3. Environmental Protection

Black-winged Stilt

The black-winged stilt is a common winter visitor and an uncommon resident bird in Taiwan. Its most notable feature is its extremely long legs, which are red. The plumage from the head to the neck varies, with some being entirely white and others having black around the eyes, head, and nape. The forehead is white, and the beak is long and pointed. Wistron enhances public awareness and support for ecological protection through long-term conservation efforts.

Management Approach

above 95% | 90%~95% | below 90%

Topic	Strategy	2024 Targets	2024 Results	Status	2025 Targets	2030 Targets
 Climate Change and Energy Management	1. Improve energy efficiency 2. Improve renewable energy consumption	Reduce absolute GHG emissions by 22.5% compared to 2022	-33.9% GHG emissions: 68,194.78 (tCO_2e)	●	-33.8%	Carbon neutrality (Scope 1 + Scope 2)
		Achieve 72.5% of renewable energy	74.7% 1. On-site solar power generation: 18,057.5 MWh 2. Power Purchase Agreement (PPA): 70,058.6 MWh 3. Renewable Energy Certificates (RECs): 211,295.8 MWh	●	80%	100%
 Water Resource Management	1. Implement water management and daily water conservation measures 2. Implement water recycling and wastewater management	Reduce water consumption intensity by 13% compared to 2022	-36% Total water withdrawal: 2,487.96 (million liters)	●	Reduce water consumption intensity by 13% compared to 2022	Reduce water consumption intensity by 13% compared to 2022
 Air Pollution and Waste	1. Promote waste sorting and source reduction 2. Enhance waste recycling and reuse	Reduce waste intensity by 8% compared to 2018	-11% Waste generation: 38,297.99 (tons)	●	-10%	-20%

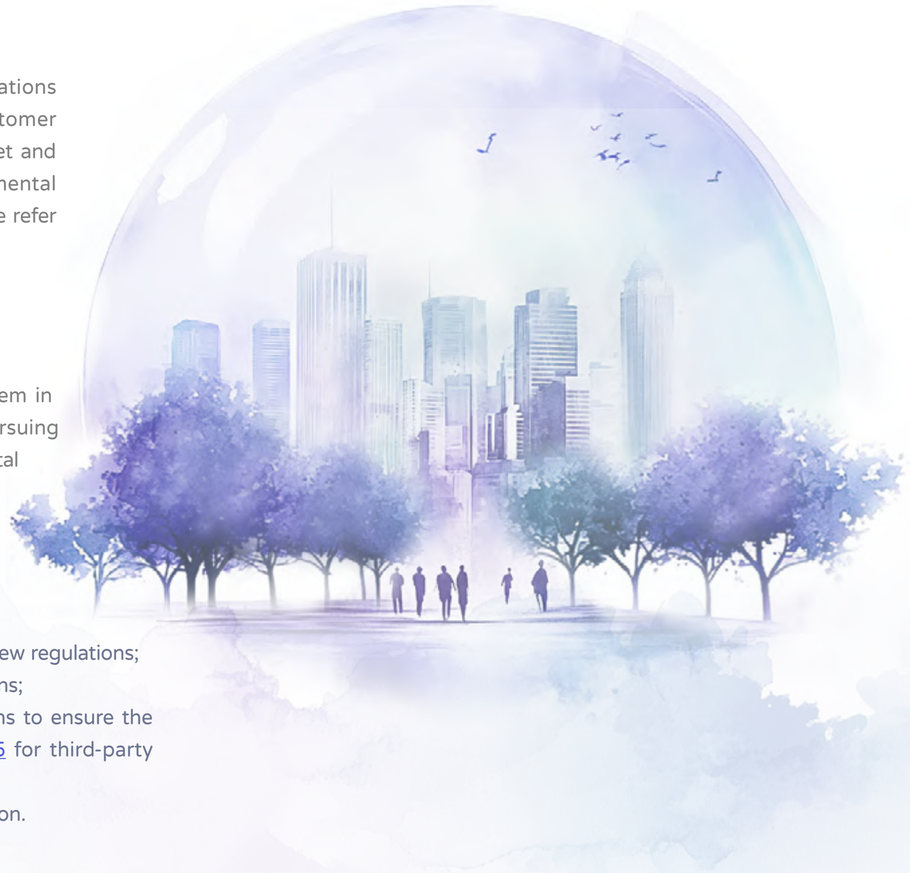
3.1 Environmental Management System

In the face of global climate change and mounting environmental challenges, we recognize the vital role corporations play in advancing sustainable development. As a responsible corporate citizen, Wistron is committed to minimizing our environmental impact through effective environmental management and taking proactive measures to preserve natural resources.

Our environmental strategies and initiatives encompass the implementation of environmental management systems, climate and nature-related risk assessments, energy and GHG management, and efforts to mitigate the environmental impact of water use, air pollution, and waste. We believe that through continuous improvement and innovation, we can contribute meaningfully to environmental protection while supporting business growth.

Environmental Policy

Wistron is committed to abiding by environmental and energy regulations associated with our activities, products and services, as well as customer requirements in order to achieve our set goals and targets or attain meet and exceed regulatory targets. We actively support government environmental protection policies and continue to mitigate and prevent pollution. (Please refer to the company website for our full Environmental Policy）.



Environmental Management Policies

Wistron has adopted the ISO 14001 Environmental Management System in all global operations to satisfy local regulatory requirements while pursuing business performance. We seek to satisfy the requirements in environmental protection regulations of local governments; effectively reduce environmental impacts of business activities and improve environmental management performance to attain our ultimate goal of sustainable development. Environmental management approaches include:

- Staying informed on international environmental issues and trends;
- Conducting regular legal compliance checks to ensure alignment with new regulations;
- Setting environmental targets and developing corresponding action plans;
- Conducting annual internal audits and external third-party verifications to ensure the effective operations of our management systems (see Appendix 6.5 for third-party verification details);
- Encouraging employee participation and providing training and education.

Environmental Complaint Channels

To ensure communication channels for environmental complaints, Wistron has a Stakeholder Communication Section on the company's official website for stakeholders such as customers, employees, shareholders, suppliers, government agencies, non-profit organizations, and the media. Any environmental complaints received through such channels are addressed and responded to in accordance with related procedures.

Environmental Education and Advocacy

Wistron seeks to enhance employee awareness of environmental protection. Every plant organizes safety and environmental protection campaigns every year and uses promotions, contests, and activities to encourage employees to participate and learn more about the importance of environmental protection.

Compliance with Environmental Laws and Regulations

In 2024, Wistron had zero violations of environmental laws or regulations. We will continue to focus on changes in environmental laws and regulations in various countries, update and implement internal procedures and regulations, periodically organize legal compliance training, and include the training in the annual internal training plan to ensure the legal and regulatory compliance of every aspect of the company's operations and align with our stakeholders' expectations.

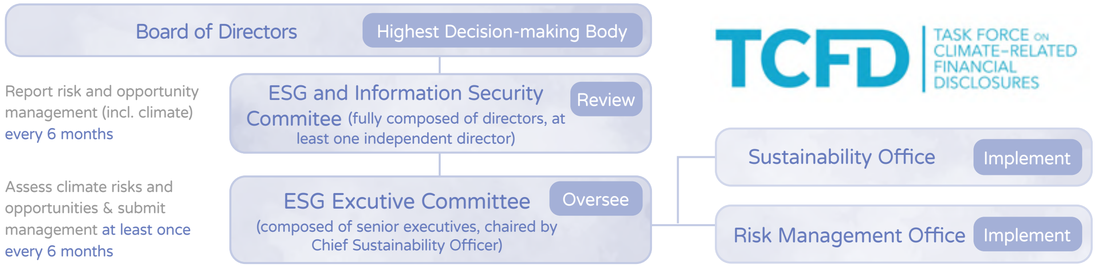
3.2 Climate and Nature Management

3.2.1 Climate and Nature Governance Strategies

As a citizen of the world, Wistron is actively supporting global net zero trends by taking climate action and aligning with international standards to increase the transparency of our climate governance. To effectively manage climate risks and opportunities, Wistron communicates with stakeholders on climate issues, leveraging an international framework - the Task Force on Climate-related Financial Disclosures (TCFD). In 2021, Wistron officially signed on as a TCFD Supporter. In addition to climate-related disclosures, we have also established risk and opportunity metrics and targets to continuously enhance management and disclosure quality. Our internal management processes include annual reporting of climate-related management indicators and response actions to the Board through the Corporate Sustainability Committee.

The Board serves as the highest governance body for climate change, water resources, biodiversity, and nature-related matters. It is responsible for steering overall execution strategies and supervising senior management in managing climate- and nature-related risks and opportunities, as well as monitoring key performance indicators. As a functional committee serving directly under the Board, the ESG and Information Security Committee comprises 100% of directors and includes one independent director. The ESG Executive Committee, established under the ESG and Information Security Committee, is co-chaired by the President & CEO as well as the Chief Sustainability Officer and is responsible for overseeing and managing sustainability issues. In 2022, in line with the group's decision, we formally adopted Enterprise Risk Management (ERM) mechanisms, integrating operational and sustainability risks and opportunities in compliance with the company's "Risk Management Policy and Procedure." Under the mechanism, the Risk Management Office and Sustainability Office will regularly review sustainability risks and opportunities as well as response measures in the environmental, social, and corporate governance dimensions. This includes but is not limited to our progress in climate change, water resources, biodiversity, and nature-related issues, as well as identification of and response measures to emerging risks. In particular, the Chief Sustainability Officer will report to the ESG and Information Security Committee on sustainability-related issues (incl. climate, water, species, and nature) at least twice annually.

The Risk Management Team conducts an annual comprehensive assessment and analysis of various risk scenarios, including those related to climate, for risk identification, risk analysis, risk evaluation, risk response and monitoring, and risk reporting and disclosure. Units responsible for risks are required to assess the identified risk scenarios, propose improvement plans based on the residual risk levels after evaluation, and develop risk response and adaptation strategies, which are incorporated into the annual enterprise risk management report. For the identified material climate- and nature-related risks, corresponding Key Risk Indicators (KRIs) are to be established in accordance with Wistron's risk management process to enable real-time tracking and monitoring. This systematic approach ensures that senior management can continue to maintain oversight of climate- and nature-related issues and targets.



To promote sustainability strategies, we have established dedicated task-based teams for four out of Wistron's Six Sustainability Strategies: "Sustainable Supply Base," "Green Products," "Recycling," and "Decarbonization." The teams integrate global units across the group to promote sustainability and net-zero projects, covering the entire value chain, from supply chain management to Wistron operations to customer collaboration, thereby comprehensively strengthening the company's sustainability resilience to address future challenges. The Sustainability Office, under the President & CEO, is responsible for integrating and rolling out the Six Sustainability Strategies. Each month, the Sustainability Office reports to the ESG Executive Committee on the progress of sustainability strategies and projects targeting climate and nature issues. At least once every 6 months, the Office also reports to the ESG and Information Security Committee as well as the Board on related progress and future plans.

For our annual identification and analysis of climate risks and opportunities, we also offered training and climate workshops this year, taking the opportunity to bring in third-party professional mapping data and geographic information systems (GIS). Several physical climate scenarios were also applied, including SSP1-RCP2.6, SSP2-RCP4.5, SSP3-RCP7.0, and SSP5-RCP8.5. Using four-time horizons - short term (1-3 years), medium term (3-5 years), long term (5 years and beyond), and up to the end of the century - we conducted scenario analyses of physical climate risks our locations and supplier locations and developed risk adaptation plans accordingly. For transition risks, Wistron simulated decarbonization transition stressors under various scenarios, adopting assumptions such as domestic regulations, corporate commitments, IPCC temperature, and net-zero targets. These assessments estimated potential quantifiable financial impacts and residual risks arising from external pressures and trends, and projected management costs to support the planning of future transition roadmaps. See the 2024 Wistron Climate and Nature Report for Wistron's climate- and nature-related management, achievements, and efforts.

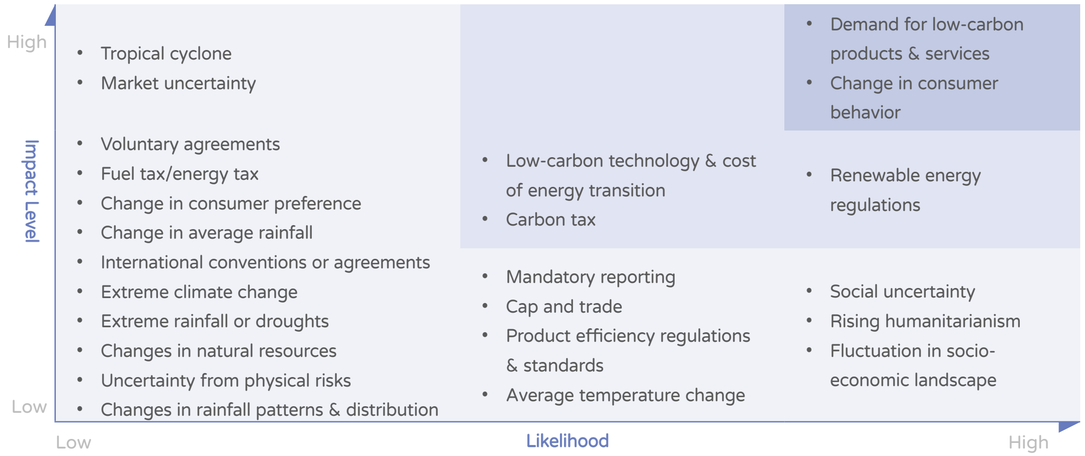
3.2.2 Management of Climate and Water Risks and Opportunities

As our world advances toward sustainability, the role of corporations is no longer limited to economic growth. We must take the initiative in addressing risks and opportunities presented by climate change. As a leading player in the global Electronics Manufacturing Services (EMS) sector, Wistron fully recognizes the profound impacts of climate change on our operating environment, supply chain stability, and customer demand. Therefore, we not only integrate climate-related risks into our enterprise risk management framework but also actively formulate response strategies to reduce our carbon footprint and enhance climate resilience.

Identification of Climate Risks and Opportunities

The management process of risks and opportunities associated with climate and water resources have been integrated into our ERM planning. Results from ERM investigations help identify and manage material risks, with management measures including whether to transfer risks (if applicable) or leverage mitigation activities to control risks. At Wistron, we also refer to the TCFD framework and risk items on CDP's climate change and water safety surveys. Each year, we conduct site-specific identification of transition and physical risks at all operating sites and factories around the world. All results are then sent to headquarters for compilation and analysis of the scale and scope of global impacts, which then guide corresponding strategies and actions. In line with our ERM risk management procedures, we also use a Risk Map to help analyze the likelihood and impact level of any potential risks and emerging risks. Across a timeline from the reporting year to the end of this century, we assess short-, medium-, and long-term risks (short-term: 1-3 years; medium-term: 3-5 years; long-term: 5-10 years) and opportunities, based on factors such as asset lifespan, potential climate risks, and operational sectors and regions. This evaluation covers potential threats to our future operations (including upstream and downstream activities and our own operations). We then assign risk and opportunity ratings, identify their priorities, and present the results in a risk and opportunity matrix. Climate risks include transition risks such as existing regulations, emerging regulations, litigations, markets, goodwill, and technologies, while physical risks include immediate and long-term physical risks. Opportunities associated with climate and water risks include resource efficiency, energy sources, products and services, and market and resilience. Those identified as medium or high risk are listed as significant risks that require prevention measures and mitigation plans. See the 2024 Wistron Climate and Nature Report for detailed assessment of water risks and opportunities.

Climate Risk Matrix



Climate Opportunity Matrix

Management of Climate Risks & Opportunities

Financial Impact Analysis of Climate Risks

Type	Dimension	Source	Description	Scope	Impact Type	Impact Level	Time Horizon	Likelihood	Financial Impacts	Approach	Costs
Transition	Innovation	Demand for low-carbon products & services	Wistron will have to actively invest in developing low-carbon products to align with market trends and increase competitiveness in the face of rising market and customer demand for low-carbon products.	Upstream/Supply Chain Downstream/ Users	Increased R&D costs	High	Long-term	Certain (>99%)	If product specifications fail to meet environmental standards (ES), Wistron's PC products may lose EPEAT certification, causing customers to cancel orders. This could lead to a potential revenue loss of approximately NT$100-300 billion.	Enhance supply chain partners' understanding of low-carbon raw materials by developing a series of ESG training programs. Communicate cost differences based on technical knowledge. Continue investing in R&D to ensure PC products meet the latest ES standards.	2024 PC R&D cost: approx. NT$1-5 billion.
Transition	Market	Change in consumer behavior	Market and end-user demand for low-carbon and energy-efficient products is increasing, with preferences shifting toward low-carbon alternatives. Despite a broad existing customer base, there remains a risk of customer attrition. Strategic adjustments to our product portfolio are required to maintain competitiveness.	Downstream/ Users	Loss of existing customers Rising R&D costs	Medium-High	Long-term	Very Likely (>90%)	Revenue from non-low-carbon products is expected to decline over the next three to five years. By 2027, if there are no management measures implemented, total revenue of non-low-carbon products may drop by approximately NT$20 billion.	Earmark R&D expenses for supporting customers in obtaining environmental labels such as Energy Star, EPEAT, TCO, Taiwan Green Mark, and China Environmental Labeling.	2024 low-carbon product R&D cost to assist customers obtain environmental labels: approx. NT$2-3 billion.
Transition	Regulatory	Renewable energy regulations	Work with affiliates to develop solar power, purchase renewable energy, or purchase RECs. The contracted capacity of our Zhubei AI Plant is 25,000 kW, and will be subject to the Renewable Energy Development Act.	Upstream/Supply Chain Own Operations	Increased direct costs Increased indirect costs Rising energy prices	Medium	Medium-long term	Very Likely (>90%)	(>90%) Potential penalties or fees due to failure to meet mandatory renewable energy requirements may increase expenditures by approx. NT$5 million.	Implement renewable energy management measures in compliance with regulations.	2024 costs for on-site generation, renewable energy PPAs, and I-REC procurement: approx. NT$60 million.

Management of Climate Risks & Opportunities

Financial Impact Analysis of Climate Risks

Type	Dimension	Source	Description	Scope	Impact Type	Impact Level	Time Horizon	Likelihood	Financial Impacts	Approach	Costs
Transition	Regulatory	Carbon tax	Although operations/products are not within the initial CBAM (Carbon Border Adjustment Mechanism) scope, potential cost increases from domestic and international regulations remain. Based on projected 2030 electricity usage, emissions will be around 30,000 tonnes. However, the group has declared a net-zero goal by 2030, thus expected emissions will remain below regulatory thresholds.	Own Operations Upstream/Supply Chain	Increased direct costs Increased indirect costs Rising raw material prices	Low to Medium	Short-term	Possible (33%-50%)	Estimated indirect revenue decline of approx. NT$4.4-9 billion due to carbon tax implications.	1. Assess the impact of domestic and international carbon regulations and plan internal carbon pricing accordingly; management costs include external consultant and internal labor costs. 2. Increase the share of renewable energy	External consulting and implementation cost of internal carbon pricing according to impact assessment of domestic/ international carbon regulations: approx. NT$2.3 million.
Transition	Innovation	Low-carbon technology & cost of energy transition	Develop and adopt low-carbon transition technologies. Through technological innovation and process improvement, reduce energy use and carbon emissions during operations to enhance Wistron's resilience and competitiveness.	Own Operations Upstream/Supply Chain	Increased R&D costs	High	Long-term	Certain (>99%)	Failure to optimize production processes in the face of transition risks associated with low-carbon technologies will increase electricity use and related costs, leading to an additional 300 MWh consumed from 2025 to 2027, incurring extra costs of approx. NT$2.47 million.	Plan to implement process optimization (hardware and software upgrades) and energy-saving measures in 2025.	Capital investment for process optimization across global locations: approx. NT$0.5-1.0 million.

Management of Climate Risks & Opportunities

Financial Impact Analysis of Climate Opportunities

Dimension	Source	Description	Scope	Impact Type	Impact Level	Time Horizon	Likelihood	Financial Impacts	Approach	Costs
Energy source	Adoption of new technologies	Conducting high-altitude wind power verification projects to expand renewable energy types. Investing in green energy funds, developing energy-saving technologies for new products, and reducing energy consumption.	Upstream/ Supply Chain Own Operations	Investment opportunities New products or services Increased competitiveness	High	Long-term	Certain (>99%)	Revenue from products using recycled materials increased by approx. NT$104 billion. Green certificates acquired from investing in green energy funds has reduced costs by approx. NT$ 1.33 million. Adoption of new energy-efficient technologies has reduced product energy consumption, leading to cost savings of approx. NT$5.6 billion.	1. Continue to invest in green energy projects 2. Increase R&D costs for the improvement of product energy efficiency.	1. Continue to invest in green energy projects: approx. NT$800 million. 2. 2024 investments in low-carbon product R&D: approx. NT$3 billion.
Resource efficiency	Recycled materials	Assessing and gradually adjusting the percentage of recycled materials across product lines to effectively increase resource efficiency and strengthen brand competitiveness.	Upstream/ Supply Chain	Increased competitveness Stable supply chain	High	Long-term	Certain (>99%)	2024 revenue from low-carbon products: approx. over NT$400 billion, 20%-30% increase from the previous year. As market demand continues to rise for products made from recycled materials, future revenue is expected to continue rising as well.	Increase R&D investments to increase the use of recycled materials in Wistron products.	R&D expenses for introducing more recycled materials: NT$3-3.5 billion.
Energy source	Low-carbon energy	Wistron is now SBTi-verified and aims to reduce Scope 2 emissions to 90% in 2030. As such, we will leverage in-house power supplies and purchased renewable energy to reach 80% renewable energy use in 2025, easing power market supply-demand pressure.	Own Operations	Lower carbon costs Investment opportunities	Midium-High	Short-term	Certain (>99%)	Renewable energy PPA contract price difference in 2024: approx. NT$60 million.	In addition to purchasing renewable energies, Wistron is developing and investing in new low-carbon energies such as hydrogen and geothermal energy.	Investments in surveying/ developing new low-carbon energies: NT$50-80 million in hydrogen between 2025-2028; and NT$60-90 million in geothermal energy between 2025-2028.

Management of Climate Risks & Opportunities

Financial Impact Analysis of Climate Opportunities

Dimension	Source	Description	Scope	Impact Type	Impact Level	Time Horizon	Likelihood	Financial Impacts	Approach	Costs
Products and services	Diverse operations	IT assisted in developing & introducing corporate carbon inventory services, providing new service models and collaborating with customers to co-develop and introduce the Green Leaf program to other production lines, expanding new in-house technologies to various production lines.	Own Operations Downstream/ Users	New products or services Increased competitiveness	Medium-High	Long-term	Certain (>99%)	2024 revenue from low-carbon products: approx. over NT$400 billion, 20%-30% increase from the previous year. In the next one to three years, we expect to see rising market demand for low-carbon products, driving related revenue to continue rising.	Investing more in R&D expenses to ensure products comply with low-carbon/energy efficient product demands and guidelines.	2024 investments in low-carbon product R&D: NT$3 billion.
Resource efficiency	Production processes	Improve process efficiency through higher yield, shorter production time, and better resource efficiency. Implement UL2799 Zero Waste to Landfill and reduce organic solvent use across global plants.	Own Operations	Lower operating costs Improved operational efficiency	High	Long-term	Certain (>99%)	Savings in next three years from process optimization (hardware/software): approx. 300 MWh & NT$10 million. Savings from fewer air pollution control facilities from initiatives to reduce VOCs below regulatory thresholds, leading to no additional facilities: NT$11.90 million.	Reduce VOCs, optimize processes, and ensure energy-efficient processes to increase production efficiency.	2024-2026 investments in VOC reduction: approx. 3,000 hours of labor & NT$6.95 million in labor costs. Investments for process optimization & energy conservation, including for hardware and software upgrades: approx. NT$8 million
Market	New funding sources	Signing sustainability-linked loans with banks to earn preferential interest rates by linking loans with ESG targets.	Own Operations	Lower operating costs Investment opportunities	Medium-High	Short-term	Certain (>99%)	Signed sustainability KPIs with banks that, once reached, will lead to estimated interest savings of NT$20 million.	Approach consistent with carbon and water control measures. Goal is to manage Corporate Governance Evaluation rankings, renewable energy use, energy use, water use, and GHG emissions in compliance with loan terms.	2024 labor costs for sustainability issues and Corporate Governance Evaluation: NT$7.2 million.
Products and services	Change in consumer behavior	There may be a rising market demand as end customers show more interest and demand for low-carbon products and green products, which leads to Wistron having to provide more new products or services to our customers.	Own Operations Downstream/ Users	Rising market demands New products or services	Medium-High	Long-term	Very Likely (>90%)	Increased revenue and higher gross profit margins from low-carbon products are expected to increase revenue by over NT$50 billion.	Investing more in R&D expenses to ensure products comply with low-carbon/energy-efficient product demands and guidelines.	2024 investments in low-carbon product R&D: NT$2-3 billion.

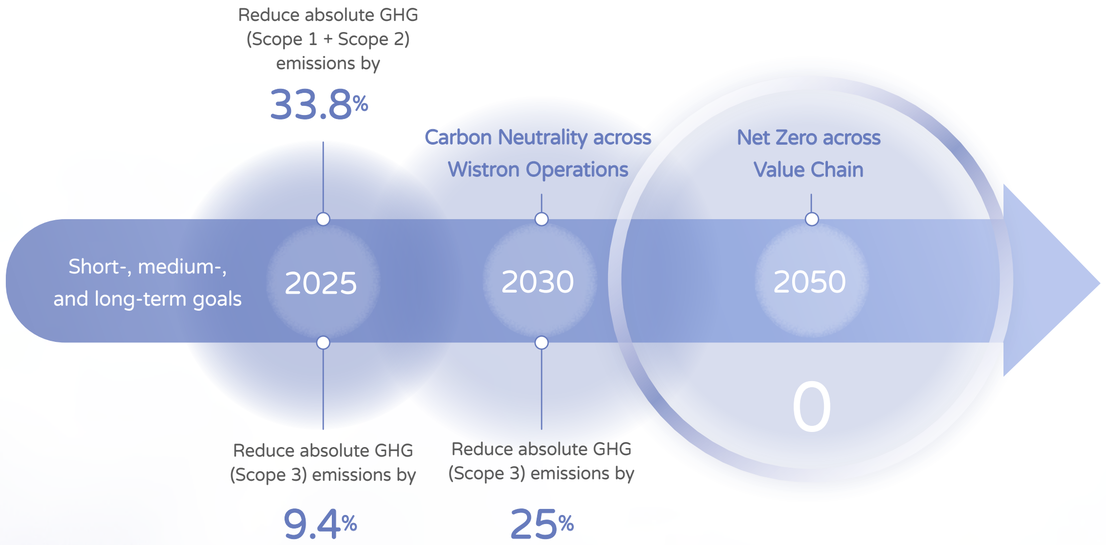
3.2.3 Climate Goals

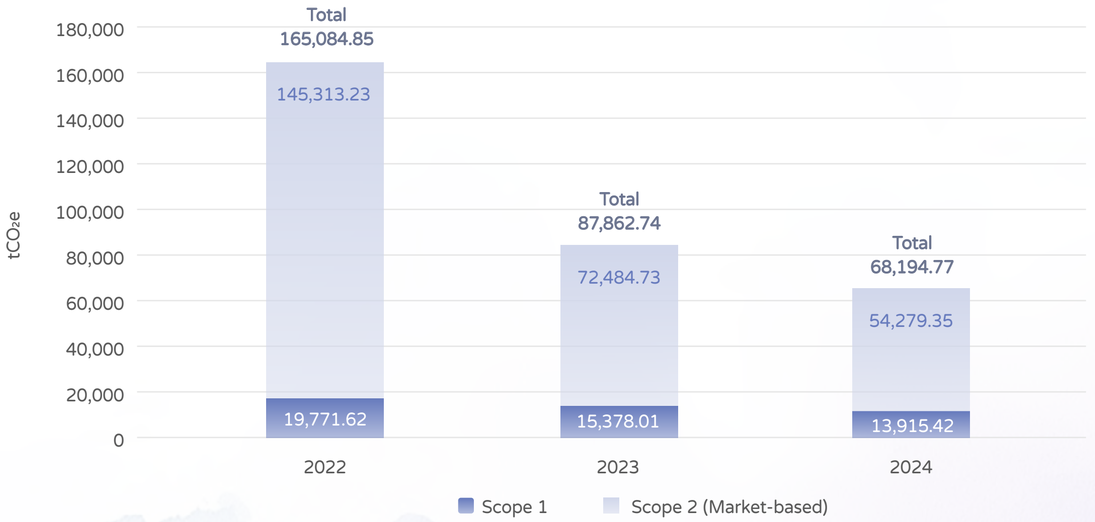
Science-based targets (SBT)

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

In April 2024, Wistron's science-based targets were approved by the SBTi, and now align with the Paris Agreement's efforts to contain global warming to a maximum of 1.5°C above pre-industrial levels. We are committed to achieving carbon neutrality across Wistron's operations by 2030 and net-zero emissions across the entire value chain by 2050. To such ends, we have set near- and long-term targets:

- Near-term target：By 2030, reduce absolute Scope 1 and Scope 2 GHG emissions by 90% compared to the 2022 base year. Also, by 2030, reduce absolute Scope 3 GHG emissions from purchased goods and services and the use of sold products by 25%.
- Long-term target：From 2030 to 2050, maintain a 90% reduction in absolute Scope 1 and Scope 2 GHG emissions from the base year of 2022, and achieve a 90% reduction in absolute Scope 3 GHG emissions, also from the base year of 2022.





Decarbonization Strategies and Achievements

By setting SBTs, we demonstrate our concern and commitment to global climate change issues and the transition to a low-carbon economy. To enforce decarbonization efforts, we continue to increase our use of renewable energy, improve energy efficiency, develop low-carbon products, and adopt internal carbon pricing mechanisms, aligning our efforts with the 1.5° C emissions reduction pathway. In 2024, direct emissions and indirect energy emissions (market-based) from Wistron's global operations amounted to 68,194.78 tCO_2e, marking a 22.4% reduction from 2023 and 58.7% reduction from the base year. This was mainly driven not only by the implementation of energy-saving and technical improvement projects at global locations, but more importantly, by aggressive efforts to increase our use of renewable energy through the installation of solar power facilities, signing PPAs with green energy providers, and purchasing renewable energy certificates (RECs).

Total Scope 3 emissions have been reduced by 8.2% from the base year, while Category 1 (purchased products and services) and Category 11 (use of sold products) emissions were reduced by 5.8% from the base year. To reduce emissions from purchased goods and services, we adopted a two-pronged approach. On one hand, we developed a PCF System to identify carbon hotspots from products and components, assisting our R&D team to continue reducing product carbon emissions to further enhance the low-carbon efficiency of our procurement strategies. On the other hand, we collaborated with our supply chain partners to promote decarbonization initiatives, inviting 30 major suppliers to participate in the WiZero (Wistron Zero Carbon Emission) platform and low-carbon supply chain project. These initiatives include carbon inventory, decarbonization information sharing, and technical counseling to help our supply chain partners progress towards science-based emission reduction targets. Since the launch of WiZero in June 2023 to the end of 2024, the initiative has achieved a cumulative emissions reduction of 10,742 tCO_2e, surpassing the target of 8,000 tCO_2e set for 2024. For decarbonization across use of sold products, we continue to collaborate with customers to develop low-carbon products - from opting for low-carbon raw materials to designing high-performance, durable, and easy-to-repair products - to reduce energy use and product replacement frequency throughout the use stage. This can ultimately reduce GHG emissions across the product life cycle.

Beyond decarbonization initiatives within the supply chain, we've also invested heavily in Beyond Value Chain Mitigation (BVCM) activities, collaborating with external professional partners on developing forest carbon sink projects and acquiring SBTi-approved carbon quotas through project developments, direct investments, or market acquisition. In addition, we will be assessing potential investments in carbon removal technologies to offset residual emissions that cannot be eliminated, gradually progressing towards our vision for a net-zero future.

3.2.4 Nature and Biodiversity

In recent years, stakeholder concerns have largely focused on climate risks, and biodiversity loss has gradually emerged as a key area of significant impact and attention as well. Wistron's global manufacturing sites and offices are not located in environmentally protected areas, regions of high biodiversity value, or restored habitats. There are no species listed as endangered under the International Union for Conservation of Nature (IUCN) Red List or national conservation lists present within our sites. We conduct environmental impact assessments in compliance with local regulations to prevent harm to biodiversity and actively use eco-friendly technologies. Compliance with environmental regulations is ensured through regular inspections on wastewater treatment, emissions, waste management, and noise. In Taiwan, we collaborate with organizations, local residents, and stakeholders through the Wistron Foundation on projects related to natural ecosystem conservation.

We are committed to mitigating our impact on the ecosystem by continuously improving our activities, products, and services, and by promoting biodiversity conservation and reforestation initiatives. Starting from within the company, we also call for our value chain and operating sites to avoid any acts of deforestation. We continue to plan for avoidance, minimalization, restoration, and biodiversity offsets as steps toward our goal. We are also systemically introducing Nature-based Solutions (NbS) and striving toward the shared goals of No Net Loss (NNL) and Net Positive Impacts (NPI).

To support the Global Goal for Nature and continue to spotlight our ecological environment, respect the ecological balance, and protect endangered species, Wistron started developing methodologies and indicators to assess our reliance and impact on nature and biodiversity. In addition, we also developed related work goals. We are committed to becoming Nature Positive by 2050. In the meantime, we have also set codes of conduct for suppliers to prevent biodiversity loss and deforestation. The code covers topics such as environmental protection, banning of deforestation, protection of natural habitats, and preventing soil pollution.

Wistron's Nature and Biodiversity &
No Deforestation Policy

The Taskforce on Nature-related Financial Disclosures (TNFD)

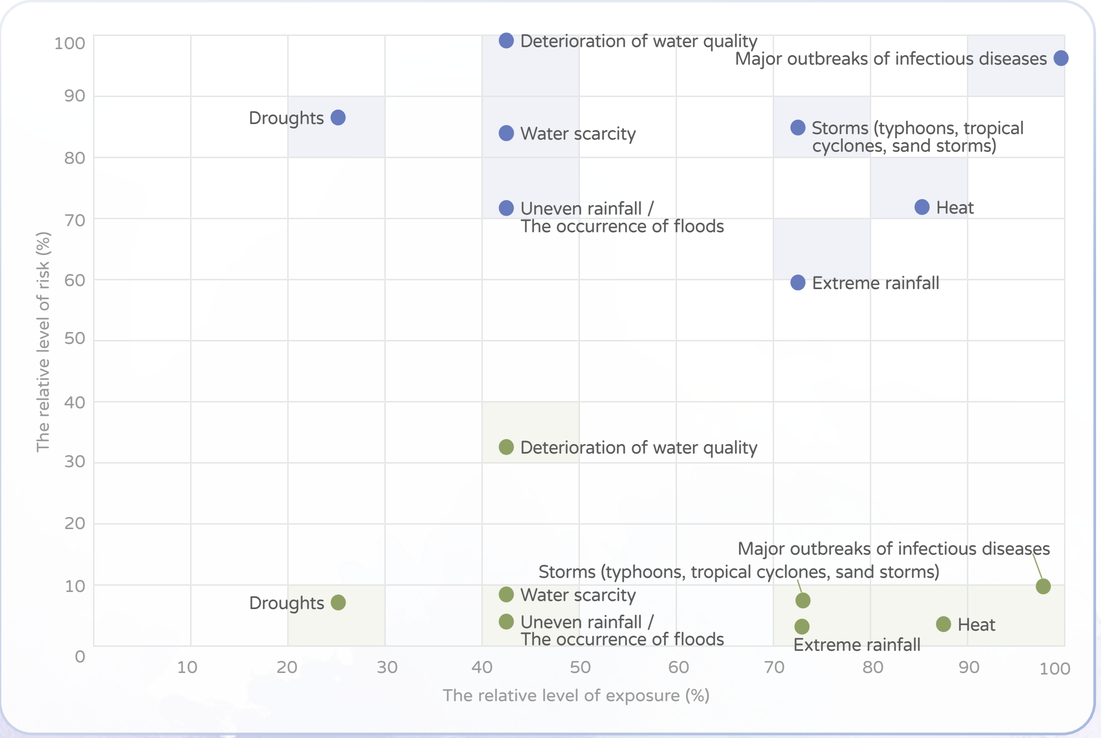
To enhance climate- and nature-related financial disclosures, Wistron has adopted the Taskforce on Nature-related Financial Disclosures (TNFD) framework and incorporated the LEAP (Locate, Evaluate, Assess, Prepare) approach to systematically identify, assess, and manage nature-related risks and opportunities. Please refer to the Wistron 2024 Climate and Nature Report for more details.

Steps	Locate The interface with nature	Evaluate Dependencies & impacts	Assess Risks & opportunities	Prepare To respond & report
Description	Identify areas of business operations	Assess dependencies & impacts	Assess nature-related risks & opportunities	Nature-related risk disclosure
Scope	Supply Chain & Wistron Locations	Supply Chain & Wistron Locations	Supply Chain & Wistron Locations	Supply Chain & Wistron Locations
Objective	Identify key areas where business activities have significant impacts on nature. Biodiversity mapping data was sourced from the IUCN Protected Area Categories and relevant Taiwanese regulations on conservation zones	Analyze the extent to which our operations depend on biodiversity and ecosystem services	Quantify the risks and opportunities and incorporate the quantified values into our ERM framework	Support long-term sustainable operations, align with TNFD disclosure recommendations, enhance transparency, and build investor confidence
Output	Using a fixed-radius buffer analysis, overlay Wistron locations with biodiversity data to evaluate potential impacts such as pollution and noise, thereby identifying high-risk ecosystems	Identify potential impacts	Ensure decision-making fully considers the impacts of natural capital changes to operations	Develop adaptation and mitigation strategies

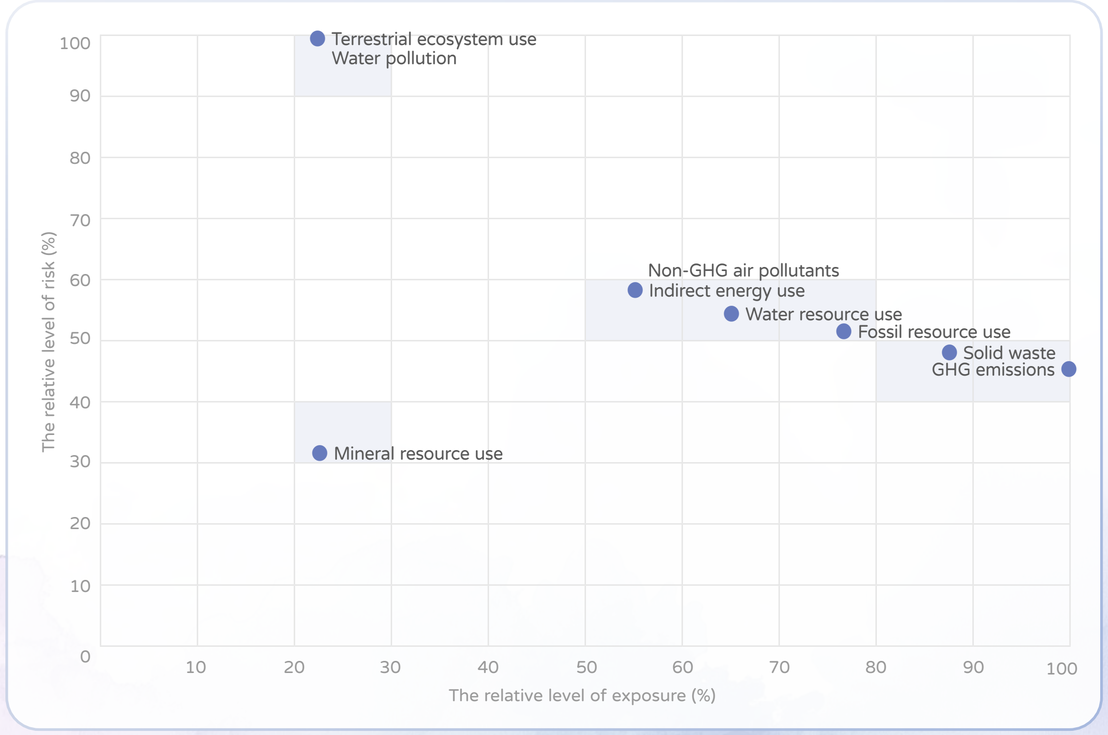
Dependency and Impact on Nature

To better assess and manage our impact on natural resources, Wistron conducted an analysis of our materiality matrix before and after adaptation measures. The matrix analysis allows us to gain a clear understanding of our business activities dependence on water resources, land use, air quality, etc., and then compares the difference between impacts before and after adaptation measures. This not only helps Wistron identify high-risk operations, but also serves as scientific basis for mitigation and adaptation strategies. We will continue to adopt a data-drive approach to strengthen our organizational resilience and ensure both business development and ecological protection. Wistron's dependencies before adaptation efforts are listed below:

Natural Dependence (Disaster) Materiality Matrix



The significance of natural impact categories



Post-adaptation Management Metrics & Targets for Dependencies & Impacts on Nature

Dependency Metrics and Targets

In line with the TNFD framework, Wistron has conducted a systematic inventory of risks and exposures caused by nature dependence. By identifying key ecosystem services (e.g., freshwater supply, climate regulation, biological control services, etc.) and their impacts from natural disasters or changes (e.g., droughts, floods, climate change, etc.), we then consider actual circumstances to disclose specific metrics of measurable units (e.g., water status, temperature warnings, disease information, etc.) to quantify our dependence and potential risks. Furthermore, adaptation and response measures are implemented through internal early warning mechanisms (e.g., alert systems, high-temperature warning systems) and the setting of risk management targets (e.g., annual water use reduction rates, heavy rainfall prevention measures). For items where metrics and targets have not yet been established, we plan to conduct internal planning to strengthen operational resilience and advance our sustainability performance.

Services	Sub-categories	Mechanisms of Change in State	Indicators	Unit	Early Warning System	Objectives
Regulating & Supporting Services	Rainfall pattern regulation services (at sub-continental scale)	Droughts/Changes in rainfall seasons	Meteorological data: Rainfall forecast WRA: Water reserve levels	Reservoir levels (%) 24-hour rainfall accumulation (mm/day)	• Drought Conditions During dry season, Wistron regularly monitors local water reserve levels and adopts response measures when given early warnings from water companies or governments. Response measures include: 1. Yellow Alert (Reduce water supply during off-peak time): (1) Reduce unnecessary cleaning periods (2) Identify surrounding water stations (water supply stations and drinking water supply stations) and assess whether we need to contact bottled water suppliers for backup 2. Orange Alert (Reduce water supply): (1) Water conservation signs in bathrooms or scheduled flushing period (2) Strengthen internal mechanisms for reporting changes in water levels and response measures and raise employee awareness of water conservation 3. Red Alert (Rotate water supply): (1) Tap into water reserves (2) Adjust shifts to reduce number of workers and, therefore, water use • Extreme Rainfall Events 1. Respond to government-issued heavy rain alerts/warnings (e.g., Mainland China: four-tier, color-coded weather warning system; Taiwan: torrential rain alerts; Malaysia: continuous rain/ thunderstorm warnings) by activating internal early warning mechanisms and relevant emergency response procedures 2. Assign dedicated personnel to check official meteorological forecasts at set times daily, specifically focusing on monitoring and flagging heavy rain alerts 3. Encourage employees to report early signs of heavy rainfall or ponding to administrative departments as soon as possible	1. Comply with early warning from governments to adopt response measures and ensure business continuity throughout various drought alerts 2. Continue to conduct business continuity planning (BCP) drills to ensure business continuity

Services	Sub-categories	Mechanisms of Change in State	Indicators	Unit	Early Warning System	Objectives
Regulating & Supporting Services	Local climate regulation services	Heat	Meteorological data: Climate forecast	Temperature (℃)	1. Government-issued heatwave alerts (criteria: 1. > 40° C or 2. lasting 2+ weeks) 2. Assign a weather personnel to monitor official weather bureau websites or major weather applications, specifically for any extreme heatwave alerts 3. Build communication channels with local communities to develop multiple information sources 4. Activate emergency response measures (adjust shifts, work from home, backup generators, etc.) 5. Advise employees to avoid outdoor work in extreme heat	1. Limit downtime caused by > 40° C heat to under 12 hours 2. Leverage emergency measures to ensure critical business operations remain uninterrupted in extreme heat conditions
	Storm mitigation services	Storms (typhoons, tropical cyclones, sand storms)	Typhoon warnings and wind speed forecasts	Tropical cyclone intensity scales	1. Wistron regularly monitors weather changes and will identify corresponding measures and emergency response measures according to storm intensity 2. Comply with Wistron's internal control document on Storm & Flood Response SOP	1. Limit downtime caused by typhoons to under 12 hours 2. Leverage emergency measures to ensure critical business operations remain uninterrupted during typhoons
	Biological control services - Disease control services	Major outbreaks of infectious diseases	CDC information on infectious diseases and outbreaks	Number of infections	1. Establish a monitoring system and assign dedicated personnel to track major outbreaks via authoritative sources 2. Trigger internal alerts, develop internal tracking measures, require employees to report health conditions daily, and assign dedicated personnel to track and monitor 3. Tier-based response system, initiating different control measures according to different risk levels. 4. Develop internal control documents: - Emergency Response SOP: Issue SOPs for addressing infectious diseases - Epidemic prevention and control procedures	1. Contain outbreaks to outside of Wistron locations 2. Prevent employees from getting infected or spreading the pandemic 3. Control materials entering Wistron locations to prevent infections

Impact Metrics and Targets

Wistron has identified the actual or potential negative impacts of our operations on natural capital in accordance with the TNFD-defined major categories of impact, as well as assessed residual risks and exposure levels after existing management and mitigation actions. Through the establishment of specific indicators and measurement units (e.g., water usage, GHG emissions, biodiversity impact), we also evaluated the natural impacts of our activities in terms of land use change, resource extraction, and pollution emissions. Our management include surveying our resource use and emissions, identifying risk hotspots, adopting decarbonization technologies, and other strategies. These are complemented with mid-to-long term mitigation targets (short-term target of containment in 2024 and long-term target of nature positive n 2030) that are tracked and monitored at each step. By assessing post-adaptation risks and exposures, Wistron is able to identify major natural impacts and disclose existing metrics and measurable units. For items where metrics and targets have not yet been established, we plan to conduct internal planning to exert better control of our impacts on natural systems and strengthen our resilience amidst sustainability transformations.

Impact Drivers	Sub-categories	Description	Indicators	Unit	Management (Mitigation) Approach	2024 Targets	2030 Targets
Resource use	Indirect energy use	Indirect energies (electricity, heat, steam, etc.) are important production inputs.	Electricity use	MJ or MWh	1. Use high-efficiency equipment such as LED lighting and upgrade production facilities 2. Increase use of renewable energies like solar and wind energy 3. Regularly monitor electricity use at each plant and check for anomalies 4. Provide energy-saving projects to plants and production lines to optimize facilities and processes, thereby achieving energy conservation benefits on a daily basis.	1. 72.5% renewable energy use 2. Increase energy efficiency by 2%	1. 100% renewable energy use 2. Increase energy efficiency by 2%
Climate change	GHG emissions	Production processes generate GHG emissions (Scope 1 + Scope 2), and GHG emissions is now a topic of concern to customers.	GHG emissions	tCO_2e	1. Improve energy efficiency: Update and maintain equipment to increase energy efficiency in production processes or conserve energy with technical improvements to reduce energy use. 2. Increase renewable energy use: Prioritize the installation of on-site solar PV systems and complement with PPAs and RECs	Reduce absolute GHG emissions by 22.5% from 2022	Carbon neutrality (Scope 1 + Scope 2)

Impact Drivers	Sub-categories	Description	Indicators	Unit	Management (Mitigation) Approach	2024 Targets	2030 Targets
Pollution	Non-GHG air pollutants	General air pollutants (NOx, SOx, $PM_{2.5}$, VOCs, etc.) are byproducts of production processes.	Legal Emissions of Air Pollutants	Metric tons	1. ptimize production processes and efficiency 2. Replace activated carbon regularly per environmental requirements 3. Monitor and control exhaust emissions per regulations, including: • 1: Industrial emissions • 2: VOCs from chemicals, cleaning agents, and fluxes	100% compliance with regulatory requirements	
	Water pollution	Production processes generate process wastewater (BOD, COD, etc.)	Statutory pollutant concentrations in wastewater	mg/L COD	Monitor and control wastewater concentrations according to environmental regulations	100% compliance with regulatory requirements	
	Solid waste	Production processes generate industrial waste that requires reporting.	Industrial waste is categorized into the following by treatment: 1. General industrial waste 2. Hazardous industrial waste	Metric tons Waste recycling %	1. Promote waste separation and source reduction 2. Strengthen waste recycling and reuse (incl. packaging materials) per circular economy principles of "3Rs"	Reduce waste intensity by 8% from 2018	Reduce waste intensity by 20% from 2018

Nature-related Risks & Opportunities

Risks of Dependency on Natural Capital

Sub-categories (SEEA/TNFD)	Mechanisms of Change in State	Illustrative Example	Type of Physical Risk	Potential Financial Impacts	Indicators & Units	Risk Mitigation
Rainfall pattern regulation services (at sub-continental scale)	Droughts/ Changes in rainfall season/ Uneven rainfall	• Drought: Our Southern Taiwan plant experiences uneven rainfall between winter and summer, and is often subject to limited water supplies during winter • Extreme Rainfall: Manufacturing plants in both Mainland China and Taiwan may face flooding due to extreme rainfall (waterlogging), which may affect deliveries and employee safety at work	Acute	Operating costs & Procurement costs	Reservoir levels (%) 24-hour rainfall accumulation (mm/day)	• Drought Conditions During dry season, Wistron regularly monitors local water reserve levels and adopts response measures when given early warnings from water companies or governments. Response measures include: - Yellow Alert (Reduce water supply during off-peak time) 1. Reduce unnecessary cleaning periods 2. Identify surrounding water stations (water supply stations and drinking water supply stations) and assess whether we need to contact bottled water suppliers for backup - Orange Alert (Reduce water supply): 1. Water conservation signs in bathrooms or scheduled flushing period 2. Strengthen internal mechanisms for reporting changes in water levels and response measures and raise employee awareness of water conservation - Red Alert (Rotate water supply): 1. Tap into water reserves (prepare water tankers & emergency water tanks; contact local authorities, water utility companies, and plants for emergency water sources; etc.) 2. Adjust shifts to reduce number of workers and, therefore, water use • Extreme Rainfall Events 1. Respond to government-issued heavy rain alerts/warnings (e.g., Mainland China: four-tier, color-coded weather warning system; Taiwan: torrential rain alerts; Malaysia: continuous rain/thunderstorm warnings) by activating internal early warning mechanisms and relevant emergency response procedures 2. Assign dedicated personnel to check official meteorological forecasts at set times daily, specifically focusing on monitoring and flagging heavy rain alerts 3. Encourage employees to report early signs of heavy rainfall or ponding to administrative departments as soon as possible
Local climate regulation services	Heat	Due to their geographical locations, plants in western China and Vietnam are subject to continuous extreme heat during the summer, which leads to governments issuing power cuts.	Acute	Operating costs	Temperature (℃)	1. Government-issued heatwave alerts (criteria: 1. > 40° C or 2. lasting 2+ weeks) 2. Assign a weather personnel to monitor official weather bureau websites or major weather applications, specifically for any extreme heatwave alerts 3. Build communication channels with local communities to develop multiple information sources 4. Activate emergency response measures (adjust shifts, work from home, backup generators, etc.) 5. Advise employees to avoid outdoor work in extreme heat
Storm mitigation services	Storms (typhoons, tropical cyclones, sand storms)	Taiwan and Southern China is often subject to typhoons, which leads to typhoon days, halted production, and financial losses.	Acute	Operating costs, capital expenditures	Tropical cyclone intensity scales	1. Wistron regularly monitors weather changes and will identify corresponding measures and emergency response measures according to storm intensity 2. Comply with Wistron's internal control document on Storm & Flood Response SOP
Biological control services - Disease control services	Major outbreaks of infectious diseases	Manufacturing sites are vulnerable to fast-spreading, highly infectious diseases, which poses risks to business continuity, including workforce shortages and production delays, which indirectly impact revenue.	Acute	Operating revenue & Operating costs	Number of infections	1. Establish a monitoring system and assign dedicated personnel to track major outbreaks via authoritative sources 2. Trigger internal alerts, develop internal tracking measures, require employees to report health conditions daily, and assign dedicated personnel to track and monitor 3. Tier-based response system, initiating different control measures according to different risk levels 4. Develop internal control documents: - Emergency Response SOP: Issue SOPs for addressing infectious diseases - Epidemic prevention and control procedures

Nature-related Risks & Opportunities

Opportunities of Dependency on Natural Capital

Sub-categories (SEEA/TNFD)	Mechanisms of Change in State	Illustrative Example	Type of Opportunity	Potential Financial Impacts	Strategies
Rainfall pattern regulation services (at sub-continental scale)	Droughts/Changes in rainfall season/Uneven rainfall	Increase ability to respond to droughts or extreme rainfall and sustain operations.	Increase in goodwill Business performance: Products & services	Decreased financial losses Decreased operating costs	1. Regularly evaluate water-saving performance in daily operations, recycled water use, and water control; include water consumption per revenue unit as part of short-, medium-, and long-term sustainability goals to continually improve water efficiency 2. Implement BCP response procedures and stay updated with government and site-specific information for timely response and instructions 3. Conduct emergency drills and respond with climate physical risk adaptation plans, such as: (1) Flood detention facilities, rainwater retention ponds, floodgates/barriers, etc. (2) Pumping strategies to tackle extended heavy rainfall
Local climate regulation services	Heat	Review and adjust allocation of electricity across air conditioning, compressed air, lighting, management, and production systems to improve operational resilience during extreme heat.	Increase in goodwill Business performance: Resource efficiency and Products & services	Decreased financial losses Decreased operating costs	1. Follow climate physical risk adaptation plans, suspend outdoor work if necessary, and comply with occupational safety laws and internal emergency protocols to avoid occupational accidents 2. Continue implementing energy-saving measures to reduce load and improve our energy resilience and flexibility 3. Regularly conduct emergency drills and develop plans for emergency generators
Storm mitigation services	Storms (typhoons, tropical cyclones, sand storms)	Increase our ability to address typhoons and sustain operations.	Increase in goodwill Business performance: Products & services	Decreased financial losses Decreased operating costs	1. Pre-typhoon checks and reinforcements 2. Monitor work suspension guidelines, alerts, and news, and provide transportation or other forms of assistance when necessary to secure employee safety 3. Ensure business continuity for critical operations during wind disasters
Biological control services - Disease control services	Major outbreaks of infectious diseases	Improve our ability to contain large-scale epidemic outbreaks to ensure reliable product deliveries.	Increase in goodwill Business performance: Products & services	Decreased financial losses Decreased operating costs	1. Establish response measures, including internal alert triggers, tiered responses, working-from-home plans, and rotational shifts (to control in-plant workforce). 2. Regularly inspect epidemic prevention supplies to ensure sufficient resources 3. Educational videos on epidemic prevention

Nature-related Risks & Opportunities

Risks of Impact on Natural Capital

Sub-categories (SEEA/TNFD)	Mechanisms of Change in State	Impact Pathway	Illustrative Example	Type of Physical Risk	Potential Financial Impacts	Indicators & Units	Risk Mitigation
Resource use	Indirect energy use	Under global decarbonization trends, customers and related stakeholders are requiring plants to reduce traditional energy use or adopt renewable energies. Failure to do so may lead to customers transferring their orders elsewhere to paying additional carbon fees.	1. Manufacturing plants should comply with energy conservation targets, increasing renewable energy usage each year while maintaining uninterrupted operations 2. Energy sources should transition to renewables and gradually increase renewable energy usage	Regulatory, Market, Reputational	Operating revenue, Operating costs & Procurement costs	MJ or MWh	1. Use high-efficiency equipment such as LED lighting and upgrade production facilities 2. Increase use of renewable energies like solar and wind energy 3. Regularly monitor electricity use at each plant and check for anomalies 4. Provide energy-saving projects to plants and production lines to optimize facilities and processes, thereby achieving energy conservation benefits on a daily basis
Climate change	GHG emissions	Under global decarbonization trends, global initiatives, stakeholders, and domestic regulations are all requiring businesses to reduce GHG emissions from operational activities. Failure to do so will lead to additional carbon fees, damage to the business's reputation in sustainability, and blacklisting from stakeholders or customers.	1. Manufacturing plants should comply with energy conservation targets, reducing carbon emissions per unit of revenue each year while maintaining uninterrupted operations 2. Comply with targets set under the SBTi 3. Pay carbon fees	Regulatory, Market, Reputational	Operating revenue & Operating costs	tCO_2e	1. Improve energy efficiency: Update and maintain equipment to increase energy efficiency in production processes or conserve energy with technical improvements to reduce energy use 2. Increase renewable energy use: Prioritize the installation of on-site solar PV systems and complement with PPAs and RECs
Pollution	Non-GHG air pollutants	Any air pollutants such as particulate matters or VOCs produced from production processes must comply with regulatory emission standards. Failure to do so will lead to environmental pollution, cause harm to employee health, and incur additional costs.	Regulations, stakeholders, and related certifications demand for reduced or complete elimination of VOCs and particulate matters.	Regulatory, Reputational, Technological	Operating revenue & Compliance costs	Metric tons	1. Optimize production processes and efficiency 2. Replace activated carbon regularly per environmental requirements 3. Monitor and control exhaust emissions per regulations, including: • 1: Industrial emissions • 2: VOCs from chemicals, cleaning agents, and fluxes
	Water pollution	Process wastewater from specific plants must comply with COD standards, as such, we must install wastewater treatment facilities and comply with regulations.	Regulations, stakeholders, and related certifications demand for reduced or complete elimination of wastewater pollution.	Regulatory, Reputational, Technological	Operating revenue & Compliance costs	mg/L COD	Monitor and control wastewater concentrations according to environmental regulations.
	Solid waste	Solid waste itself as well as tightener regulations will lead to businesses expending additional costs to separate and treat industrial waste.	1. Regulations or stakeholders require a specific percentage of recycled materials 2. Recycle resources inside and outside plants to reduce waste generation 3. Costs and risks associated with developing technologies to recycle materials	Regulatory, Market, Reputational	Operating revenue & Compliance costs	Metric tons Waste recycling (%)	1. Promote waste separation and source reduction 2. Strengthen waste recycling and reuse (incl. packaging materials) per circular economy principles of “3Rs”

Nature-related Risks & Opportunities

Opportunities of Impact on Natural Capital

Sub-categories (SEEA/TNFD)	Mechanisms of Change in State	Illustrative Example	Type of Opportunity	Potential Financial Impacts	Strategies
Resource use	Indirect energy use	1. Steadily decreasing energy use per unit of revenue or increasing renewable energy use can increase our market competitiveness and customer willingness to place orders with Wistron 2. Upgrading to energy-efficient facilities can reduce energy use	Increase in goodwill Business performance: Resource efficiency, Market, and Products & services Externalities: Sustainable resource recycling and promoting sustainable development	Increased operating revenue; Decreased operating costs	1. Continue to roll out technical improvements for energy conservation in plants and, each year, increase energy efficiency by 2% 2. Increase renewable energy use by maximizing on-site solar energy systems for in-house use while also investing in the procurement and installation of renewable energy, aiming to reach 72.5% renewable energy use by 2024
Climate change	GHG emissions	1. Steadily reducing carbon emissions per unit of revenue or increasing renewable energy usage helps avoid additional carbon tax costs, enhance our reputation in sustainability and market competitiveness, and increase stakeholder willingness to work with Wistron 2. Using low-carbon energy and upgrading to energy-efficient facilities can reduce GHG emissions	Increase in goodwill Business Performance: Resource efficiency, Market, Reinvestments, and Products & services Externalities: Sustainable resource recycling and promoting sustainable development	Decreased operating costs; Decreased production costs; Increased operating revenue; New businesses	1. The group's decarbonization plan is SBT-approved, and we are implementing annual carbon reduction plans to reduce carbon emissions per unit of revenue by 22.5% by 2024 compared to the base year (2022) as we strive toward decarbonization 2. Develop decarbonization plans and internal carbon pricing mechanisms to address future impacts from carbon fee and encourage units to invest in decarbonization technologies and facilities
Pollution	Non-GHG air pollutants	Reliable control of VOCs and particulate matter emissions can increase stakeholder trust in our business operations and reduce air pollution.	Increase in goodwill Externalities: Ecological conservation & Environmental protection	Reduced damages	1. Develop internal control systems and regularly review regulatory compliance and production processes to optimize production efficiency 2. Install air pollution prevention facilities in compliance with government regulations on environmental protection
	Water pollution	Developing a robust wastewater treatment facility and recycling unit can avoid pollution and penalties from improper wastewater discharge and enhance our goodwill.	Increase in goodwill Business performance: Products & services Externalities: Ecological conservation & Environmental protection	Reduced damages	1. Evaluate water use patterns at each plant to identify opportunities for wastewater recycling and reuse. In addition, continue to monitor and improve to ensure regulatory compliance 2. Actively collaborate with clients to establish water management systems and explore the development of wastewater recycling technologies to reduce environmental impact
	Solid waste	Researching new renewable energies can not only reduce waste generation but also lower costs for procuring new materials.	Business performance: Resource efficiency Externalities: Sustainable resource recycling	Lowered procurement costs; New businesses	1. Work with third-party research institutes to develop green products from recycled materials, increasing resource efficiency 2. Research and develop new technologies to increase recycling rate for packaging materials and gradually reduce waste generation 3. Acquire Zero Waste to Landfill certifications

Nature-based Solutions (NbS)

As global environmental challenges intensify, corporations shoulder increasing responsibility to support ecosystem conservation and restoration. Guided by our core values - Integrity, Innovation, Sustainability, and Excellence - Wistron is committed to advancing sustainable development through technological innovation and to demonstrating leadership in nature and biodiversity. We believe that Nature-based Solutions (NbS) are an effective approach to mitigating climate change, restoring ecosystems, and generating both social and economic value. More importantly, we "integrate these efforts into daily life in a way that is seamless and approachable," helping employees understand, practice, and support these major issues in their everyday actions.

To deepen employee engagement and awareness, we organize nature conservation volunteer activities that include professional guided tours for our employees and their families. Whether it is beach cleanups, tree planting, or biodiversity tours, these experiences not only strengthen family bonds but also allow participants to connect with nature and understand the urgency and value of conservation. As such, we introduced the ISO 50001 Energy Management System to ensure systematic management of energy. With our effective management system and real-time energy dashboard, Wistron works to identify and analyze energy-intensive hotspots, using results to develop energy projects.

Improved Forest Management (IFM) Project

Wistron has partnered Taiwan's forestry industry to promote Nature-based Solutions (NbS), leveraging natural carbon sink programs to generate various positive environmental and ecological impacts. Through scientific afforestation and forest management, these projects not only absorb significant amounts of carbon dioxide and help mitigate climate change, but also restore degraded soil, improve water retention, and support biodiversity recovery, thereby creating reliable habitats for threatened species. Furthermore, the initiative contributes to the sustainable development of Taiwan’s forestry sector, driving local economic growth, creating jobs, and encouraging the advancement of related technologies and sustainable resource use. These efforts improve both ecological and social environments while strengthening the resilience and competitiveness of Taiwan’s forestry industry, supporting both conservation and economic development. Wistron believes that this symbiotic strategy with nature enables us to achieve emission reduction targets while injecting life into our ecosystems and local industries, ultimately contributing to a sustainable and healthy future for our planet.

WiEARTH Activities

In celebration of Earth Day 2024 and in response to the theme “Planet vs. Plastic,” Wistron's Sustainability Office launched a series of innovative and inspiring activities centered around the concept of Nature-based Solutions aimed to deepen employees’ understanding of sustainability and actions to reduce plastic use. Activities included expert-led workshops, conservation volunteer events, eco-tours, DIY crafts, ecological experiences, exhibitions, quizzes, and beach cleanups.

The beach cleanup activities take colleagues and their families to Taiwan's coastal areas to clean up plastic waste and debris, witness firsthand the impact of plastic pollution on marine ecosystems, and learn waste reduction strategies. This was not only a tangible initiative to protect the environment but also an opportunity to raise awareness and promote collaboration through education. We also hosted an exhibition that focused on “The Impact of Plastic on the Planet,” using interactive displays and data to highlight the severity of plastic pollution and the importance of reduction. There were also quiz competitions, where employees were tested to reinforce their understanding of plastic reduction and biodiversity.

DIY sessions taught employees how to repurpose recycled materials into eco-friendly products, such as reusable food storage bags and natural cleaning agents, helping to incorporate plastic reduction into daily life. The eco-tours and hands-on experiences guided employees to explore natural carbon sinks, biodiversity, and plastic pollution solutions, enhancing understanding of environmental sustainability. Through these diverse activities, we aimed to inspire action and transform our sustainability values into tangible actions, joining forces to create a better future for our planet

Replacing Petrochemical Cleaners at Taiwan Locations

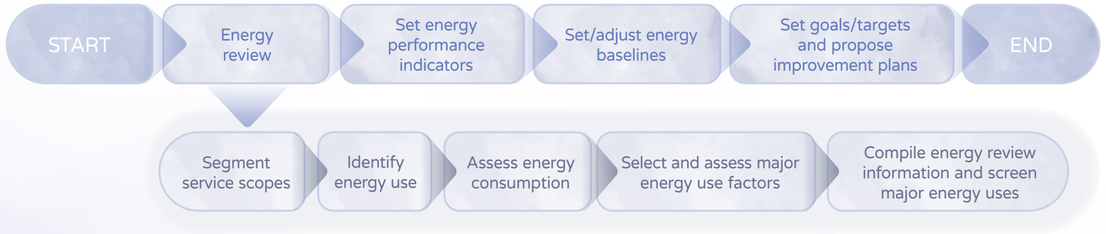
Wistron believes in sustainability and actively strives to protect ecosystems and forest circularity. To such ends, we have completely phased out traditional petrochemical cleaners in our Taiwan plants and offices, replacing them with eco-friendly hand soap and dishwashing liquid made from wood vinegar extracted from campus tree pruning carbonization. Up until April 2025, our procurement volume of wood vinegar products has reached 2,596 liters, equivalent to approximately 2 tons of wood, showcasing tangible results in promoting environmental sustainability. This initiative not only eliminates the negative impacts of petrochemical cleaners on our environment, but also supports sustainable forestry management and resource circularity, aligning with our commitment to the future and our environment. In collaboration with REWOOD, Wistron has converted our belief in forest sustainability into daily practices, injecting the aroma of forests and water into every bottle of wood vinegar hand soap and dishwashing liquids to achieve a perfect blend of nature and life. We believe that such actions are not only conducive to environmental conservation, but also conveys our respect for nature and green homeland. Wistron invites all employees to cherish this land and exist in harmony with nature. Let us join hands as we journey to sustainability and create a better future for our planet.

3.3 Energy and GHG Management

3.3.1 Energy Usage

Electricity constitutes the majority of Wistron's energy consumption, with minimal fossil fuel use accounting for the remaining energy usage. Therefore, increasing energy efficiency and renewable energy ratio has become important energy management strategies at Wistron. As such, we introduced the ISO 50001 Energy Management System (see Appendix for third-party verification) to ensure systematic management of energy. With our effective management system and real-time energy dashboard, Wistron works to identify and review energy-intensive hotspots, using results to develop energy projects. We regularly convene energy project meetings and follow up on related progress and results. We seek to continue to improve energy efficiency through the exchange of information between plants.

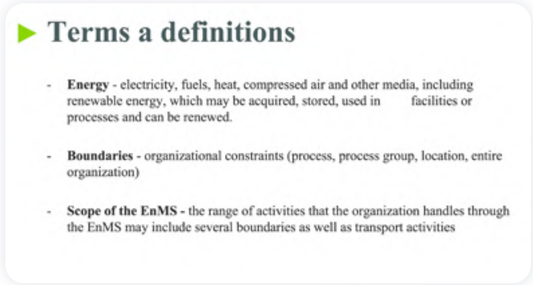
The energy review process is conducted annually in accordance with the ISO 50001 Energy Management System. Each year, we review the types and amounts of energy used within the defined boundaries. By utilizing smart meters and energy management dashboards, we identify significant energy uses and establish or adjust energy baselines for these significant energy uses. We also set or revise corresponding energy performance objectives, propose improvement plans, implement energy-saving actions, and track performances. In the event of significant changes to facilities, systems, or processes, energy baselines and targets are updated accordingly.

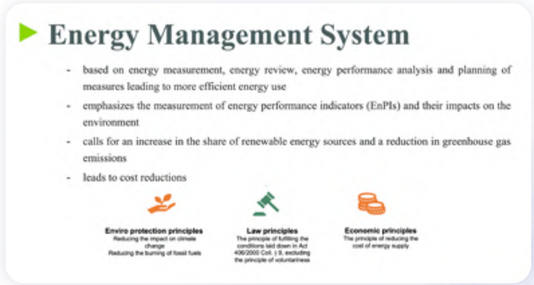


Energy Management Training

To support global sustainability trends, Wistron is committed to ESG actions. For energy management, we've adopted a two-pronged approach of promoting energy conservation projects and advocating for energy conservation. By implementing energy management measures and encouraging employees to take part in energy conservation activities, we form a company-wide consensus to contribute to environmental protection.

- Company-wide Advocacy:To meet our 2% energy conservation goal, we have produced energy conservation campaign videos and promoted them across Wistron plants, hoping to internalize energy conservation and decarbonization awareness in all our employees, awaken their concern for decarbonization and climate change, and advocate for low-carbon, energy-saving, and eco-friendly practices. We hope to collectively conserve resources to reach our goal of environmental protection.
- Professional Training: Wistron's HQ, offices, and manufacturing locations have all adopted ISO 50001 Energy Management System to enforce energy management and energy conservation. For employees requiring training, we provide on-site, in-person training as well as e-learning sessions depending in their organization and duties.
- Energy Conservation Highlights: Wistron's Decarbonization team, under our ESG 6 Pillars, regularly collects energy conservation highlights across Wistron locations and shares success stories from time to time, rolling out particularly successful energy conservation plans to ensure energy management and increase energy efficiency.





Energy Usage Breakdown and Energy Performance Indicators

Energy Usage

Type			Unit	2021	2022	2023	2024
Electricity	Self-generation and self-consumption of renewable energy		kWh	6,889,549.45	9,283,177.44	15,505,112.16	18,057,459.46
			GJ	24,802.38	33,419.44	55,818.40	65,006.85
	Purchased renewable energy	Renewable Energy Certificate (REC)	kWh	202,817,000.00	251,871,000.00	190,275,000.00	211,295,776.00
			GJ	730,141.20	906,735.60	684,990.00	760,664.79
		Power Purchase Agreement (PPA)	kWh	0	0	46,593,574.36	70,058,610.77
			GJ	0	0	167,736.87	252,211.00
	Purchased non-renewable energy		kWh	187,514,768.52	139,036,892.46	127,282,175.10	101,182,537.73
			GJ	675,053.17	500,532.81	458,215.83	364,257.14
Percentage of renewable energy in electricity consumption			%	52.79	65.26	66.47	74.74
Heating			kWh	1,299,377.78	1,065,600.00	1,009,519.47	1,970,635.56
			GJ	4,677.76	3,836.16	3,634.27	7,094.29
Diesel			kWh	1,174,909.65	3,513,601.27	682,250.29	982,642.10
			GJ	4,229.67	12,648.96	2,456.10	3,537.51
Gasoline			kWh	3,315,532.56	2,857,433.43	2,150,481.66	2,215,909.56
			GJ	11,935.92	10,286.76	7,741.73	7,977.27
Natural gas			kWh	29,994,111.16	29,949,755.08	19,035,761.80	19,265,304.64
			GJ	107,978.80	107,819.12	68,528.74	69,355.10
Liquefied petroleum gas			kWh	529,856.82	0	0	0
			GJ	1,907.48	0	0	0
Cooling			kWh	0	3,436,463.37	1,613,091.74	2,584,074.56
			GJ	0	12,371.27	5,807.13	9,302.67
Total non- renewable energy consumption			MWh	223,828.56	179,859.75	151,773.28	128,201.10
Total renewable energy consumption			MWh	209,706.55	261,154.18	252,373.69	299,411.85
Percentage of renewable energy in total energy consumption			%	48.37	59.22	62.45	70.02

Note：

1. Percentage of renewable energy in electricity consumption: (Self-generation and self-consumption of renewable energy + Purchased renewable energy) ／ Total electricity consumption
2. Energy consumption outside of the organization (Scope 3): 66,337.22 GJ

Energy Performance Indicators

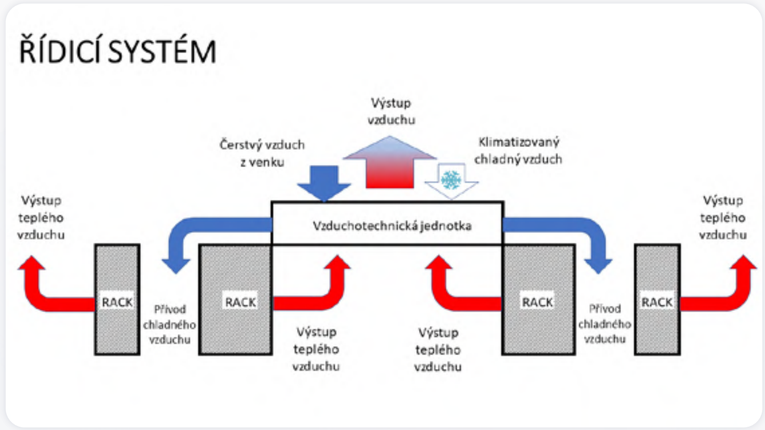
Type	Unit	2021	2022	2023	2024
Electricity consumption per unit revenue	MWh/NT$1B	616.11	587.06	574.31	581.68

Note: 2024 performance indicators are based on energy use/Wistron Group revenue from Wistron and subsidiaries listed in consolidated financial statements (excl. Wiwynn and its subsidiaries)

Spotlight

Green Commitment, Sustainability and Prosperity – Wistron Czech Plant Participates in Brno, Czech Republic's 2030 Goal of 40% Carbon Emission Reduction

Wistron Czech Plant has committed to supporting Brno City's sustainability plan and formally signed a memorandum of understanding to assist the city in completing its 2030 goal to reduce emissions by 40%. Through ten tangible actions and measures, Wistron's Czech Plant will be increasing energy efficiency, promoting renewable energy use, optimizing resource recycling and waste management, facilitating green transportation, and raising employee and community awareness of environmental protection. These efforts have been praised by local governments and related agencies, successfully securing silver accreditation and demonstrating our commitment and success in sustainability and decarbonization initiatives. In the future, Wistron will continue to deepen environmental protection strategies toward a greener and more sustainable future.



3.3.2 Greenhouse Gas Emissions

Confronted with the challenges of global climate changes, corporations must reduce GHG emissions. Suppose GHG emissions continue to increase, it will lead to risks such as increasing green costs (e.g., carbon taxes or fees), inability to meet customer demands, and failure to achieve carbon reduction targets. As a comprehensive technology service provider in the ICT industry, Wistron's initiatives in low-carbon manufacturing and green products and services will directly impact our competitiveness in the market. As such, we have set ambitious climate targets and established short-, medium-, and long-term decarbonization pathways. Beyond that, all locations are required to implement various energy conservation and decarbonization action plans each year to strive to reduce absolute GHG emissions.

Starting from 2010, Wistron has gradually developed our GHG inventory capacity and disclosed annual GHG emissions. In 2024, Wistron Group and subsidiaries in our consolidated financial reports have all completed GHG inventory reports in compliance with ISO 14064-1 standards. These reports have been verified by third-party assurance agencies, confirming the comprehensiveness and transparency of our disclosures.

Scope 1 and Scope 2 GHG Emissions

GHG Emissions (tCO_2e)

Scope		2021	2022	2023	2024
Scope 1	Stationary combustion	5,777.74	6,906.61	3,898.56	3,948.24
	Mobile combustion	861.94	711.85	554.70	643.30
	Processes emissions	57.80	21.00	0	0
	Fugitive emissions	13,375.41	10,768.52	10,924.75	9,323.88
Subtotal		20,072.89	18,407.97	15,378.01	13,915.42
Scope 2	Location-based	287,909.87	287,251.13	246,984.18	236,657.11
	Market-based	125,696.18	84,764.43	72,484.73	54,279.35
Total	Location-based	307,982.76	305,659.10	262,362.19	250,572.54
	Market-based	145,769.07	103,172.40	87,862.74	68,194.78

Note：

1. Electricity emission factors: The emission factor was 0.494 kg CO_2e per kWh for Taiwan in 2023; 0.7703 kg CO_2e per kWh for Eastern China in 2023; 0.5959 kg CO_2e per kWh for Southwest China in 2023; 0.7738 kg CO_2e per kWh for Southern China in 2023; 0.34 kg CO_2e per kWh for the Czech Republic in 2024; 0.438 kg CO_2e per kWh for Mexico in 2023; 0.774 kg CO_2e per kWh for Malaysia in 2022; 0.6592 kg CO_2e per kWh for Vietnam in 2024; 0.412 kg CO_2e per kWh for Singapore in 2023; 0.6935 kg CO_2e per kWh for the Philippines in 2021; 0.438 kg CO_2e per kWh for Japan in 2023; 0.3360 kg CO_2e per kWh for Texas in 2024; 0.0426 kg CO_2e per kWh for Brazil in 2024; 0.376 kg CO_2e per kWh for Turkey in 2022; 0.951 kg CO_2e per kWh for India in 2022; and 0.1988 kg CO_2e per kWh for California in 2024.
2. According to operational control approach, the Scope 1 + Scope 2 data of subsidiary companies with an equity ownership of less than 50% is excluded
3. Wistron has no direct emissions and removal-related emissions from Land Use, Land Use Change and Forestry, LULUCF
4. In 2024, direct GHG emissions from biomass were approximately 0.51 metric tons of CO_2e
5. Global Warming Potential (GWP) refers to the Sixth Assessment Report (AR6) of the IPCC
6. Figures for other years were tallied according to the disclosure boundaries from respective sustainability reports

GHG Emissions by Type (tCO_2e)

Categories	2021	2022	2023	2024
CO_2	294,470.89	294,864.04	251,426.33	241,223.83
CH_4	9,023.87	7,726.00	5,266.48	4,993.00
N_2O	50.43	26.70	18.86	20.40
NF_3	0	0	0	0
HFC	4,437.57	3,042.36	5,650.52	4,335.31
PFC	0	0	0	0
SF_6	0	0	0	0
total	307,982.76	305,659.10	262,362.19	250,572.54

GHG Emissions Performance Indicators (kilotons of CO_2e / NT$1B)

Type		2021	2022	2023	2024
GHG emissions per unit-revenue	Location-based	0.48	0.45	0.40	0.36
	Market-based	0.23	0.15	0.13	0.10

Note：

1. 2024 performance indicators are based on energy use/Wistron Group revenue from Wistron and subsidiaries listed in consolidated financial statements (excl. Wiwynn and its subsidiaries)
2. Figures for other years were tallied according to the disclosure boundaries from respective sustainability reports

Scope 3 GHG Emissions

Wistron has initiated a comprehensive inventory and assessment of Scope 3 emissions to understand emission from our own operations and various activities between the upstream and downstream. This also provides opportunities for Wistron to engage with suppliers and customers for a full inventory and assessment for Scope 3 emissions. The results of the inventory indicate that hotspots in the upstream is centralized in purchasing products and services, while the downstream is use of sold products.

With Scope 3 inventory, we can strengthen supply chain management for new opportunities to develop lower carbon electronic parts with our suppliers. As for the energy use of downstream customers' products, we will also strengthen the energy efficiency of products with customers. This means that Wistron can work with the upstream and downstream together to reduce greenhouse gas emissions and expand the influence of our climate strategies to ultimately achieve our vision of building a low-carbon supply chain.

Scope 3 GHG Emissions (tCO_2e)

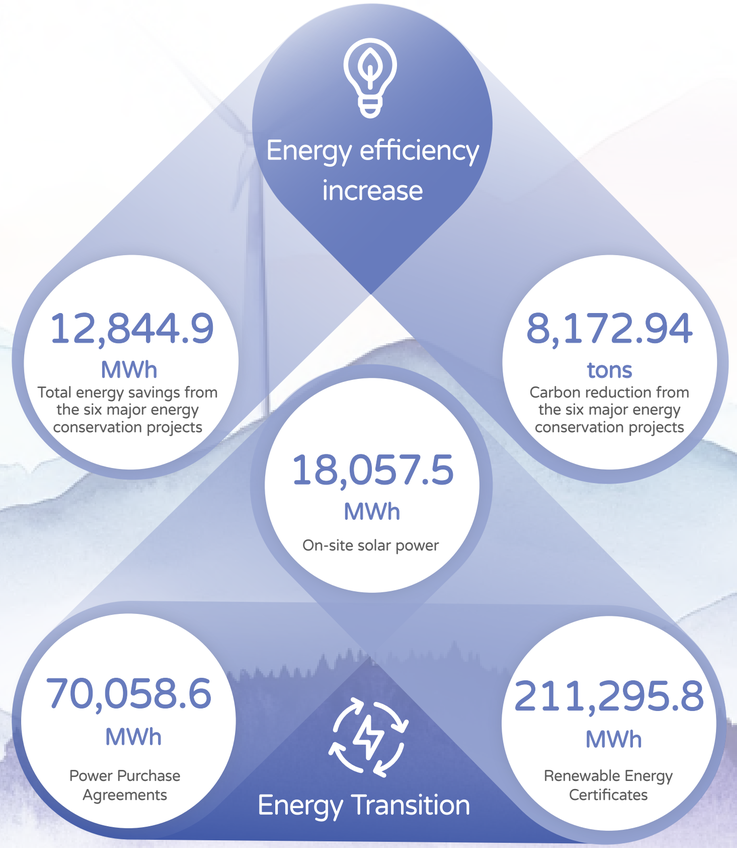
Categories	2021	2022	2023	2024
Purchased products and services	14,049,499.30	8,799,153.89	6,159,131.36	10,202,175.19
Capital products	142,632.13	212,272.50	117,910.07	238,785.07
Fuel- and energy-related activities	76,107.22	115,676.19	23,725.74	15,310.33
Upstream transportation and distribution	21,134.68	5,908.96	5,318.92	31,205.21
Waste generated in operations	4,215.71	5,250.28	2,994.69	3,164.38
Business travel	1,027.22	3,717.40	5,773.32	6,791.93
Employee commuting	18,156.21	27,044.06	21,865.61	22,945.24
Upstream leased assets	5,666.65	11,771.15	7,687.32	2,944.31
Downstream transportation and distribution	278,700.73	107,135.93	100,163.21	96,185.40
Processing of sold products	-	364,125.89	2,757,505.90	329,714.74
Use of sold products	-	8,110,743.67	5,946,570.69	5,729,372.52
End-of-life treatment of sold products	-	206,303.77	16,233.45	15,949.54
Downstream leased assets	20,206.67	57,178.74	23,900.20	6,534.72
Franchises	-	-	-	-
Investment	1,524,232.97	181,195.32	1,432,619.42	21,794.65
Total	16,141,579.49	18,207,477.75	16,621,399.91	16,722,873.23

Note：

1. Disclosed figure for 2022 is the SBT-approved base year emissions. We also added Scope 3 emissions for 2023, specifically from processing of sold products, use of sold products, and end-of-life treatment of sold products;
2. As B2B company with no franchise-related activities, we did not conduct any investigations or disclosures

3.3.3 Reduction Actions and Results

With increasing energy efficiency, low-carbon processes and innovative energy conservation, energy transitions, and internal carbon pricing, Wistron is promoting GHG reduction efforts. For the roll out of energy management and energy conservation projects, Wistron has invested people, resources, and financial resources as well as assembled Energy Project Teams in all plants; the teams are composed of units responsible for plant engineering affairs or related matters. They convene regular energy management meetings and review the plant's energy and project progress. The plants also share information on the effectiveness and their experiences in each project with each other.



Increase Energy Efficiency

Wistron's energy-saving project is divided into six categories, including air conditioning systems, compressed air systems, green lighting, management, production, and others. As of the end of 2024, Wistron saved a total of 12,844.9 MWh of electricity, which reduced carbon emissions by 8,172.94 tCO_2e. Our carbon reduction was equivalent to the annual CO_2 absorption volume of 21 Daan Forest Parks, which can absorb 389 tons of carbon annually.

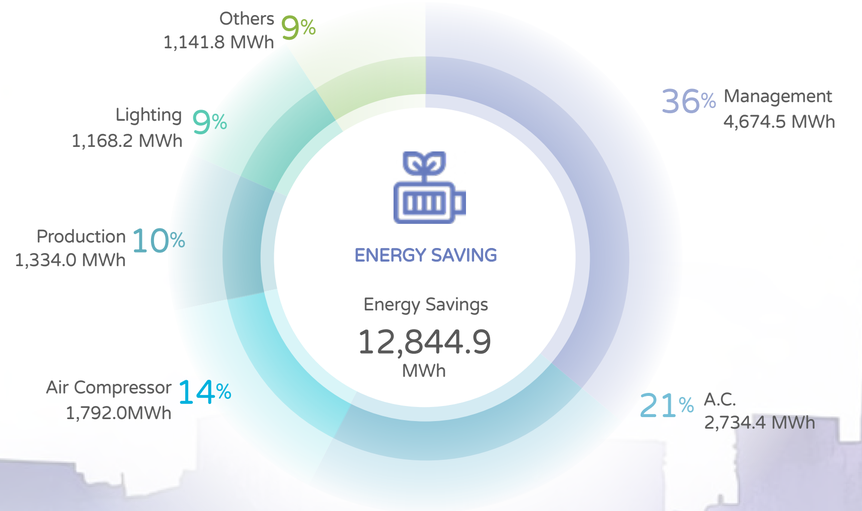
2024 Achievements in Energy Conservation

Item	Target Area	Main Project(s)	Annual Energy Savings (MWh)	Annual Energy Savings (GJ)	Carbon reduction (tCO_2e)
1	Air conditioning (A.C.) system	A.C. system upgrades for energy efficiency A.C. energy conservation management	2,734.37	9,843.72	1,603.39
2	Air compression system	Air compression system upgrades for energy efficiency Air compression system settings management	1,792.01	6,451.22	1,229.17
3	Manufacturing	Process optimization testing	1,334.03	4,802.51	651.26
4	Management	Idle optimization and integration	4,674.48	16,828.13	3,370.83
5	Green lighting	Intelligent lighting system (more energy-saving LED lamps)	1,168.15	4,205.35	682.74
6	Others	Reduction of inefficient power consumption	1,141.84	4,110.61	635.55
7	Renewable energy	Renewable energy use	299,411.85	1,077,882.65	182,377.76
	Total		312,256.72	1,124,124.20	190,550.70

Low-Carbon Manufacturing and Energy Saving Innovations

With the 2030 carbon neutral goal in mind, Wistron is proactively driving real carbon reduction in addition to increasing renewable energy use. We are also investing in low-carbon manufacturing processes and smart energy conservation technologies to improve energy efficiency and achieve our energy conservation goals. All sites carry out energy-saving projects to practice low-carbon production. Such projects target six dimensions: air conditioning, air compressor, manufacturing, management, green lighting and others. We hope the projects can help us introduce smart energy management systems and strengthen management and database. Diversified solutions have also been drawn up to realize low-carbon manufacturing and energy-saving innovations.

Under long-term efforts to roll out energy-saving actions, Wistron's plants have achieved remarkable carbon reduction across the six energy-saving dimensions mentioned above. Air-conditioning and air compressor power consume the most energy in Wistron manufacturing sites. As such, carbon reduction efforts seek to target these two energy consumption hotspots through taking stock of hardware equipment and diagnosing energy use. The goal of effective management is achieved through the introduction of smart energy conservation technology, combined with AI and IoT control technology in addition to replacing old energy-intensive equipment. In 2024, we saved 12,844.9 MWh of electricity. Wistron will continue to commit to low-carbon innovative manufacturing with the help of smart solutions. We are combining digital platforms and virtual factories to realize the vision of sustainable management through energy management, intelligent repair and maintenance systems, and cold-water systems.



Low-Carbon Manufacturing/ Energy Saving Initiatives

Air conditioning: The main function of air conditioning equipment is to maintain a constant temperature and humidity in production areas, ensuring the long-term normal operation of production equipment. Energy conservation in A.C. systems are mainly through:

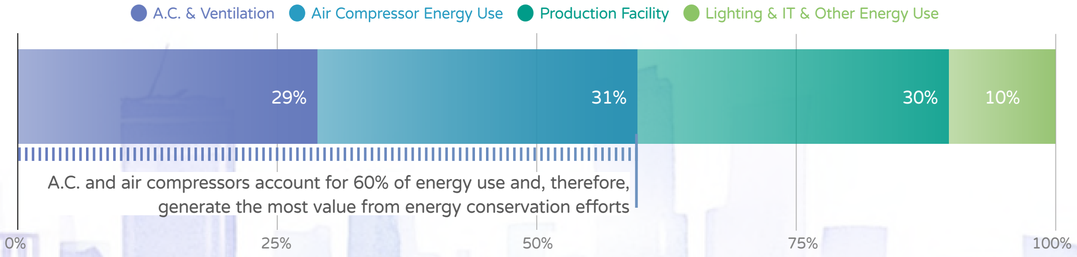
1. Energy Conservation Retrofitting: Installing energy conservation and regulation systems and adjusting A.C. hours for public and manufacturing areas. In addition, adjusting the temperature of chillers, without compromising production and employee work, to conserve chiller energy consumption. Beyond daily conservation efforts, production and facility units also collaborate to install smart A.C. units to account for production activities. For example, ensure A.C. systems are linked to production lines so that A.C. systems are turned on or off according to production status.
2. Energy Conservation Management: Wistron's manufacturing locations are our main energy users. As such, plants will review idle spaces occasionally and ensure that A.C. systems are turned off in idle spaces or reallocate production lines to ensure A.C. systems are used in areas with human activity and reduce resource waste.

Air Compressors:

1. Energy Conservation Retrofitting: Facility and production units will diagnose energy use and install pressurizers to air compressor pipelines in relevant production zones. The goal is to reduce loading on main air compressor pipelines without changing its pressure, while also reducing energy use from air compressors.
2. Settings Management: Adjust pressure values according to production needs to reduce unnecessary air compressor use and conserve energy.

Production: Production units will assess energy conservation projects and use smart synchronized control systems and program optimization to carry out production-related energy conservation measures.

Management: Manufacturing locations will regularly integrate production plans for central management, thereby reducing energy waste.



Energy Transition

Extreme weather has become the new norm. Major international companies have joined the 100% renewable energy, RE100, initiative to support the use of renewable energy to reduce carbon emissions and slow down global warming. In response to the global trend of renewable energy, Wistron is actively promoting energy transformation. The renewable energy strategy prioritizes the establishment of self-consumption solar power generation, actively expanding solar power generation capacity at global operational sites, and making diversified use of idle spaces. The company also maintains deep partnerships with local renewable energy providers and has signed renewable energy purchase agreements and procured renewable energy certificates. In 2024, Wistron actively deployed renewable energy, with an actual self-consumption power generation of 18,057.5 MWh. The company also had a total of 70,058.6 MWh of renewable energy purchased through agreements and procured 211,295.8 MWh of renewable energy certificates. The renewable energy accounted for 74.7% of the total electricity in 2024, actively increasing the usage rate of renewable energy in global factories, service locations, and offices while reducing GHG emissions. The company aims to integrate the concept of green manufacturing into its business operations.

Internal Carbon Pricing

With countries around the world implementing carbon regulations, Wistron is also launching decarbonization strategies in response. We have developed an internal carbon pricing (ICP) to calculate budgetary requirements for internal decarbonization efforts as a way to drive energy efficiency and contribute to decarbonization funds. This can also help us achieve climate-related strategies and targets, address carbon-related regulations, and reduce climate-related risks in the long-term.

For 2024, we've selected our plants in Hsinchu and Zhongshan as pilot sites for ICP. In addition, we've developed the rules and mechanisms for internal carbon pricing, adopting the Internal Carbon Fee model as our mechanism. Targets will be set for each business group's Scope 1 and 2 emissions, with carbon fees being calculated according to progress to target. Set in reference to the World Bank's suggested WB2C target price range, our ICP is 100 USD/ tCO_2e. In 2025, we will roll out ICP to more manufacturing and service locations and develop a digital platform to manage progress to target, automating all carbon fee calculations and providing BG heads with decarbonization achievements across all locations. This contributes to our long-term target of group-wide ICP roll-out.

3.4 Mitigation of Environmental Impacts

3.4.1 Water Resource Management

Wistron's product processes are largely assembly-based, with service locations mainly responsible for repairs and storage. As such, Wistron operations have little demand for water use. Aside from some plant facilities, such as kitchens or cooling towers, most water use derives from domestic water consumption. Upon assessment, Wistron plants and service locations are largely situated in industrial parks, while Wistron offices are largely located in metropolitan areas. As such, water sources are mainly tap water provided by local water providers. Our water use is singular in nature and considerably small in quantity. In other words, Wistron operations do not pose significant environmental impacts to local water resources and their ecosystems.

Nevertheless, Wistron still actively collects water consumption data and regularly monitors water quality and consumption conditions. We organize water conservation campaigns from time to time for the purpose of protecting water resources. In addition, we have committed to adhere strictly to local water regulations and launched ISO 14001 Environmental Management Systems to systematically manage water-related concerns. Through management measures such as "enforcing water management and water conservation" and "implementing water recycling and wastewater management," we have been able to reduce water consumption intensity in 2024 by 36% from 2022, far exceeding our goal of 13%.

This was achieved by first taking stock of high-risk areas for water resources based on an evaluation of the water stress indicators of our global operations and then implementing preventive measures based on the water resource management strategy. Dedicated units in different plants are responsible for water resource management, plan formulation and implementation, regular monitoring, resolution of irregularities, data analysis, and continuous improvements. In line with our principle of using best available technologies for water efficiency, we give priority to water-efficient equipment, and use energy-efficient panels to monitor water consumption and improve water use efficiency.

Regarding wastewater management, Wistron strictly adheres to local regulations to ensure compliance with effluent discharge standards. Related measures at manufacturing locations include:

- Industrial wastewater from the Zhongshan Opt Park is treated directly by a third-party wastewater treatment company.
- Kaohsiung Opto-Electronics Inc. separates process wastewater into non-chemical reusable wastewater and chemical-containing production wastewater. The non-chemical wastewater is discharged into the cooling water tower after passing through a sand tank and undergoing UV sterilization for reuse. The chemical wastewater and the wastewater discharged from the cooling water tower are discharged into the neutralization tank for pH adjustment before flowing into the wastewater treatment unit.
- Vietnam Plant collects and sends wastewater to a separation tank, where it is screened and filtered before being sent to a regulation tank to adjust the flow, quality, and concentration. Anaerobic microorganisms are used to decompose the organic matter in the wastewater. The biologically treated wastewater is converted into microbial sludge, which is then recycled back to the anaerobic tank. The treated wastewater is sent to a clarification tank to separate the activated sludge. Chemical disinfection using substances such as chlorine, ozone, or ultraviolet light is used to kill pathogenic microorganisms. The treated wastewater, which now meets regulatory standards, is directed into the discharge tank and then discharged to the discharge point according to the regulations of the industrial park.

Domestic wastewater, which are collected through industrial park pipelines and delivered through the sewage system to the wastewater treatment plant for processing and discharge. It is not directly discharged to natural bodies of water. To monitor the effluent quality, Wistron regularly inspects the water quality to ensure that the effluent meets regulatory requirements and does not affect the ecological environment of natural water bodies and habitats. In 2024, we achieved our goal of zero pollution leaks and environmental complaints.

Wistron takes a proactive approach by managing water resources in advance and installing water recycling systems. In addition, we disclose water sources, water bodies receiving the effluent, wastewater treatment unit, and water quality data to ensure compliance with local effluent quality standards.

Water Quality and Effluent Management

Item		Neihu HQ Xizhi Office	Hsinchu Plant	Kaohsiung Opto-Electronics Inc.	Kunshan Plant Wistron Automotive Electronics Plant	Kunshan Opt Plant	Zhong-shan Plant	Chengdu Plant	Chong-qing Plant
Water source		Feitsui Reservoir Xinshan Reservoir	Baoshan Reservoir	Donggang River	Water drawn from the Yangtze River	Water drawn from the Yangtze River	Xijiang River	Min River	Jialing River
Water body receiving effluent		Keelung River Tamsui River	Keya Creek	Taiwan Strait	Wusong River	Wusong River	Shiqi River Hengmen Waterway	Qinglan River	Houhe River
Wastewater treatment unit		Neihu Sewage Treatment Plant Dihua Sewage Treatment Plant	Hsinchu Science Park Wastewater Treatment Plant	Zhongzhou Wastewater Treatment Plant	Kunshan Development Zone Kuncheng Precision Water Purification Co., Ltd.	Precision Machinery Industrial Park Sewage Treatment Plant	Linhai Industrial Park Wastewater Treatment Plant	Southwest Airport Industrial Development Zone Phase 6 Sewage Treatment Plant	Yubei District Chengbei Wastewater Treatment Plant
Effluent Standards	pH	6~9	5~9	5~9	6.5~9.5	6.5~9.5	6~9	6~9	6~9
	SS（mg／l）	30~50	300	450	400	400	400	400	400
	COD（mg／l）	100~150	500	600	500	500	500	500	500

Note：
1. The water stress indicator is calculated based on Aqueduct tools
2. Effluent quality is taken from the local regulations of each plant

Water Quality and Effluent Management

Item		Mexico Plant	Czech Plant	Malaysia plant	Vietnam plant
Water source		Hueco Bolson Aquifer Mesilla ／ Conejos-Medanos Basin	Vir Reservoir	Sg. Selangor / Sg. Langat river basins	HONG River
Water body receiving effluent		Rio Grande	SVRATKA River	Klang River	CHAU GIANG River
Wastewater treatment unit		Valle de Juarez water treatment plant	Brno water and sewerage plant	Indah Water Konsortium Sewage Treatment Plant	DUCAN Company
Effluent Standard	pH	6~9	6.5~9.5	5.5~9.0	5.5~9.0
	SS（mg／l）	180	550	100	100
	COD（mg／l）	440	1200	200	150

Note：
1. The water stress indicator is calculated based on Aqueduct tools
2. Effluent quality is taken from the local regulations of each plant

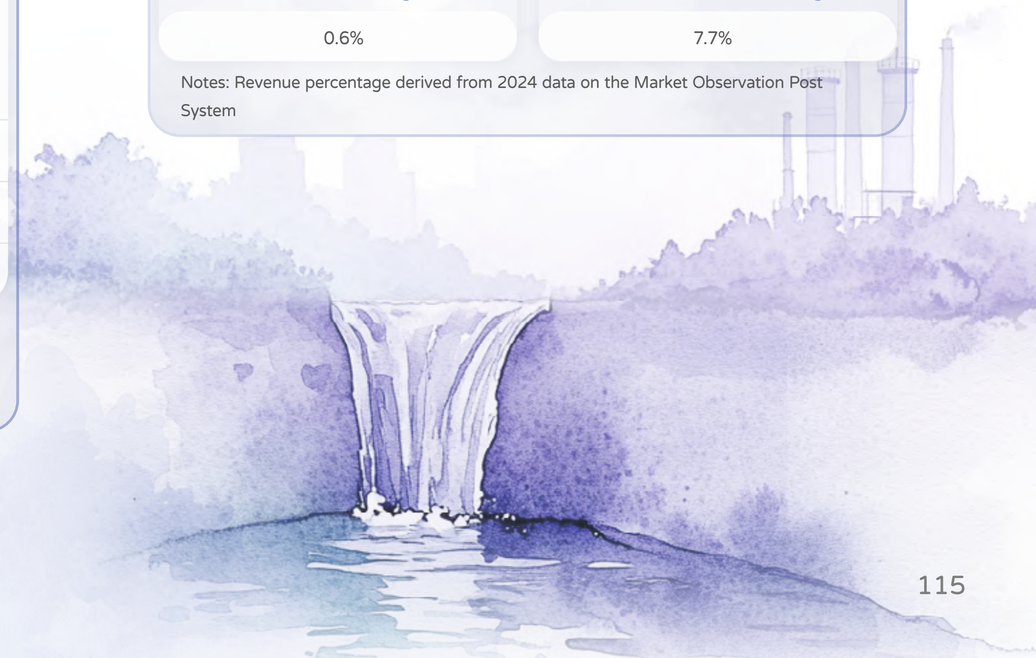
According to the World Resources Institute (WRI) Aqueduct tools, Wistron's locations in Jiangsu Province (China) and Mexico are categorized as having "extremely high" baseline water stress. These high-stress regions account for approximately 7.7% of Wistron's total water withdrawal.

Water Consumption in High Water Stress Regions

Region	Jiangsu Province (China)	Chihuahua (Mexico)
Plants	Wistron Automotive Electronics Plant	Mexico Plant
Water Withdrawal(M^3)	85.70	106.07

Revenue Percentage (%)	Water Withdrawal Percentage (%)
0.6%	7.7%

Notes: Revenue percentage derived from 2024 data on the Market Observation Post System



Water Consumption (million cubic meters)

Type	2021	2022	2023	2024
Total Water Withdrawal	4.09	3.81	2.63	2.49
Total Water Discharge	3.23	3.02	2.03	1.95
Total Water Consumption	0.86	0.79	0.60	0.54
Recycled & Reused Water	0.37	0.29	0.16	0.06

Note: 2024 target for total water consumption was 0.81 million cubic meters

Water Source (million liters)

Type	2021	2022	2023	2024
Tap Water	3,990.63	3,812.36	2,629.45	2,487.44
Fresh Surface Water	0.17	0.12	0.18	0.52
Fresh Groundwater	99.24	-	-	-
Total	4,090.04	3,812.48	2,629.63	2,487.96

Water Usage Performance Indicators

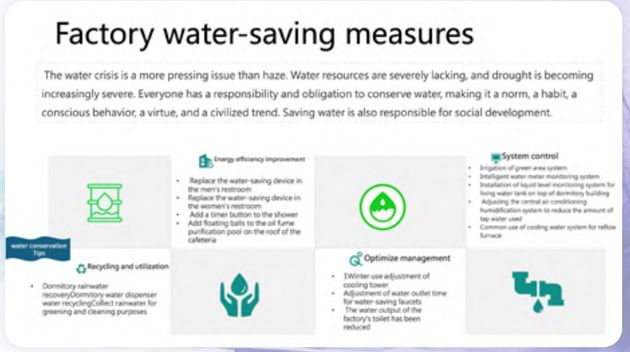
Type	Unit	2021	2022	2023	2024
Water Usage per Unit-revenue	kilotons of water/ NT$1B	6.3	5.6	4.0	3.6
Water Recycling Rate	Percentage (%)	8.9	7.7	6.3	2.3

Note:
1. 2024 performance indicators are based on water withdrawal/Wistron Group revenue from Wistron and subsidiaries listed in consolidated financial statements (excl. Wiwynn and its subsidiaries)
2. Figures for other years were tallied according to the disclosure boundaries from respective sustainability reports

Water Management Training

While Wistron processes are mainly assembly-based and does not require a significant amount of water, we have still decided to establish clear water targets. In addition to water conservation initiatives, we also offer the following water management training:

- Company-wide Campaigns: We use water campaign videos and slogans to encourage employees to voluntarily conserve water in their daily work, raise environmental awareness, cultivate water-saving habits, and reiterate a consensus of water conservation.
- Water Conservation Highlights: In addition to company-wide video campaigns, Wistron also regularly shares successful water conservation projects to promote related actions. Sharing case studies can showcase success stories and encourage employees to work together toward water targets.



3.4.2 Air Pollution Control

Gas emissions from Wistron's production process consist mostly of hot air, tin fume, and volatile organic compounds (VOCs) from the isopropyl alcohol used for cleaning. According to internal SOPs, the gas should be collected in the ducts for adsorption from waste gas treatment equipment before being emitted. The Company passes regular waste gas sampling inspections to ensure compliance with regulatory requirements.

Isopropanol waste liquid is all stored in a specific area, and then handed over to an external qualified processor for disposal and transportation. Wistron performs inventory and management of VOC-containing substances to ensure that all related task operators are equipped with personal protection equipment (PPE) and related ventilation devices while handling and storing these substances. These measures ensure the health and safety of our employees while also reducing the potential negative impacts of VOCs on the environment. Nitrogen oxides (NOx) and sulfur oxides (SOx) are only emitted from Wistron plants when generators are used and fuel is incinerated in the process. The generators are only activated in the event of emergencies (e.g., power outages) and are not regular sources of emissions. Therefore, they are not listed as the main sources of emissions.

In addition, Wistron has listed Ozone Depleting Substances (ODS) as a controlled hazardous substance, strictly requiring suppliers to avoid the use of ODS in their deliverables to Wistron. Suppliers are required to issue declarations and statements proving that their materials are compliant with Wistron regulations.

Emissions of Volatile Organic Gases (metric tons)

Categories	2021	2022	2023	2024
Isopropyl alcohol	72.32	147.95	123.25	109.14
Ethanol	63.43	59.37	24.06	42.85
Ethylene glycol monobutyl ether	7.81	14.80	7.46	5.88
Ethanolamine	1.48	3.38	1.53	2.94
Others (those < 1% of total)	7.54	9.64	14.27	24.60
Total	152.59	235.15	170.57	185.40

3.4.3 Waste Management

Wistron is committed to avoid banned substances or materials and actively promotes waste reduction, recycling, and reuse. Any materials and suppliers we work with are rigorously and carefully screened, and we continue to pursue technical improvement or eco-friendly materials. We abide by environmental and customer regulations related to our activities, products, and services to attain, or even exceed set goals. Waste management at Wistron consists of "consistent waste classification and reduction" and "recycling and reuse." We comprehensively evaluate and check the generation and flow of waste and toxic substances through sound waste and hazardous substance management, minimizing waste as much as possible through recycling. By adopting practices such as source reduction, recycling, and reuse, we identify waste types and opportunities for reduction, ensuring appropriate recovery, utilization, and disposal to mitigate environmental impact. Strong management over waste and hazardous substances can help reduce the impact and burden on the environment, but also enable Wistron to create niches in business operations with improved material usage and lowered operating costs, helping us achieve sustainability.

Three Core Principles of Waste Management:

- Waste Review: Assess production processes and analyze waste generation points at each step of production. Then, confirm waste disposal according to regulatory requirements.
- Reuse & Recycle: Leverage the review process to identify opportunities to reduce waste. Also, develop a comprehensive recycling system to ensure waste can be effectively recycled and reused. Lastly, explore ways to reuse waste, e.g., apply waste materials to other production stages or develop new products using waste materials.
- Monitoring & Assessment: Continue to monitor and collect data on waste generation and processing. Also, regularly assess the impact of waste reduction measures to uncover opportunities for improvement.

Investing or Developing Innovative Carbon Reduction Technologies

- Product Design

  Wistron is dedicated to product research, design, manufacturing, and services. Sustainability design and development for products revolve around the concept of the product life cycle. From the acquisition of raw materials to manufacturing, delivery, use, and disposal/recycling, sustainability design and development aims to reduce a product's impact on the environment, create sustainable value, and ensure resources can be used sustainably, thereby creating a sustainable operations model grounded in recycling. In product design and development stages, Wistron uses "Green Product Design Guidelines and Review Procedures" and other specifications to consider waste disposal, recycling, and reuse from the design stage as we seek to minimize the impact on people and the environment after the products are discarded.

- Product Manufacturing - End-of-Life Management

  The ESG teams at Wistron's manufacturing locations are actively driving in-plant waste reduction and management through the following measures:

  1. Engage with waste treatment vendors and prioritize those with Zero Waste to Landfill accreditation to increase water recycling or reuse, thereby raising our recycling rate.
  2. Assess and adopt waste reduction technologies:
     - Work with R&D personnel in plants to uncover source reduction opportunities, e.g., optimizing the use of sheet materials to reduce waste trimmings.
     - Actively reach out to suppliers to adjust packaging specifications or methods to reduce packaging from raw materials.

Waste Management Performance Indicators

Type	Unit	2021	2022	2023	2024
Waste per unit-revenue	kilotons of waste output/ NT$1B	0.061	0.059	0.048	0.056
Non-hazardous waste output per unit-revenue	kilotons of waste output/ NT$1B	0.059	0.057	0.046	0.054
Hazardous waste output per unit-revenue	kilotons of waste output/ NT$1B	0.002	0.002	0.002	0.002

Note：

1. Given the report's disclosure boundaries, waste intensity in 2018 has been adjusted to 0.062 kilotons / NT$1B
2. 2024 performance indicators are based on waste generation/Wistron Group revenue from Wistron and subsidiaries listed in consolidated financial statements (excl. Wiwynn and its subsidiaries)
3. Figures for other years were tallied according to the disclosure boundaries from respective sustainability reports

Waste Generation (metric tons)

	Disposal Method	2021	2022	2023	2024
Non-hazardous	a. Reuse	238.07	232.67	491.15	346.00
	b. Recycling	35,533.31	35,058.21	27,818.53	32,879.68
	c. Replaced with alternative raw materials	-	-	-	-
	d. Landfill	562.67	1,506.32	1,127.89	1,370.04
	e. Incinerate (w/ energy recovery)	1,670.37	2,300.53	1,154.75	1,356.36
	f. Incinerate (w/o energy recovery)	255.31	-	32.00	45.97
	g. Other treatment	-	-	-	873.45
Subtotal		38,259.73	39,097.73	30,624.32	36,871.51
Hazardous	h. Temporary storage	-	-	-	-
	i. Transported to external treatment facilities - Recycle	-	-	669.17	948.92
	j. Transported to external treatment facilities	1,043.50	1,205.56	533.92	477.56
Subtotal		1,043.50	1,205.56	1,203.09	1,426.48
Total	Total waste generated (d.+e.+f.+g.+h.+j.)	3,531.85	5,012.41	2,848.56	4,123.38
	Total waste recycled/reused (a.+b.+c.+i.)	35,771.38	35,290.88	28,978.85	34,174.61

Waste Reduction

Wistron's commitment to waste reduction involves implementing source reduction alongside resource classification and recycling plans. Recycling areas have been established in both plant facilities, service locations, and offices to reduce waste. Recyclable waste including waste metal, packaging materials, plastic, paper, and batteries generated in plants is collected and transported external recycling companies in accordance with regulations.

Through waste classification and recycling, we have reduced operating costs associated with waste disposal while aligning with international waste reduction trends. Special waste such as chemical solvents (isopropyl alcohol, fluxes, thinners, etc.), lubricating oil, solder paste, and dross are temporarily stored in designated areas after classification and labeling before delivery to government-certified waste disposal companies for processing, with regular audits from Wistron to monitor the final destination of the waste.

To reduce waste more effectively, Wistron shifted the waste treatment target to "waste intensity reduction" starting from 2021. Using 2018 as the base year, we strive to reduce waste generation intensity (waste generation per unit revenue) by 2% each year – which means an 8% reduction by 2024, a 20% reduction by 2030, and a 30% reduction by 2035.

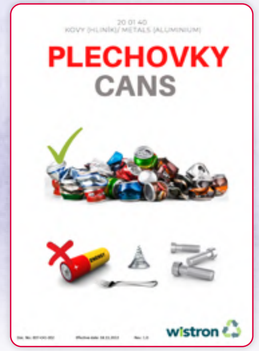
Moreover, Wistron has introduced the UL 2799 waste zero landfill certification mechanism in all major manufacturing plants since 2022. Our widespread adoption of UL 2799 aims to identify waste reduction plans and optimize resource utilization to achieve a sustainable resource cycle. In 2024, Wistron recycled, reduced, and reused 1,848.56 metric tons of waste, reducing waste intensity by 11% from 2018 levels and exceeding our target of 8%. We also obtained three Platinum and one Gold Zero Waste to Landfill certifications. At Wistron, we continue to expand our zero-waste mission, sharing our experiences in zero landfill waste certification with overseas plants to realize our commitment to sustainable management.

With our waste management processes, waste reduction and separation efforts are classified into three main focuses: reuse, recycle, and repurpose. These end-of-life treatment aim to increase waste conversion and reduce landfill rates:

- **Reuse:** Analyze opportunities for waste reuse and collaborate with suppliers to promote reuse of packaging materials. For example, reusing pallets, plastic boxes/packaging materials, or cardboard boxes in plants.
- **Recycle:** Engage with waste treatment vendors to increase waste recycling rates. For example, plastics, waste cardboards, kitchen waste, etc.
- **Repurpose:** Repurpose waste materials into other materials.

Circular Economy and Waste Management Training

Incorporating waste management into employee training is an important Wistron directive for raising employee's responsibility and awareness to our environment. Through systematic training, we can help employees understand the basic principles and best practices of waste management, thereby effectively increasing waste conversion and fulfilling our core value of circular economy. Integrating circular economy and waste conversion is an important part of Wistron's environmental efforts. Through diverse methods such as in-person training, e-learning, and workshops, we offer comprehensive education on topics including waste separation and treatment, waste reduction, environmental impacts, regulatory compliance, actual practices, and case studies. These efforts can raise our employee's environmental awareness and help us achieve tangible progress toward water management targets.



Waste Recycling Rate (%)

	Item	2021	2022	2023	2024
Non-hazardous	Reuse	0.6	0.6	1.5	0.9
	Recycle	90.4	87.0	87.4	85.9
	Replaced with alternative raw materials	0.0	0.0	0.0	0.0
	Incinerate (w/ energy recovery)	4.3	5.7	3.6	3.5
Hazardous	Recycle	-	-	2.1	2.5
Total		95.3	93.3	94.7	92.8

Spotlight

Wistron Drives Resource Circularity and Promotes UL2799 Zero Waste to Landfill to Fulfill Environmental Sustainability and Move Towards a Circular Economy with a Green Future Vision

Measures and achievements in waste reduction and resource circularity:

1. Zero Waste to Landfill

Since 2022, Wistron has implemented the UL 2799 Zero Waste to Landfill certification at manufacturing plants. This process encompasses waste flow inventory, data analysis, waste reduction initiatives, and collaboration with suppliers to achieve Zero Waste to Landfill. In 2023, Wistron's plants in Zhongshan, Chengdu, and Chongqing received Platinum and Gold certification, respectively, and have since maintained a valid certificate each year. In 2024, the Hsinchu Plant received its first Platinum (and highest) Zero Waste to Landfill certification, achieving the highest standard of 100% conversion rate (including 8% incineration recycling rate). In the future, Wistron will continue to build a positive circular economy loop and strive to achieve our sustainability goal of full waste conversion.

Through the UL 2799 Zero Waste to Landfill program, we are promoting comprehensive waste management practices across global manufacturing locations:

- Waste Disposal Process: Establish standardized procedures for waste handling and disposal.
- Implementation of Waste Classification: Ensure proper waste labeling and classification methods, and standardize waste container markings within the plant to facilitate accurate waste flow recording.
- Recording of Waste Flow: Use reliable tools to measure waste weight and regularly track waste production, ensuring accurate documentation and adherence to waste quantification metrics.
- Management of Waste Suppliers: Continuously monitor suppliers' waste disposal processes to ensure consistency with our waste management commitments.
- Waste Management Education: Provide comprehensive employee training and actively promote correct waste management practices.

2. Material Flow Cost Accounting

Material Flow Cost Accounting (MFCA) is a green management tool that considers both our environment and economy. Its main function is to assess the relationship between a product's input (raw materials and energy), output (product and waste) with its costs, with the goal of helping industries understand potential financial impacts of resource and energy use. The tool is capable of analyzing material and cash flow, and can serve as a basis for decision-making within an organization. In 2024, our Hsinchu Plant adopted the ISO 14051 Material Flow Cost Accounting method and acquired third-party verification. The plant leveraged MFCA to review efficiency of raw material, energy and resource use of specific products, uncovering opportunities for waste reduction and energy conservation throughout production processes. In the future, we intend to share these experiences to other Wistron plants in the hopes of optimizing resource use, reducing environmental impacts, and decreasing costs across all Wistron plants.

3. Outstanding Enterprise Award for Waste Reduction & Circular Economy

Starting in 2020, Wistron's Hsinchu Plant restarted volume production to pursue revenue growth and optimize waste management processes. The plant is actively promoting measures such as source reduction, resource circularity, repurposing, and recycling. In addition, the plant is also upgrading facilities and optimizing parameters to decrease chemical usage. In 2024, we actively rolled out circular economy measures, adopted UL2799 Zero Waste to Landfill standards, and participated in government campaigns. As a result, we were awarded the honor of Outstanding Enterprise in Waster Reduction and Circular Economy Performance - Excellence Award in 2024. In the future, Wistron will continue to collaborate with internal and external stakeholders to jointly fulfill our commitment to environmental protection.