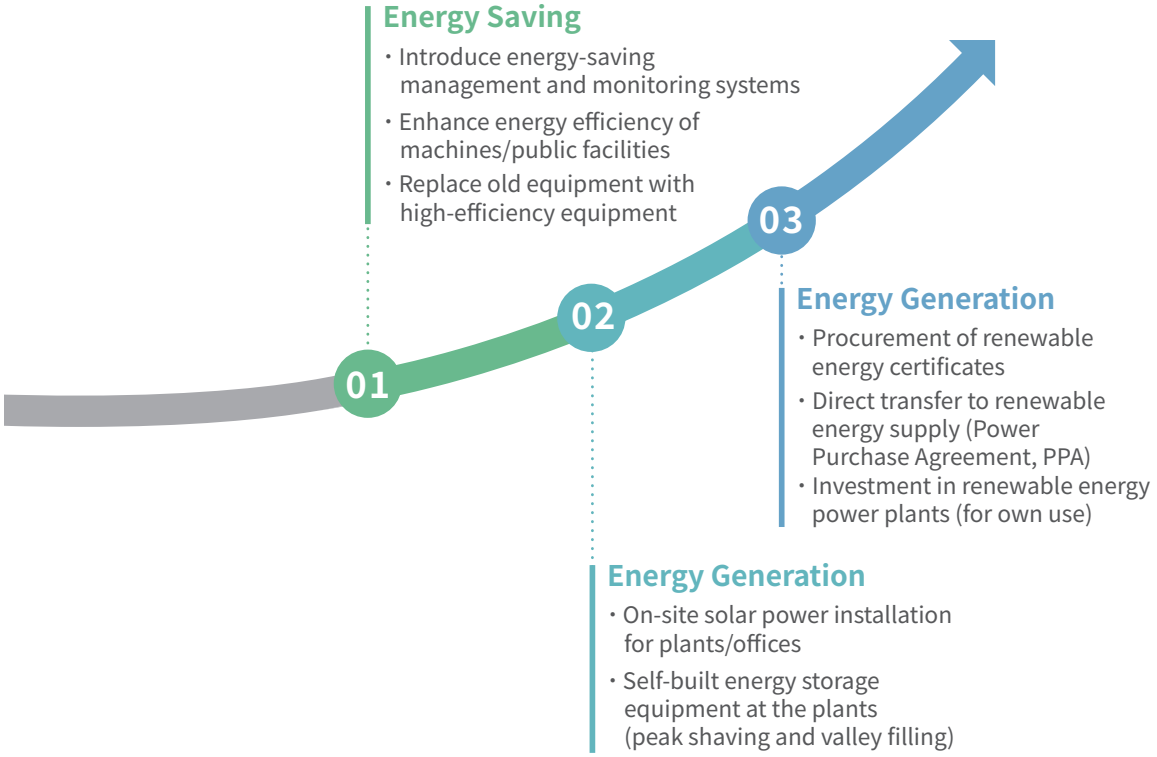
Short-term SBT carbon reduction path roadmap



Energy management

Electricity is Advantech's main energy source. To minimize the environmental impact of our products and production activities, Advantech has established an energy management policy and implemented the ISO 50001 energy management system at our significant locations of operation in Taiwan and Kunshan, China, to systematically manage energy reviews, energy-saving solutions, and benefit analysis processes. Meanwhile, Advantech has established an intelligent energy management system (iEMS) that can monitor energy consumption in real-time, identify energy hotspots, and optimize equipment operation to improve electricity usage efficiency. Additionally, Advantech has established clear energy-saving indicators and targets, and the energy management unit regularly convenes project meetings to monitor implementation progress to continuously increase energy usage efficiency and the percentage of renewable energy used. Furthermore, in 2024, Advantech also monitored electricity consumption management indicators across its six global RBUs to further standardize and improve electricity management in its various operations. At the same time, we continue to launch global renewable energy initiatives, enhance the procurement and usage of renewable energy, and collaborate with all locations of operation to achieve RE100 goals and sustainable energy management.

In terms of energy management strategy, Advantech adopts a three-stage approach of energy saving, energy generation, and energy procurement to continue reinforcing energy management, optimizing resource allocation, and gradually achieving the goals of sustainable energy management and renewable energy transition. For detailed content, please refer to the 2024 ESG Report.



Renewable energy promotion program [Advantech commits to 100% renewable energy by 2040 (RE100)]

Since becoming an RE100 member in 2023, Advantech has actively promoted renewable energy development plans for its headquarters and overseas subsidiaries. The electricity consumption of Advantech's Taiwan headquarters and Kunshan, China, accounts for over 90% of Advantech's global electricity consumption. Consequently, Advantech's progress in implementing renewable energy will primarily focus on these two core manufacturing sites. In 2024, the total energy consumption (including electricity, steam, gasoline, diesel, and natural gas) at Advantech's significant locations of operation and production sites was 197,853.39 GJ, with purchased electricity accounting for 95.92% of total energy consumption (including 9.46% from renewable energy sources). The renewable energy implementation timeline and management model are as follows:

Management model

- In the same year, Advantech officially established Advantech's global RE100 task force. The ESG Corporate Sustainability Development Office leads the coordination and progress review of renewable energy implementation, while the President of General Management conducts the review during the quarterly ESG regional meeting.
- The RBUs under this team span across Advantech headquarters and five countries/regions including China, the United States, Europe, Japan, and Korea.
- Each RBU has appointed renewable energy personnel to develop local plans that promote renewable energy compliance in line with local policies, regulations, and electricity price markets.
- The progress of achieving renewable energy targets in 2024 has been incorporated into the performance indicators of the Chairman and responsible management, and financial incentive mechanisms were also formulated and implemented.

Renewable energy promotion timeline and goals

Year	Core development progress
2021	Invest in aquavoltaics power plants
2022	Installation of solar photovoltaic panels in the Linkou plant and the Kunshan plant
2023	• Each RBU has established its renewable energy usage targets and implementation pathways for 2024-2040 • Officially joined RE100 • Form the RE100 global task force • Include the achievement of renewable energy standards in the KPI review of middle and senior management and plan the financial incentive mechanism
2024	Advantech's headquarters signed a renewable energy procurement contracts with a general energy service provider. It is projected that within the next six years, micro electricity will supply approximately 40 million kWh of renewable energy through a long-term power purchase agreement model, assisting Advantech in achieving its future renewable energy usage targets.
2025	Advantech's AASC plant in the United States and AESC office in Europe achieve RE100
2030	Taiwan headquarters and the Kunshan, China manufacturing site achieve 50% renewable energy usage
2040	Achieve RE100 goals

Establish an intelligent energy monitoring system and continue to implement energy-saving projects

In 2024, Advantech's iEMS demonstrated significant progress. Through digital professional integration technology, we provide functional solutions such as energy consumption monitoring and management, HVAC energy efficiency management, and air compressor energy efficiency management. These solutions feature advanced energy efficiency management capabilities, enabling organizations to optimize energy use, enhance efficiency, seize energy-saving opportunities, and support carbon trading. The objective is to drive low-carbon transformation through digitalization, thereby empowering businesses to conserve energy and reduce emissions by managing online data to facilitate offline improvements, ultimately assisting the Company to transition toward green operations. The 2024 implementation progress has expanded to include Advantech North America (ANA), Advantech Japan-Tokyo Office (AJP-Tokyo), Advantech Europe Service Center (AESC), Advantech America Service Center (AASC), Advantech Kunshan Manufacture Center (AKMC), Advantech Corporate (ACL), Beijing Yan Hua Xing Ye Electronic Science & Technology Co., Ltd. (ACN) (including AXA (Xi'an), ACI CN (Shanghai), ACN (Beijing)); scheduled to tack into practice in 2025 is Advantech Japan-Nagoya Office (AJP-Nagoya).

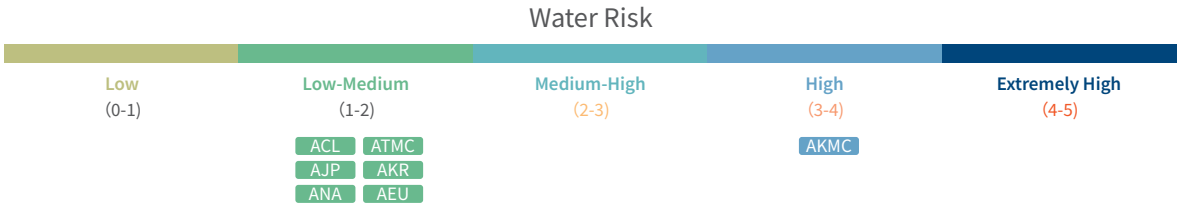
Plant Infrastructure and Water Resource Management

Advantech is fully aware of the impact that the manufacturing process of our products has on the environment. Therefore, in terms of environmental responsibility, we establish Advantech environmental management framework through the “Environmental Safety and Health Committee” or “Management Review Meetings” at each production plant to promote green operations, implement pollution prevention, waste management, and green procurement, as well as energy saving, emission reduction, sustainable resource utilization, and circular economy. In addition to introducing GHG and energy management systems, Advantech has also formulated management strategies for water resources and waste issues. For detailed content, please refer to the 2024 ESG Report.

Water Resource Risk Management

Advantech utilizes the World Resources Institute (WRI) Water Risk Atlas analysis tool to confirm the water resource risks at our significant locations of operation and production plants (as shown in figure below), and disclose the sources of water withdrawal and the receiving water bodies for discharge in each region as shown in the table below. According to the analysis results, Advantech's significant locations of operation and production plants generally face low to medium water resource risks, except for the Kunshan plant in China, which faces a high water resource risk. Using the results of the water resource risk analysis, Advantech plans and manages our water resources according to the risk level at our significant locations of operation and production plants, ensuring effective and sustainable water use.

Water resource risk analysis map for Advantech's significant locations of operation and production plants worldwide



Disaster Prevention, Response, and Adaptation Measures

Among the major physical risks identified by Advantech, extreme climate events (such as tropical cyclones, heavy rainfall, etc.) have potential impacts on Linkou and Kunshan plants. Each plant plans corresponding adaptation measures based on risk characteristics, particularly in drainage, flood prevention, and disaster response. Taking the Linkou plant, one of the major manufacturing sites, as an example, the plant has established a drainage system that meets extreme rainfall conditions (designed drainage capacity of 145 mm/hour), and regularly conducts drainage plant maintenance, flood testing, and risk assessment of basement power generation equipment to strengthen operational resilience under extreme climate conditions. In terms of disaster preparedness and response, Advantech has established typhoon inspection and awareness mechanisms to enhance employee disaster prevention awareness and strengthen waterproof and leak-proof measures for electrical equipment, improving plant leakage issues. In addition, the Company has established an emergency response team that actively conducts disaster prevention and response work according to “Business Continuity Management Procedures,” “Emergency Response Management Measures,” and “Emergency Response Plan Management Procedures.” The Kunshan plant, another major manufacturing site, has established an emergency response team to handle extreme weather conditions, such as heavy rain and typhoons. Responsibilities are assigned to specific personnel to ensure efficient response and execution.

To enhance safety awareness and employee emergency response capabilities, Advantech Linkou and Kunshan plants regularly conduct drills based on emergency plans for heavy rain and typhoons in the second half of each year. Furthermore, the Company is equipped with disaster prevention equipment such as generators and waterproof facilities, and implements a complete mechanism of advance prevention, disaster response, and post-disaster repair to ensure operational stability and safety.

Water Resource Reduction Effectiveness

Since 2022, aside from its Taiwan headquarters and Kunshan plant in China, Advantech has expanded the collection of environmental data to include facilities in AJP, AKR, ANA, and AEU. In 2023, the Company set environmental management targets for each RBU or production plant. Their achievement status in 2024 and targets for 2025 are outlined in the following table.

	2024 Goals	2024 execution results	2025 Goals
Per Capita Water Withdrawal	Decreased by 2% compared to 2023 (M3/people)	All RBUs, except for AJP, achieved their targets. An average decline of 3.01%	Decreased by 2% compared to 2024 (M3/people)

Water consumption of Advantech's significant locations of operation and production plants worldwide in recent years

		2021	2022	2023	2024
Water withdrawal (m^3)		339,677	345,608	300,062	270,362
Per capita water withdrawal (m^3/people)		-	-	35.86	32.24
Water discharge	Domestic sewage (m^3)	214,949	226,277	198,481	177,397
	Industrial sewage (m^3)	22,825	15,649	11,563	11,856
Water consumption (m^3)		101,903	103,682	90,019	81,108
Scope covers Advantech's consolidated revenue		92.3%	92.3%	92.6%	92.8%

*Note :

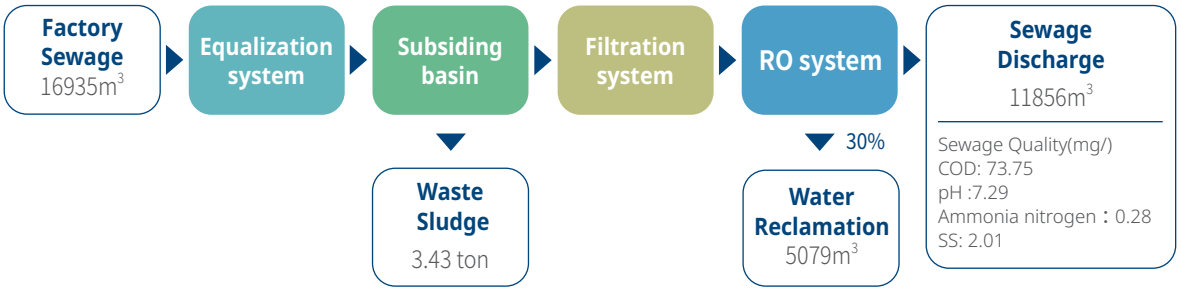
1. Domestic sewage is calculated by multiplying the water withdrawal by 70% and subtracting the industrial sewage.
2. Water consumption is calculated by subtracting water discharge from water withdrawal.
3. A correction has been made to Korea's water consumption data, as the 2021 figures were not recorded, and the 2022–2023 data contained errors.
4. Corrections have been made to the water consumption data between 2021–2023.
5. Per capita water withdrawal = total water withdrawal / total number of people. However, KPIs were only established starting from 2023, so only 2023-2024 per capita water withdrawal is disclosed.

Water/Sewage Management

All of Advantech's offices and plants are situated in developed industrial zones or parks within metropolitan areas, utilizing tap water as their primary water source, without relying on groundwater or well water. Their production processes are primarily assembly-based rather than water-intensive, and water consumption is mainly for domestic purposes. As such, overall consumption is low and does not pose a significant environmental impact on water resources. Even so, Advantech still follows the ISO 14001 environmental management system to identify water consumption and sewage treatment processes, explore water conservation opportunities, actively promote water-saving management programs, and strive to reduce water consumption and sewage discharge to ensure the proper management of water resources. In 2024, except for Japanese sites, all other production sites achieved the target of reducing per capita water withdrawal by 2% compared to the previous year. In 2025, water-saving performance will continue to be improved, maintaining the same standards and setting an annual target of reducing per capita water withdrawal by another 2% compared to 2024.

Advantech plants actively promote water-saving measures and continuously explore various water-saving possibilities. In employee activity areas, rainwater recycling systems provide toilet flushing and plant irrigation, and smart irrigation systems are introduced to improve water use efficiency. In addition, water-saving faucets and toilets are used throughout the plants, and employees are required to receive annual environmental responsibility education related to water conservation, thereby deeply embedding water-saving awareness in the corporate culture. For more water management plans and content, please refer to the 2024 Advantech ESG Report.

Regarding industrial sewage, among all Advantech's production plants, only the Kunshan plant in China discharges it. The Kunshan plant in China has an internal sewage treatment system that adopts methods such as acid-base neutralization and biological treatment to pre-treat sewage on-site. It also utilizes the Company's proprietary product, the Advantech Smart Factory Solution-i-factory system, to monitor the quality of discharged sewage in real-time (COD, SS, pH, and ammonia nitrogen). This ensures that all sewage discharge meets standards before being discharged. An over-standard discharge warning mechanism is established to ensure a timely response to emergencies, effectively reducing production interruption risks and subsequent water treatment costs. The Kunshan plant sewage treatment process and main discharge water quality are shown in the chart below.



*Note :
Among all Advantech's significant locations of operation and production plants, only the Kunshan plant in China discharges industrial sewage

3.2 Green Design and Product Sustainability

Advantech responds to SDG 9 (Industry, Innovation and Infrastructure) and SDG 12 (Responsible Consumption and Production) by setting goals and implementing standards across product raw materials, design, manufacturing, and supply chain management. We are committed to minimizing environmental impact and producing eco-friendly products. The risks and opportunities identified based on TCFD and TNFD are integrated into the overall green design and product sustainability pathway development.

Green Design and Low-Carbon Product Innovation

Advantech regards green design and eco product sustainability as both a challenge and an opportunity. In the short term, in response to stringent regulations and evolving market demands, we are focused on strengthening R&D to overcome technical barriers. In the medium to long term, we strive to facilitate supply chain transformation to enhance overall competitiveness, generating both environmental benefits and economic benefits.

Advantech follows the concept of product lifecycle, using life-cycle assessment (LCA) and product carbon footprint to quantify the environmental impact analysis of Advantech products. The assessment covers carbon emissions across all stages, including raw material selection, manufacturing, transportation, usage, and final disposal. The Company will establish carbon reduction targets and implement corresponding actions, integrating these goals into its overall operational management strategy.

In addition, Advantech's standards are grounded in international environmental regulations and assessment tools, such as the U.S. Electronic Product Environmental Assessment Tool (EPEAT). These standards focus on four major aspects of products: (1) eco materials, (2) eco packaging materials, (3) product recycling, and (4) product energy saving. Environmental impacts are evaluated at different stages of the product lifecycle. Drawing on extensive experience in regulatory compliance and collaboration with global brand customers, Advantech has established the Green Ecological Design Standard Guidelines to enhance energy efficiency, promote ecological design, and reduce environmental toxicity and hazards. Combining product life cycle processes to guide product departments in designing innovative, green products.

Product lifecycle and Advantech's eco product design aspects

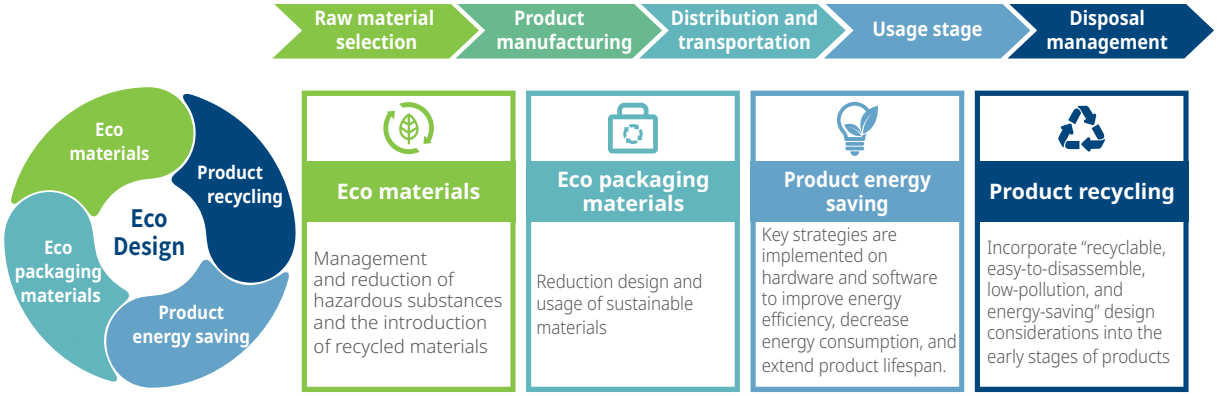
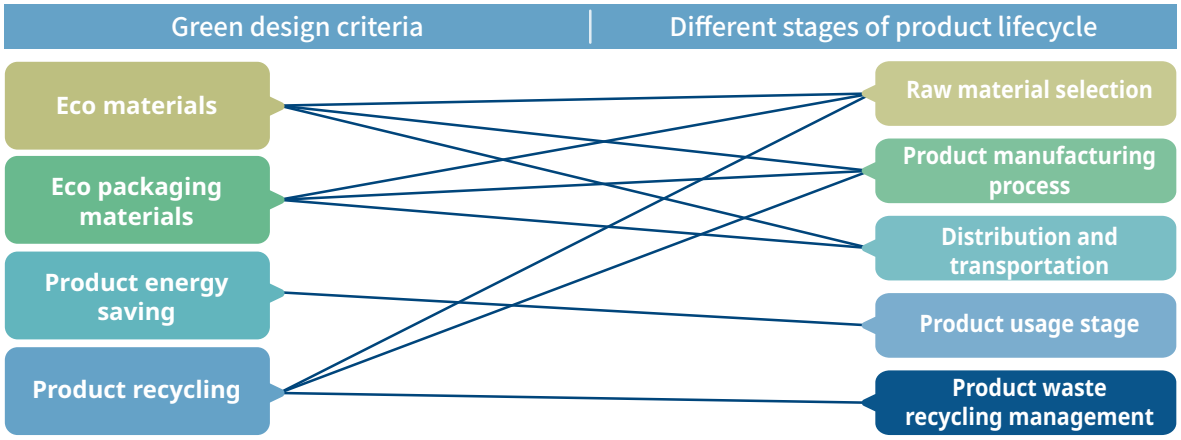


Table 3.2.1 Green design product LCA

Different stages of product lifecycle	Regulations, standards, guidelines	Results and benefits (Achievements as of 2024)
Raw material selection	1. Advantech GPM Controlled Substances Standard 2. Advantech Green Green Design Standards Guidelines 3. Advantech Green Policy-Hazardous Substances Reduction Plan	**Management and reduction of hazardous substances and the introduction of recycled materials** 1. By the end of 2024, all newly developed models are required to comply with the compulsory introduction of Advantech's low-halogen requirements. The proportion of mechanical plastic parts meeting the "Advantech Low-Halogen Control" reached 91.2%, representing a 4.2% increase. 2. Select representative products based on product type to incorporate recycled materials. Models to undergo pilot production in 2025 • The external structural components of fanless embedded computers (ARK-1125C, ARK-1222) utilize metal steel containing 13% recycled content. Recycled materials are used in 3.2% of the products • The external structural components of the all-in-one (AIO) computer (GSC-7153W) and medical devices (POC-6, POC-4) utilize plastic containing 30% recycled content. (Medical equipment also undergoes rigorous chemical resistance testing). Recycled materials are used in 9.4% of the products
Product manufacturing process:	1. Advantech GPM Controlled Substances Standard 2. Advantech Green Eco Design Standards Guidelines 3. Environmental and Occupational Health and Safety Policy	**Process hazardous substance management and recycling** 1. The generation of waste and pollution is minimized during the production process, and harmful chemical substances are prohibited. 2. Waste solder dross recycling: ACL introduced a project for solder dross recycling in 2022. Using a solder dross separator, harmful waste solder dross has been successfully recycled, achieving a recycling rate of 70%. Nearly five tons of solder dross have been reused, thereby reducing the generation of hazardous waste. For details, please refer to 4.4.2. Energy Resource Use and Waste Management

Different stages of product lifecycle	Regulations, standards, guidelines	Results and benefits (Achievements as of 2024)
Distribution and transportation	1. Advantech Green Eco Design Standards Guidelines 2. Environmental and Occupational Health and Safety Policy	**Eco packaging material optimization and logistics packaging material recycling** 1. According to the guidelines outlined in the Advantech Green Ecological Design Standard Guidelines, the Company will use at least 90% recycled fiber materials for cardboard boxes to lower packaging material usage, improve packaging design, and optimize packaging dimensions to minimize environmental impacts during transportation. 2. Recycle cardboard boxes used for supplier incoming, outgoing, and installation processes to reduce packaging material waste. For details, please refer to 4.4.2. Energy Resource Use and Waste Management 3. Advantech's new products are designed to reduce size and weight through eco product design. Furthermore, beginning in 2025, the Company will utilize vehicles powered by 10% sustainable fuel for overseas air freight, aiming to reduce carbon emissions from product transportation.
Product usage stage	Advantech Green Ecological Design Standard Guidelines	**Product energy saving** Advantech continued to promote green design in 2024 by introducing energy-saving features to R&D software modules to improve product energy efficiency. Successfully developed a set of energy-saving features based on existing software product modules and successfully implemented them on x86 Windows system products (AIR-150). Energy consumption measurements revealed that under the maximum energy-saving usage scenario, the product can reduce approximately 242.4 metric tons of carbon emissions annually, effectively reducing environmental impact and increasing the coverage rate of the Company's overall energy-saving products.
Product waste recycling management	Advantech Green Ecological Design Standard Guidelines	**The product's easy disassembly and recycling design, and waste management** 1. Design products for ease of recycling and disassembly. Based on product categories, conduct actual inventories and calculate the proportion of recyclable products. In 2024, the average recyclability rate reached approximately 97%, a 3% increase compared to the previous year, exceeding the requirements of the WEEE Directive. 2. Product waste management: In response to WEEE specifications, Europe collaborates with product recyclers to reuse resources and prevent improper or illegal disposal. Comply with waste recycling regulations in various countries according to Extended Producer Responsibility (EPR), covering major markets including Asia, Europe, and the Americas.



*For detailed content on Advantech's product green design, please refer to 2024 Advantech ESG Report Chap4.1 Green Design and Sustainability Liability of Product

Comprehensively manage product carbon footprint. Advantech has developed an intelligent solution for calculating its product carbon footprint

Amidst the global net zero and carbon neutral trend, the industrial PC industry must not only provide high-performance, low-power solutions but also actively implement carbon reduction measures to meet the sustainability requirements of customers, investors, and the international market. With the implementation of the EU's Carbon Border Adjustment Mechanism (CBAM), the implementation of carbon disclosure policies in various countries, and growing emphasis from major multinational corporations, transparency in carbon footprint disclosure is becoming a key factor in maintaining international competitiveness.

In light of this, Advantech launched a product carbon footprint inventory project in 2023 and, in the same year, obtained the first ISO 14067 verification for an integrated computer product's carbon footprint. Through life-cycle assessment (LCA), we evaluated the depth of material selection and identified the top five key materials contributing to the carbon footprint. Additionally, in the same year, we completed the establishment of Advantech's product carbon footprint inventory methodology, laying the foundation for the internal development of product LCA. Starting in 2024, we successively completed carbon footprint inventories for representative products across various business units and initiated the construction of Advantech's internal carbon footprint inventory system and intelligent platform, creating our intelligent solution for product carbon footprint calculation, which is applied to eco product design projects.

Advantech is actively developing a product carbon footprint calculation system, which will not only help determine the carbon footprint of each product currently on sale but also promote carbon pricing and product carbon footprint reduction strategies. This system adopts the LCA methodology, referencing international standards such as ISO14040, ISO 14067, and the GHG Protocol. By integrating Advantech's internal raw material, supplier information, and production management systems with external APIs, and incorporating AI technology to build a carbon footprint coefficient database for each raw material, the system can quickly calculate the product carbon footprint and generate carbon footprint reports. This allows for the evaluation of emissions during various stages of the product lifecycle. It is expected that the calculation of all products sold in 2024 will be completed by 2025, accounting for about 100% of the total revenue.

This not only simplifies the cumbersome manual calculation process but also helps Advantech quickly identify the emission hotspots of its products, laying the groundwork for future carbon footprint reduction measures. Through this system, Advantech can not only actively adjust design and production strategies by identifying products with high carbon emission risk in advance but also offer customers the necessary product carbon footprint information to meet global customer demands, further reinforcing Advantech's leadership position in sustainability.

Providing Climate and Nature Adaptation Solutions

Advantech's ESG vision is Enable an Intelligent and Sustainable Planet. We strive to embed sustainability DNA into our products and solutions, using Advantech's core business to bring positive impact to communities, society (people), economy, and environment. We have developed products and solutions that can assist in providing climate and nature adaptation (such as landslide slope monitoring, intelligent agriculture and fisheries, biodiversity monitoring and risk warning, etc.); or product services and ecological environmental benefits provided to industries with high carbon emissions, high natural impact or dependence (such as agriculture, food, construction, chemicals, etc.).

Featured case study 1

Upgrading of smart learning venues	Advantech's ePaper solution facilitates school campus digitization and carbon reduction efforts.
Case study location	Taiwan
Partner	National Taipei University Sanxia Campus

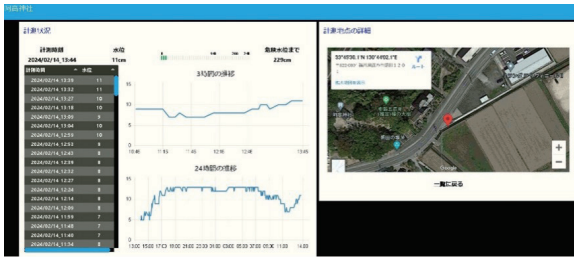
In responding to the trend of school campus digitization and sustainable development, Advantech has teamed up with National Taipei University Sanxia Campus to develop the "University Smart School Timetable" solution. The core of this system lies in the integration of Advantech's Wi-Fi ePaper with the school's academic affairs management platform. By harnessing real-time, secure wireless transmission technology, the system dynamically updates course information on electronic timetables and supports attendance tracking and course progress monitoring, thereby considerably improving the efficiency and accuracy of traditional paper-based processes. The system also features big data analytics, transmitting real-time attendance rates and course interaction data to optimize teaching schedules and track learning performance, further enabling campus digital transformation.

The project offers the following sustainability benefits:

Environmental impact	**Paperless operation to facilitate carbon reduction and resource conservation** According to tests, each piece of ePaper can reduce approximately 18g of real paper consumption daily. The system is used to update class timetables in 12 classrooms, saving about 1,419 kg of CO2 emissions annually. This is equivalent to the carbon sequestration capacity generated by planting 47,304 trees or 0.09 hectares of forest in a year. Advantech's solution offers direct savings on paper, energy, and labor.
Social impact	**Support educational policy-making through data analysis** Real-time attendance rates and course participation analysis in the system backend allows the academic affairs unit to optimize course scheduling based on empirical data, striking a balance between students' academic and extracurricular needs, in turn boosting overall learning performance. **Increase the efficiency and image of the school administration** Automated class timetable updates and dynamic roll call mode significantly reduces errors and manual processes, showcasing the school's innovative image in proactively introducing intelligent solutions, thereby elevating its competitiveness in digital transformation and environmental sustainability. **Minimizes manual operations and adds value to the education sector** Traditional class timetables require manual printing and replacement. In contrast, electronic paper streamlines the process through digitization, enhancing campus management efficiency and allowing human resources to be reallocated to more value-added teaching activities or administrative planning.
Extended reading	Smart Timetable: Eco-Friendly School Solutions with ePaper Advantech ePaper Solution in Collaboration with National Taipei University

Featured case study 2

Smart water resource management under extreme weather	Advantech participates in innovative river governance solutions in Japan
Partner	Ministry of Land, Infrastructure, Transport and Tourism, Ministry of Internal Affairs and Communications (Japan) Nogata Municipal Government Fukuoka University, Kyushu Institute of Technology J-fils Co., Ltd.、 GLEAP Co., Ltd.



Facing extreme climate and flood risks caused by global warming, real-time reliable and wide-coverage river management systems have become necessary. With its expertise in IoT and edge computing, Advantech, in collaboration with its partners, developed a high-efficiency LoRa (LPWA) communication solution integrated with automated sluice gate monitoring and remote operation technology. Designed to collect real-time data on river water levels, flow rates, and meteorological conditions, the system operates in a low-power mode and can continue transmitting data even during public network (4G/LTE) outages. Through the remote automated operation of sluice gates, the system enables timely flood diversion and channeling. In addition, a versatile alarm system provides early warnings, helping to mitigate the threat that floods pose to life and property.

Environmental impact	**Decrease communication energy consumption: Compared to traditional 4G LTE** communication, LoRa significantly reduces power consumption for long-distance transmissions and also lowers system equipment maintenance costs. Although specific carbon reduction values are difficult to quantify, it can still save substantial energy in the long term. **Reduce indirect carbon emissions caused by disasters:** Transport and equipment are often needed to travel to and from disaster areas. By issuing accurate early warnings and reducing the severity of disasters, carbon emissions during emergency response efforts can be lowered.
Social impact	**Protection of life and property:** The implementation of this sustainable intelligent solutions eliminate the need for manual inspections, thereby reducing the risk of personnel casualties and property loss. **A model of cross-sector collaboration:** Through a trilateral partnership among industry, government, and academia, we can harness technological advantages to create replicable models for resilient disaster prevention and contribute toward the global response to extreme weather.
Extended reading	NHK TV 樋門遠隔管理制御の取組み ICTイノベーションフォーラム2024に出展

Featured case study 3

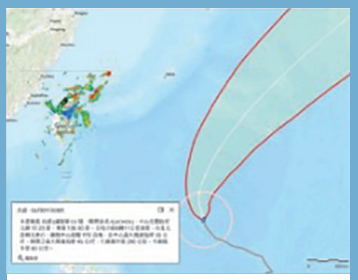
LoRaWAN-based slope monitoring system for slope area stability monitoring

Taiwan's unique geographical environment means that road networks frequently traverse various terrains, including many sections with steep slopes. These slopes present potential risks and challenges, especially when affected by natural disasters, landslides, or earthquakes, slopes may become unstable or slide, thereby posing threats to public transportation and passenger safety. To protect public life and property safety, Advantech collaborates with external partners to establish a reliable “slope monitoring system.”

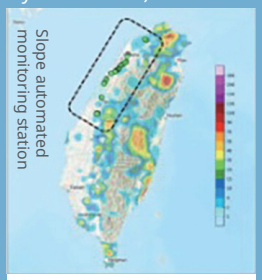
Advantech regularly measures data (such as temperature and humidity data) through products and solutions, especially during adverse conditions such as typhoons, earthquakes, and heavy rainfall, when information collection frequency is intensified. Advantech's products and solutions feature power-saving design and low power consumption characteristics, high waterproof and dustproof capabilities, providing high stability and reliability. Long-distance, low power consumption, high scalability and flexibility. This makes Advantech's products suitable for slope stability monitoring projects, effectively helping to mitigate natural disasters and enable early detection of potential dangerous situations, providing early warning and prediction so that relevant units can take effective response measures before accidents occur.

GIS display of instrument locations and signal lights

Dashboard functions (instrument management, system health)



Typhoon path and radar echo map



Cumulative rainfall map (24H)

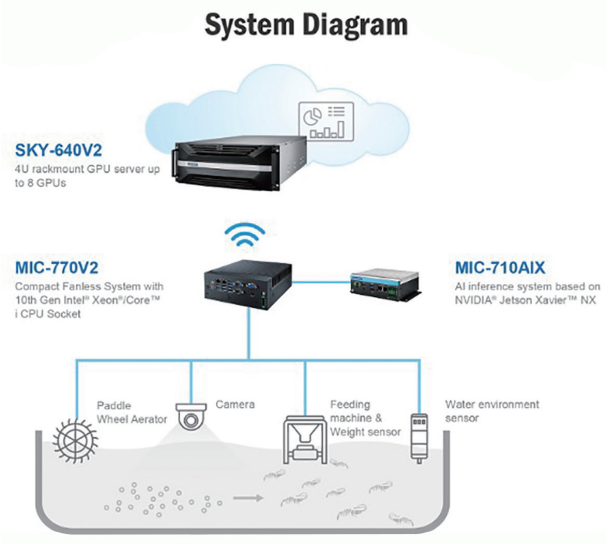
Featured case study 4

AI Shrimp Farming New Era, Reducing Waste for Sustainable Operations

Shrimp farming is a profitable industry, but also faces challenges such as low efficiency and feed waste. With the introduction of artificial intelligence (AI), shrimp farmers can effectively improve efficiency and sustainable development. AI monitoring and management can help optimize farming strategies, maintain shrimp health, reduce waste, improve feed conversion rates, and increase yield. These technologies bring more sustainable production methods to shrimp farming, reducing feed waste and environmental impact.

The primary challenges facing the shrimp farming industry include inadequate farming strategies, insufficient consideration of environmental factors, and inefficient use of feed and water resources, all of which impact shrimp health and yield, as well as increase water pollution. AI technology provides solutions that can effectively monitor the production environment and improve management, addressing these issues.

Therefore, Advantech's products and solutions are required to monitor the production environment, feed distribution, and shrimp behavior in real-time, combined with health status data, to help shrimp farmers optimize their operations. Solutions include collecting data from sensors (such as cameras, water quality sensors, weight sensors) and controlling aerators and feeding machines. The solution can coordinate water quality and feed distribution, reducing waste and improving farming conditions. And reducing environmental impact. Over time, data can further analyze shrimp population growth conditions, further improving production resilience to achieve more sustainable and profitable development.



Featured case study 5

IoT for Biodiversity	Bird sound monitoring and AI identification solution

Building on the achievements of the previous project, this project combines Passive Acoustic Monitoring (PAM) and AI-powered SILIC (Sound Identification and Labeling Intelligence for Creatures) to enhance the efficiency of wildlife monitoring, reduce labor costs, improve spatiotemporal resolution, and improve the effectiveness of forestry in both monitoring and decision-making. Based on the validation conducted at the NTU Experimental Farm in 2023, the project was extended to the NTU Experimental Forest in 2024. Equipment was deployed in selected locations, including newly afforested areas, flux towers, aerial corridors, and the Guanshan parking lot, to further verify and expand the application of AIoT technologies in environmental monitoring.

In 2025, Advantech will continue addressing challenges in wildlife monitoring, including equipment power supply, data upload, and real-time transmission. Also, we will explore a wider range of smart forestry applications, such as wildfire prevention, soil carbon sequestration, and river hydrology management. Through large-scale deployment and implementation, Advantech aims to establish a comprehensive environmental monitoring framework. Based on this infrastructure, we can enhance predictive and preventive capabilities to minimize the occurrence of natural disasters and mitigate their potential impacts on biodiversity and society.

Besides soundscape ecology research, this project also offers practical application value for forestry:

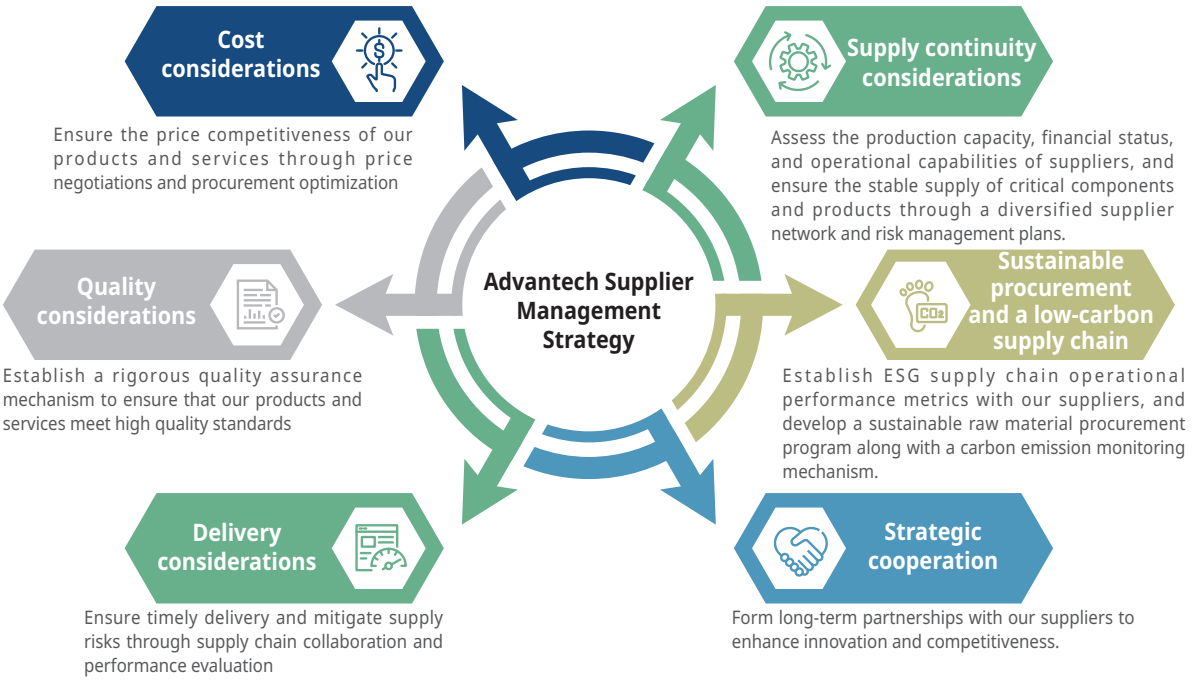
Application one	The Chinese fir plantations in Xitou have long been affected by bark gnawing from red-bellied squirrels, resulting in widespread areas of trees with reddish or whitish crowns. By using autonomous audio recorders to detect squirrel vocalizations, researchers can monitor population density more effectively and implement targeted control measures in identified hotspot areas.
Application two	Longer audio recordings from autonomous sound recorders allow us to better understand the composition of bird species across various sites. By analyzing these recordings, we can assess variations in bird diversity and abundance in relation to differing levels of tourist disturbances. Such information helps to enhance visitor experiences by providing timely ecological recreational information.

Supply Chain Management and Sustainable Procurement

As a global leader in IoT, Advantech's supply chain topics are not only closely related to its operational resilience and supply chain stability, but also have an impact on the Company's product quality, brand values, and long-term competitiveness. For stakeholders such as employees, customers, suppliers, and investors, a sustainable supply chain serves as the cornerstone of shared growth and sustainable development. Therefore, Advantech committed to promoting sustainable supply chain management, require suppliers to comply with Advantech's "Supplier Code of Conduct" policy, continuously improve their performance in labor human rights, occupational safety and health, environmental protection, business ethics, and management systems to jointly form a responsible supply chain, reduce risks, and promote sustainable development.

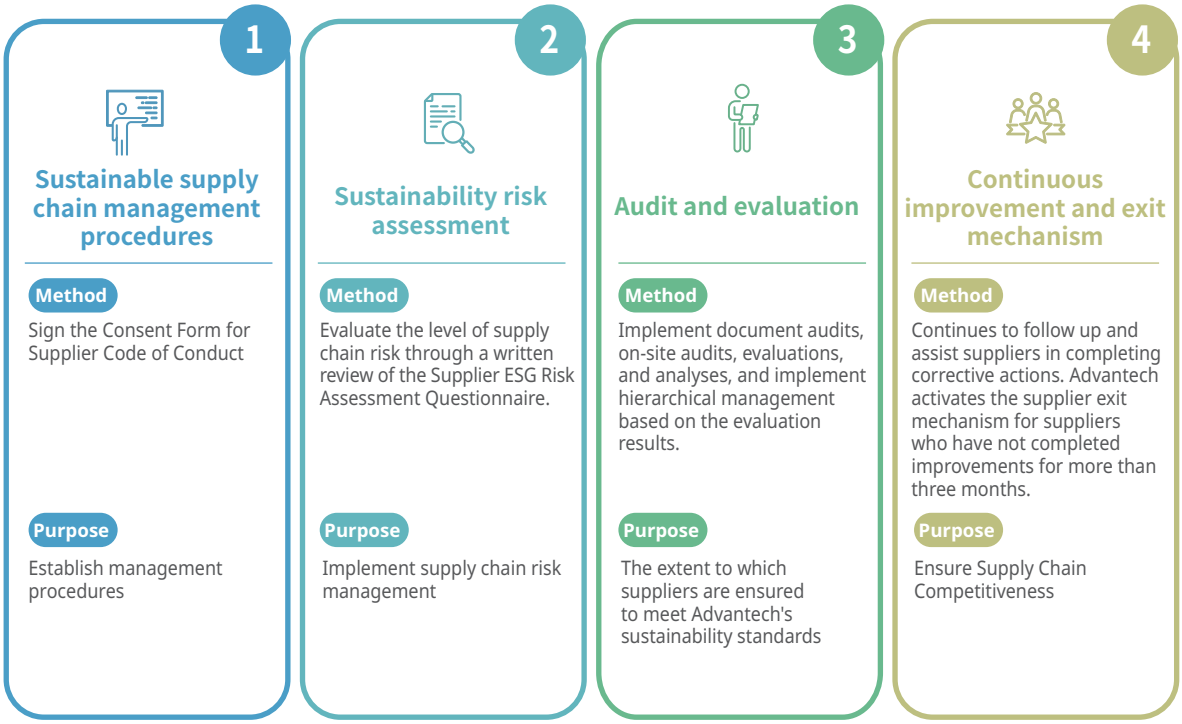
Advantech believes that supply sustainability is a key commitment to corporate sustainable operation and recognizes the challenges to supply chain posed by factors such as geopolitics. Therefore, we aim to apply our consistent global brand strength to reinforce relationships with customers and partners worldwide, striving to create sustainable corporate value and build a mutually beneficial and thriving industry chain. Through our global procurement and quality management departments, Advantech is responsible for implementing supplier management work. Adhering to the concept of cooperative prosperity, it strictly controls supplier screening standards and processes, conducts risk and performance assessments, provides audit counseling, education and training, and organizes supplier conferences, integrating sustainable development requirements into daily supply chain management. Advantech's procurement strategy focuses on diversifying procurement risks and reducing costs. To ensure substitutability and maintain competitiveness, at least two suppliers are selected for materials. For electronic components with high commonality, a second source management mechanism has been established. Moreover, safety stocks of key materials are maintained to mitigate risks arising from supply shortages or quality issues. Advantech categorizes materials by tier and assigns dedicated procurement personnel to analyze market information. By regularly reviewing market trends and adopting a centralized procurement strategy, Advantech establishes a list of PVL suppliers and monitors their capabilities in cost, quality, delivery date, and supply continuity to enhance collaboration efficiency and obtain high-quality materials with stable delivery times.

Advantech Supplier Management Strategy



Sustainable supply chain management implementation guideline

To implement Advantech's procurement and supply chain policy, a four-stage supply chain sustainability management process has been established. Through annual continuous improvement cycles and exit mechanisms, Advantech ensures that suppliers meet its standards and continuously enhance their sustainability performance.



Supplier Management Sustainability Performance in Recent Years

100%	100%	100%	100%
100% of significant suppliers have completed the signing of the "Supplier Code of Conduct Consent".	100% of new suppliers are evaluated for compliance with environmental standards	100% of significant suppliers have signed the "Declaration of Non-Use of Conflict Minerals".	100% of significant suppliers completed the counseling and improved their deficiencies.

Existing Supplier Audit Management

Through a comprehensive supplier management system, Advantech ensures that all its suppliers continue to meet the Company's demand in quality and sustainability. All significant suppliers are required to sign the "Supplier Code of Conduct Consent" and undergo a supplier profile review to ensure they meet the Company's supply chain management standards. To materialize sustainable management, Advantech also conducts ESG sustainability risk assessments for PVL suppliers, covering aspects such as labor rights, environmental protection, safety and health, and business ethics, maintaining a 100% evaluation rate. Additionally, plans are in place to increase the percentage of on-site evaluations in the future to ensure continuous improvement in suppliers' operational and sustainability management performance.

Type				Management principles	Future management priorities
All significant suppliers					
Year	**Item**	**Number of suppliers**	**Implementation percentage**	Perform a supplier profile review by signing the "Supplier Code of Conduct Consent"	Include the supplier code of conduct in the contract
2024	Code of Conduct Signing	291	100%		
	ESG Risk Assessment				
2023	Code of Conduct Signing	284	100%	Adopt ESG sustainability risk assessment to evaluate significant suppliers (labor, safety and health, environmental management, ethics, etc.)	Maintain the evaluation percentage
	ESG Risk Assessmen				
2022	Code of Conduct Signing	271	100%		
	ESG Risk Assessmen				
2021	Code of Conduct Signing	271	100%		
	ESG Risk Assessmen				

Type				Management principles	Future management priorities
Existing suppliers					
Year	**Item**	**Number of suppliers**	**Implementation percentage**	Perform a supplier profile review by signing the "Supplier Code of Conduct Consent"	Include the supplier code of conduct in the contract
2024	ESG Audit	790	100%		
	Quality Audit	61	100%	Adopted written/on-site ESG sustainability risk assessments for existing suppliers (covering labor, safety and health, environmental management, ethics, etc.).	Maintain the evaluation percentage
2023	ESG Audit	271	100%		
	Quality Audit	61	100%		
2022	ESG Audit	271	100%	Passed the "Audit Form for Third-Party Suppliers" evaluation (on quality systems, design controls, procurement services, etc.)	Increase the percentage of on-site evaluations
	Quality Audit	88	87.5%	*Note: 2022 existing supplier audits did not reach the planned 100%, mainly due to China's COVID-19 pandemic, preventing on-site audits of some suppliers	
2021	ESG Audit	—	—		
	Quality Audit	77	100%		

Supplier Sustainability Risk Identification and Audit Counseling

To uphold the core principles of sustainable supply chain management, Advantech has been issuing the Advantech ESG Risk Assessment Audit Form, designed based on the RBA Code of Conduct 7.0, to existing suppliers every two years since 2021. Suppliers are required to indicate their implementation progress of the four sustainability aspects (labor, health and safety, environmental management, and business ethics) in the questionnaire and provide relevant supporting documents. These include management system certification or related operational records. The results of the suppliers' self-assessment serve as the basis for subsequent sustainability risk management.

Item/Year (Every 2 years)	2024		2022	
	Actual/target (number of suppliers)	Actual/Target (Ratio)	Actual/target (number of suppliers)	Actual/Target (Ratio)
ESG risk assessment survey distribution coverage	1,127 / 1,127	100.0% / 100%	271 / 271	100.0% / 100%
Tier 1 suppliers undergoing ESG written audits	873 / 676	77.5% / 60%	—	—
Significant suppliers performing ESG audits	291 / 291	100% / 100%	271 / 271	100% / 100%
The percentage of significant suppliers with a total score below 80 points (or possesses critical	38 / <50	13% / <15%	11 / <15	4% / <10%
Implementation of improvement plans for potential high-risk significant suppliers	38 / <50	100% / 100%	11 / <15	100% / 100%
Termination of cooperation with suppliers for serious violations	0 / 0	0% / 0%	0 / 0	0% / 0%
Assist potential high-risk significant suppliers in completing ESG counseling and implementing improvement measure	38 / all	100% / 100%	11 / all	100% / 100%

Sustainable raw material management

As part of Advantech's raw material procurement strategy, we conduct sustainability risk assessments, in addition to cost-benefit considerations, to determine procurement priorities and ensure the effective implementation of sustainable management. We collaborate with suppliers to increase the transparency of raw material sources, assess the potential environmental and social impacts of their development and production processes, and select the most appropriate raw materials for Advantech based on the outcome of supplier sustainability risk assessments.

In the third quarter of 2024, Advantech launched the sustainable raw material project to evaluate the use of recycled materials by tracing the source of raw materials. Moreover, recycled materials were introduced to major business groups to conduct the pilot production plan. The project extends into the first quarter of 2025, and it has successfully achieved its phase goals, including compiling statistics on raw material traceability, evaluating the effectiveness of trial integration of recycled materials into product structural components, and drafting preliminary targets for future implementation. In terms of raw material traceability, considering the characteristics of Advantech's products, we prioritize the top three raw materials by usage volume for implementing control: plastics, steel/iron, and aluminum. These three recycled materials were introduced to the sustainable raw materials pilot program. Furthermore, in addition to managing product structural components, we also conducted a traceability survey for packaging materials. For related program content, please refer to Advantech 2024 ESG Report Chap 4.1 Green Design and Sustainability Liability of Product.

2024 raw material usage overview

Raw material category		Raw Material Usage Volume	Recycled material usage percentage (%)
Structural materials (ton)	Plastic	121.510	0
	Iron/steel material	599.095	0
	Aluminum material	170.244	0
Packaging material (pcs)	Plastic bags/bubble bags	10,297,701	0
	Cardboard boxes	6,289,309	90
	EPE cushioning material	8,979,745	0

Furthermore, targets have been established for the use of recycled materials (plastic/metal) based on project analysis and international trends. In addition, specific recycled material content requirements have been defined for mechanism casings and components of selected models.

Target setting for recycled material (plastic/metal) usage in green design products

Year	Target setting for recycled material (plastic/metal) usage in green design products					
	Plastic (recycled material usage percentage)		Metal (recycled material usage percentage)			
			Steel material		Aluminum material	
2025	Mechanism casing	>30%	Mechanism casing	>10%	-	
2026	Component	>30%	Component	>10%	Component	>50%
2030	Component	>50%	Component	>20%	Component	>80%

Note: The foregoing mechanism casing or component refers to Advantech-designed parts and follows Advantech's green design product Gold medal criteria.

Conflict Minerals Procurement Management

To ensure the avoidance of minerals from Conflict-Affected and High-Risk Areas (CAHRAs), Advantech rigorously complies with the Responsible Business Alliance (RBA) Code of Conduct and implements a conflict-free minerals policy. Advantech not only refrains from procuring metals from CAHRAs but also requires its suppliers to comply with this policy, ensuring that the supply chain respects human rights and is not involved in conflict activities. As of 2024, 100% of Advantech's PVL suppliers have signed the "Declaration of Non-Use of Conflict Minerals," and all of Advantech's products are guaranteed to be conflict-free. As a brand company, Advantech does not directly purchase raw ore or unrefined 3TG minerals. Due to the multiple tiers involved in the supply chain, once the raw ore is smelted, refined, and transformed into ingots, gold bars, or other mineral derivatives, its origin becomes difficult to trace. Smelters and Refiners (SORs) serve as key control points for raw ores and are best positioned within the supply chain to verify the origin of minerals. Suppliers who engage in direct collaboration with Advantech and influence procurement decisions are considered tier 1 (PVL) suppliers. Advantech relies on them to identify and assess supply chain risks and provide relevant information on 3TG mineral SORs.

Conflict Minerals Due Diligence Results in Recent Years

Year	2021	2022	2023	2024
Qualified smelters	246	249	226	215
Smelters currently in the program*	9	10	6	7
Total	255	259	232	222
Percentage of qualified smelters	96.5%	96.1%	97.4%	96.8%

*Smelters currently in the program: Refers to smelters that have committed to accepting the RMAP assessment, completing relevant documentation, and arranging an on-site evaluation. Currently in the pre-assessment, assessment, or corrective action stage.

Supply chain sustainability improvement plan

In recent years, Advantech continued to advance its supplier improvement program by empowering and training its partners to enhance their sustainability capabilities, ensuring alignment with ESG requirements and strengthening sustainable supply chain management. Advantech plans multi-level training activities for different supplier categories and needs, including supplier code of conduct courses, supplier conferences, carbon management courses, and theme workshops, comprehensively covering environmental, social, and governance topics while emphasizing practical application and capacity building.

In 2025, Advantech will continue to strengthen the suppliers' sustainable development capabilities. To ensure precise allocation of counseling resources and continuously enhance fundamental sustainability literacy, Advantech will adopt a categorized management approach based on suppliers' characteristics and needs. Multi-level, theme-based learning and exchange mechanisms will be designed accordingly to different suppliers with adequate support. The new year plan encompasses core topics like renewable energy, carbon management, biodiversity, and sustainable information disclosure. It will provide more in-depth and targeted learning opportunities through medium and large-scale forums, small workshops, and project-based counseling for high-carbon emission suppliers. Furthermore, Advantech will join forces with industry benchmarks, government agencies, academic institutions, and research institutions to integrate diverse professional resources, share the latest industry trends and practical experiences, assist suppliers in understanding important development trends and sustainable implementation strategies, and ensure that both suppliers and Advantech achieve their long-term sustainable development goals (SDGs). For recent supplier improvement and capacity building results, please refer to the Advantech 2024 ESG Report Chap 2.3 Supply Chain Sustainable Management.

3.3 Eco Office and Employee Environmental Education

Eco Office Actions/Biodiversity Volunteer Service

Advantech headquarters and major overseas business units have implemented the green office plan. We promote a paperless office environment by encouraging double-sided printing, implementing paper recycling practices, and prioritizing the use of FSC (Forest Stewardship Council)-certified sustainable paper or other recycled paper materials for office and household use. In terms of eco packaging material planning, Advantech utilizes recycled paper for all its shipping cardboard boxes and also provides FSC-certified sustainable forest cardboard boxes as a customer option to meet market requirements.

- **Advantech Headquarters Local Environmental Investment:**

Forest Conservation

As part of its forest conservation efforts, Advantech sponsors the "Taichung Dadu Plateau Ecological Afforestation Project" led by the Taiwan Forestry Restoration Association. The project aims to cultivate 6,000 seedlings across 75 species, with over 70% consisting of native tree species from the Taichung coastal and shallow mountain regions. These seedlings will be provided to the Taichung City Government for forest restoration and tree planting purposes. In addition, with public welfare in mind, they will be made available to public agencies for ecological afforestation initiatives. The funding will be used for seed collection for seedlings, growing local native species seedlings, mountain forest ecological education, and seedling growth monitoring. The support project is expected to plant 0.8 hectares of trees and sequester 1.76 metric tons of carbon.

Neighborhood Community Ecological Environment Maintenance Investment

Advantech focuses on local investment, identifying ecological environment maintenance investments in communities near operational locations. Advantech headquarters is located in Neihu District, Taipei City, adjacent to Ruiguang Park, which maintains air quality for the local community and technology park, provides recreational space for community residents, and is a rare green space in the concrete jungle. Advantech has partnered with the Taipei City Government to take responsibility for the maintenance of Ruiguang Park for three consecutive years starting in 2025. We plan environmental education activities for local communities and employee community cleaning activities annually.

The Advantech Intelligent Co-Creation Park registered in Guishan District, Taoyuan City, geographically spans the Taoyuan Linkou and Guishan areas. Advantech commissioned external experts to conduct ecological surveys of the park area, and after the end of Q3 2025, we can plan ecological projects or employee environmental education activities for the park based on research results. At the same time, Advantech Intelligent Co-Creation Park cooperates with New Taipei City Government to take responsibility for the maintenance of the Linkou area coastline, planning to organize annual beach cleanup activities with employees to contribute to the local community.

Advantech supports local biodiversity conservation, with donation investments in areas selected near Advantech headquarters operational locations in Xizhi and Neihu areas (Dagou Creek, Neigou Creek). Donation investments include: 2 local ecological environmental education activities for 100 people, 4 biodiversity local volunteer training courses for 60 people, 3 aquatic fish surveys and water quality testing sessions, underwater camera and environmental monitoring equipment replacement, etc.

Biodiversity Volunteer Participation by Employees

Each Advantech employee is entitled to two days of paid volunteer leave per year. In 2024, Advantech headquarters organized biodiversity-themed local volunteer service activities at various subsidiary locations. Allowing employees to experience ecological work-cations achieves public welfare and sustainability benefits.

Activity name	Location	Activity theme
Plant an Advantech Tree – One-Day Sustainable Forest Volunteering Activity	Pingtung	Collaborated with Yongzai Forestry to conduct on-site forest surveys, tree planting, and the making of FSC-certified growbags. A total of 20 volunteers contributed 160 hours of volunteer service. The volunteers participated in the sustainable forest volunteer activity for the first time, assisting with seedling survival rate surveys and planting. The team also completed 20 sustainable growbags and planted 20 trees on site.
Gongliao Terraced Field Biodiversity and Beekeeping Experience – One-Day Volunteer Activity	New Taipei City	The activity focused on revitalizing the local community, biodiversity, and the local beekeeping experience, involving hands-on work in the paddy fields to help conserve water sources, prevent land degradation, and maintain the ecological functions of the terraced fields. A total of 48 volunteers contributed 384 hours of volunteer service.
Forest Restoration and Native Seedling Cultivation One-Day Volunteer Activity	Taichung	Assisted in forest restoration efforts by weeding native seedlings, repotting and dividing them for use in ecological restoration planting in the shallow mountain region of Dadu Mountain. A total of 20 volunteers contributed 60 hours of volunteer service and nurtured 252 potted plants.
Marine Conservation One-Day Volunteer Activity	New Taipei City	Promoted marine conservation awareness, participated in beach cleanup activities, and implemented the ICC Marine Debris Monitoring Program.
Yuanzhonggang Wetland Park Invasive Species Removal Volunteer Day	Kaohsiung	In support of World Environment Day, activities included removing invasive wetland species, conducting guided tours of wetland ecology, and creating natural, rustic charms using locally sourced wetland materials. A total of 12 volunteers contributed 36 hours of volunteer service. Offered NGOs substantial assistance in removing invasive species and enhancing our colleagues' understanding of local biodiversity.
Guandu Nature Park Invasive Species Removal Volunteer Day	Taipei City	In support of World Environment Day, activities included removing invasive wetland species, weeding, and conducting guided tours of wetland ecology. A total of 40 volunteers contributed 120 hours of volunteer service.
Fazi River Cleanup Activity	Taichung	In support of World Environment Day, activities included cleaning along the Fazi River, removing weeds, and classifying waste in accordance with ICC waste monitoring standards. Based on the cleanup analysis, the event also promoted the reduction of household waste. A total of 14 volunteers contributed 42 hours of volunteer service and removed 60kg of waste.

- **Advantech Global Local Environmental Investment:**

Advantech China

Biodiversity and Plastic Reduction Family Day: Advantech China (ACN & AKMC) incorporated the theme of biodiversity into its Family Day activities across six locations: Shanghai, Beijing, Shenzhen, Guangzhou, Xian, and Kunshan. The activities featured nature education and family interactions, including popular science education on animals and plants, a “Plastic-free Commitment” environmental creativity challenge, leaf recycling DIY projects, water resource experiments, and bird nest building. These engaging and educational activities helped Advantech employees and their families better appreciate the beauty of nature and the importance of ecology.

Advantech Korea

Advantech Korea (AKR) held an “Advantech Volunteer Day” that combined biodiversity education and litter cleanup through the “City and Ecological Park Plogging” initiative, where participants jogged while picking up litter to protect the environment. Additionally, the “Advantech Creators Club (ACC)” led 25 employees in creating “Net-Zero Pop-Up Books” and “Environmental Jigsaw Puzzles,” which were donated to local children's centers to embed carbon reduction and ecological awareness in the next generation's growth and development.

Advantech Europe

Advantech Europe builds bee hotel, inviting 20,000 bees as neighbors: Advantech's the Netherlands subsidiary used its office space to form a micro-ecosystem and installed Advantech monitoring equipment in the beehives to monitor honey production, bee sounds, and bee activities effortlessly. During the honey harvest season, Advantech Europe collaborates with local small farmers to harvest and package honey. The Company also invites employees and their families to design illustrations for the honey jars, fully showcasing local biodiversity engagement.

Advantech Europe's involvement in local environmental education: Advantech's the Netherlands subsidiary is situated adjacent to a public park. The local municipality plans to invite nearby businesses in the science park to collaborate on planning a biodiversity park project, focusing on the construction of insect hotels, to benefit local primary school biodiversity education.

4 Indicators and Future Initiatives

4.1 Nature and Climate Performance Indicators

TC(N)FD Performance Indicators (Table Description)

Climate Impact and Adaptation

Category	2024 Target achievement	2025 Goals	2026 ~ 2030 Targets
Climate Change Strategy and Actions	• Link senior management compensation to the results of ESG climate change topics • Implement the Internal Carbon Pricing (ICP) plan and define Advantech's carbon pricing • Promote the GHG inventory and verification plan of subsidiaries in Asia • Completed the global iEMS to monitor and analyze the electricity consumption of significant locations of operation around the world • Increase the use of renewable energy across global RBU locations • Calculate the representative product's carbon footprint of each business group and complete the application of Advantech's methodology • Develop eco packaging materials, eco materials, and energy-saving product design by including them in the LCA assessment • CDP climate change rating of "B"	• Increase the quantification of the GHG inventory and verification ratio at overseas significant locations of operation • Apply the latest IPCC assessment report, readjust climate scenarios, incorporate natural risk and opportunity assessments, and externally disclose TCFD and TNFD reports • Update the international Science-Based Targets (SBT) to align with 1.5°C and achieve net zero • Continue to increase the use of renewable energy across global RBU locations, targeting a 20% adoption rate • Implement an Internal Carbon Pricing (ICP) carbon fee pilot program to boost carbon reduction efforts and achieve carbon reduction goals • Utilize AI technology to complete the product carbon footprint calculation system 1.0 platform and apply it to the eco product promotion plan • Launch a supply chain carbon management empowerment plan to train key suppliers	• Complete global ISO 14064 GHG inventory and verification plan by 2026
GHG inventory and energy management actions	• In 2024, the Company's overall GHG emissions per unit of revenue decreased by 6.4% compared to 2023, and it is 29.1% lower compared to the 2019 SBT baseline year. • Received a B List rating from the CDP Climate Change Questionnaire assessment in 2024 • In 2024, GHG inventory and ISO 14064-1 verification were completed at AJMC in Japan and AKSC in South Korea • Advantech Taiwan and the Kunshan plant continued to obtain the ISO50001 verification in 2024 • Locations in the United States started using renewable energy in 2024	• Renewable energy goals: Continue to increase renewable energy usage to 20% across Advantech's RBUs • GHG targets: Advantech company-wide GHG emission intensity per unit revenue decreases by 36% compared to 2019 • Energy reduction targets: In 2024, achieve a 3% reduction in per capita office electricity consumption and a 5% reduction in electricity consumption per work hour at production sites	• 2030 Renewable energy targets: Achieve 50% renewable energy usage in Taiwan and Kunshan • 2030 GHG targets: Scope 1 and 2 carbon intensity decrease by 60%; Scope 3 product use carbon intensity decrease by 49%

Green design and product sustainability

Category	2024 Target achievement	2025 Goals	2026 ~ 2030 Targets
Green design and sustainability liability of product	• Ensure that 100% of raw materials comply with international environmental protection regulations and Advantech Regulated Substance Standards • 60% of new green design products attained Silver medal (successfully achieving the annual target) • The revenue share of mass-produced products achieving green design product Silver Medal/ Advantech Energy Saving Seal for the entire year reaches 14.04% (successfully achieving the annual target) • All standard system category new models are 100% compliant with ErP energy-saving design specifications • Introduce low-halogen materials for all product plastics	• Continuously ensure that 100% of raw materials comply with international environmental protection regulations and Advantech Regulated Substance Standards • Over 80% of new green design products achieve Silver medal • Mass-produced products achieve Silver Medal for green design products/Advantech Energy Saving Seal, accounting for 15% of annual revenue • For new products in specific product lines, the adoption rate of Software Utility in x86 Windows Image reaches 20%	2026 Targets: • Continuously ensure that 100% of raw materials comply with international environmental protection regulations and Advantech Regulated Substance Standards • Over 90% of new green design products achieve Silver medal • Mass-produced products achieve Silver Medal for green design products/Advantech Energy Saving Seal, accounting for 20% of annual revenue • Achieve Gold medal in four major aspects: Specific product line 5% • For new products in specific product lines, the adoption rate of Software Utility in x86 Windows Image reaches 40%
Waste management and circular economy	• Evaluated the introduction of recycled raw materials into the Company's product design • Previously incinerated plastic waste is now converted into recycled plastic. At the Linkou plant, the percentage of recycled plastic increased by 18%. • Promote green procurement at the Linkou plant. For instance, the procurement of products featuring an eco label and recycled plastic pellets amounted to NTD 107 million. • In 2024, Advantech's significant locations of operation and production plants achieved a 90% recycling rate for business waste outsourced for treatment. The incineration disposal rate was 10%, with no waste sent to landfills.	• The mechanism casings of Gold Medal design products incorporate recycled raw materials, with up to 30% recycled plastic and 10% recycled metal used, depending on the specific material • The waste conversion rate at the Linkou plant and the Kunshan plant in China reaches 90%	2030 Targets: • The mechanism casings of Gold Medal design products incorporate recycled raw materials, with up to 50% recycled plastic and 20% recycled steel / 80% aluminum used, depending on the specific material • The waste conversion rate across Advantech's global plants reaches 90%

Supplier Impact and Adaptation

Category	2024 Target achievement	2025 Goals	2026 ~ 2030 Targets
Supplier Due Diligence	100% achievement of the 2024 targets: • 100% of Tier 1 suppliers comply with Advantech's Supplier Code of Conduct • None of the strategic suppliers use conflict minerals • Expand the scope of the annual ESG audit to reach 77.5% of tier 1 suppliers and achieve the 60% target • 100% completion of significant supplier deficiency improvement	• 100% of Tier 1 suppliers comply with Advantech's Supplier Code of Conduct • None of the strategic suppliers use conflict minerals • Expand the scope of the annual ESG audit to reach 60% of tier 1 suppliers • 100% completion of significant supplier deficiency improvement • 100% of high-carbon emission suppliers complete the GHG inventory	• 100% of Tier 1 suppliers comply with Advantech's Supplier Code of Conduct • None of the strategic suppliers use conflict minerals • Expand the scope of the annual ESG audit to reach 80% of tier 1 suppliers and ensure that 100% of the deficiencies of significant suppliers are addressed • 100% of strategic suppliers complete the GHG inventory

4.2 Future Outlook

Conclusion & Future Action and Directions

Climate change and biodiversity loss have become the two major global challenges. For Advantech, this is not only a matter of social responsibility, but also an opportunity to drive innovation and sustainable development. As a leading IoT technology and solutions provider, Advantech sees global challenges like climate change and biodiversity protection as areas where technology innovation can deliver meaningful impact.

Supporting Advantech's Sustainability Vision: Enabling an Intelligent and Sustainable Planet. In 2024, Advantech referenced the EU Taxonomy framework to identify solutions that contribute to sustainability across various application scenarios, such as smart cities, smart transportation, smart healthcare, smart logistics, and smart factories. Throughout the year, revenue derived from these solutions, aimed at mitigating climate change and supporting climate adaptation, accounted for as much as 55.6% of total revenue. In particular, as the AI era unfolds, Advantech will continue advancing intelligent and energy-efficient technologies to support global industries in reducing carbon emissions and enhancing energy performance. For example, in the manufacturing sector, Advantech's smart factory solutions can reduce energy consumption and improve production efficiency through data-driven optimization, reducing environmental burden. Also, through IoT technology, Advantech's solutions allow for the implementation of environmental monitoring systems, helping enterprises accurately track environmental indicators such as air and water quality. These systems provide early warnings and facilitate timely action to further mitigate environmental pollution.

Regarding biodiversity, Advantech leverages smart sensors and big data analytics to help protect natural habitats and monitor changes in biodiversity. Through real-time data collection enabled by IoT technology, partners such as universities and government forestry departments can promptly detect abnormal changes in ecosystems and implement targeted interventions and conservation efforts. These technological applications not only help scientists and governments monitor environmental conditions more effectively, but also demonstrate how IoT technologies and solutions can positively impact biodiversity monitoring while supporting Advantech's market growth and business development.

This is Advantech's first report combining climate and nature-related disclosures. Released as a pilot ahead of the 2026 commitment year, it reflects our ongoing efforts to refine our reporting practices. Furthermore, we will continue to assess our sustainability performance, keep abreast of the latest international frameworks, and actively engage with internal and external stakeholders. A key focus will be translating complex sustainability terminology into clear, actionable initiatives, empowering employees, customers, investors, local communities, supply chain partners, and other groups to reinforce participation and a sustainable future together.

Appendix

TCNFD Index Table

Aspect	TCFD Recommended Disclosure Items	Corresponding Chapters in the Report	Page Number
Governance	A. Board oversight of climate risks and opportunities	1.2 Governance Structure: Climate and Nature Governance Mechanisms	5
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Strategy	A. Organization's identified short, medium, and long-term climate risks and opportunities	2.1 Climate Risk Identification: List of Material Climate Risks and Opportunities	22-27
	B. Impact of climate risks and opportunities on the organization's sales, strategy and financial planning	2.1 Climate Risk Identification: List of Material Climate Risks and Opportunities 2.2 Climate Financial Impact: Climate Risk and Opportunity Financial Impact Assessment	22-27 28-29
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Risk management	A. Organization's processes for identifying and assessing climate risks	2.1 Climate Risk Identification: Climate Risk Identification Mechanisms and Consideration Aspects	19-21
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Indicators and targets	A. Indicators used by the organization to assess climate risks and opportunities in line with its strategy and risk management process	3.1 Climate Impact and Adaptation: GHG and Energy Resource Control 4.1 Nature and Climate Performance Indicators: TCFD Performance Indicators	49-52 73-75
	B. Scope 1, Scope 2, and Scope 3 GHG emissions and related risks	3.1 Climate Impact and Adaptation: GHG and Energy Resource Control 3.2 Green Design and Product Sustainability: Green Design and Low-Carbon Product Innovation 4.1 Nature and Climate Performance Indicators: TCFD Performance Indicators	49-52 55-58 73-75
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Aspect	TCFD Recommended Disclosure Items	Corresponding Chapters in the Report	Page Number
Governance	A. Board oversight of nature-related dependencies, impacts, and risks and opportunities	1.2 Governance Structure: Climate and Nature Governance Mechanisms	13
	B. Management's role in assessing and managing climate risks and opportunities	1.2 Governance Structure: Climate and Nature Governance Mechanisms	13
	C. The organization's human rights policies and engagement activities with Indigenous Peoples, communities, and other stakeholders when assessing and addressing nature-related dependencies, impacts, and risks and opportunities, including oversight by the Board of Directors and management	1.2 Governance Structure: Nature-Related Risks, Opportunities, and Human Rights	16
Strategy	A. Organization's identified short, medium, and long-term nature-related dependencies, impacts, and risks and opportunities	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): List of Material Nature-related Risks and Opportunities	39-40
	B. Impact of nature-related dependencies, impacts, and risks and opportunities on the organization's operations, value chain, strategy, financial planning, transition plans, or other analyses	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): Qualitative Analysis of the Financial Impact of Natural Risks and Opportunities	41-47
	C. Resilience of the organization in the face of different nature scenarios	-	
	D. Organization's upstream, own operations, and downstream/investment and financing activity locations in protected areas	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): List of Material Nature-related Risks and Opportunities	39-40
Risk management	A(i) Organization's processes for identifying and assessing nature-related dependencies, impacts, and risks and opportunities in its operations	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): Mechanism and Process for Identifying Natural Risks and Opportunities	35-38
	A(ii) Organization's processes for identifying and assessing nature-related dependencies, impacts, and risks and opportunities in upstream and downstream/investment and financing activities	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): Mechanism and Process for Identifying Natural Risks and Opportunities	35-38
	B. Organization's procedures for managing nature-related dependencies, impacts, and risks and opportunities	1.2 Governance Structure: Advantech Natural and Climate Risk Management Process and Management Status	15
	C. How the organization integrates nature-related risk identification, assessment and management mechanisms into its overall risk management system	1.2 Governance Structure: Advantech Natural and Climate Risk Management Process and Management Status	15
Indicators and targets	A. Indicators for nature-related risks and opportunities used by the organization in its strategy and risk management procedures	2.3 The Taskforce on Nature-related Financial Disclosures (TNFD): Qualitative Analysis of the Financial Impact of Natural Risks	41-47
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		4.1 Nature and Climate Performance Indicators: TNFD Performance Indicators	73-75

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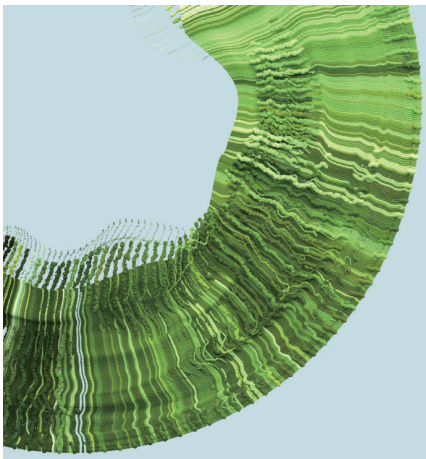

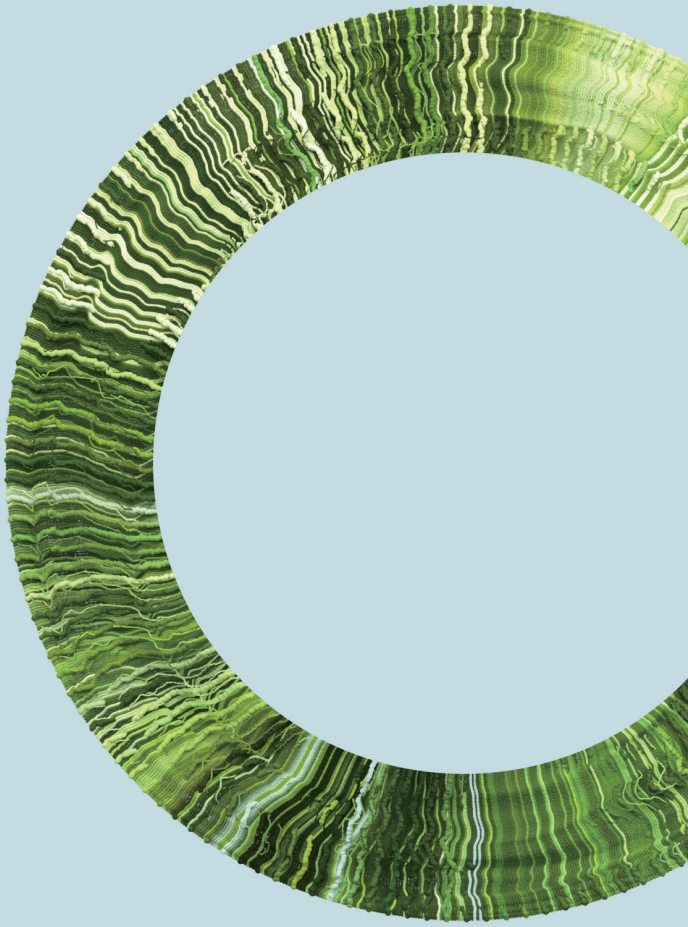

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