

2024

**SUSTAINABILITY
REPORT**

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About This Report

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Cover Story

Inspired by the "Creation Hand" from Genesis, the design symbolizes the spark of innovation at the intersection of humanity and technology.

Geometric lines and dot structures echo the AI era's data connectivity and logic. The burst of light at the fingertip marks the beginning of creation—reflecting TSC's commitment to driving sustainability through innovation.

Taiwan Semiconductor Co., Ltd. (hereinafter referred to as "TSC" or "the Company") publishes an annual Sustainability Report in both Chinese and English to communicate with stakeholders about TSC's sustainability strategies and performance across the environmental, social, and governance (ESG) dimensions. Since 2023, TSC has disclosed relevant information on its official website. This report is the third Sustainability Report published by TSC, covering the disclosure period from January 1, 2024 to December 31, 2024.

First Edition	September 2023
Previous Edition	July 2024
Current Edition	July 2025
Next Edition	Scheduled for release in July 2026



Note: To support environmental protection, this report is primarily published in electronic format. Full content is disclosed on the official TSC website.

Reporting Principles

Sustainability Performance

This report is prepared with reference to the GRI Standards 2021, the Task Force on Climate-related Financial Disclosures (TCFD) framework, and the 2023 Semiconductors Sustainability Accounting Standard issued by the Sustainability Accounting Standards Board (SASB). It also adheres to the "Regulations Governing the Preparation and Filing of Sustainability Reports by OTC Companies" in Taiwan.

Financial Performance

The financial data in the report has been audited by KPMG in Taiwan. Unless otherwise specified, all financial information is presented in NT\$ thousands.

Reporting Scope

TSC Group's operations include its Rectifier Business and Barcode Printer Business. This report primarily discloses information related to the Rectifier Business and its operational and production sites. Starting from this year, data from the Shanghai and Hong Kong subsidiaries are included in the report. Some figures are retrospectively disclosed for years prior to 2024. Any inconsistencies in reporting periods or scope adjustments are Noted within the report. Other consolidated subsidiaries will be gradually incorporated into the reporting scope in future editions.

The Barcode Printer Business – TSC Auto ID Technology Co., Ltd. will publish a standalone sustainability report starting in 2025. Please refer to the Official Website of TSC Auto ID Technology Co., Ltd. for further details.

Operational Locations	
Taiwan	<ul style="list-style-type: none"> The Parent company (including Taipei headquarters, Hsinchu Office, Yilan Site, and Lije Site)
Mainland China	<ul style="list-style-type: none"> Shandong Site (Yangxin Everwell Electronic Co., Ltd.) Tianjin Site (Tianjin Everwell Technology Co., Ltd.) Shanghai Office (Shanghai Great Technology Trading Co., Ltd.) Hong Kong Office (Taiwan Semiconductor (HK) Co., Ltd.)

Data Explanation

TSC is committed to the accuracy and reliability of the content and data presented in this report. No information was restated in this reporting year.

Internal Review

This report consolidates annual sustainability performance and highlights submitted by all departments. The ESG Office reviewed and analyzed the data before submitting it to the Sustainability Committee and the Board of Directors for approval and publication. In 2023, TSC integrated the preparation and verification of its Sustainability Report into its internal control system, in accordance with the "Regulations Governing the Preparation and Filing of Sustainability Reports by OTC Companies" issued by Taiwan Stock Exchange Corporation.

External Assurance

The report was independently assured by KPMG in Taiwan in accordance with the Republic of China Statement of Assurance Engagements No. 3000, "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" (based on ISAE 3000). The Limited Assurance Statement from the independent auditor is included in "Appendix VI" of the report. The assurance process included explanations from the ESG Office and relevant departments regarding TSC's sustainability strategy and implementation results, and the final report was submitted to the ESG Committee and Board of Directors for approval.

Contact Information

For questions or suggestions regarding this report, please feel free to contact us.

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2024 Sustainability Honors and Annual Achievements



Participated in the EcoVadis Sustainability Assessment

✓ Overall performance rating improved by 43%



Participated in CDP
(formerly Carbon Disclosure Project)

✓ 2024 Climate Change: C (Awareness)
✓ 2024 Water Security: C (Awareness)



Received the Silver Award in the
"Electronic and Information Manufacturing"
category of the 17th Taiwan Corporate
Sustainability Awards (TCSA)

Environment

- Completed TCFD (Task Force on Climate-related Financial Disclosures) climate risk financial impact quantification assessment
- Launched ISO 14067 Product Carbon Footprint implementation plan
- Achieved **1,694.45 GJ** of annual energy savings compared to the previous year, equivalent to a reduction of **223.1 metric tons CO₂e**
- Advanced green transformation: Renewable energy accounted for **23%** of total energy consumption
- Scope 1 and 2 greenhouse gas emissions decreased by **7,718.04 metric tons CO₂e** compared to 2023
- Shandong Site recognized as a provincial water conservation benchmark enterprise
- Lije Site launched a VOC emission reduction project by implementing an organic waste gas treatment system, achieving a **71%** reduction in VOCs

Society

- Joined "TALENT, in Taiwan – Talent Sustainability Action Alliance", supporting sustainable talent development
- Promoted comprehensive and diverse training; average training hours per employee reached **50.9 hours**
- Maintained a **zero record of occupational diseases** for three consecutive years and was awarded the **"Healthy Workplace Promotion Certification"** by the Ministry of Health and Welfare
- Blood donation drives were held at sites, resulting in over 100 bags of donated blood

average training
hours per employee
50.9 hours

Healthy Workplace
Promotion
Certification

Governance

- Upgraded the ESG Committee to a functional committee under the Board of Directors, strengthening oversight on sustainability issues
- Corporate governance rating improved by one level from the previous year, **ranking in the top 20%**
- Promoted gender diversity on the board: 2 additional female directors appointed
- Initiated implementation of the ISO 27001:2022 Information Security Management Systems, and completed internal cybersecurity training to enhance awareness across all employees
- R&D investment **exceeded 3%** of net revenue for two consecutive years, reaching **NT\$126 million**
- Strengthened the implementation of codes of conduct in accordance with Responsible Business Alliance Code of Conduct (RBA)
- Local procurement accounted for **over 60%** of the total supply chain spending for the third consecutive year

Message from the Chairman GRI 2-22

The year 2024 marked a pivotal moment in the global sustainability landscape. That year, economic development and geopolitical dynamics introduced fresh uncertainties into the climate agenda. The ongoing Russia–Ukraine conflict not only triggered a humanitarian crisis but also intensified risks related to energy security and carbon emissions. With extreme weather events occurring more frequently, 2024 is projected to become the hottest year in recorded history—ushering in what many now call the "era of global boiling." Yet, despite these daunting challenges, the world continued to push forward with sustainability efforts. The Paris Olympic Games adopted a vision of carbon positivity, redefining low-carbon standards for major global events. In Taiwan, the launch of the national carbon trading platform in October marked a critical milestone in voluntary emissions reduction and the realization of real carbon pricing.

Against this backdrop of intersecting global transformations and environmental urgency in 2024, TSC advanced its sustainability governance efforts, reinforcing both organizational resilience and corporate responsibility. Centered around four strategic pillars—deepening core business, accelerating low-carbon transition, strengthening governance, and fostering environmental inclusiveness—TSC is methodically building the essential capabilities for sustainable operations.

Global TSC: Expanding Core Business and Global Reach

Since its founding in 1979 in Yilan, TSC has grown into a global enterprise, firmly rooted in technology leadership. Over the years, we have expanded into diverse markets including automotive, industrial control, and consumer electronics. In 2024, we reorganized R&D resources around core product lines, establishing dedicated R&D teams for each key product to accelerate innovation. Leveraging our in-house chip design capabilities and automated assembly advantages, we continued advancing development in Schottky rectifiers, fast recovery epitaxial diodes (FRED), transient voltage suppression (TVS) diodes, MOSFETs, ESD protection components, and low dropout/low power automotive regulators. These efforts aim to create a diversified, differentiated, and highly competitive product portfolio.

Low-Carbon TSC: Driving Emissions Reduction and Green Transition

In response to the global net-zero movement, TSC launched a series of low-carbon transformation initiatives. In 2024, we completed our first full disclosure under the international CDP Climate Change and Water Security questionnaires and initiated a climate risk quantification project aligned with TCFD principles, evaluating the operational impacts of potential carbon costs. We also progressed toward our 2030 carbon management roadmap, integrating group-wide GHG inventory data and preparing for the implementation of ISO 14067 product carbon footprint standards. At the same time, we began formulating a renewable energy strategy to support Taiwan's 2050 net-zero goals and meet customer demand for sustainable product solutions.

Agile TSC: Enhancing Governance and Organizational Resilience

In 2024, TSC elevated its "ESG Committee" to a functional committee under the Board of Directors, further embedding sustainability into corporate governance. In information security, we completed full implementation of the ISO 27001 management system and conducted in-person training to raise internal cybersecurity awareness. Governance improvements continued with board structure optimization and enhanced transparency. The proportion of female directors reached 28%, underscoring our commitment to gender diversity. Additionally, TSC ranked within the top 6%–20% in Taiwan's corporate governance evaluations, reaffirming our dedication to integrity-based management.

Vibrant TSC: Fostering an Inclusive and Healthy Workplace

At TSC, we believe our employees are the company's most valuable asset. We continue to strengthen feedback mechanisms and have introduced competency-based modules alongside diverse training programs to support personal development and organizational growth. TSC has maintained zero occupational disease cases for three consecutive years and, in 2024, received

the "Healthy Workplace Promotion Certification" from the Ministry of Health and Welfare, demonstrating our commitment to a safe and supportive work environment. Our dedication to social responsibility is also reflected in community engagement efforts, including our annual blood donation campaigns across three facilities, initiatives to encourage donation of vouchers and receipts, and sponsorship of local arts and culture groups—each a testament to our long-standing commitment to public welfare and cultural sustainability.

In the face of increasingly complex global developments, TSC will continue to expand its global footprint, accelerate the low-carbon transition, reinforce governance resilience, and cultivate a more inclusive workplace culture. We will respond to challenges with tangible actions, continuously strengthening our organizational adaptability and long-term sustainability. With openness and collaboration, we look forward to forging strong partnerships with stakeholders as we stride confidently into the future.

Chairman **Wang Shiu Ting**

Stakeholder Communication and Material Topic Analysis

Stakeholder Engagement GRI 2-29

TSC values stakeholder engagement and, with reference to the five principles of the AA1000 Stakeholder Engagement Standard (SES), has identified seven major stakeholder groups: suppliers, customers, employees, investors, government agencies, media, and the general public. Through both regular and ad-hoc multi-channel communication with stakeholders, TSC seeks to understand the actual and potential impacts of its operations on these parties, using the insights gained as a basis for planning future preventive and mitigation measures. The results of stakeholder communication are reported annually to the Board of Directors by the Board Secretariat.

Stakeholder Engagement Performance

Stakeholder	Significance to TSC	Key Topics of Concern	Communication Frequency and Channels	2024 Communication Highlights and Results
Suppliers	The quality of products and services provided by suppliers or contractors to TSC is a crucial factor in ensuring customer satisfaction.	Product Responsibility	Regular <ul style="list-style-type: none"> Remote or on-site audits (annually) Ad hoc <ul style="list-style-type: none"> Supplier conferences EHS briefings for contractors Surveys and RBA self-assessments 	<ul style="list-style-type: none"> ✓ 159 suppliers signed the "Declaration of Non-use of Conflict Minerals", with a signing rate of 91%, an increase of 1.4% from the previous year ✓ Continued execution of online and on-site supplier audits; implemented a triennial audit plan for Tier-1 suppliers ✓ All suppliers met TSC's automotive quality requirements
Customers	Customers are TSC's primary source of revenue. TSC strives to understand their needs, keep up with industry trends, and deliver professional services to meet expectations.	<ul style="list-style-type: none"> Product Responsibility Climate Strategy and Energy Management Water Stewardship Waste Management and Hazardous Substances Emission Management Human Rights Regulatory Compliance Sustainable Supply Chain Information Security Management 	Regular <ul style="list-style-type: none"> Customer satisfaction surveys (annually) Corporate sustainability report and official website Ad hoc <ul style="list-style-type: none"> Custom meetings per client demand Response to questionnaires (e.g., EcoVadis, CDP, SupplyOn) Customer audits and on-site visits 	<ul style="list-style-type: none"> ✓ Annual customer satisfaction survey score: 4.7 out of 5. ✓ Ad hoc ESG communication meetings and questionnaire responses were conducted to continuously understand customer needs.

Stakeholder	Significance to TSC	Key Topics of Concern	Communication Frequency and Channels	2024 Communication Highlights and Results
Employees	Employees are TSC's most valuable asset and the foundation of sustainable development. Competitive compensation and career development help foster unity and create a better future.	Business Ethics and Integrity	Regular <ul style="list-style-type: none"> • Labor-management meetings (quarterly) • Occupational health and safety meeting (quarterly) • General employee meetings (annually) • Employee satisfaction survey (annually) • Performance review briefings (semi-annually) Ad hoc <ul style="list-style-type: none"> • Employee Interviews • Employee feedback and harassment reporting mailbox • Departmental meetings 	<ul style="list-style-type: none"> ✓ No employee complaints received in 2024 ✓ 86% participation in employee opinion survey; continued improvement in workplace environment ✓ In 2024, a new HRM (Human Resource Management) System was implemented, incorporating automated calculation and verification mechanisms to prevent human error ✓ Upholding the principle of "caring for employees," TSC provided child care subsidies to 72 recipients and granted educational awards to 126 recipients in 2024
Investors	Shareholders and investors provide critical capital. Transparent disclosure reflects TSC's strategies, profitability, and ESG performance, ensuring stable funding and added value.	<ul style="list-style-type: none"> • Business Ethics and Integrity • Regulatory Compliance • Innovative Product Management • Product Responsibility 	Regular <ul style="list-style-type: none"> • Annual shareholder meetings and financial reports (annually) • Corporate Governance Evaluation System (annually) • Financial statements (quarterly) • Investor conference calls (quarterly) Ad hoc <ul style="list-style-type: none"> • Investor communication meetings (in-person or via phone) • Domestic and international investment forums • Business performance updates on the company website • Material information announcements via the Market Observation Post System (MOPS) 	<ul style="list-style-type: none"> ✓ Held 1 general shareholders' meeting ✓ Held 1 investor conference call, along with multiple one-on-one or group investor meetings via phone
Government and competent authorities	TSC maintains sound operations and open communication with competent authorities to stay updated on legal trends and proactively participate in government initiatives.	<ul style="list-style-type: none"> • Business Ethics and Integrity • Regulatory Compliance • Climate Strategy and Energy Management • Water Stewardship • Waste Management and Hazardous Substances Emission Management • Social Engagement 	Ad hoc <ul style="list-style-type: none"> • Official correspondence via documents and email • Assessments, evaluations, and audits • Various meetings (e.g., seminars, briefing sessions, forums) 	<ul style="list-style-type: none"> ✓ Participated in annual corporate governance evaluations ✓ Maintained smooth and active communication with the government on a regular and ad hoc basis, including attending promotional briefings to stay informed about relevant regulatory initiatives

Stakeholder	Significance to TSC	Key Topics of Concern	Communication Frequency and Channels	2024 Communication Highlights and Results
Media	The media serves as a bridge between TSC and its stakeholders, helping disseminate accurate corporate information and reinforcing brand image.	<ul style="list-style-type: none"> Regulatory Compliance Sustainable Supply Chain Information Security Management Risk Management Innovative Product Management Product Responsibility Climate Strategy and Energy Management Water Stewardship Waste Management and Hazardous Substances Emission Management Biodiversity Talent Recruitment and Retention Diversity and Inclusion Occupational Health and Safety Human Rights 	<p>Regular</p> <ul style="list-style-type: none"> Investor conference calls <p>Ad hoc</p> <ul style="list-style-type: none"> Face-to-face and telephone interviews Corporate website and press releases Social media platforms 	<ul style="list-style-type: none"> ✓ Held 1 investor conference call, along with multiple one-on-one or group investor meetings via phone ✓ Released 10 product news articles, 4 corporate news releases, and 6 event announcements
General Public	TSC remains responsive to local needs by collaborating with charities and schools, fulfilling CSR obligations.	<ul style="list-style-type: none"> Regulatory Compliance Sustainable Supply Chain Information Security Management Innovative Product Management Product Responsibility Climate Strategy and Energy Management Waste Management and Hazardous Substances Emission Management Biodiversity Talent Recruitment and Retention Diversity and Inclusion Occupational Health and Safety Human Rights 	<p>Regular</p> <ul style="list-style-type: none"> Invoice donation <p>Ad hoc</p> <ul style="list-style-type: none"> Disaster relief donations Lunch and tuition subsidies for underprivileged students Blood donation campaigns 	<ul style="list-style-type: none"> ✓ The Yilan Site and Lije Site collectively donated 150 uniform invoices to charitable organizations. ✓ The Yilan Site, Lije Site, and Shandong Site jointly held blood donation drives, with a total of 108 employees participating. ✓ At the group's annual year-end banquet, a local performing arts group was invited to deliver the opening performance, demonstrating support for Taiwan's indigenous drumming culture through concrete action.

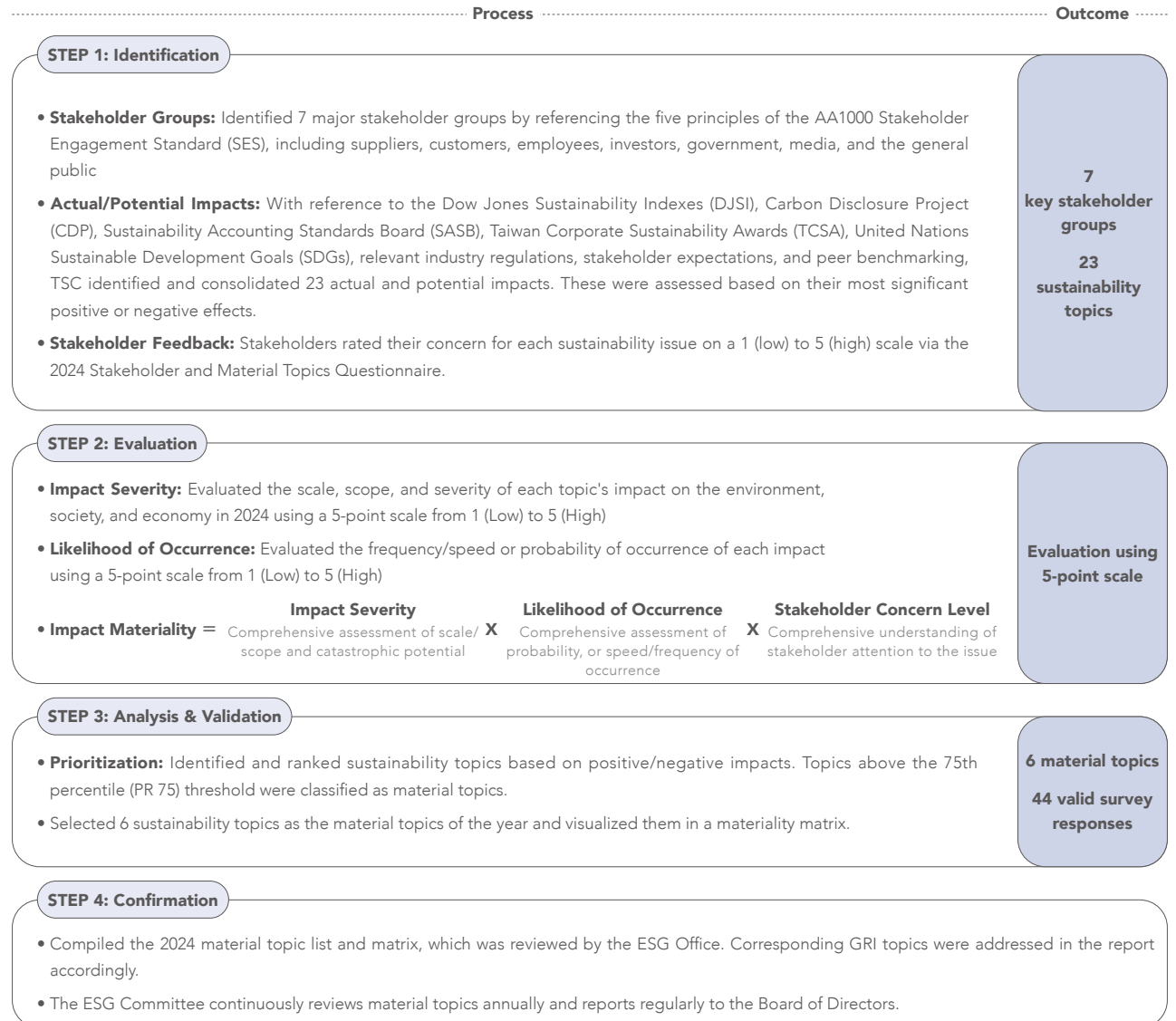
Material Topic Identification GRI 3-1 3-2 3-3

TSC follows the Global Reporting Initiative (GRI) Standards to establish its analytical process, conducting materiality analysis through four key steps: identification, evaluation, analysis and validation, and confirmation. This process assesses the actual and potential economic, environmental, and social impacts of its business operations, serving as the basis for planning and adjusting sustainability management strategies.

In 2024, TSC collected 44 valid internal and external stakeholder questionnaires to better understand stakeholder concerns. TSC will continue refining its materiality assessments and communication mechanisms. In 2024, six material topics were identified:

- **Business Ethics and Integrity**
- **Sustainable Supply Chain**
- **Innovative Product Management**
- **Water Stewardship**
- **Climate Strategy and Energy Management**
- **Occupational Health and Safety**

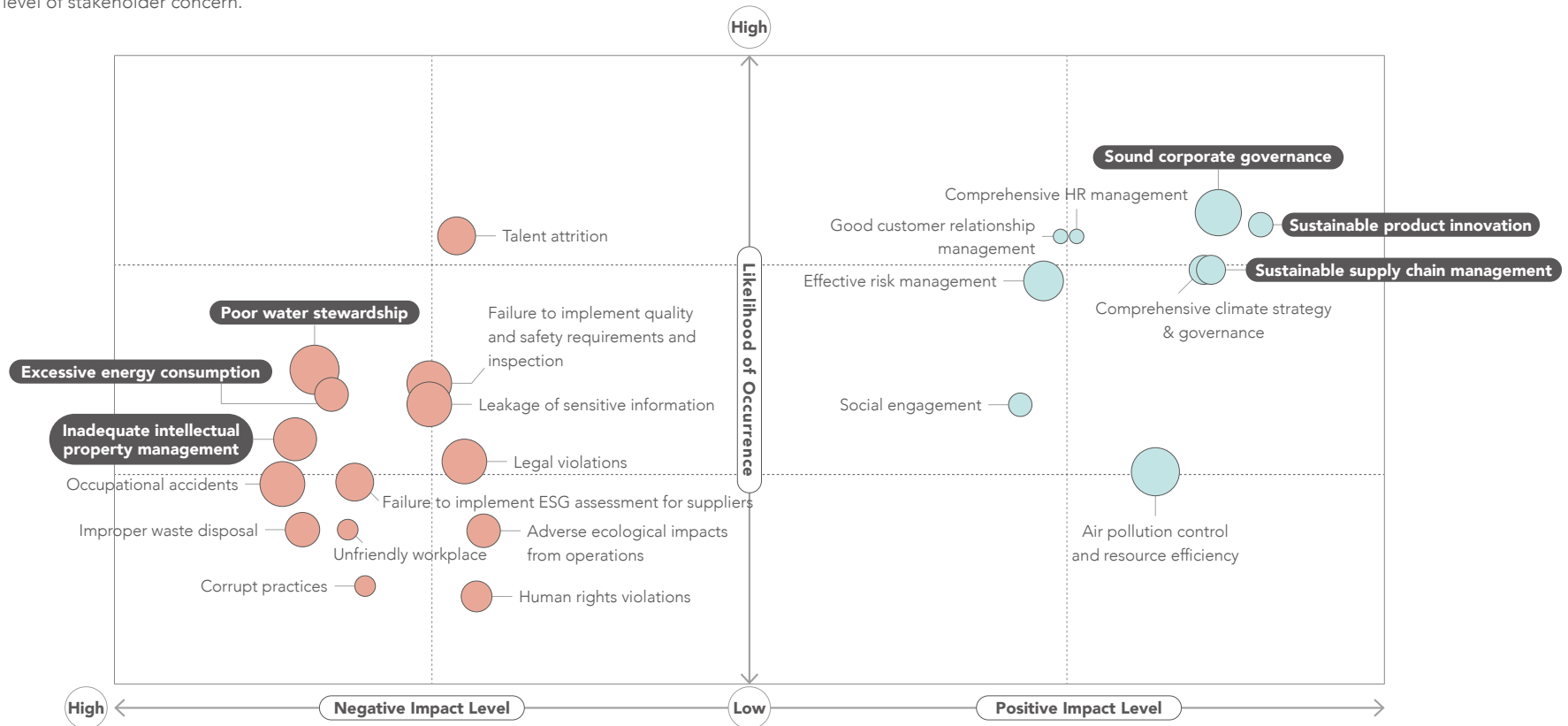
Material Topic Identification Process



2024 Material Topic Matrix

In response to the GRI Material Topics 2021, TSC considered industry characteristics, geographic location, and organizational context to define both the positive and negative impacts of each sustainability issue. Using a risk management perspective, the significance of actual and potential impacts was identified.

TSC determined material and foundational topics based on the results of questionnaire scoring, which were aggregated through multiplication, weighting, and ranking, and visualized in a materiality matrix. The matrix uses the positive X-axis to represent "degree of positive impact," the negative X-axis to represent "degree of negative impact," the Y-axis to show "likelihood of occurrence," and the Z-axis to indicate the "level of stakeholder concern."



Note:

1. Topics in gray represent the material topics for 2024, while others are foundational topics.

2. The size of each bubble reflects stakeholder concern; the larger the bubble, the higher the level of stakeholder concern.

3. Likelihood of Occurrence: Assessed by TSC internal supervisor

4. Impact Level: Evaluated by TSC internal supervisor and weighted based on SASB recommended disclosure topics

Material Topics and Implications in 2024

Material Topics	Value Chain Impact			Positive Impacts and Implications	Negative Impact and Implications	Corresponding GRI Topics/Disclosures	Management Approach (Corresponding Sections)
	Upstream	TSC	Downstream				
Governance							
Innovative Product Management	●	●		Sustainable product innovation Integrate sustainability into product design and production by adopting new technologies, using non-hazardous materials, and applying low-pollution, energy-saving processes. Strengthen hazardous substance management, identify recyclable materials, and promote circular design to minimize environmental impact.	Inadequate intellectual property management Inadequate management of trade secrets, patent assets, or other intellectual property rights may compromise the company's intellectual property protection and undermine its market leadership position.	301-1 Materials used by weight or volume 301-2 Recycled input materials used 416-2 Incidents of non-compliance concerning health and safety impacts of products and services 417-1 Requirements for product and service information and labeling 417-2 Incidents of non-compliance concerning product and service information and labeling	2.1 R&D and Innovation
Business Ethics and Integrity		●		Sound corporate governance Establish a robust governance and integrity framework with effective oversight to protect stakeholder rights. Through clear policies and ongoing advocacy, we ensure legal compliance and embed ethics into all operations, supporting long-term sustainable development.	-	2-9 Governance structure and composition 2-10 Nomination and selection of the highest governance body 2-11 Chair of the highest governance body 2-12 Role of the highest governance body in overseeing the management of impacts 2-13 Delegation of responsibility for managing impacts 2-14 Role of the highest governance body in sustainability reporting 2-15 Conflict of interest 2-16 Communication of critical concerns 2-17 Collective knowledge of the highest governance body 2-18 Evaluation of the performance of the highest governance body 2-19 Remuneration policies 2-20 Process to determine remuneration 2-22 Statement on sustainable development strategy 2-23 Policy commitments 2-24 Embedding policy commitments 2-25 Processes to remediate negative impacts 2-26 Mechanisms for seeking advice and raising concerns 205-1 Operations assessed for risks related to corruption 205-2 Communication and training about anti-corruption policies and procedures 405-1 Diversity of governance bodies and employees	1.2 Corporate Governance

Material Topics	Value Chain Impact			Positive Impacts and Implications	Negative Impact and Implications	Corresponding GRI Topics/Disclosures	Management Approach (Corresponding Sections)
	Upstream	TSC	Downstream				
Sustainable Supply Chain	●	●		Sustainable supply chain management Implement a sustainable supply chain management mechanism by building a highly resilient supply chain, thereby enhancing product quality, delivery reliability, and the overall sustainability performance across the supply chain.	-	2-23 Policy commitments 2-24 Embedding policy commitments 204-1 Proportion of spending on local suppliers 308-1 New suppliers that were screened using environmental criteria 308-2 Negative environmental impacts in the supply chain and actions taken 408-1 Operations and suppliers at significant risk for incidents of child labor 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor 414-1 New suppliers that were screened using social criteria 414-2 Negative social impacts in the supply chain and actions taken	3.1 Supply Chain Management
Environment							
NEW Water Stewardship		●		-	Poor water stewardship Water is vital to the semiconductor industry. Insufficient wastewater treatment or poor water monitoring may harm the environment and endanger nearby communities.	303-1~5 Water and effluents	5.3 Water Stewardship
Climate Strategy and Energy Management	●	●	●	-	Excessive energy consumption High fuel and electricity use across operations and the value chain, if unmanaged, may lead to overconsumption and environmental impact.	201-2 Financial implications and other risks and opportunities due to climate change 302-4 Reduction of energy consumption 305-5 Reduction of GHG emissions	5.1 Climate Governance and Strategies
Society							
NEW Occupational Health and Safety	●	●		-	Occupational Accidents Insufficient safety protocols may lead to occupational injuries or illnesses, endangering employee well-being and exposing the company to legal and financial risks.	403-1~10 Occupational health and safety	4.2 Protecting Workplace Safety

Note:

1. Based on the results of the material impact prioritization, TSC added two new material topics in 2024: Water Stewardship and Occupational Health and Safety. Meanwhile, three topics previously identified as material in 2023—Talent Recruitment and Retention, Information Security Management, and Customer Relationship Management—have been reclassified as material topics.

Sustainable Operation and Governance

1.1 About TSC

1.2 Corporate Governance

1.3 Risk Management

1.4 Information Security Management



Recommended Primary Stakeholders for This Section:

☐ Suppliers ☐ Customers ☒ Employees ☒ Investors ☒ Government ☐ Media ☐ General Public

Sustainable Operation and Governance

TSC is committed to sustainable operations and continuously enhances its corporate governance framework. In addition to promoting high standards of business ethics and safeguarding stakeholder interests, TSC strictly complies with all applicable laws and regulations across jurisdictions. The company aims to fulfill its core value of integrity through robust mechanisms such as corporate risk management and information security management. TSC will continue to improve its governance systems and actively engage with stakeholders through multiple channels in pursuit of its sustainability objectives.

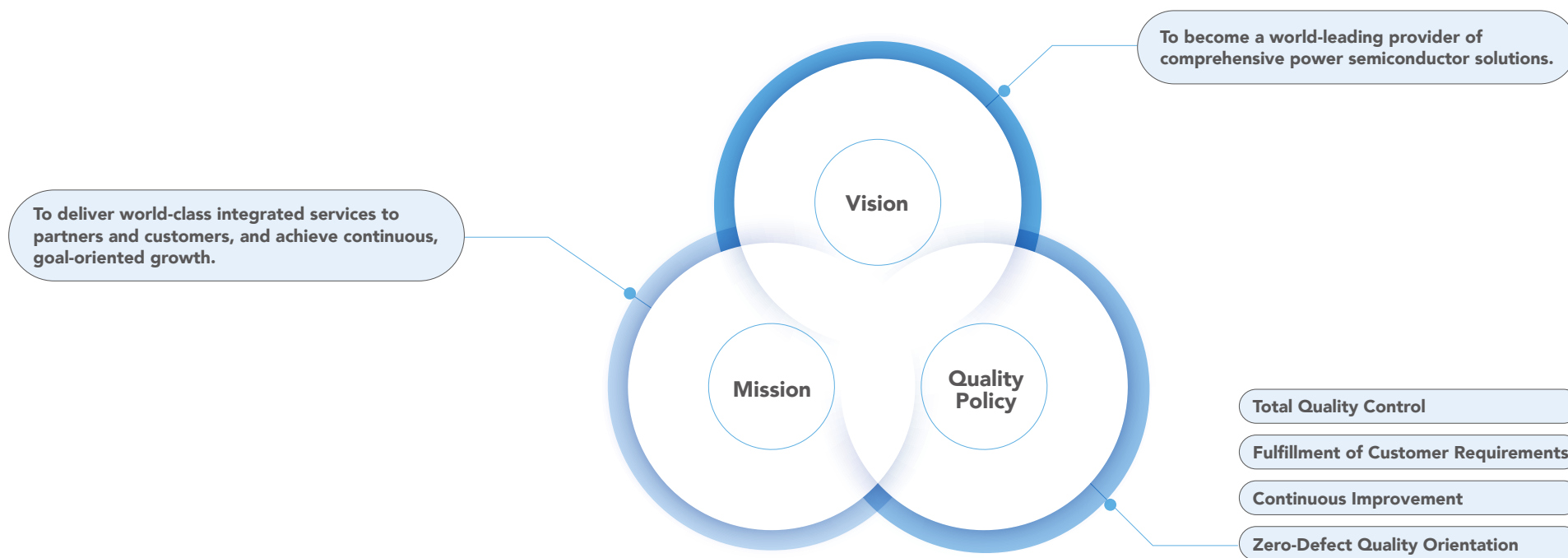
1.1 About TSC

GRI 2-1 2-6 2-22 2-28


TSC (Stock Code: 5425) is one of the world's leading manufacturers of power semiconductor devices. Since its establishment in 1979, TSC has been dedicated to research and innovation, integrating core technologies to provide comprehensive solutions to customers worldwide. In recent years, the company has leveraged its proprietary chip development and automated assembly capabilities to advance its product portfolio, including Schottky rectifiers, Fast Recovery Epitaxial Diodes (FRED), Transient Voltage Suppression (TVS) devices, MOSFETs, Electrostatic Discharge (ESD) protection components, and automotive Low Dropout/Low Power Consumption Voltage Regulators (LDOs). These products are widely used in consumer electronics, communication equipment, power management systems, industrial machinery, and automotive electronics.

In recent years, TSC has actively pursued strategic transformation and expansion, particularly in the automotive and industrial control sectors. Its strategies include expanding sales channels, actively engaging in customers' product development, and exploring pricing strategies. These efforts aim to enhance competitiveness, strengthen sustainable supply chain services, and expand global market reach.

In addition, TSC's subsidiary, TSC Auto ID Technology Co., Ltd. (Stock Code: 3611), specializes in the manufacture and sales of barcode printers. It is a leading provider of innovative thermal transfer and direct thermal label printing solutions. As demand for automatic identification applications grows, TSC Auto ID continues to invest in research and innovation, deepening its core capabilities in integration and cross-disciplinary development. For more information about TSC Auto ID, please refer to the company's website, annual report, and sustainability report.



1.1.1 Company Overview



Taiwan Semiconductor Co., Ltd.

Founded
January 1979

Headquarters
11 Floor, No. 205, Section 3, Beixin Road, Xindian District, New Taipei City, Taiwan

Industry
Semiconductor Manufacturing

Paid-in Capital
NT\$2.6 billion






Global Operations

4 Production Sites

21 Service Locations

Affiliates
The business scope of the Company's affiliates include electronic component manufacturing, office equipment manufacturing, computer and peripheral equipment manufacturing, international trading, management consulting, import of telecommunications-regulated radio frequency equipment, and manufacturing of telecommunications-regulated radio frequency equipment.

Taipei Exchange (TPEX) in February 2000 under stock code **5425**

Operating Locations

TSC serves a global market, with four major production sites (including wafer fabrication and assembly facilities) located in Taiwan (Yilan) and Mainland China (Shandong, Tianjin). Its service locations span across Mainland China, Japan, South Korea, the United States, Germany, and other regions, enabling the Company to provide application and sales support across different territories to meet global customers' design and supply chain needs. TSC has more than 1,500 employees worldwide.

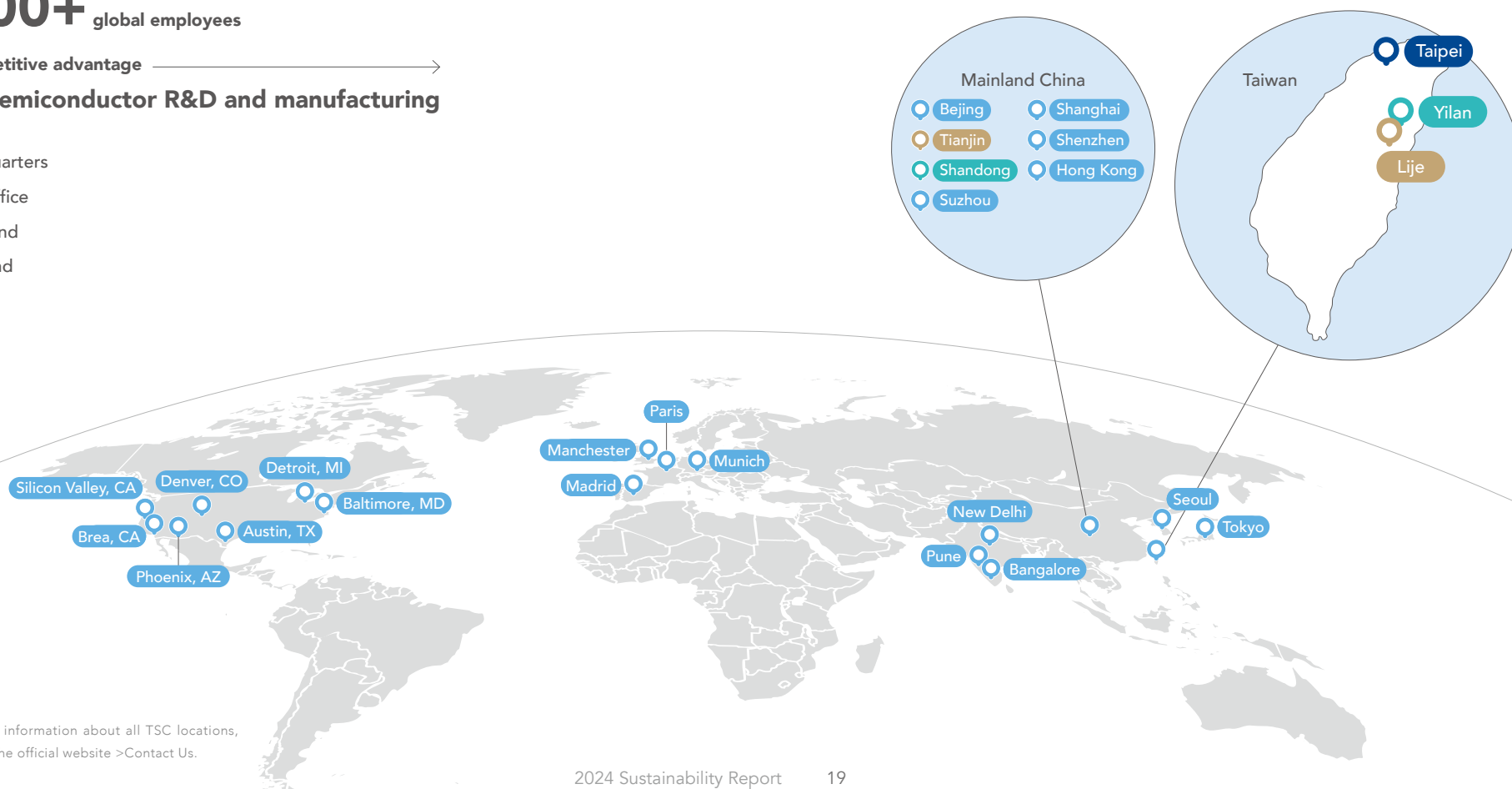
TSC's core competitiveness lies in its strength in power semiconductor research and manufacturing. The Company provides a comprehensive power semiconductor solution that spans product design, R&D, wafer fabrication, assembly and testing, and global brand marketing. Through resource integration, TSC continues to collaborate with upstream and downstream partners to enhance technological innovation and strengthen its market competitiveness.

1,500+ global employees

Core competitive advantage

Power Semiconductor R&D and manufacturing

- Headquarters
- Sales office
- Front-End
- Back-End



Note:
1. For detailed information about all TSC locations, please visit the official website >Contact Us.



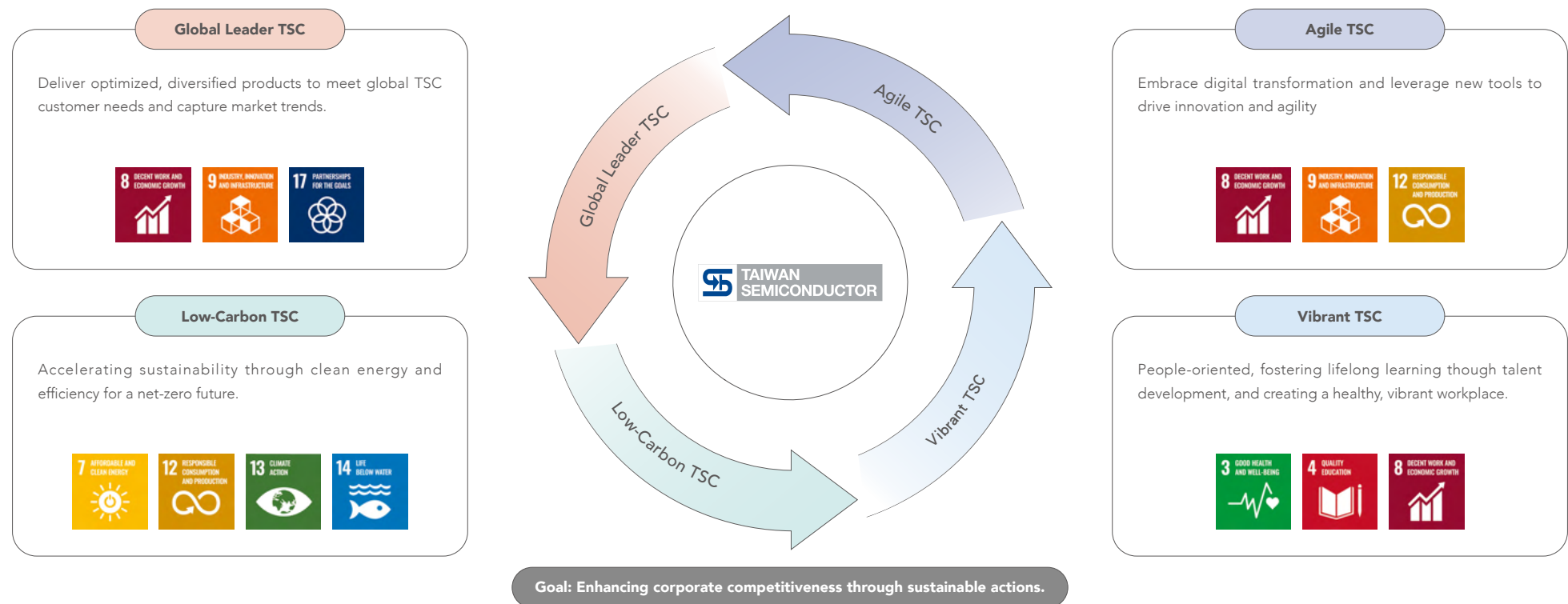
Industry Value Chain

TSC has established a fully vertically integrated value chain—from product R&D and design to manufacturing, assembly, and testing. This end-to-end integration continuously enhances product value and global competitiveness.



Sustainable Vision



TSC is committed to developing a Taiwan-rooted, global-oriented strategy to deliver a diverse portfolio of high-quality products and services, tailored to the evolving needs of customers worldwide. Amid the rapid waves of technological advancement, we also embrace the transformative potential of digital innovation. By adopting emerging technologies and optimizing operational processes, we aim to enhance efficiency and strengthen corporate resilience. Recognizing the critical importance of environmental sustainability, we actively promote our vision of a "Low-Carbon TSC" through concrete actions such as energy conservation and improving energy efficiency to minimize environmental impact. "Vibrant TSC" reflects our commitment to our employees. With a people-centered philosophy, we strive to create a safe, healthy, and vibrant work environment, while providing diverse learning and development opportunities to help our employees grow and thrive. Through the four sustainability visions—**"Global Leader TSC," "Agile TSC," "Low-Carbon TSC," and "Vibrant TSC"**—we are dedicated to driving sustainability across all operations, enhancing corporate competitiveness, and contributing to the sustainable development of society.



External Initiatives and Organizational Participation

TSC strives to play a key role in the global market by continuously driving technological innovation and maintaining a robust presence across the upstream and downstream value chain. We actively respond to shifts in global dynamics and industry transformation by collaborating with peer companies. TSC also takes part in trade associations and sustainability-related external initiatives relevant to our core business, leading the industry toward mutual growth and shared prosperity.

Organization Name	Description	Main Participation in 2024	TSC's Role and Involvement
Industry Development			
World Semiconductor Trade Statistics (WSTS)	WSTS is an international semiconductor industry organization responsible for collecting and publishing global semiconductor market statistics. Its analysis and forecasts serve as key references for strategic decision-making across the industry.	TSC has been a member since 2012 and regularly submits monthly, quarterly, and semi-annual shipment data. WSTS shares statistical reports (including product type, application, etc.) and market forecasts with its members.	Member
Chinese National Association of Industry and Commerce (CNAIC)	The CNAIC is a major representative organization of Taiwan's industrial and commercial sectors, serving as a communication bridge between government and businesses.	Regularly participates in CNAIC-hosted seminars and events to stay updated on the latest economic and industrial trends.	Member
Business Environment			
Binzhou Entrepreneurs Association, Shandong	A civic organization established under the coordination of the Binzhou Municipal Government, with liaison and coordination support from the Binzhou Private Economy Development Service Center. With the mission of "serving enterprises," it acts as a bridge between businesses and society, as well as between businesses and the government. The organization offers suggestions and advice to the government on challenges faced by private enterprises and facilitates coordination to support communication and collaboration among businesses.	Regularly participate in training sessions or events organized by the association, and actively provide suggestions based on TSC's operational experience to improve Binzhou's business environment and government services.	Director
Information Security			
Taiwan Computer Emergency Response Team / Coordination Center (TWCERT/CC)	To enhance Taiwan's overall cybersecurity capabilities, the TWCERT/CC alliance is operated by the National Institute of Cyber Security (NICS). Under the guidance of the Ministry of Digital Affairs, it promotes key initiatives such as corporate cybersecurity incident reporting and coordination, product vulnerability disclosure, malicious file detection services, and the organization of cybersecurity awareness activities.	Engages in periodic information sharing on cybersecurity intelligence with the alliance and issues early warnings in the event of corporate cyberattacks. In case of any cybersecurity incidents at TSC, relevant details of the attack are proactively reported.	Member

Organization Name	Description	Main Participation in 2024	TSC's Role and Involvement
Corporate Sustainability			
CommonWealth Magazine Group - ESG committee	The CommonWealth Magazine Group - ESG committee regularly convenes member discussions on ESG trends such as regulatory compliance, customer requirements, and the implementation of carbon tariffs in various countries.	Since 2023, TSC has been invited to join as a corporate member and has participated in the "Sustainability Empowerment Workshop," actively engaging with peers and companies from various industries. TSC shares its practices in corporate social responsibility and energy-saving and carbon-reduction initiatives within the semiconductor sector, and collaborates with industry leaders to jointly guide the sustainable development of Taiwanese enterprises.	Member
 Task Force on Climate-related Financial Disclosures (TCFD)	TSC has adopted the TCFD framework since 2022 for managing climate-related risks, including identifying risks and opportunities and formulating mitigation strategies based on transitional and physical risk dimensions.	In 2024, TSC conducted a quantitative risk assessment based on the increased sustainability-related requirements and regulations under the TCFD framework. A detailed analysis is provided in Section 5.1.1, Climate Governance and Strategy.	Initiative Member
 CDP (formerly Carbon Disclosure Project)	Through the CDP questionnaire, TSC discloses information on its climate governance, strategies, risk and opportunity management, performance indicators and targets, and greenhouse gas emissions, as part of its ongoing efforts to review and enhance its carbon management strategies.	In 2024, TSC responded to the CDP annual disclosure for the first time. The results for both the Climate Change and Water Security questionnaires were rated C (Awareness).	Initiative Member
Talent Sustainability			
CommonWealth Talent Sustainability Action Alliance	Talent is a vital factor for the long-term development of enterprises. Since 2022, CommonWealth Learning has officially launched the inaugural "TALENT, in Taiwan – Talent Sustainability Action Alliance," aiming to drive positive change in Taiwan's workplace environment through a range of forward-looking indicators.	In 2024, TSC joined the "TALENT, in Taiwan – Talent Sustainability Action Alliance", continuing to promote and implement talent sustainability indicators while supporting the principles of diversity, equity, and inclusion.	Initiative Member

Note:

1. TSC has incorporated the Science Based Targets initiative (SBTi) into its long-term carbon reduction strategy. As there were no active projects under SBTi in 2024, the related content has been temporarily excluded from this year's report.

1.1.2 Financial Performance GRI 201-1 201-4

TSC believes that strong operational performance is the foundation of the sustainable development. In recent years, TSC has devoted significant effort to the development of new products in areas such as automotive electronics, industrial control, servers, and analog ICs, with overall synergies becoming increasingly evident. Upholding the principle of information transparency, TSC has continued to improve capital efficiency while enhancing communication with stakeholders to help them better understand the company's operations and growth.

In 2024, the global economic slowdown, heightened geopolitical uncertainties, and weakening demand for automotive electronics resulted in sluggish consumer markets and supply chain inventory adjustments. Despite these external challenges, TSC maintained steady operations. The Company recorded a standalone revenue of NT\$4.197 billion in 2024, representing 91% of the previous year's figure. Due to market corrections, gross margin declined by approximately 7 percentage points, with net profit after tax reaching approximately NT\$460 million and earnings per share (EPS) at NT\$1.87. A cash dividend of NT\$2 per share for the fiscal year 2024 was approved at the shareholders' meeting, reaffirming TSC's continued commitment to shareholder returns.

Although the overall financial performance in 2024 did not meet expectations due to market conditions, the Company continued to strengthen its competitiveness, enhance product value, improve integration synergies, and accelerate R&D to generate greater group-wide synergy and contribute to society. For more details on TSC's operational performance and financial information, please refer to the 2024 consolidated and individual financial statements, as well as the annual report.

[TSC 2024 Consolidated Financial Statements](#) 

[TSC 2024 Individual Financial Statements](#) 

[TSC 2024 Annual Report](#) 

Overall Financial Performance

Unit: NT\$ thousand

Type	2022	2023	2024
Operating Revenue	5,699,155	4,610,473	4,197,006
Operating Cost	4,437,327	2,954,250	2,902,287
Employee Compensation & Benefits	700,267	648,608	681,641
Dividend Distribution	1,053,942	526,971	526,971
Interest Payments	9,810	21,285	23,247
Government Payments ^{Note 1}	267,253	146,648	68,472

Note:

1. Government payments include all taxes and fines reported in the company's financial statements.

2. Overall financial performance is based on TSC's individual financials. Please refer to the full Financial Statements for detailed information.

3. Community investment projects are not included in the statistics

Financial Income from Government

Unit: NT\$ thousand

Type	2022	2023	2024
Tax Relief and Credits	28,110	23,308	18,322
Investment Subsidies, R&D Grants, and Others	1,879	1,460	224
Others	3,458	3,222	3,307

Note: The government held no shares in TSC during the past three years.

1.2 Corporate Governance

GRI 2-9 2-10 2-11 2-12 2-13 2-14 2-15 2-17 2-18 2-19 2-20 2-22 3-3 405-1

Material Topics Business Ethics and Integrity – Strengthening Corporate Governance

Policy and Commitment

TSC adheres to the principle of integrity in business operations and is committed to enhancing its corporate governance framework, complying with all applicable laws and regulations, ensuring stable operations and sustainable growth, and safeguarding the rights and interests of shareholders and all stakeholders. Related policies and regulations include: Rules of Work, TSC Ethical Management Principles, and Code of Ethical Conduct.

Ethical Management Principles 

Code of Ethical Conduct 

Management Approach and Evaluation Mechanism

- Establish and regularly communicate corporate governance policies to management and employees.
- Enhance information transparency by disclosing financial and non-financial data via annual reports, sustainability reports, and the official website.
- Implement a whistleblower protection mechanism with accessible grievance channels for internal and external stakeholders.
- Ensure regular internal and external governance training for senior management, governance officers, and related teams.

2024 Performance Highlights

- **Appointed 7 directors to the 16th Board of Directors, including 4 independent directors (over 50%) and 2 female directors, reinforcing gender diversity.**
- **Established the "Board Secretariat" to support governance affairs in line with the Corporate Governance 3.0 initiative.**
- **Elevated the ESG Committee to a Board-level functional committee to strengthen sustainability governance.**
- **Revised internal governance documents (e.g., Board Meeting Rules, Shareholders' Meeting Procedures) in response to regulatory updates.**
- **Achieved a ranking in the 6%–20% tier in the 11th Corporate Governance Evaluation, improving from the previous 21%–35% tier.**
- **Completed board and committee performance evaluations and reported results in Q1 2024.**

Future goals

Short-term (within 1 year)

Refer to results from the Corporate Governance Evaluation System and best practices domestically and internationally to develop improvement plans based on current conditions

Medium-term (1–3 years)

Strengthen information security management and complete the implementation of the ISO 27001 certification program

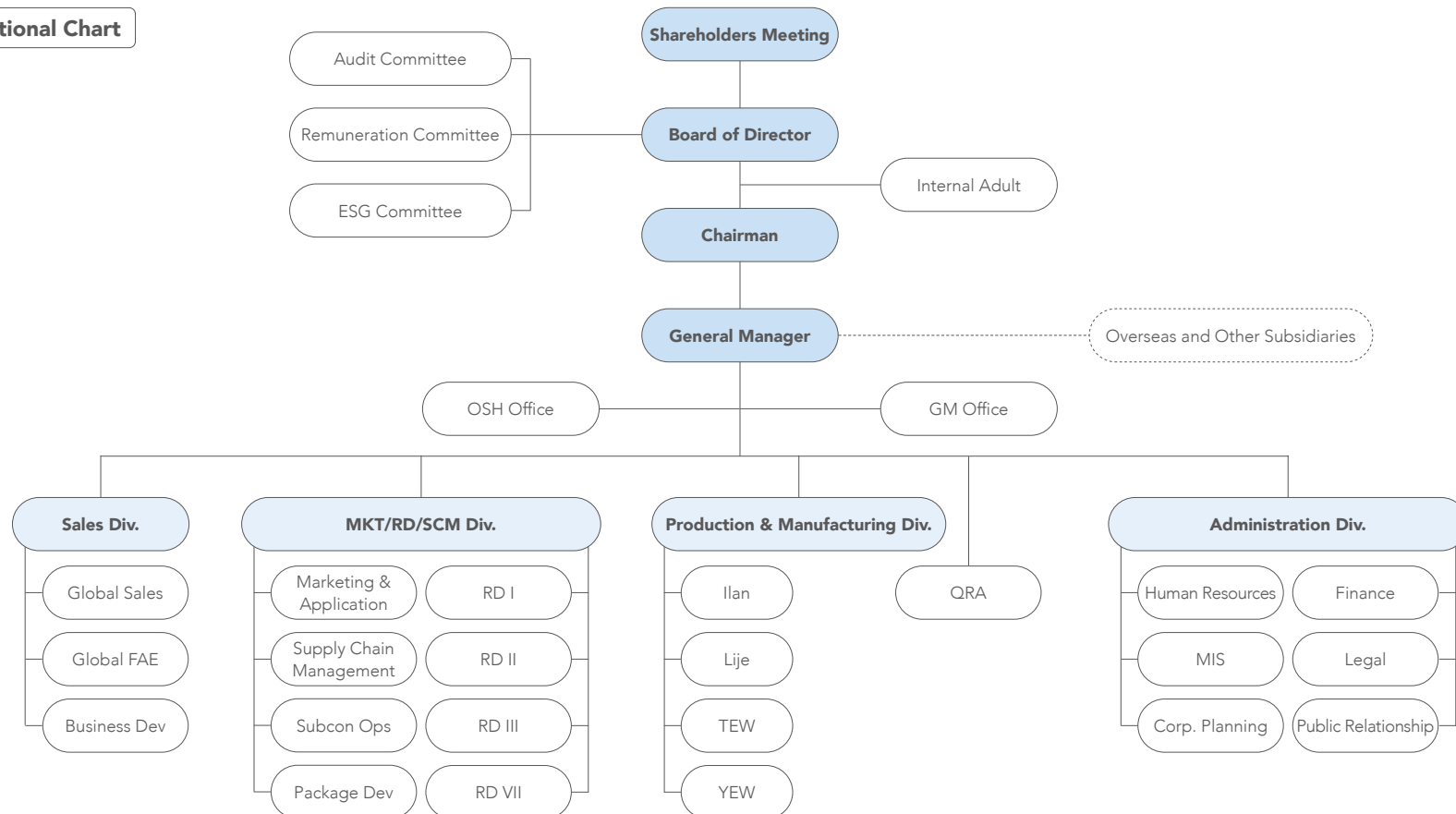
Long-term (over 3 years)

Establish a robust risk management system, conduct regular identification of material risks, and implement improvement tracking mechanisms

1.2.1 Board Operations

The Board of Directors is TSC's highest governance body, responsible for guiding the company's strategic direction, overseeing management, and being accountable to shareholders. The Board of Directors of TSC exercises its powers in accordance with applicable laws, the Articles of Incorporation, and resolutions of the Shareholders' Meeting with respect to all operations and arrangements related to the corporate governance system. To enhance oversight and strengthen management functions, the Board of Directors, taking into account the Company's scale and nature of operations, has established functional committees under its authority, including the Audit Committee, the Remuneration Committee, and the ESG Committee. Each committee operates in accordance with clearly defined organizational guidelines and assists the Board in fulfilling its supervisory responsibilities. The committees regularly report their activities and resolutions to the corporate governance unit and the Board of Directors. As part of its effort to reinforce sustainability governance, TSC elevated the ESG Committee to a Board-level functional committee in 2024.

TSC Organizational Chart



Board Diversity

In accordance with the TSC Corporate Governance Best Practice Principles, the Company has adopted a Board Diversity Policy, ensuring a complementary mix of gender, age, nationality, culture, and professional background. The 2024 re-elected Board comprises seven members, including four independent directors—two of whom are female—with expertise in accounting, finance, operations, management, and HR.

In 2024, eight board meetings were held with an average attendance rate of 98%, in line with Article 206 of the Company Act. Total board remuneration accounted for 7.72% of net income after tax.

Name	Title	Gender and Age	Professional knowledge and skills							Employee Status
			Business Judgment	Accounting and Financial Analysis	Business Management	Crisis Management	Industry Knowledge	International Market Perspective	Leadership and Decision-Making	
Wang, Shiu-Ting	Chairman and President	Male (61-78 years old)	✓	✓	✓	✓	✓	✓	✓	✓
Representative of TSC Auto ID Technology Co., Ltd.: Wang, Hsing-Lei	Corporate Director Representative and Vice President	Male (41-50 years old)	✓	✓	✓	✓	✓	✓	✓	✓
Yan, Guo-Yin	Director and Vice President	Male (51-60 years old)	✓	✓	✓	✓	✓	✓	✓	✓
Jhan, Cian-Long	Independent Director	Male (61-78 years old)	✓	✓	✓	✓	✓	✓	✓	
Ma, Shu-Zhuang	Independent Director	Male (41-50 years old)	✓	✓	✓	✓	✓	✓	✓	
Chen, Shu-Ling	Independent Director	Female (51-60 years old)	✓		✓	✓	✓	✓	✓	
Wang, Nian-Qiu	Independent Director	Female (41-50 years old)	✓		✓	✓	✓	✓	✓	

Note:

- The Chairman of the Board is elected by the Board of Directors. Internally, the Chairman serves as the head of the board; externally, the Chairman acts as the legal representative of the company. The Chairman also serves as the President and is responsible for formulating, promoting, and executing the company's strategies and long-term development plans. Any matters involving personal interests are handled in accordance with conflict-of-interest avoidance principles.
- The age distribution of the Company's Board of Directors is as follows: 2 members (28.57%) fall within the 61 to 78 age range, 2 members (28.57%) are between 51 and 60 years old, and 3 members (42.86%) are in the 41 to 50 age group. For comprehensive profiles of board members and details on their meeting attendance, please refer to page 30 of the Company's Annual Report.

Nomination and Election of Directors

The members of the Board of Directors are selected based on procedures established in accordance with relevant laws and the Company's Articles of Incorporation. The nomination and election of all directors follow open and impartial procedures, in full compliance with the provisions set forth in the "Articles of Incorporation of Taiwan Semiconductor Co., Ltd."

In addition, as stipulated in the Company's "Rules for Election of Directors," both directors and independent directors are elected through a cumulative voting system and a candidate nomination system. Shareholders holding a certain percentage of shares are entitled to nominate candidates. This approach promotes shareholder participation, prevents the monopolization or arbitrary use of nomination rights, and helps maintain board independence.

[Articles of Incorporation of Taiwan Semiconductor Co., Ltd.](#)

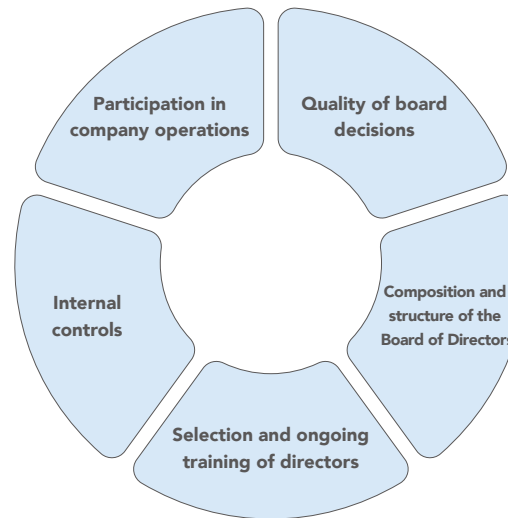
Board Performance Evaluation

To implement sound corporate governance and enhance the functioning of the Board of Directors, TSC has established performance goals to improve board efficiency. In accordance with the "Compensation Committee Charter" and the "Rules for Performance Evaluations of the Board of Directors," the Company conducts one performance evaluation annually. In 2024, the evaluation was carried out through self-assessment, either online or in written form. The evaluation covered the overall operations of the Board, each functional committee, as well as the performance of individual directors and members. The results and corresponding improvement plans were submitted to the Board of Directors for review.

[Compensation Committee Charter](#)

[Rules for Performance Evaluations of the Board of Directors](#)

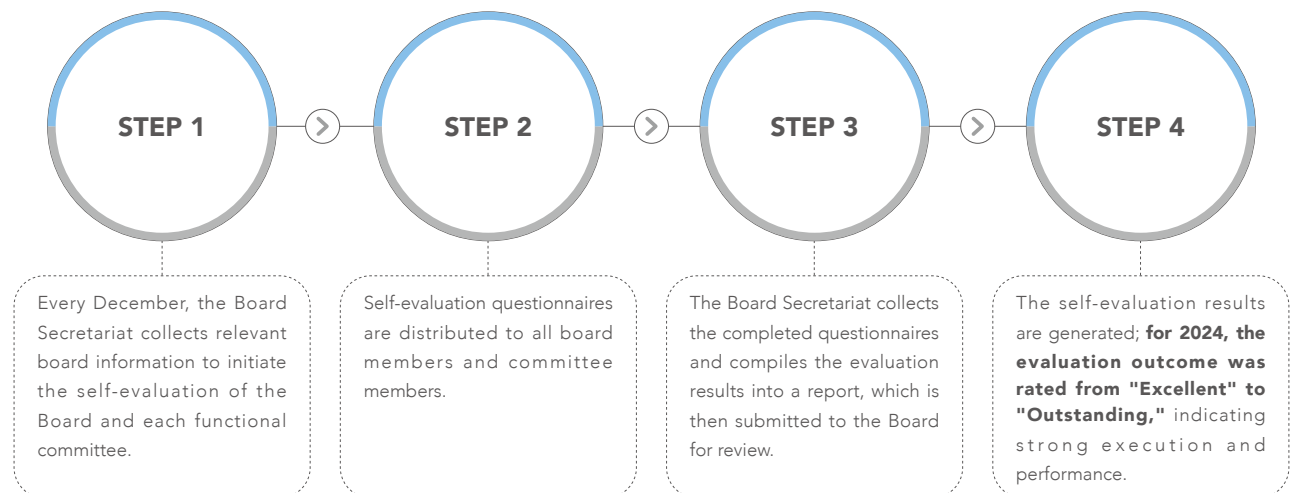
Five Key Dimensions of Board Performance Evaluation



Six Key Dimensions of Individual Directors Evaluation

- 01 Understanding of corporate goals and missions
- 02 Awareness of directors' duties and responsibilities
- 03 Participation in company operations
- 04 Internal relationship management and communication
- 05 Professional expertise and ongoing training of directors
- 06 Internal controls

Performance Evaluation Process



Conflict of Interest Management Mechanism

According to TSC's "Board Meeting Rules," when a board agenda item involves a director's personal interest or that of a legal entity they represent, the director must disclose the material aspects of the conflict during the meeting and shall recuse themselves from both the discussion and the voting process. They are also prohibited from voting on behalf of other directors. TSC adheres to applicable laws and appoints independent directors to serve on the Audit Committee to ensure the independence and oversight function of the Board. None of the Board members hold cross-shareholdings with major suppliers or other stakeholders. For more details, please refer to the Annual Report.

[Board Meeting Rules](#) 

Board Remuneration Policy

TSC offers a comprehensive compensation package, including cash, stock options, profit-sharing, retirement benefits, allowances, and other incentives, all disclosed in the annual report per regulatory requirements. To ensure a fair system for directors and managers, TSC has established a Remuneration Committee and adopted a charter to guide its work. The Committee objectively evaluates remuneration policies based on individual performance, company results, and potential risks, providing recommendations to the Board. Director compensation is processed according to the approved "Director Remuneration Payment Scale" and reported to shareholders.

Functional Committee

	Members	Responsibilities	Meeting Frequency
Audit Committee	Composed of all Independent directors (4 members), with one person elected by all Members to serve as the convener and chairman.	<ul style="list-style-type: none"> Oversee the accuracy of financial statements Appoint, remove, and assess the independence and performance of external auditors (CPA) Ensure effective implementation of the internal control system Monitor compliance with applicable laws and regulations Oversee the management of current and potential corporate risks 	At least once per quarter; 8 meetings were held in 2024
Remuneration Committee		Professionally and objectively assess remuneration systems for directors, supervisors, and managers, and advise the Board accordingly.	At least twice a year; 3 meetings were held in 2024
ESG Committee		<ul style="list-style-type: none"> Define sustainability policies and strategic direction Develop and implement sustainability action plans Oversee execution and assess effectiveness of sustainability initiatives Strengthen stakeholder engagement on key sustainability issues raised by regulators, shareholders, media, customers, suppliers, affiliates, employees, communities, and society 	At least once a year; 4 meetings were held in 2024 ²

Note:

1. Director remuneration is set in accordance with Article 20 of the Company's Articles of Incorporation, which allows for up to 1% of the Company's annual profit to be allocated for director compensation. Reasonable remuneration is determined based on the Company's operational performance and each director's contribution. Managerial compensation is determined based on the Salary Cycle Management Regulations, industry benchmarks, job responsibilities, and contribution to the Company's goals. The procedure for setting compensation is based on the Company's "Annual Performance Evaluation Regulations," taking into account the overall operational performance of the Company, future industry risks and development trends, as well as individual performance achievement rates and contributions to the Company's performance, in order to provide reasonable compensation. The relevance and reasonableness of performance evaluations and remuneration are reviewed by both the Compensation Committee and the Board of Directors. The remuneration system is subject to timely review in light of the Company's actual operating conditions and applicable regulations, to ensure a balance between sustainable business operations and risk management.
2. Including two meetings of the first committee session and two meetings after the committee was elevated to a Board-level functional committee.
3. For important resolutions of each functional committee, please refer to the TSC website.

Board of Directors Training

To comply with national and industry regulations and uphold ethical standards, TSC's Board members and senior executives regularly attend training on corporate sustainability, governance, and regulatory training. In 2024, each board member completed over 9 hours of continuing education. Details are available on pages 76–77 of the Annual Report.

Sustainability Governance

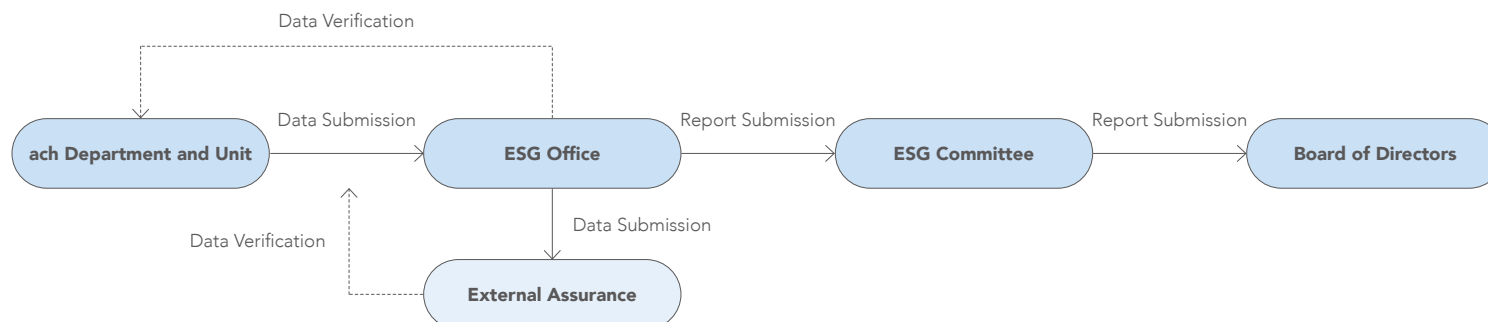
To strengthen sustainability oversight, TSC established its first ESG Committee in 2022. In 2024, the Board of Directors formally elevated the ESG Committee to a board-level functional committee, enhancing its supervisory role and reinforcing stakeholder engagement and the Company's sustainability commitment.

The ESG Committee is responsible for formulating policies, promoting governance frameworks, and overseeing the execution and performance of sustainability initiatives. It also monitors stakeholder concerns—including those from shareholders, customers, suppliers, employees, government agencies, NGOs, and media—and supervises communication strategies. At least one meeting is held annually.

An ESG Office operates under the Committee to coordinate sustainability affairs, including meeting planning and documentation. The Office consists of site supervisors, the Administration Division, and executive secretaries to ensure effective implementation of sustainability actions across all levels. Internal cross-functional meetings are held as needed to support execution and report progress to the Board.

Sustainability Disclosure

TSC publishes an annual Sustainability Report to share its sustainability performance and achievements with stakeholders. The ESG Office is responsible for collecting annual sustainability performance data from all production sites and departmental units, followed by data verification and consolidation. Once the report has been assured by an independent third-party organization, it is reviewed by the ESG Committee and submitted to the Board of Directors for approval prior to official release.



1.2.2 Ethical Business Practices GRI 205-1 205-2 2-16 2-23 2-24 2-26

For over 45 years, TSC has upheld ethical business practices through integrity policies, internal controls, whistleblower protections, and ongoing training to ensure employee conduct aligns with the Company's core values and complies with local regulations.

Policies and Regulations of Ethical Conduct

TSC has established a comprehensive integrity management framework based on national laws and the guidelines of the Taiwan Stock Exchange and TPEX. Key internal policies—such as the Rules of Work, Ethical Management Principles, and Code of Ethical Conduct—apply to all subsidiaries, directors, managers, and employees, promoting a corporate culture of integrity.

The Board Secretariat reviews policy promotion and compliance annually and reports to the Board. All related policies are approved by the Chairman and published internally and on the official website. Suppliers must sign the bilingual RBA Vendor Code of Conduct before cooperation, pledging to uphold ethical standards including human rights protection, fair competition, and zero tolerance for bribery or corruption.

[TSC Ethical Management Principles](#)  [Code of Ethical Conduct](#) 
[Vendor Code of Conduct](#) 

Internal Supervision of Ethical Conduct

TSC maintains strong accounting and internal control systems, with the Internal Audit Office regularly assessing high-risk areas for ethical misconduct. Based on these assessments, audit plans—including targets, scope, and frequency—are developed to ensure effective monitoring. The Company also engages external auditors or consultants to strengthen oversight, with audit results reported to the Board at least annually.

To mitigate corruption risks, periodic assessments are conducted under the Ethical Risk Management Guidelines, covering bribery, embezzlement, and improper gift acceptance. In 2024, no significant risks or violations were identified. TSC remains committed to prevention through education, internal controls, and audits.

Whistleblower Mechanism

TSC has set up a dedicated whistleblower email for internal and external stakeholders to report violations of the Code of Ethical Conduct or other misconduct. All reports are kept strictly confidential, and whistleblowers are protected against retaliation. Cases are handled by site supervisors, the Internal Audit Office, or the Legal Office as appropriate. Significant incidents involving corruption or operational risk are escalated to the Board of Directors. In 2024, no complaints were received and no incidents of corruption occurred.

- **Employee Feedback Mailbox:** feedback.hq@ts.com.tw
- **External Stakeholder Whistleblower Mailbox:** anticorruption@ts.com.tw

Procedure for Handling Reports of Integrity Violations



Integrity Training and Education

All new TSC employees are required to read the company's integrity-related policies during onboarding, covering anti-corruption, intellectual property rights, and legal compliance. In 2024, board members and key personnel received anti-corruption awareness training. The Legal Department also conducted mandatory online courses for all Taiwan employees on insider trading, ethical management, intellectual property, and trade secrets. Completion of the training and a minimum test score of 90 were required to ensure understanding of policies and the consequences of violations.

1.3 Risk Management

1.3.1 Risk Management System GRI 2-23

To proactively identify and promptly address internal and external operational risks, safeguard stakeholder interests and asset security, and ensure effective risk control, TSC is committed to establishing a sound risk management framework and policies. We regularly conduct risk identification and implement risk assessment plans to ensure that all potential risks are strictly managed.

Risk Management Framework

The Board of Directors oversees the overall risk management system, with the GM Office responsible for evaluation and supervision. Internal Audit applies the conceptual framework of the "Internal Control - Integrated Framework" issued by the U.S. COSO Committee, assessing five core areas: control environment, risk assessment, control activities, information & communication, and monitoring. Based on these assessments, we establish control policies and procedures to manage risk effectively.

Risk Management Policies

Aligned with the Responsible Business Alliance (RBA) Code of Conduct, TSC has established policies across ethics, social responsibility, environmental protection, and occupational safety. These include:

- Business Ethics Risk Assessment Measures
- Social Responsibility Risk Assessment Measures
- Risk and Opportunity Management Procedures

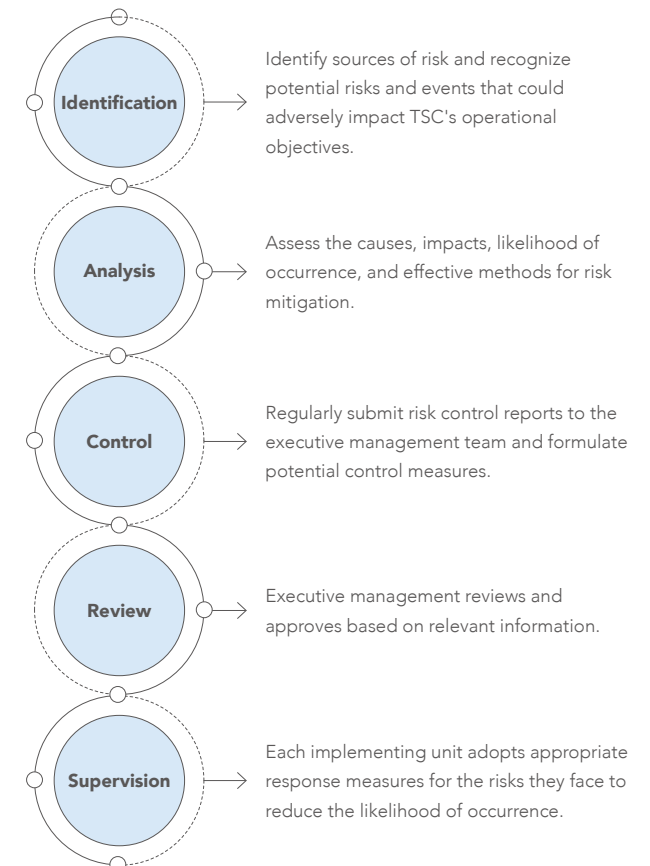
Each site also follows ISO 14001 standards to implement:

- Occupational Hazard Identification and Risk Management Procedure
- Environmental Aspect Identification and Management Procedure

To further enhance governance, TSC plans to revise its risk management procedures in 2025, strengthening cross-departmental capabilities in identifying, assessing, and managing risk throughout operations.

Risk Management Process

TSC's current risk management process involves the following steps of identification, assessment, reporting, and response:



Business Continuity Management

As global risks continue to escalate, TSC has established TSC Business Continuity Management Process since 2023 in alignment with business continuity management frameworks and principles. This process strengthens our management practices to ensure an immediate response in the event of an emergency, minimizing losses or harm and sustaining our ability to provide uninterrupted services.

Business Continuity Management Objective

To sustain operations in support of business continuity and customer needs, without disruption from natural or man-made disasters.

To reduce risks and impacts from emergencies, each TSC's sites has implemented emergency response mechanisms and procedures. Regular drills are conducted for potential risk scenarios, with reviews of preventive and corrective measures to enhance rapid response and recovery capabilities. These sites have established risk control measures in accordance with environmental, health, and safety regulations for scenarios such as supply chain disruptions, labor shortages, critical equipment failures, earthquakes, fires, and utility outages (water, electricity, gas).

Risk Reporting Mechanism

External stakeholders can report potential risk items through the Anti-Corruption Mailbox, while internal employees may use the Employee Grievance Mailbox accessible via the intranet. These channels support the company in assessing and mitigating internal and external risks. No complaints were received in 2024.



Internal Control and Internal Audit

TSC has established an Internal Audit reporting directly to the Board of Directors. It is responsible for establishing and continually strengthening the internal control system, supporting both the Board of Directors and management in fulfilling governance responsibilities. Core responsibilities include investigating and evaluating internal control deficiencies, assessing operational efficiency,

and providing timely recommendations to enhance governance quality and operational effectiveness. The Internal Audit operates independently and is fully dedicated to conducting regular and ad hoc audits of business and financial processes to comprehensively evaluate the soundness, reasonableness, and effectiveness of the internal control systems.

Between November and December each year, the Internal Audit prepares the internal audit plan for the following year based on a risk-oriented approach and submits it to the Board of Directors for approval. This ensures that the internal control system remains responsive to internal and external changes. In 2024, a total of 109 audit tasks were completed, with no material deficiencies identified.

In addition, TSC annually aligns with the financial audit of listed and OTC companies, while the accounting firm simultaneously performs the Company's internal control information cycle testing to examine the operational effectiveness of the internal control systems, ensuring the adequacy of risk management and operational processes.

Internal Audit Operations Process

In addition to conducting annual audits of items required by laws and regulations, the Internal Audit also takes into account the results of the company's operational risk assessments to formulate the audit plan and define the audit items for the following year, which are then implemented upon approval by the Audit Committee and the Board of Directors. For any identified control deficiencies or irregularities, the Internal Audit engages in thorough communication with the audited units, obtains corrective action plans and completion timelines where necessary, and tracks progress until completion. All audit reports are submitted to the Audit Committee by the end of the following month after completion. A summary of deficiency improvements is reported quarterly to both the Audit Committee and the Board of Directors. In the event of a serious violation or risk of material loss to the company, immediate reporting is made to the relevant Presidents, the Audit Committee, and the Board of Directors.

2024 Functional Highlights

Execution of the 2024 Audit Plan

Based on the results of the risk assessment, the annual audit plan is formulated to evaluate the internal control systems of the Company and its subsidiaries. Audit reports are prepared with supporting working papers and relevant documentation. Identified deficiencies and anomalies in the internal control system are disclosed in the audit report and followed up regularly, with tracking reports prepared accordingly.

Internal Control Self-Assessment

Each year, the Internal Audit promotes self-assessment activities among departments and subsidiaries. The findings, along with any internal control deficiencies and corrective actions, serve as the basis for the Board of Directors and the President to evaluate the overall effectiveness of the internal control system and issue the Internal Control System Statement. This information is also reported on the Market Observation Post System and published in the annual report.

Subsidiary Supervision

All subsidiaries are included within the scope of internal audits. The Internal Audit provides assistance and supervision in the implementation of internal control systems. For any irregular indicators identified, the Internal Audit issues work reports to the relevant subsidiaries to facilitate timely adjustments and improvements.

Internal Audit Training

Internal auditors participate annually in training courses recognized by the Financial Supervisory Commission (FSC) to enhance professional skills and risk management awareness. Information on audit personnel and training completed is reported on the Market Observation Post System.

2024 Training Topics

- New Trends in Auditing: Leveraging AI and Data Analytics to Identify Internal and External Business Risks
- The Role of Internal Audit in Sustainability Information Management and Internal Control
- Industry Updates (AI, ESG, Cybersecurity, etc.) and Internal Audit Responses
- Enhancing Corporate Sustainability Value and Strengthening Risk Management Systems
- Practical Developments in Materiality Thresholds for Financial Misstatements and the Responsibilities of Directors and Supervisors
- Legal Responsibilities for Corporate Fraud and Practical Procedures in Investigation and Trial

1.3.2 Regulatory Compliance GRI 2-27 205-3 SASB TC-SC-520a.1

TSC strives to comply with all applicable laws and regulations across all areas of its operations. The Company establishes internal operating procedures and continuously monitors domestic and international legal and regulatory developments that may impact operations, updating relevant policies as needed. TSC Ethical Management Principles explicitly requires all employees to comply with the Company Act, Securities and Exchange Act, Political Donations Act, and Government Procurement Act. Bribery, corruption, and political contributions are strictly prohibited. In accordance with Article 7, Paragraph 2 of the Ethical Management Principles for TWSE/TPEX Listed Companies, and other high-risk operational areas, appropriate preventive measures have been implemented. TSC upholds the highest standards of professional ethics to protect its corporate reputation and earn the trust of stakeholders.

TSC has established a robust mechanism for the management and disclosure of material internal information to prevent inappropriate information leakage and to ensure accuracy and consistency in external communications. In addition, to prevent insider trading, the Company has formulated the TSC Internal Handling of Significant Information and Prevention of Insider Trading Management Measures, which is published on the Company's website.

[TSC Ethical Management Principles](#) 

[TSC Internal Handling of Significant Information and Prevention of Insider Trading Management Measures](#) 

Regulatory Compliance Performance

In 2024, there were no major violations related to anti-corruption, anti-competitive behavior, money laundering, or insider trading. Additionally, no other significant legal violations occurred^{Note1}. There were two cases in 2024 involving violations of the Gender Equality in Employment Act, and the Occupational Safety and Health Act. All issues were rectified within the stipulated deadlines, and follow-up improvement plans and procedural measures were implemented. Please refer to the table below, as well as Sections 4.1.4 Labor Relations and Human Rights Management and 4.2.1 Workplace Safety Management for further details. TSC will continue to closely monitor changes in legal requirements and periodically review internal procedures to mitigate legal risks and ensure compliance in all aspects of its operations.

Violations Summary in 2024

Penalized Site	Fault	Fine (NT\$)	Improvement Measures
2024 (2 cases in total)			
Lije Site	<p>In a labor condition audit conducted in June 2024, it was found that the calculation of perfect attendance bonuses for shift personnel was affected by the use of menstrual leave. In July 2024, the site was penalized for violating Article 21, Paragraph 2 of the Gender Equality in Employment Act.</p> <p>(The employee's perfect attendance bonus was affected by applying for menstrual leave under the Gender Equality in Employment Act.)</p>	\$20,000	<p>Short term</p> <ul style="list-style-type: none"> • Retroactive payment of 2024 perfect attendance bonuses affected by menstrual leave. <p>Long term</p> <ul style="list-style-type: none"> • Update the attendance system to designate menstrual leave as a specific leave type for shift workers, with an automated calculation mechanism to avoid manual errors.
Yilan Site	<p>In August 2024, a labor inspection of work logs found unlicensed personnel operating designated high-pressure gas equipment. In September 2024, the site was penalized for violating Article 24 of the Occupational Safety and Health Act.</p> <p>(Failure to assign certified or trained personnel to operate designated hazardous equipment as required by the central competent authority.)</p>	\$100,000	<p>Short term</p> <ul style="list-style-type: none"> • Strengthen awareness and access control; post notices at entry points to restrict access to qualified personnel. • Introduce pre-operation sign-off forms and require monthly supervisor reviews. • Include personnel qualification control in annual training programs to enhance site-wide awareness. <p>Long term</p> <ul style="list-style-type: none"> • Conduct a site-wide inventory of equipment requiring operator certification and verify operator qualifications. • Continue education and training to ensure compliance with operation qualification requirements.

Note:

1. In accordance with Article 4 of the "Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities", a material violation refers to any single incident where the cumulative fine reaches or exceeds NT\$1 million. In 2024, TSC did not experience any material violations or non-monetary penalties.

1.4 Information Security Management

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Foundational Topic Information Security Management – Corporate and Customer Information Protection

Policy and Commitment

- Establish a comprehensive information security management framework.
- Initiate implementation of ISO 27001:2022 Information Security Management System (ISMS).
- Conduct awareness campaigns and training programs to strengthen internal knowledge of information security.
- Reduce operational risks caused by human error or improper use of information assets.

Management Approach and Evaluation Mechanism

- Establish an Information Security Management Committee, led by the Chief Information Security Officer (CISO), to oversee the ISMS.
- Designate an executive secretary to plan, manage, and monitor key indicators and information security risks.
- Form functional teams to execute daily ISMS operations and coordinate cross-department efforts.
- Conduct regular committee meetings to assess risks and implement improvements (e.g., CCTV, access control, server room security).
- Notify suppliers with formal communication to ensure basic information security awareness.
- Collect threat intelligence and update blacklists and whitelists on a continual basis.

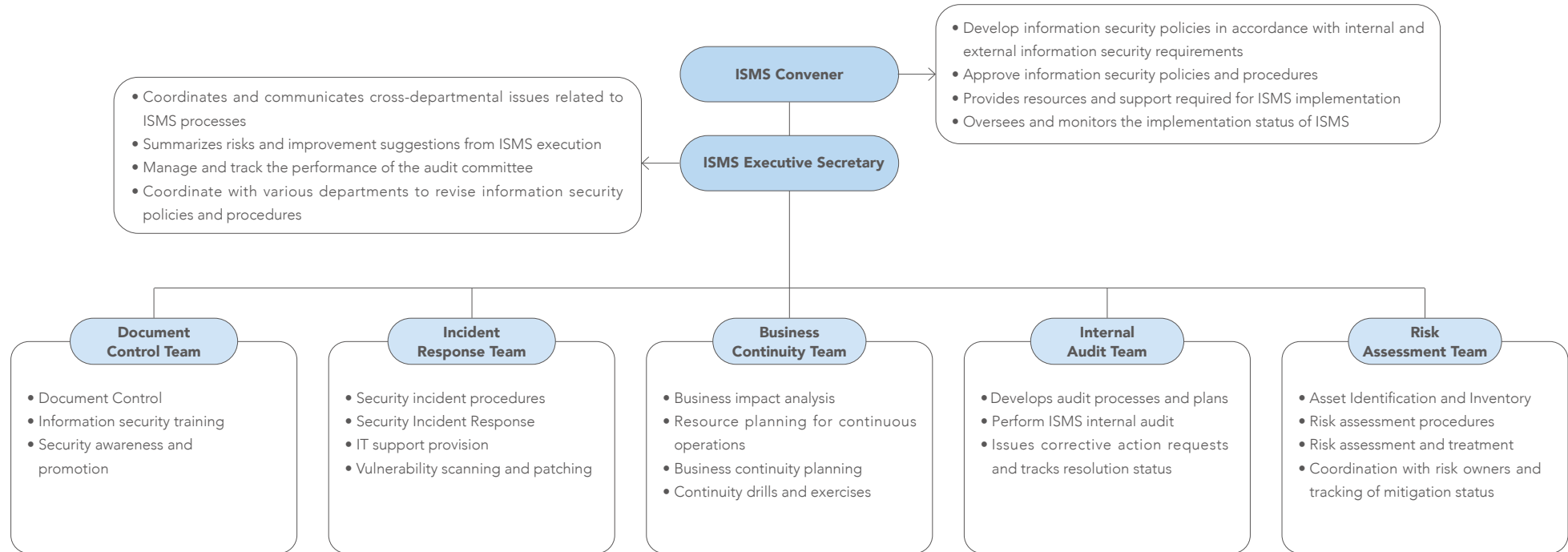
Action Plans and Performance

- **In 2024, TSC completed three internal information security training sessions at the headquarters, Yilan Site, and Lije Site, achieving a 100% completion rate to enhance employee awareness.**
- **Regular system patching and vulnerability scanning were implemented throughout the year to strengthen system protection and reduce security risks.**
- **Conducted Proof of Concept (POC) testing of network and endpoint monitoring systems at all sites, including performance and compatibility evaluations. Results are being used to plan a phased rollout to enhance threat detection and response capabilities.**

To enhance information security for both TSC and its customers, the company has incorporated information security into corporate governance. Chaired by the Chief Information Security Officer (CISO), the Information Security Management Committee oversees policy development, compliance, and risk control. TSC also conducts periodic security tests to identify gaps, strengthens its protection systems, and provides training to reduce incident risks and build a comprehensive defense framework.

Information Security Policy 

Information Security Management Organizational Structure



Starting in 2024, TSC initiated the implementation of ISO 27001:2022 Information Security Management Systems (ISMS), covering asset inventory, risk assessment, control planning, incident response, and continuous improvement. These efforts aim to establish a comprehensive governance framework that enhances resilience and strengthens information protection.

The Information Security Management Committee, chaired by the Chief Information Security Officer (CISO), oversees ISMS strategy, resource allocation, and policy formulation. Functional teams under the Committee manage asset control, risk evaluation, incident response, and training. A management review mechanism has been established to periodically assess policy relevance, risk mitigation effectiveness, incident handling, and improvement opportunities, ensuring system optimization and alignment with company objectives.

Information Security Policy

With the rapid advancement of information technology, enterprises face growing threats and risks related to information security. As internal digital transformation and system integration become increasingly frequent, ensuring the security of corporate information assets and protecting personal privacy have become critical components of business governance. TSC adheres to the following regulations and standards to establish a comprehensive information security governance framework:

01 Guidelines for Cyber Security Management of Listed and OTC Companies

02 Recommendations from Taiwan Computer Emergency Response Team/Coordination Center (TWCERT/CC)

03 Cyber Security Management Act

04 ISO 27001:2022 Information Security Management Systems (ISMS) Standards

In line with TSC's internal Information Security Policy—as well as relevant internal regulations, operating standards, and procedures—the company implements a systematic ISMS to strengthen the prevention, response, and continual improvement of information security incidents, thereby ensuring business continuity and the protection of critical information assets. Each business unit is responsible for formulating internal procedures in accordance with general information security principles, thereby supporting comprehensive regulatory compliance and control across the organization.

Key Focus Areas of TSC's Information Security Policy Implementation

• **Define clear objectives for information security, centered on three key principles: uninterrupted services, zero data loss, and zero personal data breaches.**

• **Establish corresponding policies and action plans aligned with these objectives, and regularly evaluate their effectiveness.**

- | | |
|---|--|
| ✓ Information Security Organization and Management Review | ✓ Business Continuity Management |
| ✓ Document and Record Management | ✓ Performance Management |
| ✓ Asset Management | ✓ Supplier Relationship Management |
| ✓ Risk Management | ✓ Internal Audits on Information Security |
| ✓ Human Resource Security Management | ✓ Operational Security and Cryptographic Technology Management |
| ✓ Physical Environment Security Management | ✓ Communication Security Management |
| ✓ Access Control Management | ✓ Compliance Management |
| ✓ Information System Acquisition, Development, and Maintenance Management | ✓ Information Security Incident Management |

In response to the "Cyber Security Management Act" and to strengthen the organization's information security governance capabilities, TSC initiated the planning of the ISO 27001 Information Security Management Systems (ISMS) in 2022. In the fourth quarter of 2024, the implementation project was officially launched with the support of professional consultants. This initiative aims to establish and optimize the Group's ISMS framework, gradually enhancing its information security risk control mechanisms.

In the initial phase, TSC completed the inventory of information assets, risk assessment, and control measure planning for its headquarters and major operational sites. Internal trial operations and system implementation are scheduled to be completed by 2025, with third-party certification targeted for the third quarter of the same year, forming the foundation for continuous optimization of the Group's information security governance structure. Looking ahead, from 2026 to 2027, TSC will progressively expand ISMS implementation to additional sites, conducting system audits and certification activities to comprehensively strengthen its information security management capabilities and mitigate the risks of business disruption and supply chain cyber threats.

Technology and Policy Optimization

Password policy enhancement

- In response to key customer information security requirements, the password length specification has been revised to 15 characters and incorporated into the risk assessment mechanism
- In alignment with the Change Management process, the implementation and maintenance of the password policy have been strengthened

Account change management enhancement

- Introduced application forms for account creation and modification, integrating information security change requests with the authorization process
- Established an account anomaly review process and permission tracking records to improve transparency and auditability in account management

Information Change Process Integration

- All changes to information equipment (e.g., hostnames, configurations, or change in usage purposes) must be formally applied for and approved, and incorporated into the information change control process
- Technical patching and security hardening are carried out based on scanning results and vulnerability assessments

Vulnerability scanning and patching tracking

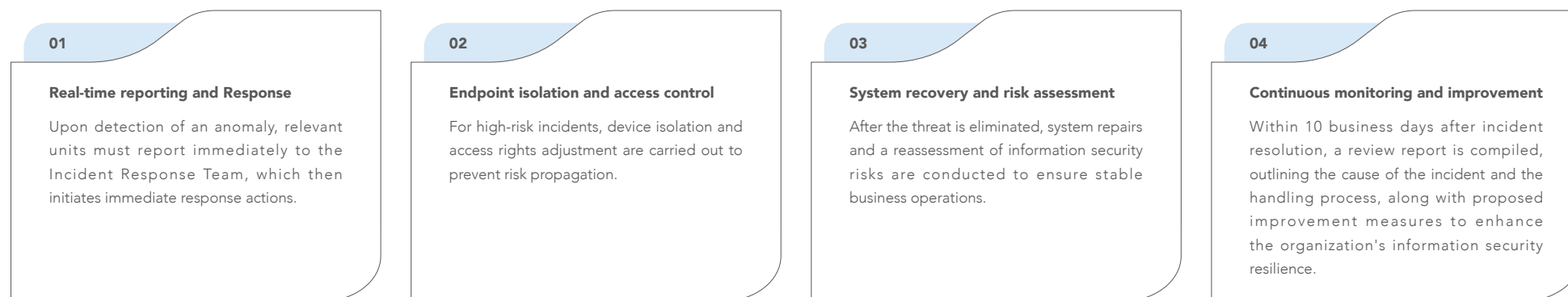
- A regular vulnerability scanning mechanism has been implemented, with priority patching and remediation for high-risk items
- Scanning results are incorporated into the risk assessment process and included in the Information Security Continuous Improvement Plan

Identification of Information Security Risks

In recognition of the critical importance of information security, TSC proactively identifies potential threats and vulnerabilities, assesses the likelihood and impact of each risk, and evaluates their urgency and scope. Risks are then classified and prioritized, with corresponding control measures developed to mitigate potential impacts on TSC's operations, reputation, financial standing, and competitiveness. No information security incidents occurred in 2024.

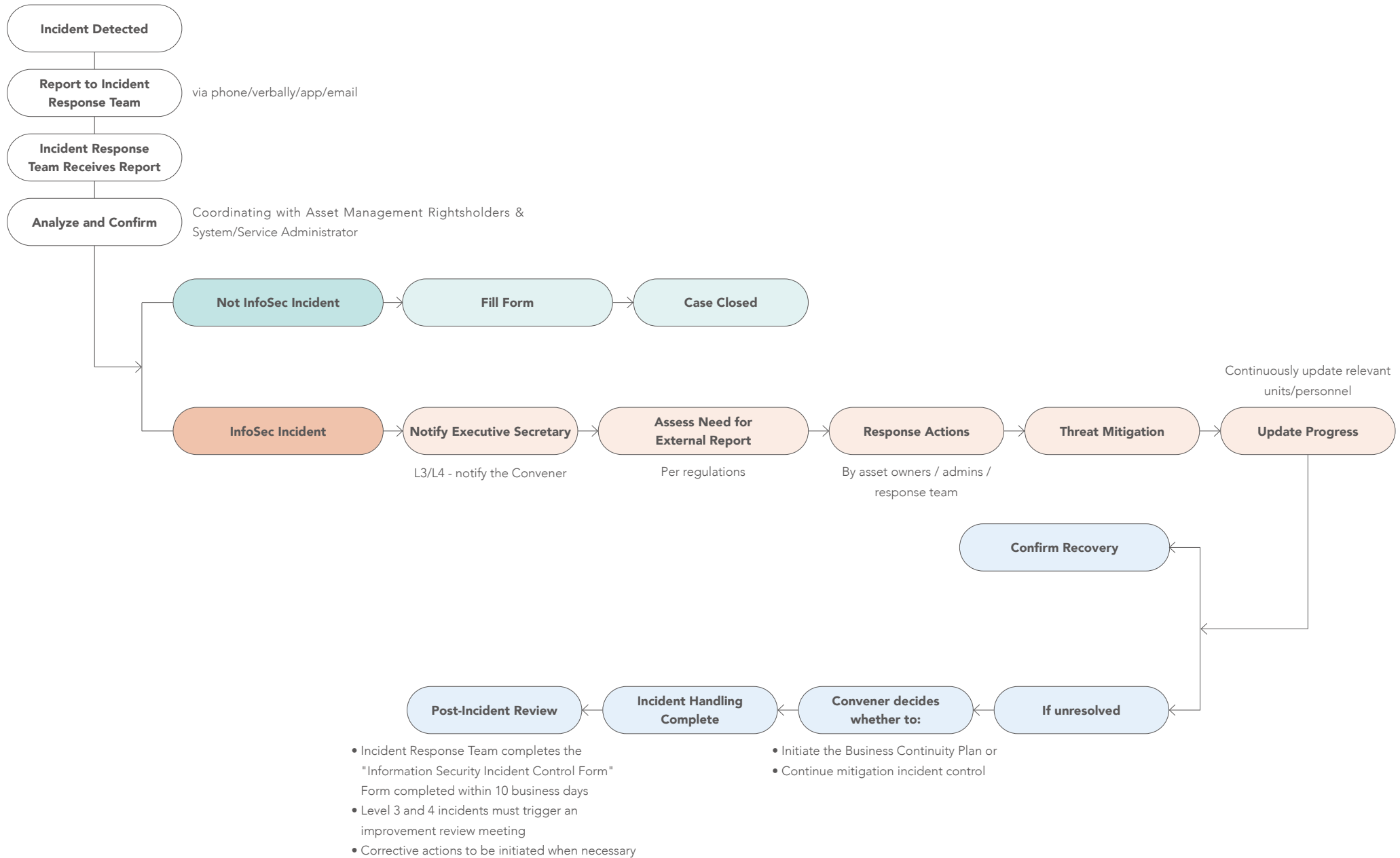
Notification and Handling of Information Security Incidents

To ensure timely and transparent response to information security incidents, TSC has implemented a defined Information Security Incident Notification and Response Process, guided by its internal Incident Management Operational Standard. An Incident Response Team coordinates reporting and response efforts. Once an incident is identified—whether internally or externally—it must be reported immediately to trigger the response procedure. Based on incident classification (Levels 1 to 4), tailored response measures and notification timelines are followed to contain the impact and ensure business continuity. The team works closely with asset owners, system administrators, and relevant departments to ensure swift and effective resolution.



In addition, TSC has referred to the TPEX Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities to establish a comprehensive mechanism for external reporting and disclosure of information security incidents. If an information security incident reaches the level of a material event and may impact the Company's operations or investor interests, TSC will follow the relevant regulatory requirements to provide a public explanation and disclosure within the prescribed timeframe, ensuring transparency and timely response.

Through the implementation of the ISO 27001:2022 Information Security Management Systems (ISMS) and the corresponding institutionalization of management practices, TSC has significantly improved its information security management capabilities and incident response efficiency, thereby safeguarding business continuity and reducing the likelihood of major information security risks.



Establishing a Protection Plan and Information Security Culture

To strengthen information security governance, TSC continued to promote awareness training and internal campaigns in 2024, improving employees' ability to detect phishing and social engineering threats. Simulated attack drills and ongoing education further reinforced defense capabilities. In 2025, TSC plans to enhance governance-level response by providing cybersecurity legal and technical training to the Information Security Management Committee.

To stay current on cybersecurity trends, TSC maintains membership with TWCERT/CC, regularly sharing threat intelligence and collaborating to strengthen defenses. IT audits conducted by professional teams include system functionality, vulnerability, and data integrity assessments to ensure confidentiality, availability, and compliance.

In September 2024, TSC completed a simulated phishing test and followed up with social engineering training at Taiwan sites, continuously improving employees' cybersecurity awareness and resilience.

2024 Information Security Awareness Training - Promotion of Network Security Social Engineering Methodology

In response to increasingly sophisticated hacking tactics, TSC strengthened information security management in 2024 by launching company-wide awareness training on cybersecurity and social engineering. The training focused on phishing identification, personal data protection, and incident reporting, combining theory with practice to enhance employee vigilance.

By year-end, all Taiwan employees had completed the training. In line with ISMS, TSC also published updated phishing examples and countermeasures to further mitigate cybersecurity risks.

Customer Privacy Protection

In light of TSC's growing globalization of business and services, we place great importance on mechanisms for protecting personal privacy and personal information. In accordance with TSC's Information Security Policy, Taiwan's Personal Data Protection Act, and other applicable international laws and regulations, we have established a comprehensive information security management mechanism to prevent the leakage, misuse, or unauthorized access of personal data, thereby safeguarding customer privacy rights. In the event of a customer data breach, TSC will respond in accordance with the guidelines set out in our information security policy. As of 2024, TSC has not experienced any incidents of customer personal data leakage or violations of data protection laws due to information security events. Going forward, we will continue to review and optimize personal data protection procedures in alignment with the Information Security Management Systems, ensuring the effectiveness and continuity of information security and customer privacy protection practices.

Since the implementation of the ISO 27001:2022 Information Security Management Systems (ISMS) in 2024, TSC has followed the PDCA (Plan-Do-Check-Act) cycle to enforce personal data protection and information security operation standards. These include access control, data classification and grading, personal data encryption, and secure transmission protocols, all aimed at reducing the risk of customer data breaches or violations.

In addition, TSC continuously strengthens its email filtering mechanisms and Data Loss Prevention (DLP) systems to guard against the leakage of sensitive information through phishing emails or social engineering attacks. Through regular information security training and simulated social engineering exercises, we enhance employee awareness and response capabilities, reinforcing the protection of customer privacy.

In addition to complying with international standards, TSC will continue to enhance employee awareness and understanding of information security by leveraging diverse communication channels and meetings to disseminate relevant announcements and promote awareness initiatives. This includes clear guidelines on the lawful use of personal data, data retention measures, designated departments responsible for handling data breaches, and established response procedures—ensuring sustained improvement in customer privacy protection.

Innovative Products and Services

2.1 R&D and Innovation

2.2 Customer Relationship Management



Recommended Primary Stakeholders for This Section:

☐ Suppliers ☒ Customers ☐ Employees ☒ Investors ☐ Government ☒ Media ☒ General Public

2.1 R&D and Innovation

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Material Topics Innovative Product Management – Sustainable Product Innovation and Incomplete Intellectual Property Management

Innovative Products and Services

To maintain industry competitiveness and promote sustainable development, TSC continues to focus on innovative product research and development. Its R&D expenditures have increased year by year, reaching NT\$126.066 million in 2024, accounting for 3% of net revenue—exceeding 3% for two consecutive years. At the same time, TSC aims to minimize the environmental impact of its business operations by establishing environmental specifications for all products and controlling hazardous substances. This includes compliance with the EU RoHS Directive and REACH Regulation, while progressively incorporating green product concepts into both the design and production stages.

Policy and Commitment

- Monitor regulatory trends related to materials to ensure 100% compliance with applicable laws and regulations.
- Provide energy-efficient product solutions to reduce the environmental impact of manufacturing and packaging.
- Maintain a comprehensive intellectual property (IP) management framework to protect R&D outcomes.
- Manage IP risks to prevent rights infringement and safeguard proprietary assets.
- Collaborate with professional firms for high-quality applications and global strategic IP protection.
- Conduct IP training to enhance awareness and practical skills among R&D and technical personnel.

Management Approach and Evaluation Mechanism

- Establish and maintain the TSC Environmental Compliance database to manage hazardous substances in accordance with EU RoHS, REACH, and other regulations.
- Have the quality management system regularly verified by third parties, including IATF 16949 and ISO 9001.
- Invest in R&D and process optimization to enhance product efficiency, reliability, and energy performance.
- Assign the Legal Department to oversee IP management, including system planning, rights protection, and coordination with external firms.
- Maintain a patent database and conduct regular reviews to assess patent value and maintenance strategies.

Action Plans and Performance

- **Develop multiple innovative products, including MOSFETs, Automotive Low-Power Voltage Regulator ICs, and ESD protection devices, with ongoing validation and mass production.**
- **Achieve 99% full material disclosure by weight for 10,064 products.**
- **In 2024, conduct one patent training session for the R&D team, with 23 participants, in collaboration with external firms.**

Full material disclosure
10,064 products

Patent training session
23 participants

2.1.1 Products and Services

TSC is primarily engaged in the manufacturing of Rectifiers, Transistors and LED Drivers, Assembly, Testing, and After-sales Service. Its product portfolio includes rectifiers, protection diodes, MOSFETs (metal-oxide-semiconductor



Note: Data is current as of February 2025.

field-effect transistors), bipolar junction transistors, ultra-low-power voltage regulators, ESD protection diodes, high-voltage low-loss rectifiers, fast recovery rectifiers, LED drivers, sensors, and wide-bandgap devices. These products are mainly applied in three key sectors: automotive electronics, the industrial market (including charging stations, power tools, and pneumatic equipment), and consumer electronics. In line with the market trend toward lighter, thinner, and smaller products, TSC has in recent years actively pursued the development of compact, energy-efficient, and integrated solutions.

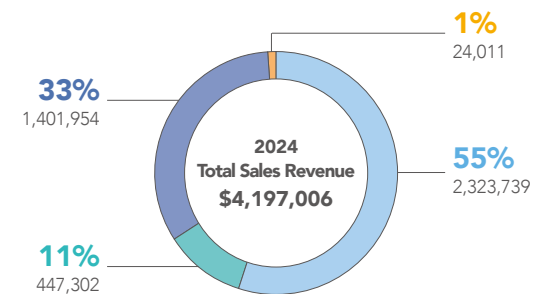
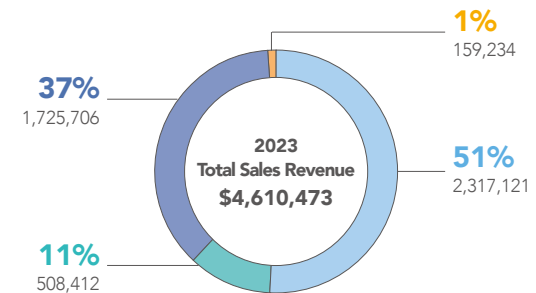
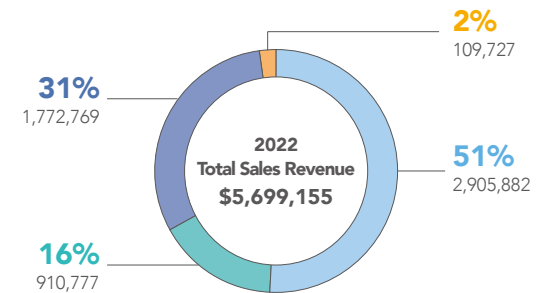
Vertical integration is one of TSC's core competitive advantages, enabling us to provide end-to-end services covering R&D, design, production, assembly, testing, and sales. This integrated approach streamlines manufacturing and reduces communication errors.

Approximately 70% of product output is produced in-house, with the remaining 30% outsourced or externally procured. The annual output of core rectifier products reaches 4,779,684 Kpcs. TSC has actively advanced transformation initiatives and adjusted sales strategies, with the automotive and industrial markets contributing around 70% of total revenue by the end of 2024. In terms of regional sales distribution, Asia accounted for 55%, Europe and the Americas combined for 44%, and other regions for 1%.

Sales Performance and Proportion by Major Regional Markets

Unit: NT\$ Thousands

● Asia
● America
● Europe
● Other



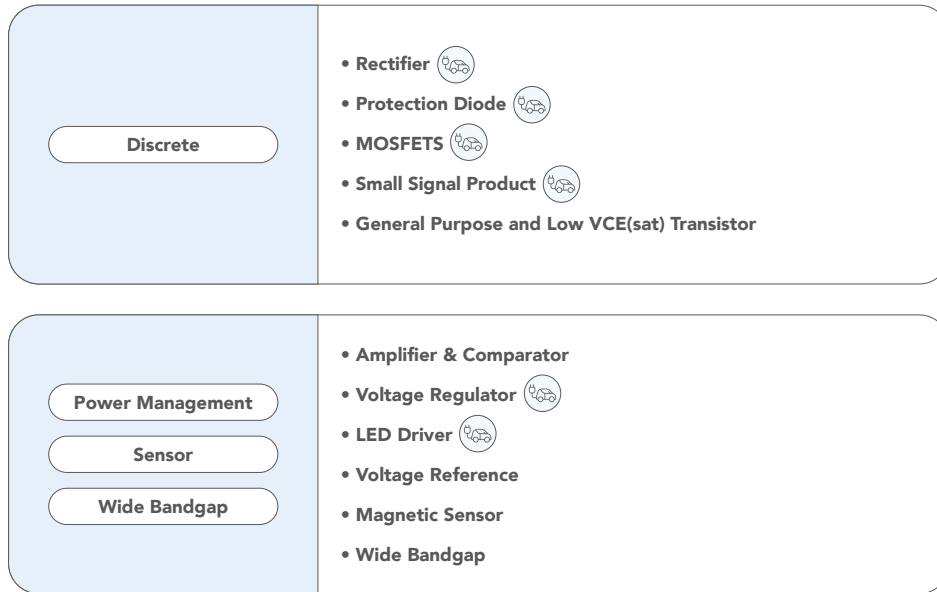
Diversified Strategic Approach

To provide customers with more comprehensive product solutions, TSC has continuously improved its technological innovation and R&D capabilities. It has also formulated short-, medium-, and long-term product development strategies to meet customer needs and market trends.

Strategic Goals



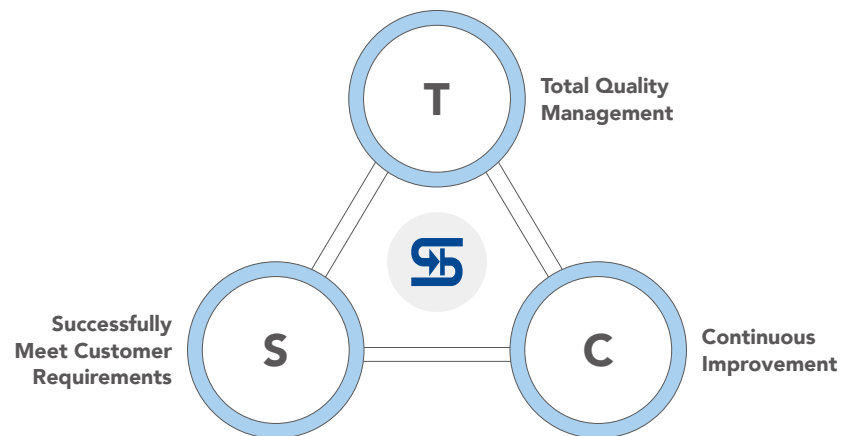
Diverse Product Portfolio




Product Development Execution Process



TSC VISION





Building a Diversified, Differentiated, and Competitive Product Portfolio

Starting in 2024, we accelerated product development by restructuring R&D resources, creating dedicated teams for core and new products, and assigning exclusive teams to each goal. Leveraging in-house chip design and automated assembly, TSC invests in Schottky rectifiers, Fast Recovery Diodes (FRED), Transient Voltage Suppressors (TVS), MOSFETs, ESD protection devices, and low dropout/low-power automotive regulators.

We are developing next-generation Trench Schottky Rectifiers, FREDs, Super Junction MOSFETs, and Shielded Gate Technology (SGT) MOSFETs to reduce conduction and switching losses, addressing demand for eco-friendly, energy-saving applications. These are applied in automotive electronics, industrial, telecommunications, and energy sectors. ESD protection R&D focuses on compliance with in-vehicle communication and Ethernet standards.

In third-generation semiconductors, we launched SiC Schottky diodes and are developing SiC MOSFETs. We are also producing low-power, high-output automotive power supplies, with some models developed in-house. Products are progressively passing automotive qualification, to strengthen quality and customer trust.

• **Developing Sustainable Products**

With the rise of 5G and electric vehicles, demand has grown for products that can withstand high temperatures and pressure, deliver high power, and consume less energy. Silicon carbide (SiC) semiconductors, with superior high-voltage performance, power handling, and thermal dissipation, are increasingly used in EVs, charging stations, and 5G technologies. In recent years, TSC has advanced R&D to enhance product performance and reliability, enabling delivery of higher-spec products. In 2024, we launched an ISO 14067 Product Carbon Footprint project, focusing first on assembled products, with carbon hotspot analysis expected by the end of 2025.

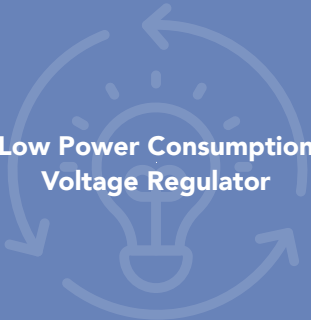
Sustainable Product Case Study



Silicon Carbide Schottky Diode

High-performance power semiconductor devices offer several advantages over traditional silicon Schottky diodes:

- Excellent thermal resistance and high voltage tolerance
- Low reverse recovery time, reducing switching losses and improving efficiency
- Compact size and lightweight, ideal for space-constrained applications or devices
- Long lifespan, reducing maintenance and replacement costs



Low Power Consumption Voltage Regulator

A high-stability voltage regulation component suitable for portable and battery-powered devices, featuring:

- Extended battery life and reduced heat generation, ideal for small electronic devices
- Simplified thermal management and circuit design
- Enhanced energy efficiency and environmental performance
- Compact size and high reliability, supporting long-term stable operation



High Voltage Low Loss Rectifier

A rectifier designed for high-voltage environments with minimal energy loss:

- High conversion efficiency with low power dissipation
- Strong voltage tolerance and wide applicability
- Compact design without the need for large heat sinks
- Extended lifespan and reduced operational and maintenance costs

Intellectual Property Protection

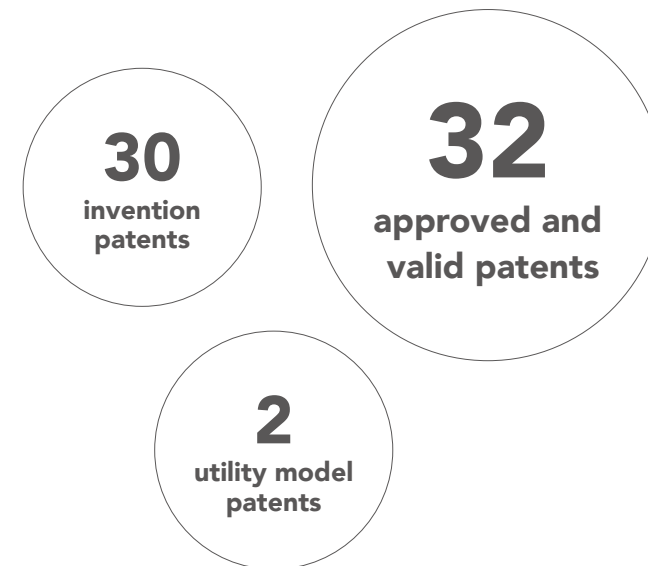
Intellectual Property (IP) is a key intangible asset reflecting TSC's investment in technology development and long-term growth. The Company has established the Intellectual Property Management Measures to guide the management and protection of IP rights across the group. To strengthen the value of R&D outcomes and promote patent cultivation, TSC regularly engages external firms to deliver IP and patent training for internal R&D and technical teams.

In response to evolving industry structures and rapid technological advancements, TSC has redefined its intellectual property strategy—shifting focus toward core technology development and the retention of high-value patents. A comprehensive review of group patents is conducted to optimize the portfolio, with priority given to filing new invention patents that demonstrate originality and innovation. TSC also collaborates with a U.S.-based technology firm to co-develop advanced technologies, emphasizing quality over quantity. As of now, **TSC holds 32 approved and valid patents** (including 30 invention and 2 utility model patents), with 4 additional applications pending.

To reinforce TSC's commitment to intellectual property (IP) deployment, the Legal Department—together with senior management—has launched several initiatives to strengthen internal IP management. These include regular training and industry-specific courses for R&D and technical teams, as well as the planning of new internal systems, such as the implementation of trade secret protection measures.

In Q1 2024, TSC invited an international IP law firm to deliver a training session titled "Essential Patent Knowledge for R&D Personnel" to enhance employees' understanding of patent protection. These efforts aim to safeguard core technologies and improve the quality of patent applications.

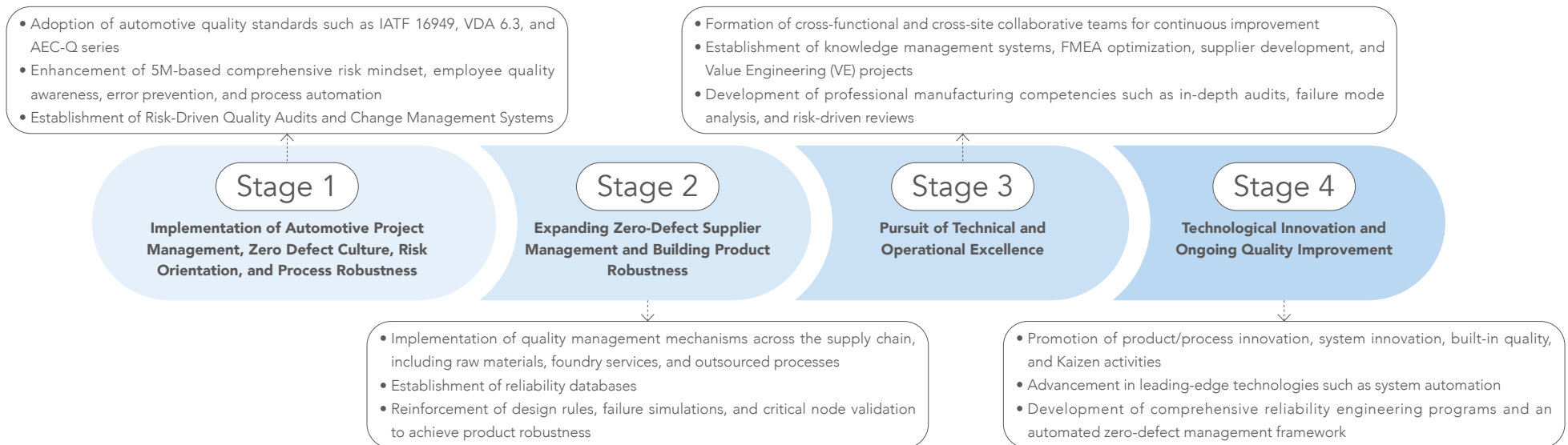
To foster innovation and enhance product quality and competitiveness, TSC has established a range of incentive programs to encourage employee participation in research, invention, and IP protection. These include proposal rewards, patent grant bonuses, infringement reporting incentives, rejection compensation, licensing rewards, and annual recognition. Through these measures, TSC promotes a culture of innovation while safeguarding its intellectual property.



Quality Excellence Roadmap

To ensure product quality and process reliability, TSC launched the "Quality Excellence Roadmap" in 2017. Aligned with automotive quality standards, the roadmap introduces a Zero Defect Strategy, risk-based management, and process robustness in phased implementation.

By integrating advanced technologies and promoting cross-functional collaboration, TSC continuously strengthens its quality management capabilities. The Company upholds global certifications such as IATF 16949 and ISO 9001, reinforcing its commitment to continuous improvement, defect prevention, and delivering high-quality products to the global automotive market.



Through this long-term roadmap, TSC is systematically aligning its management capabilities with automotive electronic quality standards, reinforcing an end-to-end quality management system from design to mass production, and fully realizing its commitment to quality and a zero-defect culture.

Reliability Analysis

Since 2000, we have strengthened our management through VDA6.3 process audits and IATF 16949. By integrating our existing quality management system, we assist in internal diagnosis and optimization, refine our zero-defect goals, and enhance competitiveness in the automotive supply chain. Additionally, in response to the continuous improvement of the international automotive industry, we have fully implemented Structural Planning Analysis Functional Analysis Failure Analysis Risk Analysis Optimization Documentation the latest version of AIAG-VDA FMEA (Failure Mode and Effect Analysis) in 2020 to optimize costs for products and manufacturing procedures.

AIAG-VDA FMEA



Automotive Supplier Audit

To ensure product quality in the automotive supply chain, TSC classifies its automotive suppliers into four categories and conducts regular audits based on VDA 6.3 and ISO 9001 standards. Audit formats include on-site, online, and documentation reviews. In 2024, TSC audited nine automotive suppliers, with no major non-conformities identified—demonstrating solid supplier quality performance.

If non-conformities arise, suppliers must submit and implement corrective action plans within a specified timeframe. TSC conducts follow-up reviews to verify improvements. For systemic issues, the Quality Assurance and Procurement teams support root cause analysis and provide technical guidance. Repeated non-compliance may lead to re-audits or adjustments in cooperation strategy.

Raw Material Management

TSC provides integrated semiconductor services from wafer fabrication to assembly and testing. The frontend process involves chemicals, etchants, and silicon wafers, while back-end operations use materials such as lead frames and carrier tapes. To reduce resource waste, TSC continually optimizes production processes. Raw material suppliers are selected based on strict standards and follow each plant's procurement procedures to ensure compliance with regulatory and quality requirements.

Total Amount of Production Material Consumption Used

Unit: Kg

	2022		2023		2024	
	Weight	Percentage	Weight	Percentage	Weight	Percentage
Total renewable materials used	194,610	5%	158,453	6%	150,072	5%
Total non-renewable materials used	3,713,706	95%	2,418,640	94%	2,961,346	95%
Total Materials Used	3,908,316	100%	2,577,093	100%	3,111,419	100%

Note:

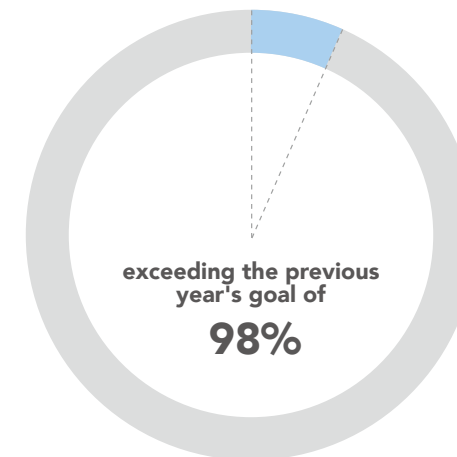
1. The data includes all manufacturing sites.

Chemical Substance Control and Disclosure

TSC uses various chemical substances in its production processes, posing potential risks to human health and the environment. As international regulations and customer expectations on chemical control rise, TSC recognizes the importance of transparent chemical management throughout R&D, design, and manufacturing.

To support this, TSC has established a Materials Composition Declaration (MCD) system on its official website, allowing customers and stakeholders to access product composition data via a self-service portal. In 2024, TSC completed full material disclosure for 10,064 products, achieving a 99% disclosure rate by weight, surpassing the 98% target.

Moving forward, TSC will continue expanding its material database and analyzing high-risk substances to strengthen its commitment to producing environmentally friendly products.



Hazardous Substances Management

TSC considers hazardous substance management essential to sustainable operations and customer trust. We strictly comply with international regulations, including EU RoHS and REACH, and have established the TSC Environmental Compliance database to manage such substances. We also disclose hazardous substances in response to customer needs, supporting customers in expanding the green product market.

A full list of applicable environmental regulations is available on our website under Environmental Regulatory Compliance. In 2024, certain products contained declarable substances under IEC 62474, in accordance with the EU RoHs and REACH regulations, which still permit the use of specific substances for which no alternatives currently exist. TSC continues to monitor regulations and explore safer substitutes. Suppliers are also required to comply, and documentation is reviewed annually.

TSC ensures product safety through ISO 9001 and IATF 16949 systems, incorporating PDCA reviews and customer-specific requirements into development and production. In 2024, all products and packaging met regulatory and customer requirements, with zero violations, no safety-related incidents, and no labeling non-compliance.

Laws or Directives

EU Restriction of Hazardous Substances Directive (RoHS)¹

EU Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Safe Drinking Water and Toxic Enforcement Act

End-of-Life Vehicles Directive (ELV)

Persistent Organic Pollutants (POPs)

U.S. Environmental Protection Agency –
Toxic Substances Control Act (TSCA)

EDEC J-STD-609 Lead-Free Marking Standard

China Volatile Organic Compounds (VOCs) Regulation

Compliance Rate
of TSC Products

100%



Note:

1. This refers to the instruction for restricting the use of certain hazardous substances in electronic and electrical equipment (Restriction of Hazardous Substances).

Management of Raw Materials and Packaging Materials

Each site tailors its packaging based on production plans, product types, customer needs, and environmental regulations. TSC prioritizes recyclable materials such as reusable cartons, plastic packaging, and cushioning. At the Yilan Site, reels and plastic boxes are recovered and reused in partnership with suppliers. The Shandong Site has reduced carton usage, keeping packaging waste below 1 kg per \$10,000 RMB of production value. In 2024, the site also eliminated heat-shrink plastic film to further cut plastic use at the source.

Total Packaging Material Usage

Unit: Kilograms

	2022		2023		2024	
	Weight	Percentage	Weight	Percentage	Weight	Percentage
Total renewable materials used	154,915	23%	112,337	23%	114,588	23%
Total non-renewable materials used	530,463	77%	369,046	77%	391,520	77%
Total Materials Used	685,378	100%	481,384	100%	506,108	100%

Note:

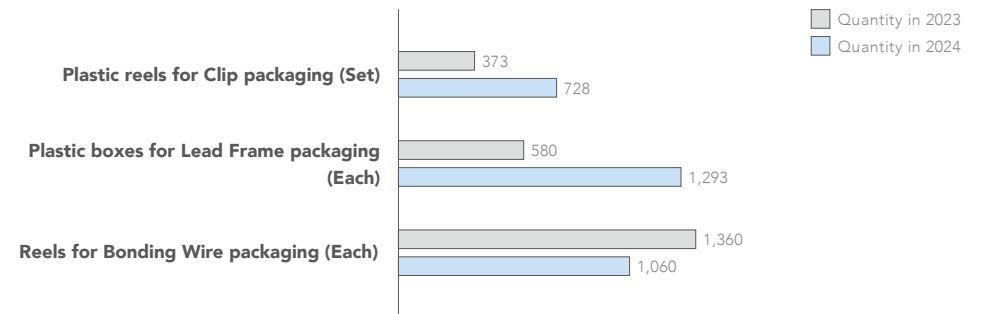
1. The data includes all manufacturing sites.

Value Chain Collaboration

Although TSC selects most of its packaging materials based on customer requirements, such as using anti-static plastic packaging materials for isolation of static electricity and content protection, which are difficult to replace with other materials, TSC is also dedicated to promoting value chain collaboration and finding appropriate vendors for recycling. In 2024, TSC continued to advance circular resource utilization. At the Yilan Site, 1,060 assembly reels used for bonding wire were recycled through cooperation with original suppliers. The number of plastic packaging boxes for lead frames significantly increased from 580 units in 2023 to **1,293** units in 2024. Similarly, recycled plastic reels for clip packaging grew from 373 to **728** units, a **95%** year-over-year increase. These achievements demonstrate TSC's effective resource management and material reuse practices.

Looking ahead, TSC will continue to inventory recyclable materials and assess their potential for reuse to further strengthen the efficiency of circular resource utilization.

Statistics of Recycled and Reused Packaging Materials



2.2 Customer Relationship Management GRI 3-3

Foundational Topic **Customer Relationship Management**

Policy and Commitment

- Operate multiple global logistics locations and service strategies to deliver reliable, comprehensive solutions that meet customer needs.
- Maintain organizational flexibility to provide customized, high-quality services in response to special customer requirements.
- Ensure customer satisfaction and service quality through effective two-way communication channels.
- Remain committed to earning and maintaining customer trust by responding promptly to all service demands.

Management Approach and Evaluation Mechanism

- Implement customer relationship management in accordance with internal procedures to maintain partnerships, monitor performance, and drive continuous improvement.
- Establish satisfaction indicators and regularly review service performance through annual survey analysis and scorecard management.
- Provide customer education and training to enhance product and service understanding.
- Offer dedicated sales and customer service contact windows for efficient communication and support.

Action Plans and Performance

- **Conduct annual customer satisfaction surveys to identify improvement areas; the 2024 score reached 4.7.**
- **Analyze survey feedback to determine key satisfaction drivers and prioritize enhancement actions.**
- **Establish a global Field Application Engineer (FAE) team to provide real-time technical support and co-develop market demand with customers.**
- **Host seminars and training sessions to ensure timely two-way communication and issue resolution.**
- **Implement a distributor management system to monitor sales data, capture market trends, and refine market strategies.**

2.2.1 Customer Satisfaction Improvement

TSC is committed to building customer trust through effective relationship management and high service quality. Smooth two-way communication is key to sustaining satisfaction and loyalty.

We provide clear product information and inquiry systems on our website, supported by Sales and Field Application Engineers who regularly hold product application briefings in collaboration with agents. Website content and interface are continuously optimized to enhance user experience.

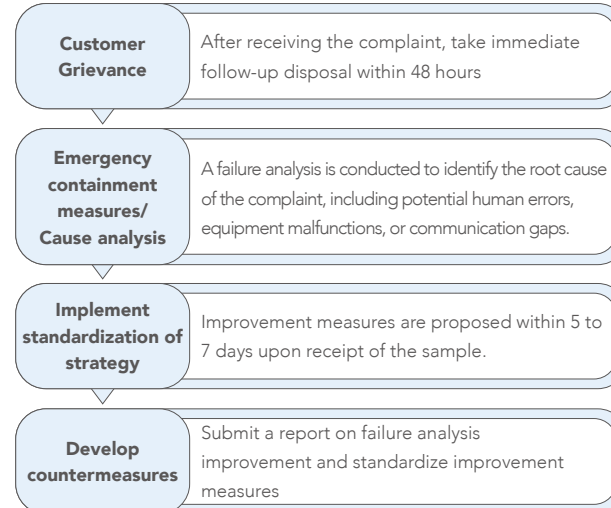
TSC maintains active communication through customer visits, satisfaction surveys, and a formal grievance channel. We incorporate customer feedback to improve products and services, driving customer retention and business performance.

In recent years, we have deepened cooperation during the design-in stage, aligning our product development with customer needs and further strengthening long-term strategic partnerships.

Customer Grievance Channel

To protect customer rights, TSC provides multiple grievance channels. Customers may submit feedback through regional sales teams. Upon receiving a grievance, the Sales Division contacts the customer within 48 hours to assess the issue—whether related to quality, delivery, or service. The case is then handled in accordance with internal customer service procedures. The FAE/AE and Quality Assurance teams investigate the root cause and propose solutions to minimize losses for both parties.

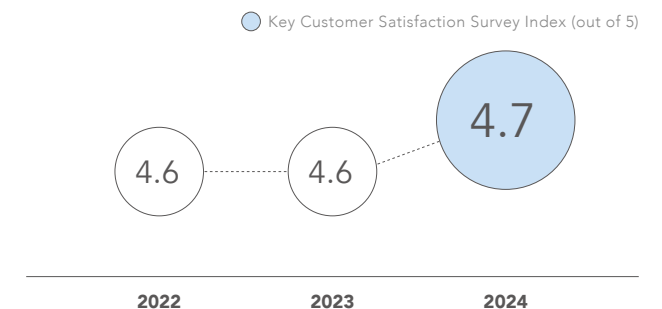
Customer Grievance Process and Improvement Actions



Customer Satisfaction Survey

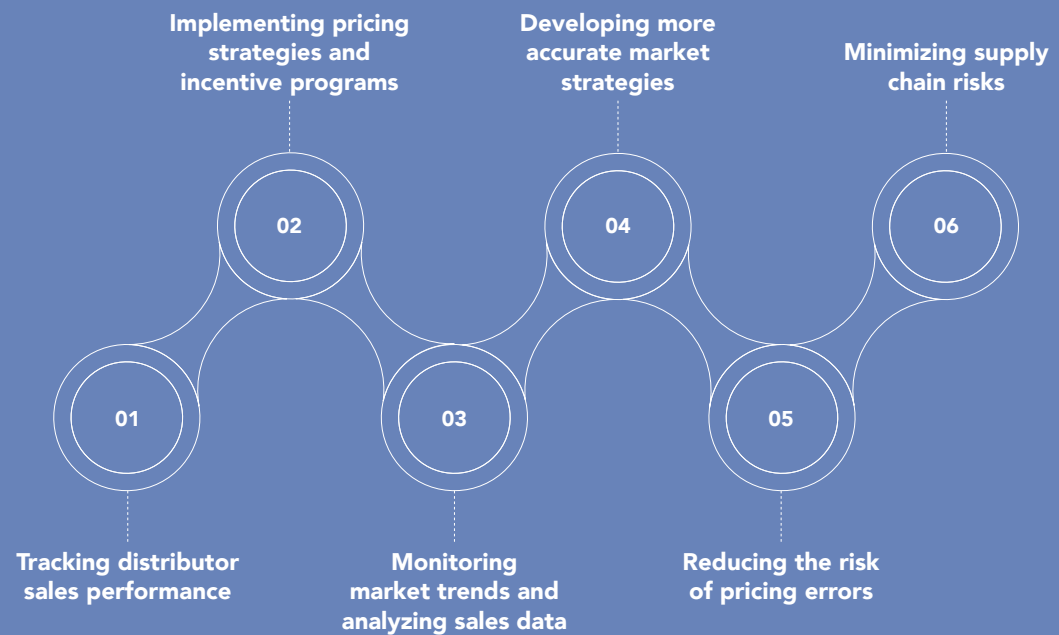
TSC adopts a dual approach—annual satisfaction surveys and customer scorecards—to evaluate customer satisfaction. Each year, an online survey is distributed to key customers contributing over 70% of the previous year's revenue, covering four areas: Customer Service & Sales Support, Delivery, Product Quality, and Customer Experience & Partnership. For customers using scorecards, TSC uses their evaluations instead of issuing separate surveys. Over the past three years, average satisfaction has remained above 4.5 (out of 5). In 2024, all customer scorecards met required benchmarks. TSC will continue enhancing service quality with customer satisfaction as a core focus.

Customer Satisfaction



Strengthening Partnerships and Enhancing Market Coverage

Starting in 2024, TSC implemented a distributor management system to monitor product sales performance and market trends through a structured and data-driven approach. This initiative supports the formulation of more precise market strategies and enhances operational efficiency. At the same time, the visualization of data allows TSC to track inventory levels effectively, ensuring smooth product circulation and minimizing the risks of overstocking or shortages, thereby reducing supply chain vulnerabilities.



Responsible Procurement

3.1 Supply Chain Management



Recommended Primary Stakeholders for This Section:

☐ Suppliers ☒ Customers ☐ Employees ☐ Investors ☐ Government ☐ Media ☒ General Public

3.1 Responsible Procurement

GRI 3-3 204-1

Material Topics Sustainable Supply Chain - Supply Chain Sustainability Management

Responsible Procurement

TSC regards suppliers as mutually supportive partners. In addition to jointly supporting the vision and goals of the Responsible Business Alliance (RBA), TSC also promotes sustainable supply chain assessments. All suppliers are required to sign the RBA Vendor Code of Conduct, which sets clear standards in areas such as labor, health and safety, environmental protection, and business ethics. Together, we aim to safeguard labor rights, prevent discrimination and harassment, ensure occupational safety, uphold environmental responsibility, operate with integrity, and avoid the use of minerals sourced from conflict-affected regions, in pursuit of building a sustainable supply chain. TSC strives to exert a positive influence on green operations while consolidating its core business operations.

RBA Vendor Code of Conduct 

Policy and Commitment

- Collaborate with suppliers across QDCST (Quality, Delivery, Cost, Service, Technology) to ensure operational stability and strengthen customer service.
- In line with the RBA Code of Conduct, TSC promotes ESG practices with suppliers to enhance sustainability competitiveness.

Management Approach and Evaluation Mechanism

- Follow the RBA Code of Conduct and requires suppliers to comply with laws and standards on labor, health and safety, environment, and ethics.
- The Code is regularly updated per the latest RBA version and published on TSC's website.
- Supplier management and evaluation follow the Regulations Governing Vendor Management.
- Monitor potential supply chain risks and activate Business Continuity Management (BCM) when necessary to ensure stability.

Action Plans and Performance

- **Updated the Supplier Code of Conduct in line with the latest RBA version; full implementation targeted by end of 2025.**
- **Managed supply chain risks throughout 2024 under the BCM framework to strengthen resilience.**
- **Maintained local procurement ratio above 60% for three consecutive years.**

3.1 Supply Chain Management

3.1.1 Overview of the Supply Chain

TSC's production sites are primarily located in Taiwan and mainland China. As of the end of 2024, the Company had a total of 157 cooperating suppliers, among which 102 were Tier 1 suppliers, providing core materials and production services for TSC's products.

Site	Yilan ^{*3}	Shandong	Tianjin ^{*4}	Lije	Total (Suppliers)
All suppliers ^{*1}	51	49	37	20	157
Tier 1 suppliers ^{*2}	45	27	21	9	102

Note:

1. Statistics include suppliers of materials listed in the Bill of Materials (BOM) and service providers for production processes, excluding suppliers of equipment or facility-related services.
2. Tier 1 suppliers refer to those providing key production materials.
3. Data for the Yilan Site & Tianjin Site includes suppliers from both local procurement and the OSAT (Outsourced Semiconductor Assembly and Testing) team.

Local Procurement

TSC values sustainable operation and incorporates social and environmental considerations throughout its business processes. While pursuing global expansion, TSC actively promotes local procurement. Despite most production equipment and materials being sourced internationally, each site continues to engage local suppliers in an effort to establish a lean, robust, healthy, and sustainable supply chain. **In 2024, local procurement accounted for 63.93% of TSC's total procurement expenditures, maintaining a rate above 60% for the third consecutive year.** Moving forward, TSC will continue to foster stable partnerships, enhance mutual trust, and increase the proportion of local procurement to support local economic development.

Local Supplier Procurement Overview

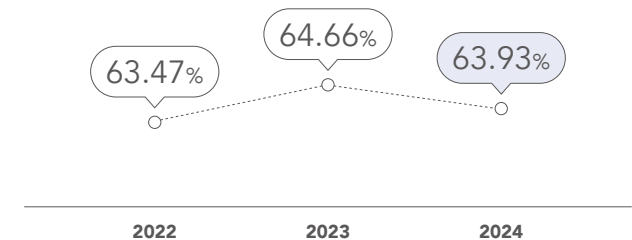
Unit: NT\$

	2022	2023	2024
Local Procurement Value	3,258,261,400	2,385,856,083	2,560,021,654
Total Procurement Value	5,133,808,220	3,690,102,856	4,004,220,444

Note:

1. TSC's key operational sites include all manufacturing facilities, namely Lije Site, Yilan Site, Shandong Site, and Tianjin Site.
2. Local suppliers are defined based on the geographic location of each site: for the Yilan Site and Lije Site, local procurement refers broadly to suppliers within Taiwan; for the Shandong Site and Tianjin Site, it refers to suppliers within mainland China.
3. The statistical scope includes categories of raw material suppliers and purchased finished goods suppliers, excluding suppliers of facility and labor services.
4. The statistics include data on related party transactions.

Local Procurement Ratio



3.1.2 Sustainable Supply Chain Management

GRI 2-23 2-24 3-3 308-1 308-2 403-7 409-1 408-1 414-1 414-2

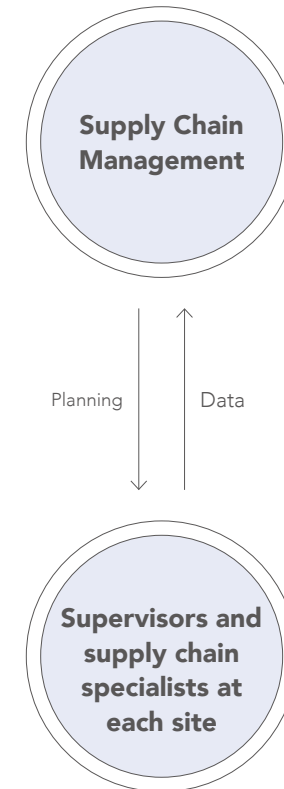
Supply Chain Management Measures and Strategies

Sustainable supply is a key element of TSC's supply chain strategy. In response to increasing geopolitical uncertainty, TSC prioritizes supplier diversification, inventory monitoring, and Business Continuity Management (BCM) to mitigate risks and maintain operational continuity.

The Supply Chain Management Department centrally integrates procurement across all sites, overseeing resource planning, demand forecasting, production, and delivery. Regular production-sales cycles and a dedicated platform ensure efficient coordination, streamlined operations, and compliance with internal controls.

To strengthen supply continuity, flexible inventory policies are applied based on market trends and product demand. Since implementing the BCM system in 2023, TSC developed secondary sources for three critical materials in 2024 to reduce procurement risk. Each site works closely with headquarters to assess risks and align upstream strategies.

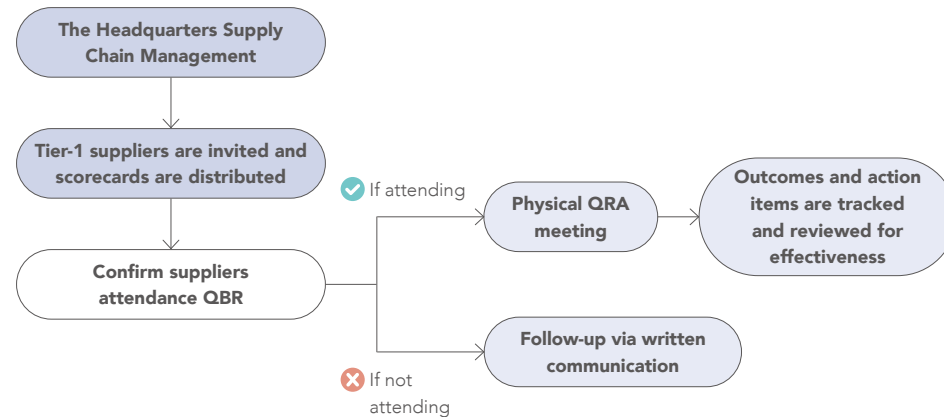
Additionally, TSC collaborates with customers via contracts and digital platforms to improve information exchange, enhance transparency, and boost responsiveness. These efforts reduce costs, improve efficiency, and ensure a flexible and resilient supply chain.



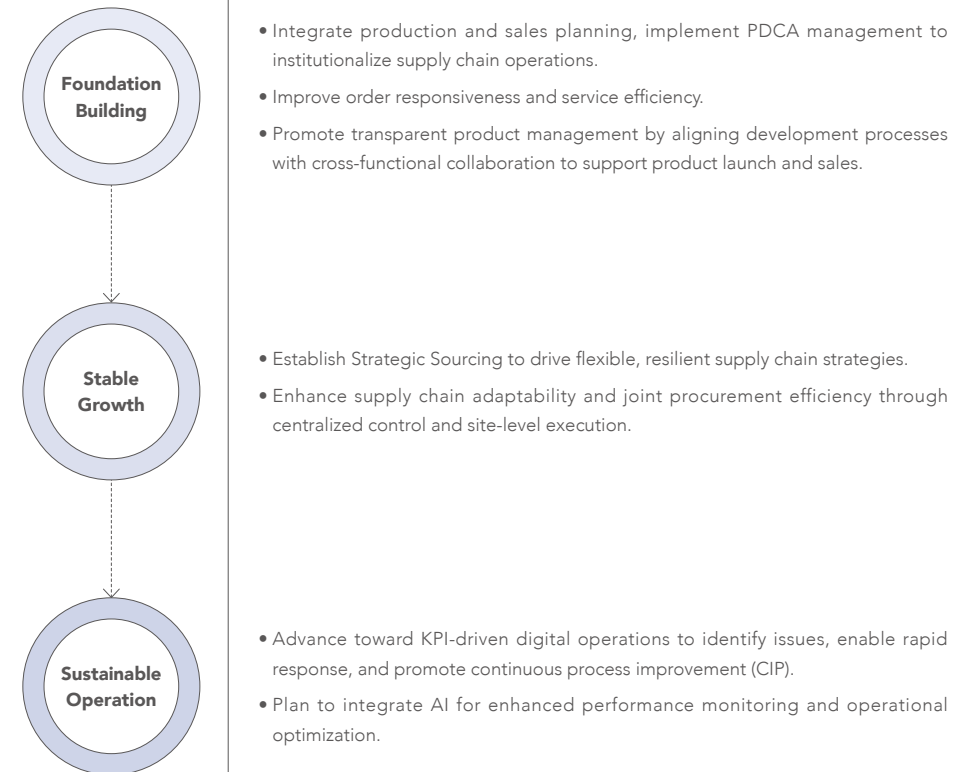
Enhancing Supplier Communication

To strengthen sustainable supply chain partnerships, TSC promotes transparent and effective communication, including Quarterly Business Reviews (QBRs) with key and strategic suppliers. These reviews cover five dimensions: Quality, Delivery, Cost, Service, and Technology (QDCST), while also monitoring Tier 1 suppliers' ability to manage their Tier 2 supply chains.

TSC applies a scorecard system to evaluate supplier performance and encourage continuous improvement through brand influence. The scorecard weightings are: Quality (40%), Delivery (20%), Cost (25%), and Service & Technical Support (15%), with a total score of 10 points. Each quarter, a minimum score of 6 out of 10 is required to meet TSC standards and support ongoing optimization efforts. Quarterly Business Review (QBR) Implementation Procedure:



Three Core Elements of Supplier Management



Supplier Sustainability Impact Assessment

TSC continues to enhance supply chain resilience and sustainability by evaluating suppliers not only on technical capabilities, delivery, quality, and cost, but also across economic, environmental, and social dimensions, aligning with the Company's risk management and sustainability principles.

Since 2017, TSC has adopted the Responsible Business Alliance (RBA) standards and established the RBA Vendor Code of Conduct. This Code, approved by the Chairman, requires suppliers to comply with local regulations and adhere to clear standards across labor rights, occupational safety, environmental protection, and business ethics. Each site's procurement team monitors supplier compliance and reports any violations to the Supply Chain Management Department.

In 2024, TSC launched internal training to reinforce understanding of the updated Code, which will be published on the corporate website in 2025. New suppliers are required to sign the Code and undergo evaluation under the Vendor Management Regulations. These assessments include environmental and social impact records, as well as certifications such as ISO 14001 and ISO 45001.

All suppliers passed the environmental and social evaluation criteria in 2024, with no significant negative impacts identified.

TSC also closely monitors regulatory and geopolitical developments that may affect material sourcing—for example, steel restrictions due to the Russia-Ukraine war, export controls amid U.S.-China trade tensions, and human rights-related origin investigations concerning Xinjiang. In response, TSC has implemented relevant policies, due diligence processes, and origin declarations to ensure service quality and customer trust.

For details regarding conflict minerals (tantalum, tin, tungsten, and gold), please refer to Section 3.1.3 "Conflict Minerals Management."

New Supplier Selection Process

01 Search

New supplier/new material development need

- Applicable to the development of new products when existing suppliers are unable to satisfy such needs or provide similar products
- Develop secondary suppliers
- As requested by customers

02 Select

New supplier sustainability risk assessment and supplier evaluation

- **Quality:** The supplier is required to possess the ISO 9001 Quality Management certification while aiming to obtain the IATF 16949 Automotive Quality Management System certification.
- **Environment:** The supplier is required to possess the ISO 14001 Environmental Management Systems certification (or other equivalent certifications) and meet the REACH and RoHS requirements. The percentage of suppliers that passed the environmental aspect evaluation in 2024 was 100%.
- **Society:** The supplier is required to comply with principles concerning workers human rights, prohibition of child labor, human treatment, anti-discrimination or anti-harassment as stipulated in the RBA Code of Conduct.
- **The Conflict-Free Sourcing Initiative:** The supplier is prohibited from using conflict minerals in the raw materials it supplies. If the supplier is unable to identify the source of the conflict minerals or it is confirmed that the supplier uses conflict minerals, the supplier is required to issue and disclose a conflict minerals report.
- **The RBA Vendor Code of Conduct:** The supplier is required to comply with and sign up for TSC's RBA Vendor Code of Conduct.

03 Develop and validate

Engineering experiment VDA 6.3 process audit Safe mass production Material review meeting

- Engineering technology and quality system certifications: Procurement procedures may only begin after confirming the results of sample analysis and packaging of finished products, as well as passing the evaluation and audit processes.

04 Production and Oversight

Procurement and evaluation

TSC conducts comprehensive evaluation in terms of quality, delivery, cost, service, and technique while establishing long-term partnerships by enhancing communication and collaboration in the supply chain on an ongoing basis.

Note:

1. Raw material suppliers are the primary category of suppliers in TSC's supplier selection process. In 2024, TSC's operating sites added 3 new relevant suppliers, while our existing suppliers did not violate the aforesaid code of conduct.



Optimizing Packaging Design to Enhance Customer Experience

At the Lije Site, finished products were originally packaged using anti-static boxes secured with anti-static tape to ensure wafer safety during transportation. However, the tape often adhered to gloves during unpacking, causing operational inconvenience and posing a potential risk of particle contamination, which could affect usage efficiency and quality stability.

To eliminate potential usage risks and improve the overall customer experience, the procurement team promptly launched an improvement project to review and redesign the packaging structure. This involved researching market packaging technologies and engaging with long-term suppliers to explore feasible alternative designs. After comprehensive evaluation, the team proposed adding an interlocking feature to the original box structure, replacing the original tape-sealing mechanism. This effectively reduced manual contact and the risk of foreign particle contamination.

Through proactive communication, the supplier developed prototypes and offered optimization suggestions. After multiple iterations—ranging from the first version to a second improved version—the final design passed internal testing and review. The optimized solution significantly improved both safety and ease of use, ultimately gaining client approval. This successful optimization case highlights the close collaboration and agile responsiveness between the procurement team and suppliers. It not only enhanced the quality of product packaging but also further strengthened partnerships with both customers and suppliers.

3.1.3 Conflict Minerals Management

TSC is committed to corporate social responsibility and international human rights by implementing a Conflict Minerals Management Policy, ensuring its products do not contain minerals from conflict-affected regions. Suppliers are required to sign a Declaration of Non-Use of Conflict Minerals and follow the Responsible Minerals Assurance Process (RMAP). TSC encourages sourcing from third-party certified smelters/refineries and conducts supply chain due diligence to minimize social and environmental impacts. Smelter and sourcing data are also disclosed based on mineral report findings.

[Conflict Minerals Policy](#)

[Conflict Minerals Reporting](#)

Conflict Minerals Management Measures



Conflict Minerals Due Diligence Status

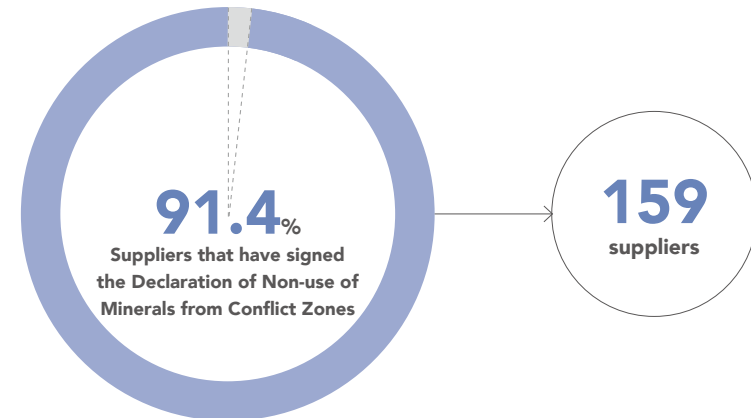
TSC is committed to avoiding the use of conflict minerals, including tantalum, tin, tungsten, gold (3TG), and cobalt sourced under armed conflict or human rights abuses. We follow the Responsible Minerals Initiative (RMI) and require suppliers to avoid raw materials mined under illegal or unethical conditions, including forced and child labor.

Suppliers are encouraged to develop mineral management policies and source from smelters certified by the Responsible Minerals Assurance Process (RMAP) or equivalent third-party audits. We also regularly reassess smelters based on the Conformant Smelters List published by the RBA.

To verify sourcing, all suppliers are required to complete the RMI Conflict Minerals Reporting Template (CMRT) and sign a Declaration of Non-use of Minerals from Conflict Zones. In 2024, **159 suppliers—representing 90% of our supply chain—completed the declaration**, a 12% increase from the previous year. TSC will continue to work with suppliers to uphold ethical sourcing and strengthen supply chain sustainability.

Conflict Minerals Declaration – Site Status

Site	Number of Supplier Responses	Total Number of Suppliers	Signing Rate
Lije	33	35	94.3%
Yilan	45	54	83.3%
Shandong	47	47	100%
Tianjin	34	38	89.5%
Total	159	174	91.4%



4

Equal Workplace

- 4.1 Talent Attraction and Retention
- 4.2 Protecting Workplace Environment
- 4.3 Social Influence



Recommended Primary Stakeholders for This Section:

☐ Suppliers ☐ Customers ☒ Employees ☐ Investors ☒ Government ☐ Media ☒ General Public

Equal Workplace

TSC believes that sustainable talent development is one of the key factors for organizations to achieve long-term success. It is critical to continually strengthen the organization & ability to respond to change and remain competitive in the marketplace. TSC will celebrate its 45th anniversary in 2024. To keep pace with global ESG and DEI trends, the company is actively attracting outstanding talent through various recruitment channels. In addition, the Company plans to implement a comprehensive talent development system to help colleagues cultivate the skills necessary for their respective positions. Employee welfare and physical and mental health are also critical elements of sustainable operations. Through various welfare policies, we prioritize the health management of our employees and strive to create a healthy and friendly work environment.

4.1.1 Diversity and Inclusion GRI 2-7 2-8 2-19 2-20 401-1 405-1 405-2 TS-SC-330a.1

Manpower Structure

TSC deeply understands that talent is the key foundation for sustainable development. We continuously strive to establish a diverse, equal, and harmonious workplace that respects the uniqueness and differences of all employees. To achieve this goal, we recruit not only local talent, but also international talent while ensuring that all relevant processes strictly comply to legal regulations. In the context of globalization, TSC offers various employment opportunities through online and offline recruitment channels. We have a diverse and inclusive recruitment policy that does not discriminate on the basis of gender, age, race, nationality, religion, political opinion or sexual orientation. Therefore, our employees come from all over the world, including Asia (Taiwan, Singapore, Japan, the Philippines, Malaysia, etc.), and work in the headquarters as well as factories.

Furthermore, to enhance the professionalism and fairness of recruitment and selection in Taiwan, work abilities will also be integrated into talent evaluation. A comprehensive assessment is conducted from perspectives such as development potential and fit, ensuring that the most suitable talents are found while promoting the organization's long-term development. After implementing talent selection, **TSC's overall employee retention rate further increased from 84.8% (2023) to 86.6% (2024)**, indicating its impact on organizational talent stability and development.

In 2024, various regions will respond to the company's long-term development plans and organizational adjustments by establishing a variety of specialized departments and conducting more detailed division of duties within existing departments. This aims to enhance operational efficiency and strengthen long-term competitiveness. The total number of **full-time employees** at all locations in Taiwan and China combined is **1,462**.

Employee Distribution and Percentage of Total Employees (by Nationality and Work Location)



Note: foreign nationals are not working at the site

2024 Employee Distribution

Item	Classification		Male		Female		Group Subtotals and Percentages	
			Number of People	Percentage of the Classification	Number of People	Percentage of the Classification	Number of People	Percentage of the Classification
Age	Under 30 years old (inclusive)	Taiwan	60	74.1%	21	25.9%	81	5.5%
		Mainland China	55	61.1%	35	38.9%	90	6.2%
		Subtotal	115	67.3%	56	32.7%	171	11.7%
	31 to 49 years old	Taiwan	267	56.9%	202	43.1%	469	32.1%
		Mainland China	173	24.5%	534	75.5%	707	48.4%
		Subtotal	440	37.4%	736	62.6%	1,176	80.4%
	50 years old and above (inclusive)	Taiwan	41	58.6%	29	41.4%	70	4.8%
		Mainland China	30	66.7%	15	33.3%	45	3.1%
		Subtotal	71	61.7%	44	38.3%	115	7.9%
Employee Category	Permanent Employee	Subtotal	626	42.8%	836	57.2%	1,462	100.0%
Total			626	42.8%	836	57.2%	1,462	100.0%

Distribution of Management and Non-Management Levels in 2024 (by Age and Gender)

Unit: Person

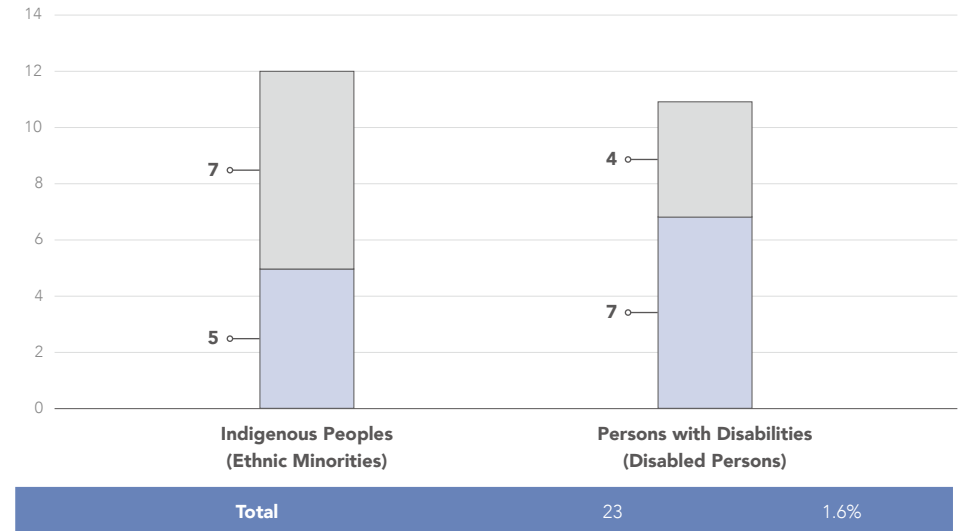
Category			Management Level		Non-Management Level	
			Male	Female	Male	Female
Age	Under 30 years old (inclusive)	Taiwan	2	0	58	21
		Mainland China	0	1	55	34
		Subtotal	2	1	113	55
		Percentage	0.8%	0.4%	9.4%	4.6%
	31 to 49 years old	Taiwan	66	28	201	174
		Mainland China	32	77	141	457
		Subtotal	98	105	342	631
		Percentage	38.6%	41.3%	28.3%	52.2%
	50 years old and above (inclusive)	Taiwan	26	10	15	19
		Mainland China	5	7	25	8
		Subtotal	31	17	40	27
		Percentage	12.2%	6.7%	3.3%	2.2%
Subtotal		131	123	495	713	
Total			254		1,208	

Note:

- Management positions include entry-level, mid-level, and senior-level supervisors, with level ranging from 2 to 6, 7 to 8, and 9 and above.
- Employee category is determined per the GRI guidelines.
- The percentage represents the ratio of the number of employees in this category to the total number of employees.
- The reference date for the calculation of the data is December 31, 2024.
- Due to the expansion of the reporting boundaries to include the factory area in mainland China and office locations in various regions of China from fiscal year 2024, the number of disclosed data has changed slightly compared to the previous year.
- Non-employee on-site workers total 36, primarily consisting of annual security, cleaning personnel, and equipment contractors in Taiwan and China.

Employee Distribution (Based on Diversity Indicators)

Taiwan Mainland China



Note: The percentage represents the ratio of the number of employees in this category to the total number of employees.

Diverse Recruitment Channels and Talent Management

TSC recruits through multiple channels to diversify talent sources, using online platforms such as LinkedIn, alongside offline events including on-site hiring in Taiwan, college fairs in Shandong, and employee referrals. These efforts attract high-quality candidates and strengthen market competitiveness.

TSC will align talent strategies with regional growth and strategic goals, foster an inclusive workplace, optimize training and rotation programs, provide diverse development opportunities, and prioritize internal promotions to support career growth and operational stability.

New Employees

		2022		2023		2024	
		Total	Percentage	Total	Percentage	Total	Percentage
Gender	Male	159	54%	100	68%	84	61%
	Female	133	46%	47	32%	54	39%
Age	Under 30 years old (inclusive)	146	50%	53	36%	58	42%
	31 to 49 years old	133	46%	83	56%	70	51%
	50 years old and above (inclusive)	13	4%	11	7%	10	7%
Region	Taiwan	184	63%	119	81%	74	54%
	Mainland China	108	37%	28	19%	64	46%
Total		292	100%	147	100%	138	100%

Note:

- Percentage is calculated by dividing the number of each category of employees by the total number of new employees in that year.
- In 2024, the new employees in Taiwan included one temporary worker, with all others being full-time and regular staff.

Employee Turnover

		2022		2023		2024	
		Total	Percentage	Total	Percentage	Total	Percentage
Gender	Male	112	46%	113	51%	77	43%
	Female	134	54%	108	49%	104	57%
Age	Under 30 years old (inclusive)	92	37%	66	30%	51	28%
	31 to 49 years old	133	54%	130	59%	102	56%
	50 years old and above (inclusive)	21	9%	25	11%	28	16%
Region	Taiwan	109	44%	97	44%	84	46%
	Mainland China	137	56%	124	56%	97	54%
Total		246	100%	221	100%	181	100%

Note:

- Percentage is calculated by dividing the number of each category of employees by the total number of turnovers in that year.
- In 2024, the departing employees in Taiwan, included one temporary worker, with all others being full-time or regular staff.

Remuneration Policies

TSC establishes employee compensation and benefits in line with the Labor Standards Act, local labor laws, and market trends, following its articles of incorporation and related regulations. A clear performance evaluation system is reviewed annually to reward outstanding talent. In Taiwan, bonuses are based on job performance, responsibilities, and special contributions, in line with the Employee Bonus and Stock Option Scheme.

Executive compensation is reviewed by the Remuneration Committee, which assesses criteria, goals, policies, and structures, and makes recommendations to the Board. Evaluations consider industry norms, individual performance, responsibilities, goal achievement, business goals, financial condition, and future risks. In 2024, the Committee held three meetings to ensure competitiveness and fairness.

Gender Remuneration Ratio

Basic Salary with Remuneration - Female : Male		
Year	Management Level	Non-Management Level
Taiwan		
2023	0.50 : 1	0.77 : 1
2024	0.44 : 1	0.70 : 1
Mainland China		
2023	1.48 : 1	0.72 : 1
2024	1.4 : 1	0.74 : 1

Note:

1. Minor differences in the gender pay ratio may result from individual performance, seniority, and other factors. In Taiwan, salary standards are identical for men and women.
2. Management level refers to department heads, vice-heads, and associate vice-heads.
3. From 2024, reporting boundaries expanded to include factories and offices in mainland China, resulting in slight changes in disclosed data compared to the previous year.

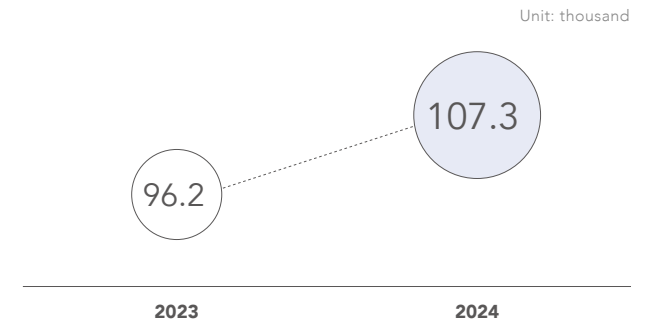
Median Salary of Full-time Employees in Non-supervisory (Taiwan)

	2023	2024
Median	NT\$638 thousand	NT\$628 thousand

Note:

1. Based on annual salary in New Taiwan Dollars (NTD)
2. The median salary of full-time employees in non-supervisory positions in Taiwan decreased by NT\$10 thousand in 2024 compared to 2023, with a loss rate of 1.6%.

Median Salary of Full-time Employees in Non-supervisory (Mainland China)



Note:

Starting in 2024, reporting was expanded to include offices across China in addition to manufacturing facilities, resulting in slight variations from the previous year's data.

TALENT, in Taiwan - Talent Sustainability Development Alliance

• Join "TALENT in Taiwan" Enhance Employer Brand Management

Talent is vital to long-term growth. Beyond active recruitment, TSC strengthens its employer brand through a new website launched in 2024, ongoing promotion on platforms such as 104 and LinkedIn, and employee referral programs. TSC also joined the "TALENT, in Taiwan - Talent Sustainability Development Alliance, supporting sustainable talent development initiatives through concrete actions.

• Continue Promoting the "Diversity, Equality, and Inclusion" Spirit

TSC continue to promote and implement sustainable talent indicators, with main facets including practical actions of support:

Diversity and Inclusion

TSC recruits talent across nationalities, backgrounds, genders, and age groups, fostering a diverse workforce that drives innovation and broadens perspectives.

Health and Well-being

We provide health examinations beyond regulatory requirements and promotes wellness through health awareness programs and activities, fostering a safe and positive workplace.

Nurture and Growth

In line with company policies and departmental goals, TSC provides functional and professional training, along with soft skill courses such as occupational safety and corporate social responsibility, to support well-rounded employee development.

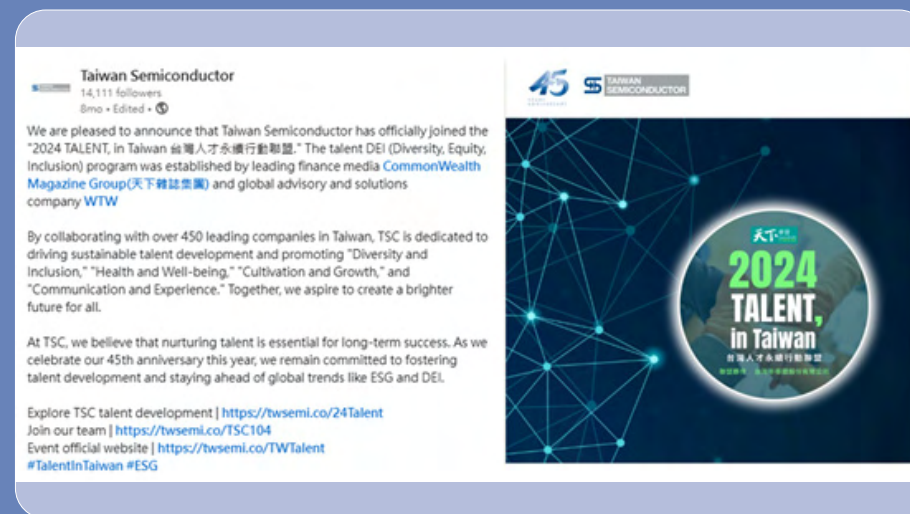
Communication and Experience

Maintain diverse, two-way communication channels, values employee feedback, and implement improvements based on their suggestions.

- **Long-Term Commitment to Sustainable Management**

Sustainable talent development is a long-term commitment. TSC fosters diversity, equality, and inclusiveness to build a culture where all employees can fully contribute and create organizational value.

In 2024, TSC strengthened its employer brand through multiple channels, including 104 Job Bank and LinkedIn. Publishing thematic articles on the Talent Sustainability Development Alliance led to an 18.6% increase in LinkedIn followers within six months, attracting more potential talent.



4.1.2 Human Resource Development GRI 404-1 404-2 404-3

Talent Retention

To attract and retain top talent, TSC continuously enhances its compensation and talent development mechanisms, enabling employees to thrive in a stable, growth-oriented environment. We monitor market salary trends, review pay and benefits annually, and optimize base salary, allowances, and bonuses to maintain competitiveness and support long-term growth.

TSC also advances human resource management through measures that enhance employee experience and strengthen corporate competitiveness, including:

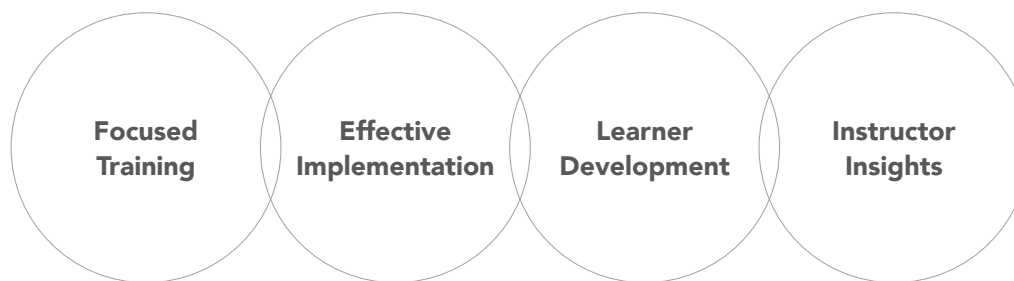
Strengthening Real-Time Communication with Digital Platforms	<p>Implemented a new HRM system to streamline processes from automated notifications to self-service, enabling employees and managers to access information in real time. Benefits improved by 62% and paper-based approvals were reduced. Established a labor-management platform to share meeting information, enhance real-time communication, and strengthen mutual trust.</p>
Enhancing Internal Talent Development to Foster Career Growth	<p>Established clear promotion and career growth mechanisms, with regular performance and potential evaluations to provide advancement opportunities. Offered diverse training, including internal programs, external learning, and succession planning, to enhance professional and management skills for future development.</p>
Strengthening Recruitment and Onboarding Mechanisms to Improve Retention	<p>Revised training programs to help new hires adapt faster to the corporate culture and work environment. Improved interview evaluation forms to enhance talent-role matching, boosting adaptability and stability. These measures reduced the overall attrition rate by 1.8% in 2024.</p>

Overall attrition rate decreased by
1.8%
in 2024 compared to the previous year

These strategies aim to build a stable, growth-oriented workplace that fosters employee and company growth, enhancing overall competitiveness.

Talent Development and Cultivation

TSC's talent cultivation plan is aligned with corporate strategy and operational goals. An annual company-wide survey identifies training needs in technical skills, professional knowledge, and leadership. Based on the results, targeted courses are developed to support organizational growth.



In 2024, TSC adopted streamlined training as the core strategy, emphasizing four pillars: **focused training, effective implementation, learner development, and instructor insights**. Training hours were streamlined from 40,000 in 2023 to 28,000 by optimizing course content and schedules.

To ensure training quality, TSC launched a comprehensive review of mandatory training courses, along with training materials and exams to align with practical needs. A follow-up mechanism was also introduced to track post-training behavioral changes. In addition, TSC initiated the development of an internal trainer training and management system to strengthen the linkage between training quality and practical application.

Around 80% of total training hours targeted **professional skills** and **quality management**, strengthening technical expertise and quality control. **Functional development** in teamwork and leadership was also reinforced to build talent with both technical and managerial capabilities, supporting efficient team operations and long-term growth.

Comprehensive and Diverse Training

TSC offers various training courses to employees of different position level and type based on their functional requirements, with the aim of improving their professional expertise and abilities, enhancing their performance, and supporting their own advancement and career growth. In 2024, the average number of training hours per employee was 50.9 hours.

Competency Training	TSC offers competency training programs covering core and leadership skills. Core programs strengthen accountability, teamwork, and pursuit of excellence, encouraging employees to take ownership, drive team progress, and support long-term growth. Leadership programs train managers in strategic thinking, team management, cross-department coordination, and motivation to align capabilities with corporate goals.
Professional Training	Professional training addresses departmental needs, combines practical application with compliance, and supports professional certification. Each unit designs courses based on job content to help new hires integrate quickly and enable current staff to advance their skills. Certification training is offered for specific roles to ensure required qualifications, meeting both regulatory and business needs.
Quality Training	TSC promotes quality awareness among all employees to achieve a zero-defects goal. The quality assurance department conducts annual training, including internal auditor certification, to enhance skills and raise quality management standards. For key automotive products, strict role-based training ensures compliance with high industry standards and maintains market competitiveness.
General Training	General training includes new employee orientation, occupational safety, legal awareness, information security, corporate social responsibility, and self-development. These programs help employees understand company culture, laws, and safety regulations, while building core competencies, ensuring compliance, and facilitating workplace adaptation.
Critical Talent Training	The Company provides ongoing professional training for key talent to support growth and future development needs.

Average training hours per employee

50.9 hours



Average Training Hours in 2024

		Taiwan	Mainland China
Gender	Male	46.1	57.9
	Female	34	58.8
Position Level	Management Level	46	67.9
	Non-Management Level	40	57.1
Total Number^{Note}		686	864
Total Training Hours		28,283.9	50,587
Average Training Hours		41.1	58.5
Total average training hours (total training hours / total number of people)		50.9	

Note: Total number refers to all individuals who received training from January 1 to December 31, 2024.

Performance Management and Development

To effectively achieve annual business objectives and ensure fair performance evaluation, TSC has established a clear performance appraisal system. All managers and employees are assessed annually, serving as the basis for job rotation, salary adjustments, and bonus distribution. The evaluation focuses on individual mid- to long-term objectives (OBJ), key performance indicators (KPI), and development goals. Through structured goal-setting, managers can align company, departmental, and individual objectives, closely linking talent development with business growth.

Since 2023, TSC has implemented a competency framework and applied it to training and performance management, encouraging employees to continuously improve and demonstrate key competencies. In 2024, managers practiced competency-based evaluations during performance appraisals, while outstanding employees were recognized quarterly and best practices were shared to enhance practical understanding. In mainland China, diversified evaluation mechanisms were adopted based on job level and function.

Looking ahead, TSC will formally integrate competency performance into the appraisal system in 2025, starting with managers at Level 7 and above, making it a key component of performance reviews. Through these measures, TSC aims to strengthen performance management, enhance organizational effectiveness, and support continuous employee growth and development.

2024 Performance and Career Development Evaluation Coverage

	Taiwan		Mainland China	
	Male	Female	Male	Female
Management Level	94	38	63	112
Non-Management Level	275	214	194	472
Total	369	252	257	584
Review Percentage	100%	100%	100%	100%

Crafting Exceptional Leadership, Advancing Future Competitiveness - The Path of TSC Management Training

• 2023: Laying the Foundation for Management Training and Competency Development

In 2023, TSC Taiwan introduced Competency Module, defining "core" and "leadership" capabilities as the basis for management training and development, with the goal of fostering responsibility, excellence, and leadership to strengthen competitiveness.

A mid-level manager training program was launched, combining management knowledge and practical skills to enhance team leadership. Forty-one managers and potential talents participated, completing a total of 427 training hours. Senior managers provided mentoring through practical challenges, offering in-depth feedback to help participants understand their leadership styles and strengthen management thinking. This year established the foundation for management training, positioning managers as key drivers of team growth.

41

managers and
potential talents
participated

Cumulative
training hours

427

• 2024: Deepening Management Training and Cultivating Leadership Excellence

In 2024, under the theme Excellence in Leadership, training focused on strengthening the management capabilities of mid- to senior-level managers and high-potential talents. A total of 90 managers participated, with courses tailored to practical challenges identified through surveys.

Coure's four major themes:

01 The Lever Principle of Leadership: Inspiring managers to rethink the various strategies and choices they can make when leading teams, helping them expand their influence and thereby enhance team performance and cohesion.

02 Situational leadership practice: Guide supervisors to adjust their management styles flexibly based on team members' willingness and abilities, thereby unlocking the team's potential and enhancing efficiency.

03 Application of Flow Theory: Assist managers to assess their own and team members' current situations based on individual abilities and challenges. Provide appropriate tasks and guidance according to different scenarios, aiming for a balance between ability and challenge to maximize personal and team effectiveness and achieve the flow state

04 Advocating a Growth Mindset: Encourage managers to communicate with the team using positive thinking, inspiring the team to embrace challenges with an open mindset. Focus on effort and the growth process, thereby nurturing an organizational culture brimming with learning agility and resilience.

Senior management is fully involved and supportive throughout, ensuring that the training content aligns with practical management needs and is consistent with company strategic goals. We work closely with instructors to translate learning outcomes into daily management practices, further enhancing the company's competitiveness.



▲ Team members sharing experiences with collaboration and enthusiasm for learning.



▲ Group photo symbolizing unity and shared growth.

Implementation and Application

Action plans were developed to help managers integrate leadership skills into daily operations. Managers streamlined reports and meetings, optimized workflows, and proposed **40** improvement projects across **14 units**, saving about 76 operational hours.

They also applied "flow theory" and a "growth mindset" to refine leadership styles and guide team potential, while using situational leadership to tailor strategies to team members' needs, enhancing management efficiency.

Case Study: Shifting Team Mindset

After attending an "Excellence in Leadership" training, a supervisor implemented changes in the management of their team of 17 engineers, focusing on fostering a growth mindset. Training inspired him to shift from harsh criticism to positive reinforcement, encouraging innovative thinking through guiding questions and insightful praise.

From "How could you do this?" to, "Wouldn't it be better if you changed it like this?" This transformation has improved the team atmosphere, with two engineers now bravely expressing themselves in meetings and gradually embracing a growth mindset. This case demonstrates the value of leadership training, with a mindset shift driving work efficiency and innovation.

Practice-sharing Session

Three practice-sharing sessions were held to exchange application results, challenges, and management experiences. In the first session, over 30% of participating managers applied Flow Theory and a Growth Mindset in team leadership, while more than 50% implemented Situational Leadership in daily management. These exchanges deepened leadership application and promoted mutual learning, reinforcing the company's commitment to talent development.



▲ Colleagues sharing how they apply leadership principles in daily work to inspire and lead teams toward excellence.

- **2025: Laying the Foundation for the Future, Launching a New Chapter in Leadership**

In 2025, leadership development will be a core training priority, focusing on strengthening management's decision-making, team management, and cross-departmental collaboration to enhance operational efficiency and market competitiveness. Strategic thinking and problem-solving will be emphasized to improve judgment, systemic thinking, and strategic planning, driving stronger growth momentum.

- **Future Vision and Strategy**

To achieve long-term talent development goals, we will incorporate functional performance into performance evaluation metrics. Through continuous training and assessment, we ensure that management continuously improves and grows. At the same time, We will also plan clear growth paths for employees with potential, gradually nurturing them towards managerial positions to inject new vitality into the organization.

Since introducing the competency module in 2023 and deepening leadership excellence in 2024, TSC will continue to build a capable, forward-looking management team to navigate market changes and achieve long-term objectives.

4.1.3 Employee Health and Benefits GRI 401-2 401-3

Through comprehensive benefits, flexible policies, and diverse health initiatives, TSC seeks to retain top talent, enhance satisfaction and efficiency, and foster a healthy, stable workplace.

Employee Well-being

Employee Group Insurance
TSC provides comprehensive group insurance at major operational locations. In Taiwan, coverage includes life, accident, medical, hospitalization, and cancer insurance, with dependents eligible for participation. In China, TSC contributes to social insurance and the housing provident fund, ensuring protection in medical care, retirement, and unemployment while enhancing quality of life. These measures reflect TSC's commitment to employee well-being, fostering loyalty and long-term stability.
Employee Stock Ownership Trust
In Taiwan, TSC grants employees a 30% subsidy on actual deposits per shareholder meeting agreements, encouraging participation in operations and the joint pursuit of excellence.
Childcare Policy
TSC supports work-life balance by offering unpaid parental leave, maternity, prenatal, and paternity leave in line with the Gender Equality in Employment Act. Employees may also adjust working hours. Benefits include childcare subsidies, education incentives, and birth allowances. In Mainland China, childcare, maternity, breastfeeding, and nursing leave are provided per local laws to ensure support during childbirth and childcare.

Maternity Leave

2022-2024 Retention Rate

100%

Parental Leave Status of Employees in Taiwan

	2022			2023			2024		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of Employees Eligible to Apply for Parental Leave in the Year (A)	23	13	36	16	19	35	19	12	31
Actual Number of Employees who Applied for Parental Leave in the Year (B)	1	4	5	2	4	6	0	2	2
Application Rate (B/A)	4%	31%	14%	13%	21%	17%	0%	17%	6%
Number of Employees who have Taken Parental Leave and are Eligible for Reinstatement in the Year (C)	0	2	2	0	3	3	6	5	11
Actual Number of Employees who Applied for Reinstatement in the Year (D)	0	2	2	0	3	3	0	1	1
Reinstatement Rate (D/C)	0%	100%	100%	0%	100%	100%	0%	20%	9%
Number of Employees Reinstated in the Previous Year (E)	2	1	3	3	6	9	1	5	6
Number of Employees Remaining One Year After Reinstatement in the Previous Year (F)	2	1	3	3	6	9	1	5	6
Retention Rate (F/E)	100%	100%	100%	100%	100%	100%	100%	100%	100%

Retirement Plan

TSC provides a pension system in Taiwan to ensure employees' financial security after retirement. In line with the Labor Standards Act and the Labor Retirement Pension Act, the Company operates both the old and new retirement schemes, supervised by a dedicated committee.

Since July 1, 2005, TSC has contributed 6% of employees' monthly salaries to individual retirement accounts, with the option for employees to make additional voluntary contributions. Employees may choose to remain under the old system or switch to the new scheme, with prior service years fully recognized.

In 2024, TSC contributed NT\$21,145 thousand to retirement funds, fully remitted to the Bureau of Labor Insurance. Pensions are calculated based on service years and the average salary of the six months before retirement. To safeguard benefits, annual actuarial reviews are conducted, and reserves are maintained in a dedicated account at the Bank of Taiwan, which held NT\$44,380 thousand at the end of 2024.

All funds are centrally managed by the Bureau of Labor Funds, with investment returns guaranteed to be no less than the two-year fixed deposit rate.

Incentive System and Employee Benefits

Positive Corporate Culture

TSC is committed to cultivating a positive corporate culture and promoting employee well-being. We publicly recognize senior employees and exemplary employees for their outstanding contributions, motivating others to strive and succeed together.

The Employee Welfare Committee offers a range of benefits, including festival bonuses, allowances for weddings, funerals, and other celebrations, childbirth bonuses, and educational scholarships for employees' children—reflecting the Company's care and support.

Welfare Bonus

Affiliated Stores

70

TSC also partnered with over **70 affiliated stores** to offer more discounts, further enhancing employees' quality of life and demonstrating our commitment to their welfare.

2024 Incentive System and Benefit Expenditure in the Taiwan area

	Item	Frequency	Highlights
Festivals	The Three Major Holiday Bonuses (including Mid-Autumn Festival, Dragon Boat Festival, and Labor Day)	Annual	Distribute annual holiday bonuses to express appreciation and motivate employees
	Subsidies for Marriage, Funerals, and Festivals - Cash Gifts for Childbirths	Number of Applicants Approved	The Employee Welfare Committee organizes annual benefits and activities. It provides cash gifts for childbirth, marriage, birthdays, and offers condolence money for illnesses, injuries, or bereavements.
	Other (Birthdays)	Once a year	
Employee-related	Childbirth Subsidy - Parental Subsidy	Number of Applicants Approved	TSC supports employees with children by providing childcare subsidies and education incentives, helping them balance career and family responsibilities while enhancing employee retention. In 2024, TSC provided childcare subsidies to 72 employees and educational incentives to 126 employees , demonstrating our commitment to caring for our employees and fostering a harmonious work-life environment.
	Childbirth Subsidy - Educational		
	Benefits Meetups	According to the Welfare Committee's plan, there will be multiple times each year.	In 2024, in response to the expectations of colleagues across different regions, we will organize events or distribute vouchers as a way to meet their needs and show concern for their quality of life outside work.
	Senior Employees	According to the annual plan, multiple times each year.	At the year-end banquet, TSC presents certificates and gold jewelry to eligible senior employees as a token of appreciation. Exemplary employees are nominated by departments and selected by senior management to receive recognition and bonuses, with their achievements publicly announced to inspire others.
	Exemplary Employee		
	Physical Examinations	The headquarters conducts an annual review, while the plant sites undergo a biennial review.	TSC collaborates with professional medical teams to provide employees with annual health check-ups that exceed regulatory standards. In 2024, a total of 502 employees underwent health checks, with ongoing follow-ups and health management.
	Christmas Gift Distribution	According to the planning and frequency of festival celebration events.	Activity forms and frequency are planned according to holidays. In 2024, senior executives dressed as Santa Claus and distributed gifts to express appreciation, creating joyful moments for employees.
	Year-end Banquet	According to the annual plan, devise the manner of holding year-end parties.	In 2024, TSC holds a year-end party at the factory site, where employees enjoy lunch, performances, games, and prize draws. The event fosters relaxation, communication, and shared celebration.



Warm Christmas Gift-Giving



The Welfare Committee plans diverse activities, such as travel, crabbing, and movie appreciation, to foster interaction and enjoyment.



Promotion of Physical and Mental Health and Work-life Balance

Health Promotion Resources and Activities

TSC collaborates with professional medical teams to conduct regular health checks for employees according to local regulations. In Taiwan, we provide health checks that exceed legal requirements in terms of frequency and surrounding resources, ensuring continuous care for employee health management.

2024 Workplace Health Promotion Results

<div>Occupational Health Services</div> <ul style="list-style-type: none"> Regular on-site services are provided in each district, including health advice, counseling and care, workload and psychological stress management, prevention of work-related muscle soreness, maternity protection advice for pregnant women, advice on We held an annual health seminar with a total of 106 participants. The themes were diverse and rich, including the following: <ul style="list-style-type: none"> Relationship between stress and health Healing Pastel Painting Understanding and Improving Metabolic Syndrome + Sharing Weight Loss Experiences Muscle strength training, stretching, and relaxation. Preventing and Maintaining Health for Back Pain Relief Health Seminar: The Importance of Eye Health Care <div> <div>annual health seminar 106 participants</div> <div>abnormal tracking rate 100%</div> <div>Health Promotion Activities 774 participants</div> </div>	<div>Health Promotion Activities</div> <ul style="list-style-type: none"> "Get Active for Health" in Taiwan: We organized the "Get Moving for Health" initiative in Taiwan to encourage colleagues to participate in sporting events. This year, a total of 59 employees took part, actively engaging in athletics outside of work. The program aims to foster an athletic culture within the company and promote a healthy work-life balance. In Mainland China, we held a sports meet at our Tianjin plant featuring badminton, tug-of-war, table tennis, and more, with over 250 employees participating. While getting some exercise, everyone also strengthened team cohesion. The Shandong plant organized a company-wide health sports meeting, which attracted 465 participants. A total of 27 trophies and 62 medals were awarded across various competitions, with over 100 prizes prepared to motivate staff participation and showcase their vitality and energy in health and fitness activities.
<div>Health Protection Plan</div> <ul style="list-style-type: none"> Health Protection Plan Prevention of diseases caused by overwork: Identify and assess high-risk employees, schedule physician interviews and provide health guidance, and make necessary adjustments to working hours and job content. Prevention of Repetitive Strain Injuries: Conducted a survey using a questionnaire to assess musculoskeletal symptoms among workers, investigating conditions such as fatigue and discomfort in the body. Evaluated the severity of these issues and assessed the potential hazards related to work tasks, adjusting work practices as necessary. Maternal health protection: Measures are implemented to assess, control, and manage the health of female workers from the beginning of pregnancy to less than one year after delivery. These measures are designed to protect the health of both the mother and the fetus. Regular monitoring and management of employees physical and mental health conditions are conducted by on-site medical personnel in various regions. 	<div>Physical Examinations</div> <ul style="list-style-type: none"> Routine health check-ups: Arrange for employees to participate in health checks according to regulations. Health Monitoring Management: On-site service medical personnel in each area professionally assess health monitoring levels. For those requiring necessary health monitoring, all are arranged for interviews during scheduled on-site services by occupational doctors, with an abnormal tracking rate reaching 100%. <p>TSC encourages its employees to participate in sports activities through various means. In addition to enhancing team cooperation and building camaraderie, these efforts also promote the overall health of their colleagues and help them maintain a good physical and mental state.</p>



Various sports events to enhance employee team cohesion while promoting physical fitness.



Through healthy meal plans, promotion of metabolic syndrome awareness, office stretching exercise instruction, workplace communication skills, and stress relief through watercolor painting, we aim to enhance our colleagues' health consciousness and maintain their physical and mental well-being.



Healing Color Painting Course



"Workplace Communication Skills" Seminar



Healthy Meal Set Promotion Course



Lysosomal Storage Disease Awareness Program



Metabolic Syndrome Awareness Course



Stretching Exercise Tutorial

Building a Healthy Workplace through Knowledge and Action

For the 2024 fiscal year, TSC organize multiple health promotion activities, continuing to advocate for health awareness and aiming to create a healthy workplace.

• Health Knowledge Sharing

In Taiwan, diverse health themes are communicated throughout each quarter to enhance employees' awareness of various health issues. Additionally, professional medical and nursing staff are arranged to provide consultations on related health topics, enabling employees to familiarize themselves with health concepts and prioritize self-health management.

Quarterly	Promotion Topic	Health Knowledge Sharing
First Quarter	<ul style="list-style-type: none"> Tobacco control, anti-smoking promotion. 	<ul style="list-style-type: none"> Myocardial infarction Is stress caused by hormones? Maternal health protection
Second Quarter	<ul style="list-style-type: none"> Thoroughly wash and cook, don't eat raw; food poisoning won't come knocking at your door. Understand rotavirus, implement these six preventive measures. 	<ul style="list-style-type: none"> Metabolic Syndrome My Healthy Plate Gastroenteritis virus Drink plenty of water; do not hold your urine.
Third quarter	<ul style="list-style-type: none"> Sun Blazing, Summer Heat Damage Prevention Campaign Understand Body Fat and Healthy Weight Loss! Common Food Calorie Counts and Exercise Energy Expenditure Calculations 	<ul style="list-style-type: none"> Reaffirming the prohibition of "Workplace Violence" behaviors. Drink more water + weight loss & beauty water Zero tolerance for workplace misconduct.
Fourth Quarter	<ul style="list-style-type: none"> For love, quit smoking, smoke-free families are happier! The weather is chilly, watch out for these six common illnesses that may disrupt you. 	<ul style="list-style-type: none"> Tobacco-free and harmless to health long-term.

TSC China is committed to enhancing the awareness and practical skills of all colleagues regarding health issues, by promoting diverse activities that deepen attention to employee health and safety. Including the following:

1. Invite the county health control center to conduct various infectious disease prevention knowledge seminars at the company, helping employees grasp protective measures and reduce health risks.
2. Invite Traditional Chinese Medicine experts to the company for health promotion talks and therapeutic services, helping employees enhance their physical and mental well-being.



▲ Shandong site invites the Center for Disease Control to give a talk on hepatitis prevention knowledge.

• Self-sufficient - Vegetarian Farming Site

In 2024, colleagues from the Lije and Yilan sites visited a hydroponic "Veggie Alive" farm, where they participated in the full cycle—from planting seedlings and tending the crops, to harvesting and preparing dishes. By experiencing the farm-to-table process hands-on, they deepened their understanding of how vegetables grow, sharpened their ability to make informed, nutritious food choices, and fostered lasting healthy eating habits. A total of **508 people** actively participated in the vegetable gardening experience. In addition to carefully tending to the vegetables, the colleagues also showed their creativity by creating delicious vegetarian dishes. While enjoying these tasty and healthy meals, colleagues also collaborated with Taiwanese locals to achieve the goal of reducing carbon emissions. After 6 months of dedicated efforts, all partners collectively reduced carbon emissions by **43.2 kilograms** (estimated based on the reduction of carbon emissions from vegetarian meals). We hope that through this vegetable gardening experience, colleagues will be inspired to adopt healthier and greener eating habits and to incorporate the principles of health and environmental sustainability into their daily lives.



▲ Experience in planting and harvesting at a vegetable farm to inspire colleagues with more concepts of healthy and low-carbon diets

• Vibrant and Healthy Vitality

■ Healthy Fat Reduction

Continuing the momentum from 2022, TSC promotes weight management as a key initiative to reduce metabolic syndrome risk and enhance employee health. Under the theme "Active Weight Loss," the program combines individual and team-based competition to encourage joint exercise and healthy habits. In 2024, 104 employees across 23 teams participated. To assist employees in effectively managing their health, we organized multiple sessions during the activity period, including "Understanding Metabolic Syndrome," "Weight Loss Experiences Shared by Colleagues," and provided practical information such as "Caloric Content of Common Foods." We encouraged participating colleagues to independently adjust their diet and exercise plans toward achieving muscle gain and fat loss goals. Employees participating over a three-month effort have demonstrated significant results:



Significantly reduce the likelihood of developing metabolic syndrome, with individuals reducing body fat by 10.2%; three outstanding team members even achieved an impressive overall fat reduction of 28.3%, fully demonstrating the remarkable results and health transformation following colleagues' persistence and self-training.



▲ Team up for workouts, enjoy active weight loss.

■ Get Active for Health

In September 2023, TSC introduced the Excellence Sports Bonus Program to encourage employees to develop a habit of exercising and to reward their participation in various external sports events. In the 2024, a total of 59 colleagues actively participated in various sporting events, showcasing their enthusiasm and vitality for sports, and achieved remarkable results, including:

National Men's Tennis
Championship 45 year old Division

2024 Yilan County National
Basketball Championship

Tai Chi Push Hands event at the
2024 National Games

Champion

Silver Medalist

**Secures sixth
place**

Completed a marathon
and walkathon

Riding activity

305 kilometers

254 kilometers

At the same time, in mainland China, a variety of health promotion activities were held, including health sports competitions and fun games (such as arm wrestling, tug-of-war, ball games, etc.). These activities not only helped train the body but also increased team cohesion among employees, ultimately fostering a commitment to sustainable healthy living for all staff members.



▲ Colleagues actively participates in various sports events.

4.1.4 Labor Relations and Human Rights Management

GRI 2-23 2-24 2-30 406-1 407-1 408-1 409-1

Management and Promotion of Human Rights Policy

Establishing Corporate Social Responsibility Management System

To ensure the implementation of labor rights, environmental protection, occupational health and safety, and ethical practices, and to fulfill our corporate social responsibility, the Company adheres to international labor and human rights standards, including the UN Guiding Principles on Business and Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, and the UN Universal Declaration of Human Rights. Additionally, we follow local regulations and the Responsible Business Alliance (RBA) Code of Conduct. The RBA Social Responsibility Management Manual, which has been approved by the Chairman, is publicly available. We conduct self-checks, customer audits, and third-party verifications to address any identified human rights issues. Based on the results, TSC continuously strives for improvement to achieve our risk management objectives and implement relevant practices. TSC has been conducting annual reviews and audits by third-party organizations since 2023 to ensure compliance and adherence to best practices.

Establishing a Consensus on Corporate Social Responsibility

To ensure all employees understand the Company's Corporate Social Responsibility policies and commitments, relevant training, and promotion on labor rights, environmental protection, occupational safety and health, and ethical standards are conducted across all factory sites. In 2024, the participation rate reached 100%, reinforcing CSR awareness and strengthening the collective implementation.

Implementation of Corporate Social Responsibility Practices

To implement an effective corporate social responsibility management system, TSC continued to revise internal regulations and procedures to align policy, documentation, and practice. CSR commitments are integrated into strategic planning, operational guidelines, and daily activities. In addition, the development and distribution of forms will facilitate the effective execution of relevant operations. Externally, TSC requires all suppliers to adhere to the Responsible Business Alliance (RBA) and sign the Vendor Code of Conduct. Going forward, TSC will continue to strengthen its commitment to human rights within the organization.

[RBA Vendor Code of Conduct](#) 

Human Rights Management Measures

Goal	Action Plan Taken	2024 Performance
Prohibition of Child Labor	<ul style="list-style-type: none"> The Regulations on the Prevention and Protection of Child and Youth Labor have been implemented to ensure prevention and protection. Conducts careful verification during the recruitment process to avoid the employment of child labor. 	UNICEF data confirms no child labor risk at TSC sites; no child or juvenile labor is employed in 2024.
Preventing Discrimination	<ul style="list-style-type: none"> In accordance with basic principles such as the International Covenant on Civil and Political Rights, the Human Rights Act, etc. Review the operational processes related to human resources to ensure that there is no discrimination or bias in the management of human resources. Ensure equality and non-discrimination across race, gender, religion, nationality, or other identities, while respecting employees' beliefs and customs 	<ul style="list-style-type: none"> Applied various regulations, procedural documents, and operational processes to ensure that all activities are free from discrimination and bias. Fully complied with applicable standards, with no incidents of discrimination reported. Hiring colleagues of diverse nationalities and races and ensuring equal treatment for individuals of all identities, including recognition of specific racial holidays and observances as required by law. We provide information on off-site religious activity venues to foreign colleagues so that they can understand the places where religious activities can be held near each factory. Conduct regular surveys and interviews, and encourages to the use of grievance channels. No incidents of discrimination were no reported in 2024. Internal announcements and labeling have been fully bilingualized, ensuring that foreign colleagues can fully obtain and understand the relevant information.
Freedom of Association	<ul style="list-style-type: none"> Regularly hold labor-management meetings for labor-management consultations Respect the legitimate right of colleagues to freely form or join organizations 	<ul style="list-style-type: none"> Every quarter in Taiwan, we hold a labor-management meeting where colleagues can make suggestions and receive feedback. Establish an online platform for labor-management meetings, allowing colleagues to access and understand the content of these meetings at any time. Regularly conduct training to help employees understand policies and regulations regarding Freedom of Association and Collective Bargaining. Complete factory training by 2024, with 100% of employees completing training. In 2024, it was determined that there were no operational sites or suppliers that violated the rights of Freedom of Association and Collective Bargaining.
Prohibiting Forced Labor	In accordance with the RBA Social Responsibility Management Manual, procedures should be established for employment, overtime, resignation, and other matters to prevent any instances of non-voluntary labor-related incidents	Through various channels for complaints and suggestions, it has been confirmed that there have been no cases of forced labor or handling documents on behalf of others. In 2024, no complaints or reports related to forced labor or document retention were received at any site.

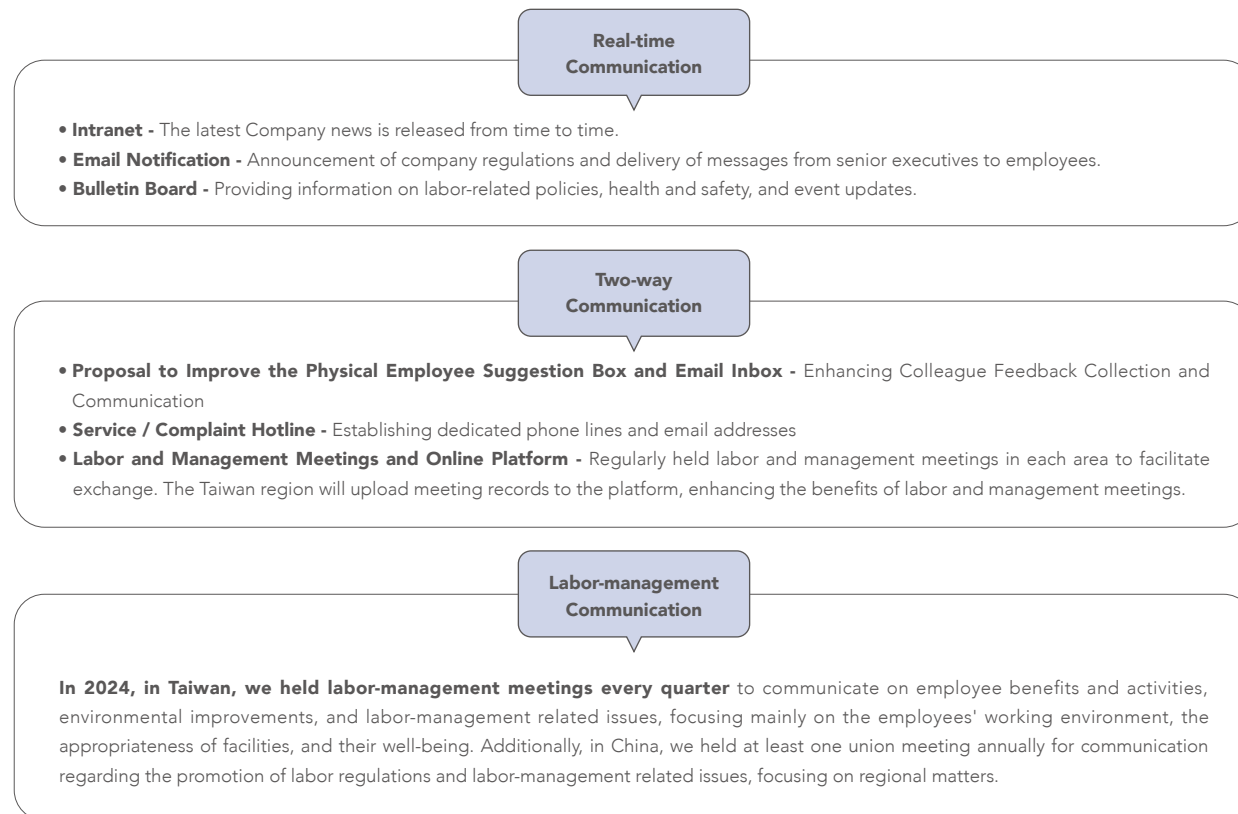
Goal	Action Plan Taken	2024 Performance
Preventing Workplace Violence	<ul style="list-style-type: none"> • Implement anti-harassment policies and raise awareness of illegal violations. Provide appropriate training. Establish complaint hotlines, e-mail addresses, and other communication channels in each district. Conduct regular inspections and audits. • Establishment of the Regulation Governing Sexual Harassment Prevention Measures, Complaints and Punishments and investigation procedures to ensure privacy. • In compliance with the TSC Corporate Governance Best Practice Principles, the internal control system is implemented to ensure the effectiveness of the reporting mechanism and confidentiality procedures. 	<ul style="list-style-type: none"> • Train and promote the elimination of workplace violence and unlawful acts to all colleagues, with a goal of 100% training completion by 2024. • Through various channels for complaints and suggestions, as well as regular inspections, there have been no incidents of workplace violence or illegal violations • In 2024, the Yilan plant received a complaint alleging suspected workplace misconduct. After an investigation by the Yilan Plant's Grievance Handling Committee and discussions with both the complainant and the respondent, it was determined that the incident was merely a verbal dispute over work assignments between colleagues and did not constitute unlawful workplace conduct. Through this case, the Yilan plant conducted training on complaint handling investigation for the members of the grievance committee. By engaging in actual investigations, it effectively enhanced the investigative skills of the committee members and optimized the complaint resolution mechanism, while also strengthening the protection of employee rights.
Ensure that Wages Comply with Legal Requirements	<ul style="list-style-type: none"> • Remuneration is in accordance with legal requirements, including base pay and statutory benefits, and is not subject to disciplinary action. • Hiring employees according to local laws and signing contracts, ensuring compliance with employment procedures • Salaries are calculated and distributed according to work rules, ensuring that employees receive detailed salary information as agreed • In compliance with the Mandatory Provident Fund Schemes Ordinance, participate in the Mandatory Provident Fund Scheme. 	<ul style="list-style-type: none"> • Through payroll policies and internal controls, regular reviews are conducted to ensure that employees are not paid below the local minimum wage, that there are no delays in the payment of wages. • In 2024, a new HRM system will be implemented, establishing computation and verification mechanisms to prevent human error. We implement attendance management by continuously reviewing scheduling, leave, work hours, and overtime through regular system checks to enhance early warning notifications.

Note:

In addition to all TSC operational sites, the influence extends to suppliers as well. All suppliers are required to sign the RBA Vendor Code of Conduct commitment letter, ensuring compliance with relevant guidelines to safeguard the rights of all personnel in the supply chain.

Communication and Grievance Channels

We value employee relations by establishing diverse, two-way, and open channels of communication and encouraging employees to courageously report unlawful conduct or file complaints when their rights are violated. In addition, we encourage employees to proactively suggest beneficial improvements for the company. We also have an employee survey mechanism to understand the living conditions of colleagues and ensure their awareness of the Company & various communication and complaint channels. TSC clearly defines and implements work rules and related complaint procedures, and posts information on the intranet to ensure the smooth operation of communication channels so that colleagues voices can be effectively conveyed and addressed. In 2024, we tracked the implementation status of our colleagues' environmental improvement proposals and provide feedback on the implementation results.



TSC remains committed to promoting dialogue and consensus, and to respecting and valuing employee opinions and feedback. The Company is committed to building a stronger labor-management relationship, ensuring a fair and safe working environment for all, and promoting harmonious labor relations.



Turning Employee Voices into Meaningful Action

TSC believes that open interaction and communication with employees foster sustainable corporate growth. Since 2023, TSC has conducted an annual Employee Engagement Survey in Taiwan to better understand employees' voices. The survey covers four key dimensions—engagement, teamwork, management, and corporate identity—and is conducted under strict confidentiality principles. The results provide insights into employees' overall work experience and serve as a basis for continuously improving the workplace environment.

- **Corporate Social Responsibility Survey**

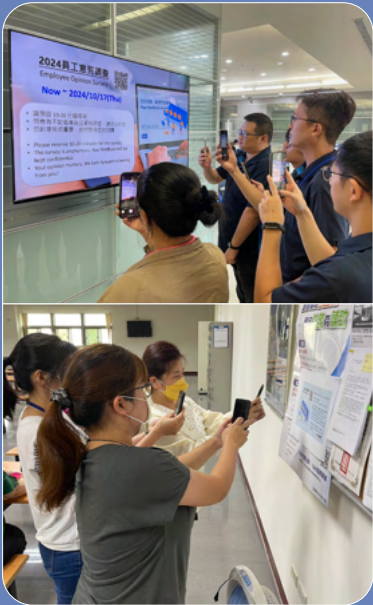
TSC's Yilan and Lije sites conducted an employee survey on corporate social responsibility (CSR) in January 2024 to understand employees' understanding and level of concern regarding CSR-related issues, providing valuable feedback for the Company's sustainable operations. **The response rate from staff was above 80%.** Based on employee feedback, TSC outlined specific action plans and timelines, and updated employees monthly on the progress and results of these actions to ensure that all suggestions were effectively heard and implemented. This demonstrated a high level of respect for employee input.

• **Third-Party Survey and Improvement Actions**

TSC underwent a third-party survey conducted for its employees on behalf of the client in May 2024, with a response rate reaching 86%. Following the survey, TSC developed a detailed action plan to address employee suggestions and reviewed its implementation monthly. All improvement measures were completed by November, after which another employee feedback survey was conducted to confirm effectiveness, resulting in positive customer feedback.

Scope	Improvement Plans
① Grievance Mechanism	Starting in the second half of 2024, We increased the frequency of inspections for the complaint boxes from once a month to twice monthly. This change aims to ensure that when employees have complaints or feedback, they can be addressed more promptly.
② Compensation and Benefits	The survey results outperformed those of the same industry in 2023, so no immediate improvement plan is necessary; however, TSC will continue to monitor its employees' compensation and benefits issues.
③ Safety and Health	Continuously implement operations related to environmental, health, and safety matters.
④ Mental Health	We have conducted training on communication skills for managers in the second half of 2024, implementing more effective communication to enhance concern for colleagues.
⑤ Living Facilities	More colleagues suggested improving indoor temperatures, recommending the installation of two air conditioning units in the front segment of the production line by the second half of 2024 to enhance comfort.
⑥ Workforce Dynamics	1. Strengthen the announcement and promotion of employee referral bonuses, encouraging colleagues to recommend talent. 2. Implement improvement action plans to enhance employee satisfaction.

TSC continues to ensure good employee relations and promote sustainable development through diverse communication channels and various staff opinion surveys. We are committed to creating a diverse, equitable, and inclusive workplace environment where the voices of every team member can be heard and transformed into a driving force for corporate progress.



▲ Employees providing feedback .

4.2 Protecting Workplace Environment

GRI 3-3 403-1 403-2 403-3 403-4 403-5 403-6 403-7 403-8 403-9 403-10 TC-SC-320a.1 TC-SC-320a.2

Material Topics Occupational Safety and Health

Policy and Commitment

- Zero occupational diseases
- Zero occupational accidents
- Train employees to be aware of risks and implement work safety in their daily routines.
- Utilizing management systems to track employee health status and prevent occupational diseases in advance.
- Enhance employee communication and engagement, establish a healthy workplace.

Management Approach and Evaluation Mechanism

- Regularly update hazard identification and risk assessment forms, and review four major programs
- Analyze audit findings and implement corrective actions to strengthen safety management
- Obtain ISO 45001 certification to ensure compliance with international standards
- Conduct regular occupational disease prevention checks to reduce health risks

2024 Results

- **All production sites completed the annual ISO 45001 external audit, ensuring the occupational safety and health management system remains in compliance with international standards**
- **Completed special occupational disease prevention health checks with zero cases identified**
- **All Taiwan sites received the "Healthy Workplace Certification" from the Ministry of Health and Welfare**

Future goals

Short term (3 years)

- Conduct regular safety inspections to enforce accountability and build a strong safety culture
- Provide training to ensure employees understand and follow safety rules

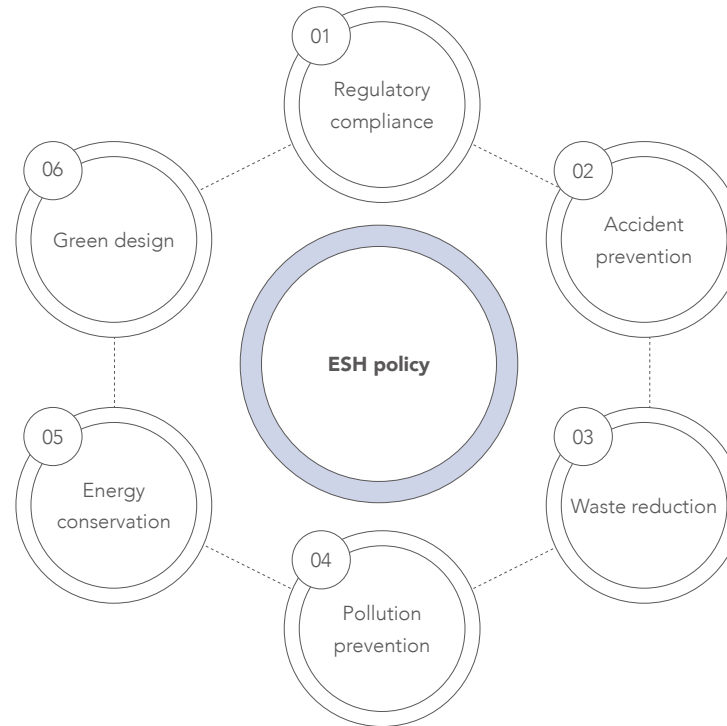
Medium term (5 years)

- **Full Participation:** Employees are encouraged to actively propose improvements and fully understand, support, and implement the company's safety policies.

Long-term (over 5 years)

- **Promoting a "Mutual Care" safety culture:** Encourage employees to look out for and support one another, while promoting the Employee Assistance Program (EAP) to support physical and mental well-being.

4.2.1 Workplace Safety and Health



TSC has established its Environmental, Safety, and Health (ESH) policy based on six dimensions: regulatory compliance, accident prevention, waste reduction, pollution prevention, energy conservation, and green design. TSC has developed a series of occupational health and safety procedures and is committed to full compliance to safeguard workers' safety and health. In 2024, there was one case of regulatory violation at a Taiwan site, resulting in a fine of NT\$100,000. Corrective measures have since been implemented to ensure compliance and workplace safety.

Occupational Safety Management System

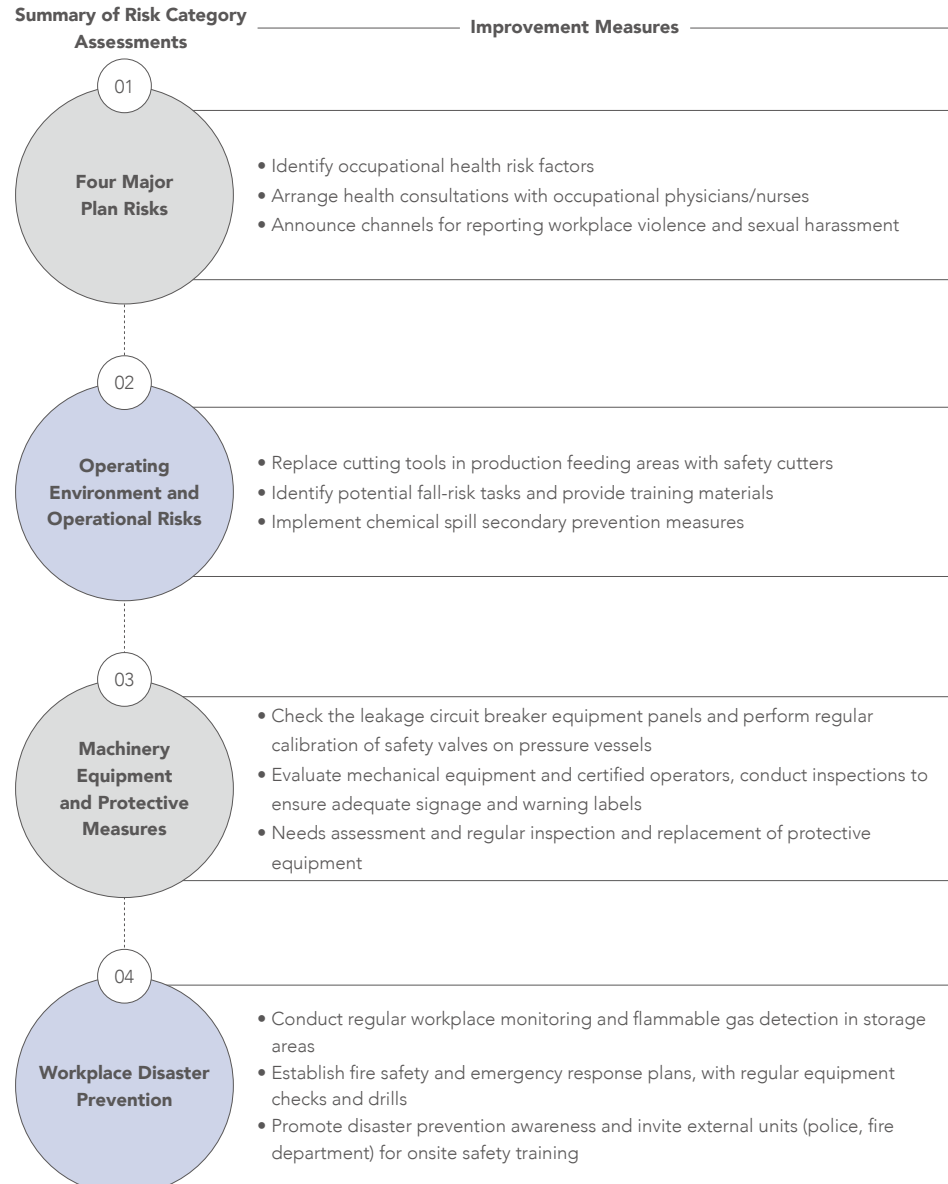
TSC's facilities operate under the ISO 45001 Occupational Health and Safety Management System, ensuring 100% coverage verified by third-party audits and annual reviews. Using a Plan-Do-Check-Act framework, environmental health and safety personnel oversee compliance, with all employees, contractors, suppliers, and visitors required to follow safety regulations.

Regular risk assessments address hazards such as organic solvents, acid-base chemicals, high-pressure gas, and crane operations. Each site monitors legislative updates, implements control mechanisms, and conducts pre-operation checks, on-site inspections, and spot checks to correct unsafe behaviors and enhance safety facilities.

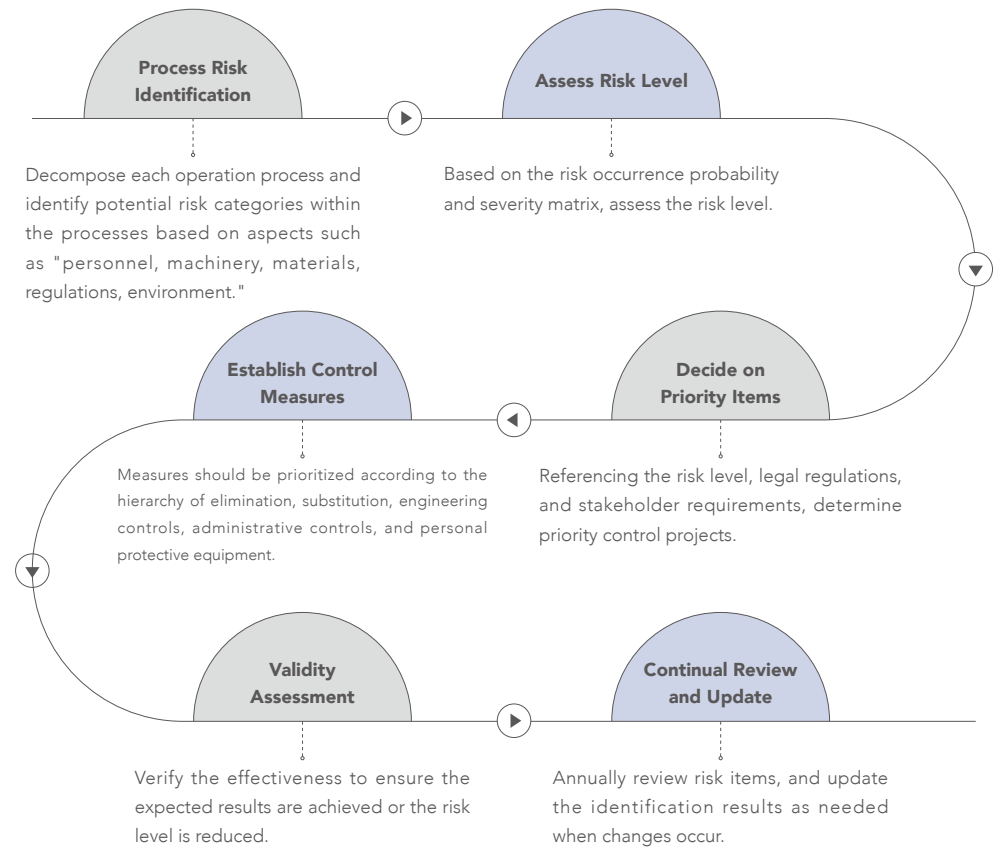
Employees have the right to stop work in dangerous situations without penalty. TSC reduces occupational accident and disease risks through internal and external audits, safety meetings, machine inspections, and accident investigations, ensuring continuous safety performance improvement.



Risk Identification, Assessment, and Management Policy



Risk Identification and Management Policy



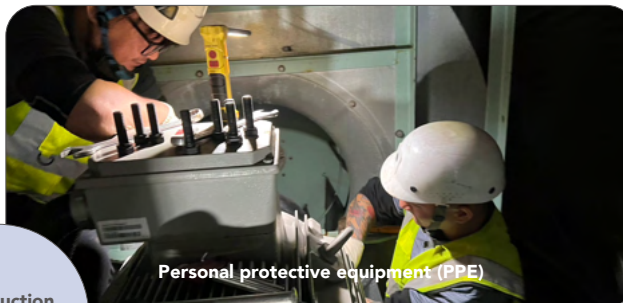
Taiwan

Through ISO-based risk assessment and management procedures, all potential workplace safety and health hazards—such as contractor, procurement, change, and inspection management—are assessed and identified. Tasks with higher likelihood and severity are prioritized, and corrective measures are implemented to reduce the probability of accidents.

Contractor Management	TSC enforces a contractor management policy covering hazard notifications, equipment checks, qualification verification, on-site supervision, and safety patrols, with stricter controls for high-risk operations.
Procurement Management	TSC conducts risk and quality assessments during the procurement stage for new chemicals, raw materials, protective equipment, or construction projects. Safety confirmation is then implemented prior to adoption.
Change Management	TSC has implemented change management procedures covering personnel, equipment, materials, methods, and environments. Engineering design or machine modifications may create safety risks; therefore, TSC conducts risk assessments, provides training, updates information, and confirms safety before changes are implemented.
Inspection Management	TSC conducts regular inspections to identify abnormalities and potential hazards, enabling effective risk reduction and control.



Pre-task Hazard Notification and Safety Promotion



Personal protective equipment (PPE)



Orifice Safety Guarding



Protective measures

Mainland China

Through the use of standardized documents, various management procedures and the involvement of all employees, we continuously improve risk assessment and management to ensure that the implementation of all processes complies with local regulations and international standards. In addition, we continually improve our procedural documents to adapt to the ever-changing business environment and regulatory requirements.

We actively work with our employees and provide training to increase their safety awareness and promote a culture of continuous improvement.

Occupational Injuries and Occupational Safety Incidents

TSC has established comprehensive emergency response procedures for occupational injuries and safety incidents. In the event of an incident, response measures are activated immediately in line with internal regulations and local laws, including:

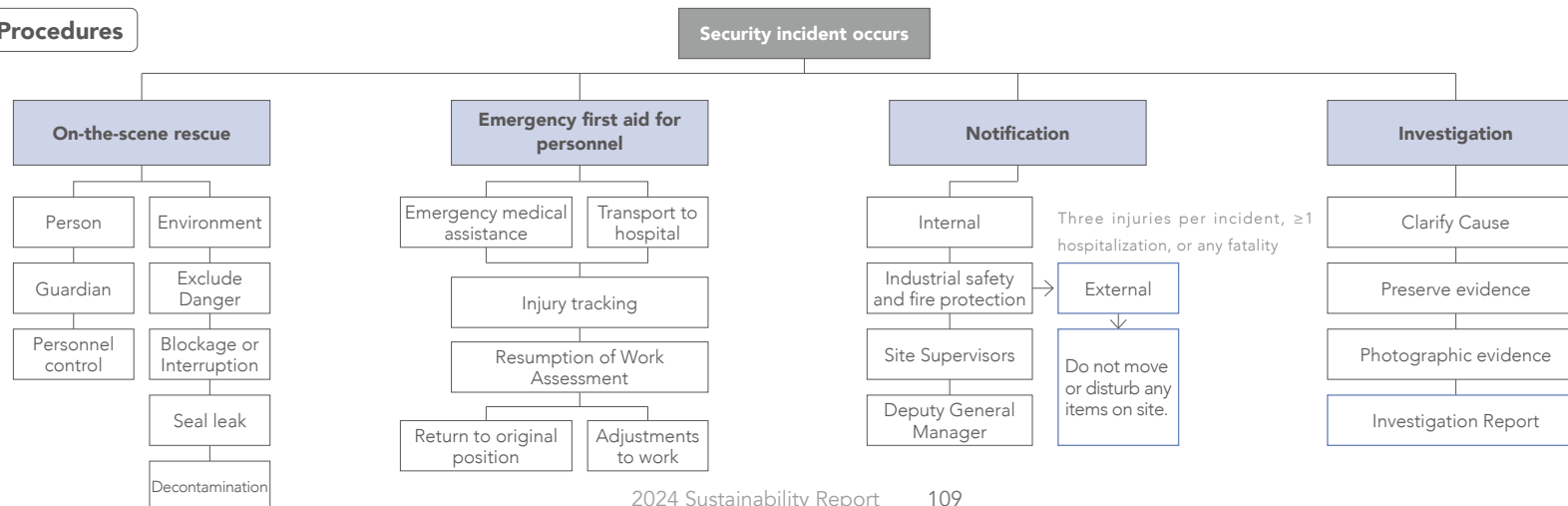
- ① **Establish a reporting mechanism: Notify the safety and health department and supervisors internally, report to authorities externally, and contact fire and medical services.**
- ② **Initiate investigation: Identify root causes and propose improvements in hazard elimination/substitution, process optimization, training, PPE, equipment management, and on-site supervision.**
- ③ **Ensure follow-up: Continuously track and improve to reduce recurrence risk and protect employee safety.**

In compliance with regulatory requirements, China sites have established comprehensive emergency response plans for production safety incidents, which are reviewed and updated regularly. Measures include:

- ① **Conduct comprehensive risk assessments for production processes and develop contingency plans for potential emergencies such as fires, leaks, and explosions.**
- ② **Define clear roles and responsibilities, establish effective reporting systems, and ensure rapid activation of emergency mechanisms.**
- ③ **Develop detailed response procedures—including evacuation, first aid, and fire suppression—and provide training and regular drills for different incident types.**
- ④ **Regularly inspect and replenish emergency supplies and equipment, and train employees on proper use to strengthen response capabilities.**
- ⑤ **Maintain coordination with local fire departments to enhance support and ensure effective emergency response.**

2024 Occupational Safety Incident		
Incident	Description	Improvement Measures
Yilan Site: 1 Work-Related Accident	The main cause was that personnel were using a pneumatic gun for operations without wearing appropriate personal protective equipment, resulting in facial injuries from being hit by flying debris.	Through accident investigation and improvement, additional safety goggles were allocated at various air gun operation sites, signs emphasizing the use of protective gear were increased, with clear indications of when to wear them. Additionally, education and training were strengthened along with the promotion of safety standards, and the frequency of inspections by occupational safety personnel and on-site supervisors was increased. As a result, no further incidents have occurred subsequently.
Shandong Site: 1 Work-Related Accident	The primary cause was that, upon noticing an equipment warning, the employee pressed the pause button but did not immediately stop the related operation, resulting in a right-hand crush injury.	Following the incident, the company conducted an investigation, reviewed procedures, improved equipment, refined operating standards and safety guidelines, and strengthened employee training to prevent recurrence.

Emergency Response Procedures

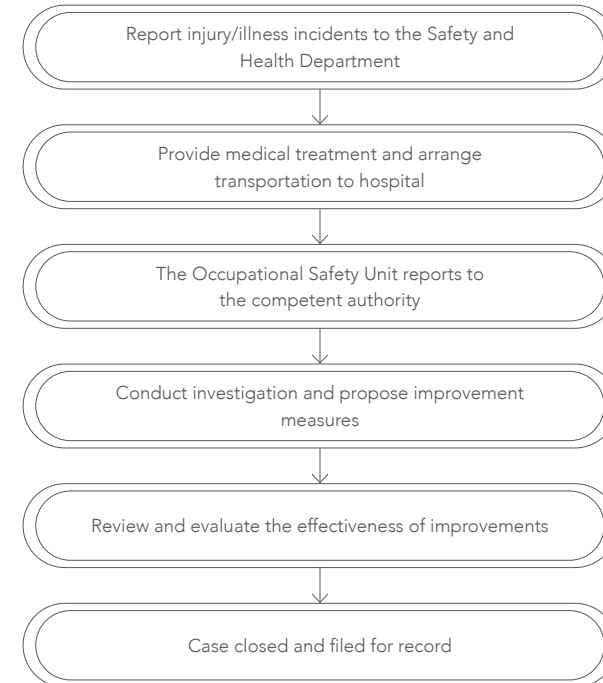


2024 Various Work-related Injuries Statistical Indicators

Category	Headquarters	Lije	Yilan	Tianjin	Shandong	Total
Number of Hours Worked	224,000	656,000	360,000	548,184	1,030,104	2,818,288
Recordable Work-related Injuries	0	0	1	0	1	2
Recordable Work-related Injury Rate	0	0	2.77	0	0.97	0.70
High-consequence Work-related Injuries (Excl. Fatalities)	0	0	0	0	0	0
High-consequence Work-related Rate (Excl. Fatalities)	0	0	0	0	0	0
Work Days Lost	0	0	4	0	12	16
Fatalities / Fatality Rate	0/0	0/0	0/0	0/0	0/0	0/0
Disabling Injury Frequency Rate (FR)	0	0	2.77	0	0.97	0.70
Disabling Injury Severity Rate (SR)	0	0	11	0	11	5

Note:

1. Total working hours calculation method: number of workdays in a year * average daily working hours * (number of employees on duty on December 31)
2. The calculation scope includes five key locations: headquarters, Lije Site, Yilan Site, Tianjin Site, and Shandong Site.
3. Number of work-related injuries, excluding traffic accidents caused by commuting to and from work.
4. Rate of recordable work-related injuries = (Number of recordable work-related injuries ÷ Number of hours worked) × 1,000,000.
5. Definition of High-consequence Work-related Injury: Work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six month.
6. High-consequence work-related injuries Injury Rate (Excl. Fatalities) = (Number of high-consequence work-related injuries (Excl. fatalities) ÷ Number of hours worked) × 1,000,000
7. There were 36 non-employee on-site workers, primarily consisting of annual security staff, cleaning staff, and equipment contractors in Taiwan and Mainland China, with no work-related injuries or work-related illnesses.
8. Disabling Injury Frequency Rate (FR) = Recordable Work-related Injuries / Number of Hours Worked x 1,000,000.
9. Disabling Injury Severity Rate (SR) = Work Days Lost / Number of Hours Worked x 1,000,000.

Procedure for Handling Safety and Health Accidents


The Occupational Safety and Health Committee meets quarterly to report and review work-related injuries and accidents, analyzing causes, processes and improvement actions to emphasize the value of employees and supervisors.

Strengthen Safety Awareness Through Training, Communication, and Advocacy

The Taiwan plant is committed to preventing occupational accidents and has established a certification management mechanism to ensure the validity of safety and health certifications for relevant colleagues. Regular reviews are conducted to ensure compliance with certification requirements and to arrange for personnel to obtain certifications and undergo retraining as necessary. A comprehensive annual occupational safety and health training program is established, including regular occupational safety and health training for new and existing employees, which includes on-the-job training, fire evacuation drills and safety lectures, earthquake drills, respiratory protection training, safety protection training, AED+CPR basic first aid training, health education lectures, and emergency response measures to create a safe work environment through various courses.

The mainland facilities include comprehensive annual training for occupational safety and health: topics covered include fire prevention education, safety color and sign recognition training, occupational health and safety training, and traffic safety training. It also includes emergency drills for special equipment, confined spaces, chemical leaks, electric shock, food poisoning, forklift overturn, heat stroke, burns and other potential incidents. This training is designed to continually improve employee safety awareness and behavior.

The table below shows the detailed statistics of the training courses, promotional activities, and fire safety training sessions organized by TSC in 2024.

Item	Session	Number of Participants	Hours of Usage
General Safety and Health Education Training for New and Current Employees	72	1,501	7,324
Fire Safety Training and Drill	25	1,644	3,488
Training for Various Occupational Safety Personnel	41	38	496
Safety and Health Promotion Campaign	269	1,689	23,295
Total	407	4,872	34,603

Note: The data includes a total of 5 locations, which are Headquarters, Lije site, Yilan site, Shandong site, and Tianjin site.



Occupational Disease Prevention Measures

TSC prioritizes occupational disease management and has maintained zero occupational disease cases for three consecutive years. In Taiwan, special hazardous operations are identified in compliance with regulations, supported by workplace environment monitoring, special health examinations, and health management by on-site medical staff. All procedures are established under the ISO 45001 Occupational Health and Safety Management System.

In China, sites conduct regular occupational disease risk assessments, risk factor testing, and annual employee health examinations.

Taiwan facilities convene quarterly Occupational Safety and Health Committee meetings to review health management, prevention, and promotion measures. Specialized procedures are implemented for issues that may cause physical or mental illness. Occupational health personnel are stationed on-site to provide care, monitor environmental risk factors, and arrange health consultations and visits. In 2024, the special health examination rate at Taiwan facilities reached 100%. TSC remains committed to safeguarding employees' physical and mental well-being.

Note: TSC has had no occupational disease records for three consecutive years, including non-employee on-site control personnel.

Occupational Health Services

TSC remains committed to preventing occupational hazards and fostering a healthy, friendly workplace through comprehensive health management measures.

In Taiwan, regular health consultations and care meetings were held in 2024, alongside initiatives such as Health in Motion, incentive awards, and a Weight Loss Competition with 23 employee-formed teams promoting healthy lifestyles.

In mainland China, 100% participation in occupational health check-ups was achieved, complemented by **252** occupational disease prevention and awareness training sessions attended by **783** employees, strengthening health awareness and workplace safety.

Health Management Measures

Annual

1. Conduct physical examinations and special health hazard check-ups.
2. Distribute health questionnaires to proactively assess employees' physical and mental well-being.
3. Implement measures to prevent overwork, excessive stress, ergonomic risks, and workplace misconduct.
4. Provide health protection for pregnant employees, persons with disabilities, and middle-aged or elderly employees.
5. Establish and regularly update personal health records for employees.
6. Organize regular health promotion activities.
7. Conduct comprehensive workplace environment monitoring and chemical classification management every six months.

Quarterly

1. Contracted occupational health physicians provide visits, interviews, follow-ups, and care. For employees with hypertension, medication adherence is monitored until blood pressure is controlled, reducing the risk of stress-related illnesses.
2. Conduct regular lectures on health-related topics.

Effective Occupational Safety and Health Communication Channels

TSC holds quarterly Occupational Safety and Health Committee meetings to discuss various issues, including policies, management plans, education and training, environmental monitoring, health management, suggestions for improvement, inspections and audits, hazard prevention, occupational accident investigation, and contract management. The purpose of these meetings is to continuously improve and optimize these areas. To promote effective communication and gather input from colleagues regarding safety and health, representatives of department managers, labor representatives, safety and health personnel and committee members participate in the process. Together, they review various safety and health issues to ensure a safe working environment for employees. In addition, TSC provides feedback channels such as employee suggestion forms, communication logs, complaint channels, health questionnaires, and employee suggestion boxes to facilitate smooth communication with employees. Based on stakeholder feedback, adjustments and improvements are implemented promptly.

In mainland China, various communication channels are used at the factory level to facilitate communication and exchange of occupational safety and health content. These channels include email, WeChat work groups, trade unions, supervisor meetings, and morning safety production meetings. They enable employees and relevant departments to effectively discuss various occupational safety and health issues and to jointly focus on and promote occupational safety and health management indicators.

Cross-factory Collaboration Achieves Healthy Workplace Certification

In Taiwan, the promotion of a healthy workplace continues with various initiatives that encompass health education and communication, environmental monitoring management, employee participation in health-promoting activities, and regular health check-ups along with occupational health consultation and care. Through close collaboration and safety exchanges across factories, the headquarters, Yilan plant, and Lije plant have jointly achieved the Ministry of Health and Welfare's "Healthy Workplace Promotion Certification" in 2024, showcasing exemplary results. This honor belongs not only to each plant but also to every colleague who actively participates. In the future, we will continue to deepen cross-regional collaboration and optimize workplace health measures. Together with all our colleagues, we will create a safer and healthier work environment.



Further Upgrading Subcontractor Operational Safety

To ensure the safety of contractors and in-house work partners, we collected common types of operations and their deficiencies from our contractor operation inspection records. Based on this information, we created a "Contractor Operation Hazard Risk Monitoring Manual", which covers 19 examples of commonly unsafe behaviors and environmental patterns associated with subcontractors' operations such as scaffolding, handheld grinding machines, forklift operations, and hot work. By integrating actual case studies and safety guidelines, we aim to comprehensively enhance the awareness of operational hazards and improve the safety quality of contractor operations.

When a supervisor discovers unsafe practices in contracted work, they can immediately stop the activity and provide specific improvement suggestions to ensure operational safety.



▲ When the contractor stepped on a pipe during work, the supervisor immediately stopped it and asked for improvements. Work can only continue after ensuring that safety measures have been implemented.

• User Manual Highlights

We believe that by implementing and promoting these measures, we will inject new energy into the factory's safety culture, enhance the safety of contractor work processes, and create a safe working environment!

Example Analysis

By using instances occurring within the factory and on-site photographs, colleagues can have a deeper impression of unsafe conditions, thereby enhancing their awareness of potential risks in their surroundings.

Visual Reinforcement

The manual includes clear visual aids, marked unsafe behaviors with concise explanations to quickly grasp key points. This enhances safety awareness and the ability to identify risks through visualization.

Risk Prevention

Provide specific improvement suggestions, including applicable tools, responsibilities of factory supervisors, and tasks that contractors should perform. Assist contractors and supervisory personnel in taking the correct safety measures.

Training Support

The manual can be used as training material for subcontractors and foremen, enhancing safety awareness and compliance capabilities. This makes the manual an important tool in daily safety management.

Compliance Assurance

The manual content references relevant regulations and standards, ensuring that operations comply with occupational safety and health norms. This reduces regulatory risks, enhances corporate safety management levels, and increases contractors' awareness of job safety.

Supervisory Value Enhancement

Strengthening the on-site supervision capabilities and quality of supervisors, stimulating employees' ability to recognize hazards by analogy, ensuring that occupational safety concepts are implemented in every moment of work and life.

Immediate correction

Through irregular inspections by the workshop supervisor and occupational safety personnel, any abnormalities can be promptly identified and corrected according to the manual standards. This ensures operational safety and reduces the incidence of accidents.

Dynamic Update

The manual is continuously optimized and expanded based on actual observations and accumulated experience from managing factory contract operations. When new types of work are identified, potential risks are discovered, or common patterns of non-compliance emerge, they will be timely incorporated into the manual's content. This ensures that it remains up-to-date and provides more comprehensive guidance for risk identification and safety measures, thereby enhancing the continuous improvement of safety management in contractor operations.



◀ The manual combines diagrams and text to effectively convey hazard information (e.g., ladder scaffolding use). Upon a contractor's arrival, the safety officer or foreman provides hazard notifications based on the operation type and manual, and the contractor signs an occupational health and safety commitment form. This ensures foremen are aware of potential risks and requirements, enabling timely intervention during contracted operations. Safety officers also conduct random inspections during construction and require immediate corrective actions for any deficiencies, thereby reducing hazard risks.

Social Influence

We firmly believe in the principle of "giving back to society what is taken from it." While pursuing profitability, we are equally committed to contributing resources to those in need. Our social welfare goals focus on humanitarian care, including charity sales and blood donation activities, as well as financial donations to maintain strong ties with local communities. Additionally, in 2024, in response to the regulatory authority's encouragement for listed and over-the-counter companies to support cultural development, we are actively supporting cultural and artistic groups to promote cultural sustainability. The company endeavors to harness the collective power of the public to generate sustainable value and foster a prosperous society.

4.3.1 Humanistic Care

TSC marked its 45th anniversary in 2024. Over the years, we have remained committed to social responsibility through active participation in charitable giving. From relief efforts following Typhoon Morakot in 2009 and the Kaohsiung gas explosions in 2014 to COVID-19 pandemic donations in 2022, our cumulative contributions have exceeded **NT\$15 million**. In addition to disaster relief, our Shandong and Tianjin sites have together donated **NT\$1.98 million** to COVID-19-related initiatives since 2020. Furthermore, contributions from these sites to employment protection funds for persons with disabilities have surpassed **NT\$4.3 million** to date.

TSC cumulative contributions exceeded

1,500 million

We have actively engaged in a range of philanthropic endeavors, such as organizing charity events in collaboration with Siangyu Care and Education Institute in Taoyuan City and participating in blood donation activities organized by the Taiwan Blood Services Foundation. We have also taken part in the provision of meal services for underprivileged children and families in need, which is organized by the World Peace Association, on multiple occasions (which comprises the "Spread Love Every Day" event, the "Save Hungry Children" breakfast donation, the "Bags of Love for Hungry Children" winter vacation meal service, and nutritional meal service for children from impoverished families in the northern Taiwan). These initiatives exemplify our commitment to addressing the nutritional needs of children through tangible actions. TSC continues to practice social participation and encourages its employees to use their abilities for public welfare, thereby creating a positive impact.

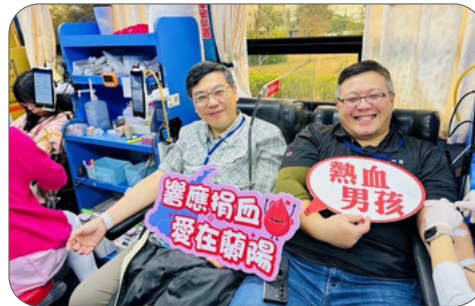
Actively support charitable organizations by donating your receipts

Our operating locations in Taiwan has begun compiling the invoices donated at our sites and purchased social welfare gift vouchers for our employees since 2022. Our Yilan and Lije sites donated at least 150 invoices to social welfare organizations in 2024. On the other hand, we have also been closely following charity donations at our operating locations abroad. Additionally, we collaborate with organizations such as the Creation Foundation and Dawn Shelter Workshop. Through initiatives like ordering charity gift boxes, we support and encourage our employees to participate in charitable activities to express their kindness.

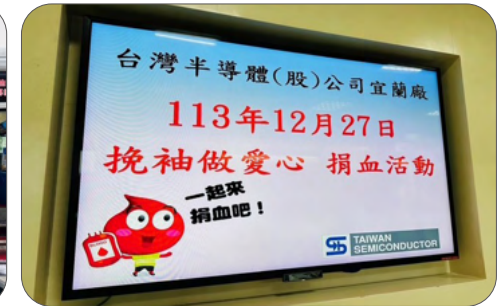


Spreading Love Through Action: TSC's 2024 Blood Donation Campaign

In 2024, TSC continues to encourage employees to respond to social welfare initiatives. The Shandong Site, Yilan Site, and Lije Site each arranged for local blood donation campaign, allowing employees to donate blood during breaks, contributing a portion of love to society. Donating blood not only saves lives but also helps enhance one's own physical health, allowing love to flow and life to continue. In total, 108 participants joined the activities across three factories, donating at least **100 bags of "love and warm blood."**



▲ December 2024 – Yilan site Blood Donation Activity



▲ April 2024 – Shandong site Blood Donation Activity



▲ January 2025- Lije site Blood Donation Activity



Supporting Taiwan's "Tendrum Art Percussion Group" through Concrete Actions

To support the development of domestic culture and arts industries, for the 2024 year-end party, we are specially inviting the only group in Taiwan to be nominated for a Grammy Award, Independent Music Awards from the United States, and Golden Melody Award the "Tendrum Art Percussion Group" to perform as the opening act. This allows all attendees to experience together the powerful percussion performance, deeply experiencing the cultural charm of Taiwan's original drum music.

Through its corporate activities as a platform, TSC not only conveys recognition and respect for Taiwan's arts and culture but also substantively supports the continued creation and development of outstanding domestic performing arts teams. In doing so, it actively supports Taiwanese performing arts, demonstrating its commitment to cultural sustainability as part of its corporate values.



Green Manufacturing and Operation

- 5.1 Climate Governance and Strategies
- 5.2 Energy Resource Management
- 5.3 Water Stewardship
- 5.4 Waste Management



Recommended Primary Stakeholders for This Section:

☐ Suppliers ☒ Customers ☐ Employees ☒ Investors ☒ Government ☒ Media ☒ General Public

5.1 Climate Governance and Strategies

GRI 3-3 201-2 302-4 305-5

Material Topics Climate Strategy and Energy Management

Green Manufacturing and Operation

Climate change is a major global challenge. TSC is committed to sustainability by continuously reducing its environmental footprint through energy-saving and carbon-reduction efforts.

Since 2022, TSC has conducted climate risk and opportunity assessments based on the TCFD framework to develop response strategies.

TSC also manages carbon emissions based on greenhouse gas inventories and has implemented ISO 14001 and ISO 50001 systems across key areas—energy, water, waste, wastewater, and air pollution—to ensure comprehensive environmental management.

Policy and Commitment

Promote a wide range of energy-saving initiatives to improve energy efficiency, explore alternative energy sources, and reduce the environmental impact of greenhouse gas emissions—all with the goal of enhancing climate resilience.

Management Approach and Evaluation Mechanism

- Conduct regular assessments of the financial impacts of climate change in accordance with the TCFD framework
- Continuously roll out and conduct greenhouse gas emission inventories, as well as expand its scope and categories
- Attain ISO 14064 certification to enhance the transparency and reliability of carbon emissions data
- Implement a range of energy reduction initiatives and monitor progress on an ongoing basis
- Participate in international CDP evaluations

Action Plans and Performance

- **Completed a TCFD-based quantitative assessment of climate-related risks and opportunities, focusing on GHG cost increases and stricter sustainability regulations.**
- **Achieved GHG inventory coverage for 50% of production sites, with ISO 14067 Product Carbon Footprint implementation underway.**
- **In 2024, energy-saving measures reduced consumption by 1,694.45 GJ, equivalent to 223.1 metric tons of CO₂e.**
- **Renewable energy accounted for 23% of total energy use.**

Note: 1. Coverage refers to the ratio of sites with GHG inventories completed to the total number of TSC sites.

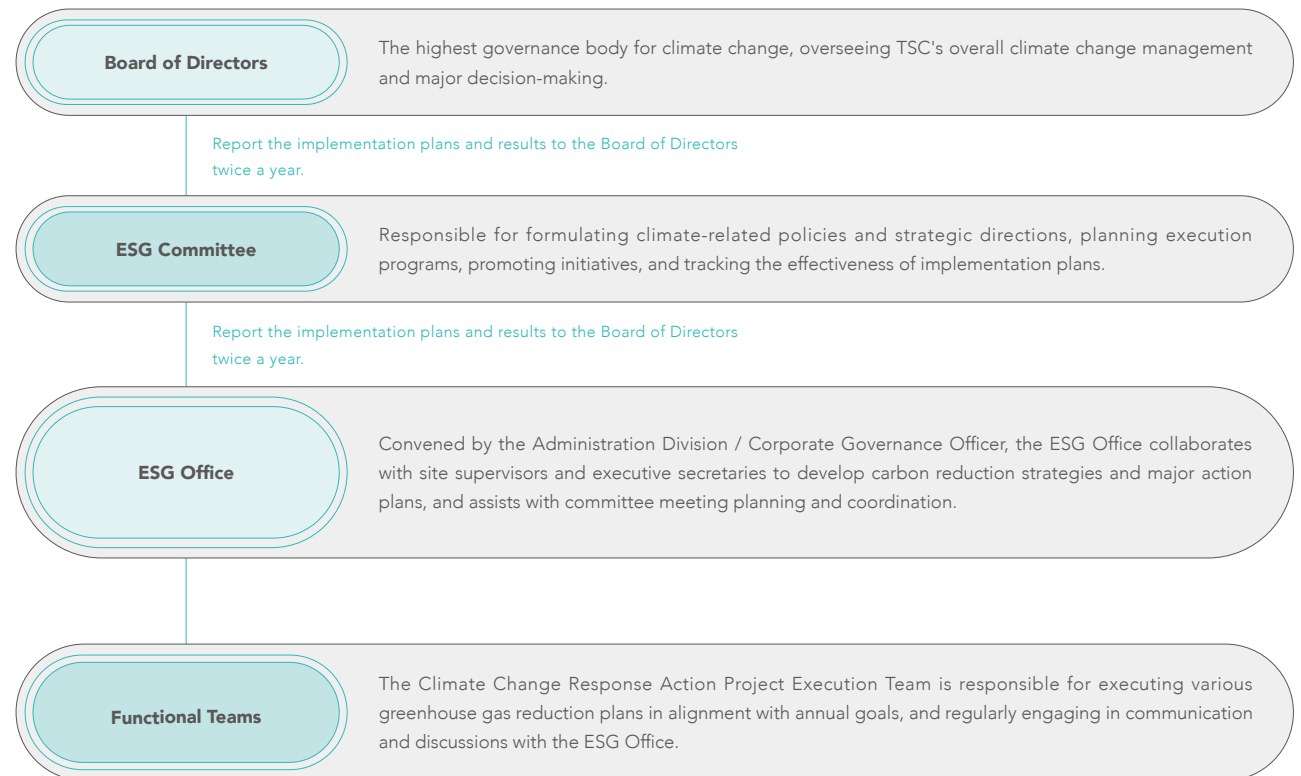
5.1.1 Climate Governance and Strategies

TSC actively addresses climate-related risks and opportunities. In line with the TWSE's Rules Governing the Preparation and Filing of Sustainability Reports and the TCFD framework, we disclose our management approaches and response actions with transparency. By incorporating climate risk and opportunity assessments into our corporate risk management, we continue to promote low-carbon transition and enhance climate resilience through four key dimensions: governance, strategy, risk management, and metrics and targets.

Climate Governance Framework

In 2024, TSC elevated the ESG Committee to a Board-level functional committee, responsible for overseeing climate-related risks, opportunities, strategies, targets, and outcomes. The ESG Office supports the committee by planning meetings and compiling sustainability performance for reporting to both the ESG Committee and the Board.

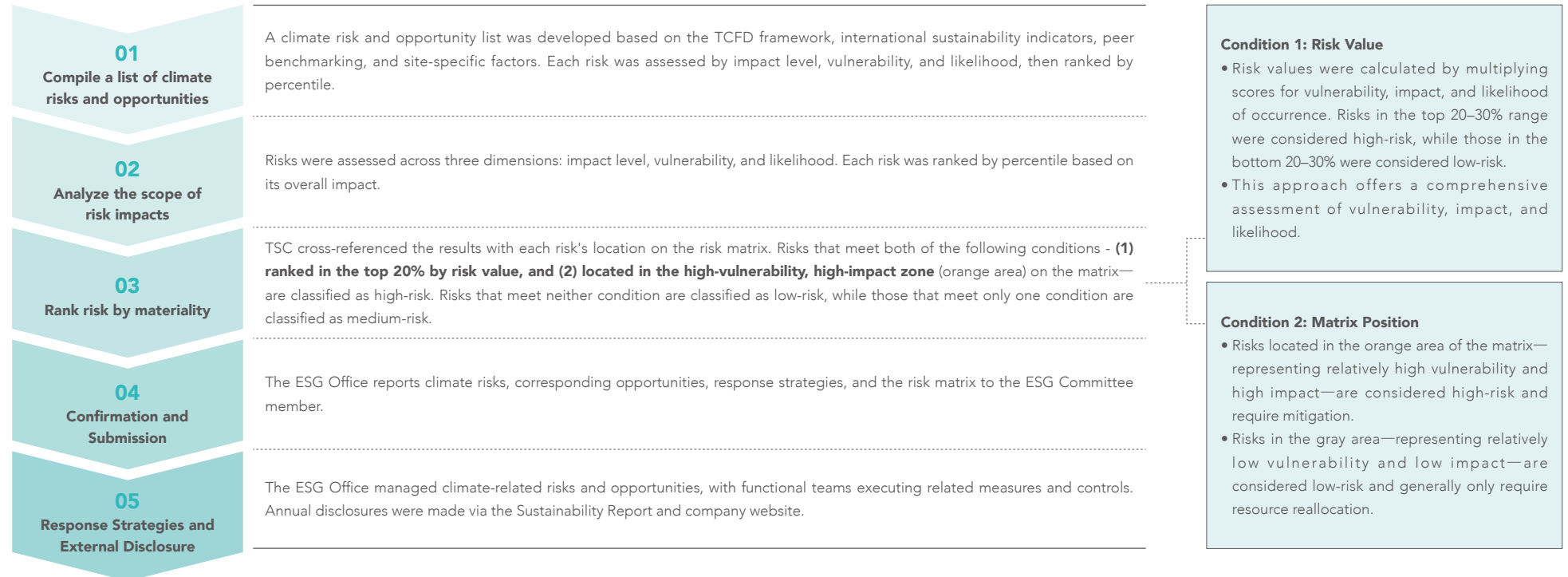
GHG and energy-related initiatives are jointly led by production and business units, addressing both risk mitigation and adaptation. The ESG Committee reports to the Board at least twice a year on climate action progress, GHG inventory, and renewable energy deployment.



Management approach based on the TCFD recommendations		Implementation in 2024
Governance	The ESG Committee at TSC was elevated to a Board-level functional committee and is responsible for overseeing climate-related risks, opportunities, response strategies, targets, preventive measures, and concrete outcomes.	<ul style="list-style-type: none"> In 2024, the original ESG Committee was elevated to a Board-level functional committee to strengthen climate governance. A total of four ESG Committee meetings were held, covering topics such as the Greenhouse Gas Inventory progress report, a draft carbon reduction pathway map, and analysis of green energy usage requirements.
	The ESG Office annually reviews and assesses climate change issues, plans response strategies, promotes risk prevention, reviews implementation performance, and regularly reports to the ESG Committee.	The ESG Office formulated guidance strategies and main action plans related to climate change, which were then implemented by the Functional Team and other relevant units.
Strategy	TSC develops a methodology for assessing climate change risks and opportunities in accordance with the TCFD framework to identify short-, medium-, and long-term climate risks and opportunities.	<ul style="list-style-type: none"> TSC evaluated climate risks faced by the company and its upstream and downstream value chains in terms of potential impact, likelihood of occurrence, and vulnerability, and developed corresponding response measures. For details, please refer to the tables "Climate-related Risks and Impacts on TSC Value Chain" and "Climate-related Risks and Response Measures for TSC." Climate-related opportunities were identified based on the characteristics of TSC's business and low-carbon strategy planning. For details, please refer to the table "Climate-related Opportunities."
	TSC analyzes the potential operational and financial impacts of major climate risks and opportunities based on the TCFD framework.	TSC completed impact assessments for major climate risks under different scenarios, such as "increased costs associated with greenhouse gas (GHG) emissions" and "tightening sustainability-related regulatory requirements." For details, please refer to "Climate Risk Impact Assessment and Scenario Analysis."
	TSC analyzes climate risks under various scenarios and evaluates short-, medium-, and long-term carbon reduction strategies.	Based on the IEA's (International Energy Agency) Announced Pledges Scenario (APS) and Net Zero Emissions by 2050 Scenario (NZE), TSC analyzed the impact of risks such as "increased costs associated with greenhouse gas (GHG) emissions" and "tightening sustainability-related regulatory requirements," and formulated climate change strategies and mitigation measures accordingly.
Risk Management	TSC has established a climate change risk identification procedure based on the TCFD framework.	TSC identified climate risks with reference to climate-related laws, regulations, and scientific research. For the risk identification procedure, please refer to "Climate Risks and Opportunities."
	<ul style="list-style-type: none"> TSC develops corresponding adaptation and mitigation strategies based on the results of climate risk identification and prioritization. TSC integrates the risk identification process into its existing risk management framework. 	The ESG Office leads the materiality assessment of climate-related risks. Based on this assessment, the ESG Office formulated strategies and measures, which were confirmed by the ESG Committee and implemented in daily operations as part of the integrated risk management process.
Metrics and targets	TSC sets climate change-related management indicators to facilitate annual performance tracking.	TSC set reduction of total greenhouse gas emissions, use of renewable energy, and improvement of energy efficiency as performance metrics for climate change management.
	TSC conducts annual greenhouse gas inventories and discloses Scope 1, Scope 2, and partial Scope 3 emissions to assess the impact of its operations.	Based on the results of various inventories and assessments, TSC continued implementing carbon reduction measures to reduce organizational greenhouse gas emissions. For more details, please refer to "5.2.1 Carbon Emissions and Management."
	TSC reviews the achievement of climate management targets on an annual basis.	The ESG Office regularly reviewed the performance of climate change mitigation projects, compiled the results, and reported them to the ESG Committee. The Board of Directors monitored implementation outcomes on a regular basis.

Climate Risks and Opportunities Evaluation Procedures

To strengthen its management of climate-related risks and opportunities, TSC established a climate risk management procedure in alignment with the TCFD recommendations. The procedure consisted of the following five steps:



TSC identified 10 climate-related risks and 3 climate-related opportunities. The identified transition risks include **increased costs associated with greenhouse gas (GHG) emissions, tightening sustainability-related regulatory requirements, and shifting customer preferences**. The physical risks include short-term events such as typhoons and heavy rainfall, and long-term risks such as rising average temperatures. We plan to identify and assess climate-related risks and opportunities on a triennial basis, taking into account the frequency, characteristics, and potential timing of such risks. In the interim years, we will review existing risks and verify the adequacy of corresponding response measures. In 2023 and 2024, we conducted quantitative assessments of the transition risks—increased costs associated with greenhouse gas (GHG) emissions and tightening sustainability-related regulatory requirements—based on their likelihood and potential impact.

Identifying the Impact of Climate-related Risks on the Value Chain

To evaluate the impact of climate risks across the value chain, TSC conducted a tiered assessment covering upstream suppliers (e.g., wafer and diffusion materials), its own operations, and downstream customers (including information technology, communications, digital appliances, and automotive electronics)

Supervisors conducted impact assessments using a three-tier scoring method across the three categories—upstream suppliers, TSC operations, and downstream customers. Risk impact scores were then ranked by percentile: the top 33.4% were categorized as high impact; 33.4% to 66.7% as moderate impact; and the bottom 33.3% as low impact. This evaluation identified the relative impact of climate risks on Taiwan's semiconductor value chain, providing a basis for strategic operational planning.

Climate-related Risks and Impact on TSC's Value Chain

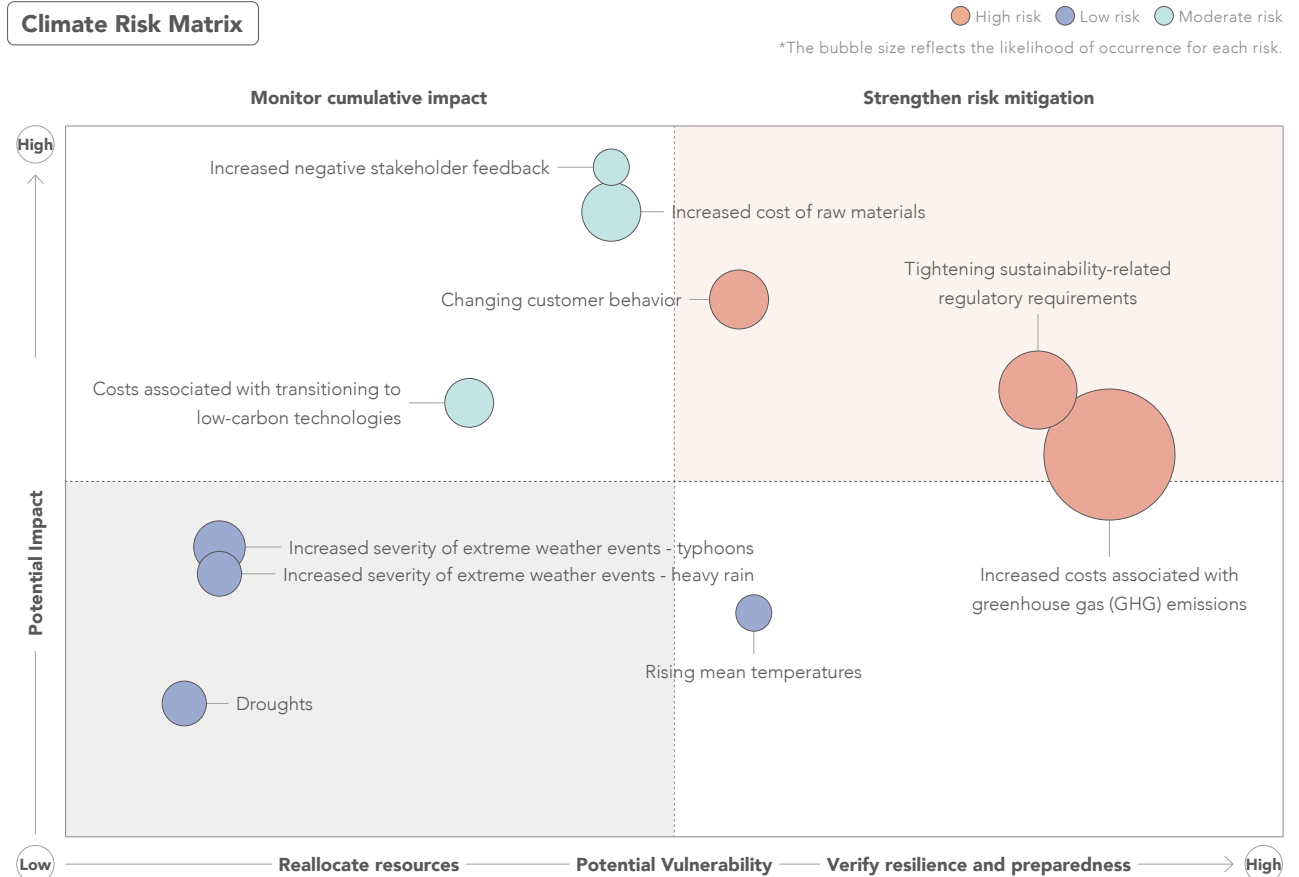
● Low ● Moderate ● High

Type of Risk	Dimension	Risk	Value Chain Impact		
			Upstream	TSC	Downstream
Transition	Policy and legal	Increased costs associated with greenhouse gas (GHG) emissions	●	●	●
		Tightening sustainability-related regulatory requirements	●	●	●
	Market	Changing customer behavior	●	●	●
		Increased cost of raw materials	●	●	●
	Technology	Costs associated with transitioning to low-carbon technologies	●	●	●
	Reputation	Increased negative stakeholder feedback	●	●	●
Physical	Acute	Increased severity of extreme weather events - typhoons	●	●	●
		Increased severity of extreme weather events - heavy rain	●	●	●
		Droughts	●	●	●
	Chronic	Rising mean temperatures	●	●	●

Identifying the Materiality of Climate Risks

To assess the materiality of climate-related risks to TSC, supervisors from operational sites in Yilan, Lije, Shandong, and Tianjin evaluated each risk from three dimensions: potential impact, potential vulnerability, and likelihood of occurrence. A comprehensive assessment of climate risk materiality was then conducted based on these three dimensions. The impact levels of each risk were ranked in percentile order, with the top 20% to 30% classified as high-risk and the bottom 20% to 30% classified as low-risk. Based on the results, each risk was mapped onto a materiality matrix. A risk was classified as high-risk if it met both of the following conditions - (1) ranked in the top 20% to 30% by risk value, and (2) located in the high-vulnerability, high-impact zone (orange area) on the matrix—are classified as high-risk. Risks that meet neither condition are classified as low-risk, while those that meet only one condition are classified as medium-risk. Using this methodology, a climate-related risk matrix specific to TSC was developed. The results serve as a basis for formulating risk response and mitigation strategies, as well as crisis management mechanisms.

Climate Risk Matrix



TSC assessed the potential impact of the ten identified climate-related risks on its operations and financial planning based on a materiality analysis, and subsequently formulated corresponding risk response measures, as outlined in the following table. In light of the potential impacts of climate-related risks and opportunities on various aspects of our operations, TSC actively promotes and implements energy-saving initiatives, develops a renewable energy roadmap, and closely monitors climate-related policies and regulations. Upon confirmation by the ESG Committee, these measures are progressively integrated into our daily operational management and overall risk management procedures.

Climate-related Risks and Response Measures

● Low ● Moderate ● High

No.	Dimension	Risk	Description	Potential Financial Impact	Timeframe of Impact on TSC	Risk Level	Response Measures and Strategies
Transition risk							
1	Policy and legal	Increased costs associated with greenhouse gas (GHG) emissions	With the implementation of Taiwan's Climate Change Response Act and other climate-related policies and regulations globally (such as carbon tax/tariffs, emission trading systems, and carbon pricing/fees), TSC products may face increasing costs related to carbon emissions. These regulations are expected to tighten over time, leading to rising expenses.	Increased costs	Short term	●	<ul style="list-style-type: none"> • Adopt energy-saving equipment • Develop innovative products • Adopt low-carbon or renewable energy sources (renewables accounted for ~23% of total energy use in 2024) • Raise employee awareness of carbon reduction
2	Policy and legal	Tightening sustainability-related regulatory requirements	According to Taiwan's Pathway to Net-Zero Emissions by 2050, energy transition has been identified as one of the key strategies, with a strong emphasis on maximizing the use of renewable energy. In addition, Taiwan's Renewable Energy Development Act stipulates that electricity users with a contracted capacity of 5,000 kW or more must meet a 10% renewable energy requirement by 2025. These policies are accelerating TSC's climate actions, including increasing the share of renewable energy, reducing product carbon footprints, and enhancing climate-related management.	Increased costs	Short term	●	<ul style="list-style-type: none"> • Improve product efficiency • Increase use of low-carbon/renewable energy • Continuously optimize energy management • Strengthen employee knowledge and skills in carbon management
3	Market	Changing customer behavior	In response to global trends toward net-zero emissions and reduced environmental impact, customers are increasingly opting for products with lower carbon footprints and minimal environmental impact, or requiring more transparent environmental information for the products/services they procure. If TSC is unable to meet these evolving expectations, there is a potential risk of customer attrition.	Reduced revenue	Medium term	●	<ul style="list-style-type: none"> • Develop products or services that minimize environmental impact. • Improve product efficiency • Use eco-friendly packaging materials.
4	Market	Increased cost of raw materials	In recent years, the frequency of extreme climate events has disrupted the stability of raw material supplies. Natural disasters can block mining routes, while high temperatures may reduce productivity, increasing the difficulty of raw material extraction and transportation. These challenges can lead to supply shortages, higher logistics and scheduling costs, and ultimately result in increased operating expenses.	Increased costs	Medium term	●	<ul style="list-style-type: none"> • Keep a close eye on suppliers level of focus on climate issues • Conduct supplier risk assessment to avoid or reduce sourcing from high-risk production areas
5	Technology	Costs associated with transitioning to low-carbon technologies	With the increasing global emphasis on carbon reduction, many companies now require their supply chains to adopt sustainable and low-carbon practices. In response, TSC is gradually planning its transition and promoting the adoption of carbon reduction technologies and equipment. These efforts are expected to increase TSC's operating costs.	Increased costs	Medium term	●	<ul style="list-style-type: none"> • Invest in R&D initiatives on high-performance equipment and low-carbon technologies • Actively develop talents in low-carbon transition • Assess investment in low-carbon technologies and equipment
6	Reputation	Increased negative stakeholder feedback	As climate change continues to gain attention, stakeholders increasingly favor companies that adopt low-carbon practices and demonstrate positive contributions to society and the environment. If TSC fails to implement proactive climate actions, we may fall short of stakeholder expectations and risk reputational damage.	Reduced funding	Long term	●	<ul style="list-style-type: none"> • Strengthen climate change response and prevention • Enhance appropriate disclosure of our company's climate action information • Strengthen communication with stakeholders

No.	Dimension	Risk	Description	Potential Financial Impact	Timeframe of Impact on TSC	Risk Level	Response Measures and Strategies
Physical risk							
7	Acute	Increased severity of extreme weather events - typhoons	Increasing frequency and severity of typhoons will lead to the following impacts: <ul style="list-style-type: none"> • Potential damage to power infrastructure, leading to partial regional outages and interruptions in operations or services. • Disruptions in the supply chain. • Rising insurance premiums for assets located in high-risk areas, thereby increasing operating costs. 	Increased costs	Medium term	●	<ul style="list-style-type: none"> • Strengthen flood control, drainage facilities, and contingency measures at our production sites • Roll out and implement a business continuity plan (BCP) • Strengthen the emergency supply mechanism
8	Acute	Increased severity of extreme weather events - heavy rain	The increasing frequency and amount of heavy rain may cause damage to production sites, interruptions in manufacturing operations, and disruptions to transportation systems that prevent employees from reporting to work.	Reduced revenue	Medium term	●	<ul style="list-style-type: none"> • Strengthen flood control, drainage facilities, and contingency measures at our production sites • Roll out and implement a business continuity plan (BCP) • Strengthen the emergency supply mechanism
9	Acute	Droughts	Water shortages resulting from droughts may cause interruptions in water supply, increased water tariffs, and disruptions in the procurement of external water sources, thereby affecting water usage in manufacturing processes. Such conditions may further lead to interruptions in operational activities.	Increased costs	Medium term	●	<ul style="list-style-type: none"> • Implement water conservation measures • Develop water recycling plans to increase the use of reclaimed water
10	Chronic	Rising mean temperatures	Climate change has resulted in prolonged periods of high temperatures, driving up electricity demand and global energy costs. Moreover, droughts caused by high temperatures pose a risk of operational disruptions.	Increased costs	Long term	●	<ul style="list-style-type: none"> • Implement water conservation measures • Roll out and implement a business continuity plan (BCP) • Closely monitor electricity consumption and adjust it as needed in a timely manner.

Note: Short term represents a period of up to three years; medium term represents a period from three to five years; and long term represents a period of five years and above.

Climate-related Opportunities

The assessment identified three key climate-related opportunities, summarized below. These opportunities are further detailed in the following table.

Climate-related Opportunities

No.	Opportunity Dimension	Opportunity	Implications for TSC	Potential Financial Impact	Timeframe of Impact on TSC
1	Products and Services	Enhancing product energy efficiency	Proactively improving the energy efficiency of products helps customers and end-users reduce energy consumption and greenhouse gas emissions during the product lifecycle. In response to the emerging market of automotive chips for new energy vehicles and the rapid development of the 5G industry, TSC will continue optimizing product performance to expand market share and improve profitability.	Increased revenue	Short term
2	Resource Use Efficiency	Using more efficient production and distribution processes	By improving energy efficiency in production processes and logistics, and enhancing the management of materials, energy resources, and waste, TSC can reduce energy use and carbon emissions, while also lowering operational costs.	Reduced costs	Medium term
3	Resilience	Participating in renewable energy programs	Increasing the use of low-carbon energy and developing diversified power supply sources to strengthen climate resilience. TSC will continue implementing and procuring renewable energy to achieve low-carbon energy transition.	Changed costs	Medium term

Note: Short term represents a period of up to three years; medium term represents a period from three to five years; and long term represents a period of five years and above.

Climate Risk Impact Assessment and Scenario Analysis

In 2022, TSC initiated the identification of climate change-related risks and opportunities. From 2023 to 2024, based on the degree of risk, probability of occurrence, and potential vulnerability, TSC conducted a quantitative financial impact analysis focusing on two key transition risks: "Increased costs associated with greenhouse gas (GHG) emissions" and "Tightening sustainability-related regulatory requirements". To analyze the potential future impact of climate change on TSC, we conducted scenario-based assessments using the Net Zero Emissions by 2050 (NZE) and Announced Pledges Scenario (APS) proposed by the International Energy Agency (IEA), aiming to understand how different scenarios may affect TSC.

Transition Risk – Increased Costs Associated with GHG emissions

With the gradual implementation of policies such as the EU Carbon Border Adjustment Mechanism (CBAM), Taiwan's carbon fee mechanism, and China's carbon trading system, TSC may face increasing financial pressure in the future—regardless of whether the Company is directly subject to these mechanisms—through pass-through costs related to energy, equipment, and materials. At this stage, TSC has assessed the impact of electricity price increases, carbon tax levies, carbon tariffs on exported products, and carbon cost pass-through within the supply chain under the NZE and APS carbon pricing scenarios.

Risk factor	Climate scenario	Scenario assumptions	2024 Carbon Pricing Parameters (Unit: amount/ton CO ₂ e)	Scenario analysis factors	Potential financial impact
Transition Risk- Increased costs associated with greenhouse gas (GHG) emissions	Scenario 1: Net Zero Emissions (NZE) Achieving net-zero emissions in the energy sector by 2050	Under the NZE scenario, global energy sector emissions reach net-zero by 2050. Greenhouse gas emissions will decline annually, with global average temperature rise staying below 1.4° C by 2100.	<ul style="list-style-type: none"> Asia- Taiwan: NT\$300 Tianjin, China: RMB34.30 Shandong, China: RMB45.61 US\$90 by 2030 Europe- US\$80.82 US- US\$55 US\$140 by 2030 	<ul style="list-style-type: none"> Cost of carbon tax Electricity cost at production sites Carbon tariffs on exported products Procurement costs 	<p>The estimated financial impact of increased costs associated with greenhouse gas (GHG) emissions may account for approximately 0%–5% of total annual revenue. The main sources of impact include:</p> <ol style="list-style-type: none"> Exceeding Legal Thresholds for Scope 1 and 2 Emissions at Production Sites: Based on projected production capacity and electricity consumption at TSC's four production sites in Taiwan and mainland China before 2030, if future Scope 1 and 2 emissions exceed regulatory limits, TSC may cross the threshold for carbon fee payments, resulting in increased emission-related costs. Pass-Through of Carbon Taxes/Fees in Purchased Energy: As power generators in the regions where TSC operates are subject to carbon pricing mechanisms, the additional costs may be passed on through electricity prices, thereby increasing the cost of externally purchased electricity. Carbon Tariffs on Exported Products: TSC's products exported to countries that have implemented carbon tariffs may face increased costs due to such levies. Pass-Through of Carbon Costs in Material Procurement: Upstream equipment manufacturers and raw material suppliers facing rising carbon prices may experience higher production costs, which may subsequently be passed on to TSC, leading to increased procurement costs.
	Scenario 2: Announced Pledges Scenario (APS)	The APS scenario assumes that all government-announced greenhouse gas reduction and net-zero targets worldwide are achieved on schedule and in full. Under this scenario, global greenhouse gas emissions are projected to peak in the mid-2020s, with the global average temperature rising by 1.7° C by the year 2100.	<ul style="list-style-type: none"> Asia- Taiwan: NT\$300 Tianjin, China: RMB34.30 Shandong, China: RMB45.61 US\$40 by 2030 Europe- US\$80.82 US- US\$55 US\$135 by 2030 		

Transition Risk – Tightening Sustainability-related Regulatory Requirements

With the tightening of international renewable energy initiatives (such as RE100), supply chain carbon disclosure requirements, and industry net-zero policies, expectations from external stakeholders regarding the use of renewable energy and disclosure of carbon footprint information have risen significantly. TSC assessed that if it maintains its current renewable energy usage plan, it may not meet the industry benchmark for carbon emissions limits in the future, potentially facing operational risks and market competition pressures. As policy and market pressures continue to expand, TSC will not only need to increase the proportion of green electricity used, but also implement digital carbon management and conduct product-level carbon inventory assessments to support customer surveys, evaluations, and labeling requirements.

In response to this risk, TSC has initiated planning for renewable energy usage and is simultaneously expanding its carbon inventory and product carbon footprint management systems based on ISO 14064 and ISO 14067 standards. These efforts aim to enhance transparency of carbon information and regulatory compliance capabilities, ensuring the company can meet the increasingly stringent carbon reduction demands from external stakeholders.

In 2024, TSC also conducted scenario simulations and financial impact forecasts for renewable energy demand at its Taiwan and China production sites. According to the net-zero targets set under the IEA's NZE and APS scenarios, TSC assessed the potential financial impacts that may arise at its Taiwan and China production sites due to increasing renewable energy demand and stricter carbon reduction regulations, as outlined below:

Risk factor	Climate scenario	Scenario assumptions	Potential financial impact
Transition Risk - Tightening sustainability-related regulatory requirements	Scenario 1: IEA APS in line with industry regulation initiatives	By 2030 <ul style="list-style-type: none"> All countries' Nationally Determined Contributions (NDC) and long-term net-zero targets are achieved on schedule, limiting global temperature rise to 1.7° C. TSC is subject to industry-specific carbon reduction regulations and complies accordingly. 	With increasingly stringent sustainability regulations and growing international customer demand for low-carbon procurement, failure to effectively increase renewable energy use and improve information disclosure could result in higher operating costs, increased pressure from cost pass-through in procurement and production, and the risk of market loss due to failure to meet customers' carbon emission thresholds. This poses potential challenges to the company's financial stability and long-term competitiveness.
	Scenario 2: IEA NZE RE100	By 2030 <ul style="list-style-type: none"> It is assumed that the global energy sector will achieve net-zero CO₂ emissions by 2050, with all countries cooperating to reach global net-zero emissions, thereby limiting the temperature rise to 1.5° C. TSC faces industry decarbonization regulations and high-intensity RE100 initiatives, and must implement emission reduction measures to comply with customer expectations, policy requirements, and industry standards. 	

Climate Change Risk Metrics and Targets

In response to the impacts and challenges of climate change, TSC aligns with Taiwan's 2050 net-zero emissions target and actively supports government policies by striving to reduce the climate impact and risks associated with its operations. Our production sites in Taiwan consistently achieve an annual electricity-saving rate exceeding legal requirements by more than 1%. The Company continues to promote a variety of energy-saving and carbon-reduction initiatives. Each year, the Taiwan sites consistently exceed regulatory targets with a savings rate above 1%, while enhancing operational resilience and energy efficiency through the adoption of energy-efficient equipment, process optimization, and the implementation of ISO-related management systems. TSC also conducts greenhouse gas inventories in accordance with the ISO 14064-1 standard. In 2024, the company's Scope 1 and Scope 2 greenhouse gas emissions both showed a downward trend compared to the previous year. Notably, due to a significant increase in the proportion of renewable energy used, Scope 2 emissions were **reduced by 11,108.32 metric tons of CO₂e, representing a 36% decrease**. The greenhouse gas type covered in this year's inventory was carbon dioxide (CO₂) only.

Scope 1 and Scope 2 greenhouse gas emissions both showed a downward trend

Scope 2 emissions were reduced by
10,622
ton CO₂e

Strategy	Implementation Details	Implementation Results in 2024
Promoting energy-saving projects	Continue to carry out equipment upgrades and energy management through regular equipment inspections, replacing old and energy-intensive equipment with new energy-saving models to enhance carbon reduction effectiveness. For details, please refer to "5.2.2 Energy Management."	Throughout the year, multiple carbon reduction measures targeting energy-consuming equipment were completed at all sites, including equipment replacement and energy efficiency improvements. Compared to the previous year, energy consumption was reduced by 1,694 GJ , primarily in the form of electricity
Developing renewable energy	Formulate a renewable energy usage plan based on the principles of energy conservation, energy creation, and energy storage, with rooftop solar panel installation at TSC facilities as the first priority, followed by the purchase of green electricity	Renewable energy accounted for 23% of total energy consumption, primarily supplied by the Shandong Site and Tianjin Site
Establishing Robust Management Systems	Introduce and expand management systems such as ISO 14064 and ISO 14067. For details, please refer to "5.2.1 Greenhouse Gas Emissions and Management."	ISO 14064 certification was obtained; the Lije Site and Shandong Site expanded their inventory scope to include Categories 3 through 6; A product carbon footprint program under ISO 14067 was also launched
Digital carbon management	Evaluate smart carbon management solutions to replace manual data entry with digital technology and improve data quality.	Implementation is currently under planning to optimize inventory accuracy.

5.2 Energy Resource Management

GRI 305-1 305-2 305-3 305-4 305-5 TC-SC-110a.1 TC-SC-110a.2

TSC is committed to enhancing the efficiency of energy and resource use to prevent the overexploitation of natural resources and protect a livable environment for future generations. In addition to continuously expanding greenhouse gas inventories and obtaining third-party verification, TSC is also formulating alternative energy solutions. The company implements various energy-saving projects to replace outdated equipment and continues to strengthen water resource management measures, aiming to reduce environmental impact through concrete actions.

Coverage

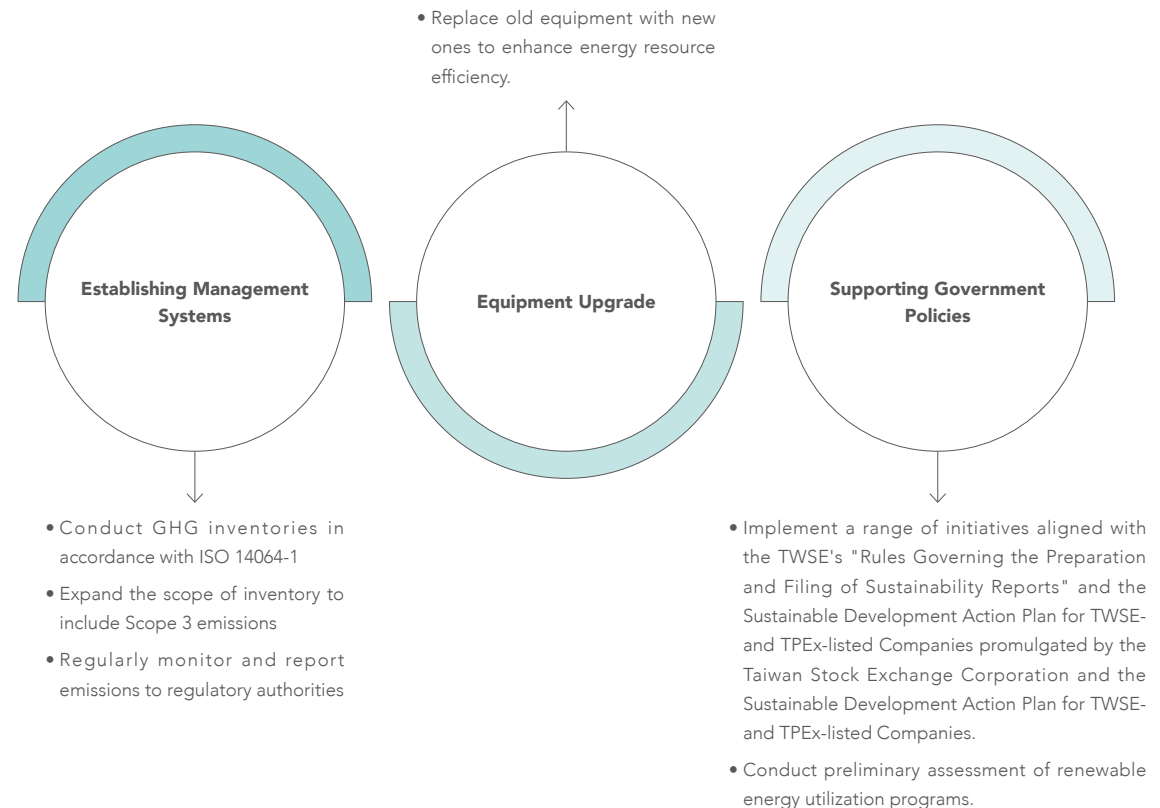
Standards	Coverage ^{*1}	Verification body
ISO 14001 Environmental Management Systems	100%	TUV
ISO 50001 Energy Management System	25%	TUV
ISO 14064-1: 2018 Greenhouse Gas Inventory Standards	50%	TUV

Note:

1. Coverage refers to the number of certified sites divided by the total number of TSC sites.

5.2.1 Greenhouse Gas Emissions and Reduction Management

We conduct direct and indirect greenhouse gas inventories in compliance with the ISO 14064-1:2018 standards, and file our inventories with the competent authorities in accordance with regulatory requirements. In addition, we gradually set renewable energy targets in line with government policies while reducing greenhouse gas emissions through various greenhouse gas reduction programs and the deployment of renewable energy.



Greenhouse Gas Inventory Practices

TSC has established a greenhouse gas inventory mechanism in accordance with ISO 14064-1 standards. TSC also includes the progress of these inventories in the matters to be regularly reported to the Board of Directors in line with the Sustainable Development Action Plan for TWSE- and TPEx-listed Companies. We are expected to complete our overall greenhouse gas inventory, which will cover our production sites across Taiwan and China, as well as other overseas operating sites, by 2026. In addition, we continue to expand the scope of inventory categories to identify major carbon emission hotspots within the organization, thereby enabling the formulation of more precise GHG reduction targets. In 2024, **TSC's Scope 1 and Scope 2 greenhouse gas emissions declined**, primarily due to greater adoption of renewable energy, which **accounted for 23% of the company's total energy consumption**.

Carbon emissions at TSC are dominated by Scope 2 emissions from purchased electricity. As emissions are mainly concentrated in production sites, inventory initiatives have been launched at the site level, with full inventory completion expected by 2026.

Progress of Greenhouse Gas Inventory

 Initiate the inventory process

	2014	2022	2023	2024-2025	2026
Lije Site	<div><div></div><div></div><div>Ongoing inventory and verification, inventory scope expanded</div></div>				<div><div></div><div>Achievement of TSC's full inventory coverage goal</div></div>
Yilan Site	<div><div></div><div></div><div>Ongoing inventory, preparing for verification</div></div>				
Shandong Site	<div><div></div><div></div><div>Ongoing inventory and verification</div></div>				
Tianjin Site	<div><div></div><div></div><div></div></div>				
Other Operating Sites	<div><div></div><div></div><div></div></div>				

2024 Greenhouse Gas Emissions Overview

Unit:tCO₂e

Category	Emission Source	GHG Types	Emissions	Total
Lije Site				
1	Stationary combustion	CO ₂ , CH ₄ , N ₂ O	1.0945	6,785.0466
	Mobile combustion	CO ₂ , CH ₄ , N ₂ O	5.9701	
	Process emission	PFCs, HFCs, N ₂ O, SF ₆ , NF ₃	6,743.4385	
	Fugitive emission	HFCs, CO ₂ , CH ₄	34.5435	
2	Purchased electricity	CO ₂	10,011.4488	10,011.4488
3 to 6	Transportation emissions (Category 3) and emissions from products used by the organization (Category 4)	CO ₂	5,013.5888	5,013.5888
Yilan Site				
1	Stationary combustion	CO ₂ , CH ₄ , N ₂ O	2.5434	3.5194
	Mobile combustion	CO ₂ , CH ₄ , N ₂ O	0.3398	
	Process emission	VOCs	0.0000	
	Fugitive emission	HFCs, CO ₂ , CH ₄	0.6362	
2	Purchased electricity	CO ₂	3,666.4848	3,666.4848
3 to 6	Not yet inventoried			
Shandong Site				
1	Stationary combustion	CO ₂ , CH ₄ , N ₂ O	12.2255	224.3470
	Mobile combustion	CO ₂ , CH ₄ , N ₂ O	0.0718	
	Process emission	VOCs	0.1550	
	Fugitive emission	CH ₄	211.8947	
2	Purchased electricity	CO ₂	10,195.0454	10,195.0454
3 to 6	Transportation emissions (Category 3) and emissions from products used by the organization (Category 4)	CO ₂	11,873.1980	11,873.1980
Tianjin Site				
1	Stationary combustion	CO ₂ , CH ₄ , N ₂ O	0.0000	633.9000
	Mobile combustion	CO ₂ , CH ₄ , N ₂ O	0.0000	
	Process emission	PFCs, HFCs, N ₂ O 、SF ₆ , NF ₃	606.2400	
	Fugitive emission	HFCs, CO ₂ , CH ₄	27.6600	
2	Purchased electricity	CO ₂	2,756.3800	2,756.3800
3 to 6	Transportation emissions (Category 3) and emissions from products used by the organization (Category 4)	CO ₂	3,289.3900	3,289.3900

Historical Greenhouse Gas Emissions

Unit:tCO₂e

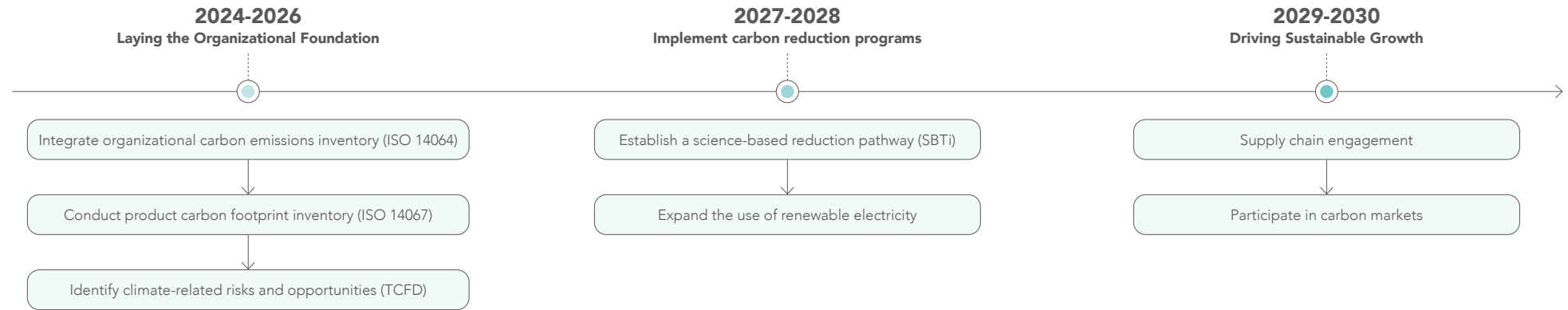
		2022	2023	2024
Direct Emissions	Category 1	136.79	4,742.84	7,646.82
Energy Indirect Emissions	Category 2	41,345.04	37,251.39	26,629.36
Total Emissions (Category 1 + 2) (A)		41,481.84	41,994.22	34,276.18
Denominator for Emission Intensity (Revenue in NT\$ million) (B)		15,687	14,616	14,829
Emission Intensity (A/B)		2.64	2.87	2.31
Other Indirect Emissions	Category 3	2,675.77 ¹	4,733.07	5,807.69
	Category 4	1,996.44 ¹	11,022.35	14,368.49
	Category 5	-	-	-
	Category 6	-	-	-
Total Emissions (Category 3–6)		4,672.22	15,755.42	20,176.18

Note:

- Greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
- In 2022, only Category 3 and Category 4 emissions from the Lije Site were included. From 2023 onwards, other indirect emissions include data from both the Lije Site and the Shandong Site.
- Greenhouse gas inventory data was compiled using the operational control approach. Our production sites in Taiwan made the relevant calculations using the electricity carbon emission factor in 2024, while the GWP values for our Lije and Yilan sites were adopted from the IPCC AR5 and AR4 emission factors. On the other hand, our production sites in China made the relevant calculations using the 2012 North China Regional Grid emission factors, while the GWP values for these operating sites were adopted from the IPCC AR6 emission factors.
- The total GHG emissions encompass Category 1 and Category 2 emissions from the Lije, Yilan, and Shandong sites. Emissions data from the Tianjin site, headquarters, Hsinchu Office, and other overseas locations were not included, as inventories at these sites have not yet been completed.
- Due to the expansion of the GHG inventory scope in 2024, the base year for emission statistics has been adjusted to 2024.
- There were no carbon dioxide emissions in 2024 resulting from biogenic combustion or biodegradation.

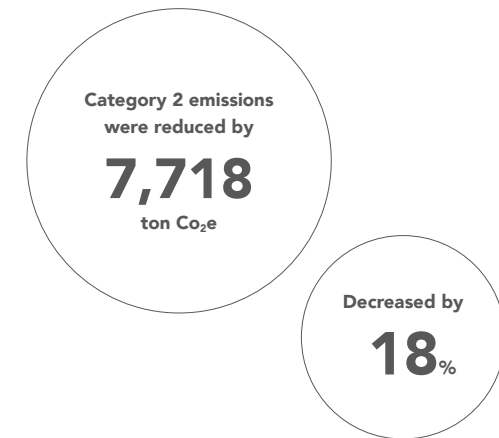
Carbon Management Strategy

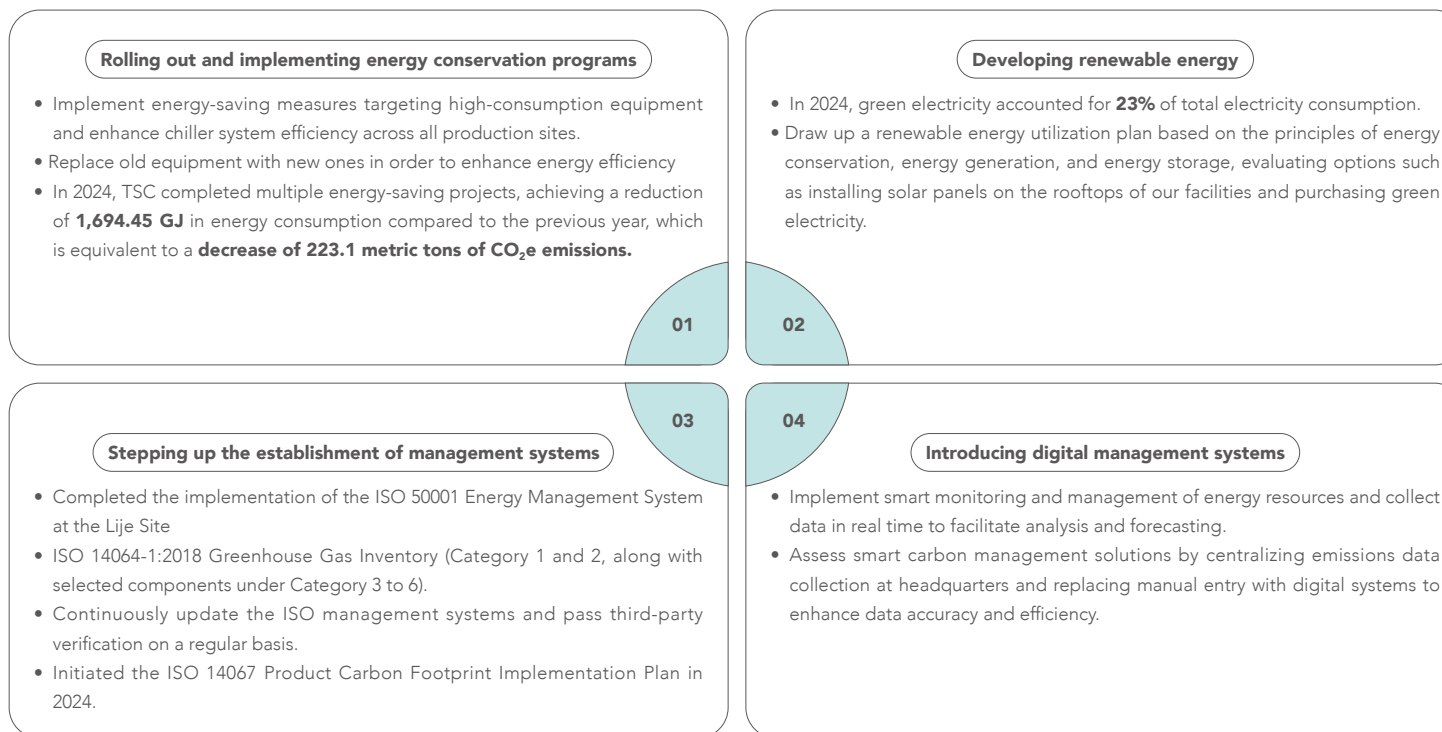
Carbon Management Roadmap



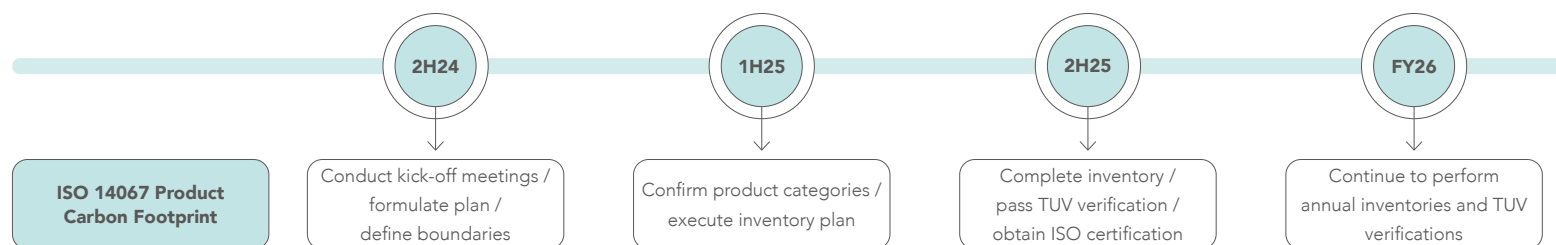
According to its Carbon Management Roadmap, TSC's short-term objective is to establish a solid organizational foundation. This includes completing a comprehensive GHG inventory and initiating product carbon footprint calculations based on the ISO 14067 framework. At the same time, guided by its short-, medium-, and long-term carbon reduction strategies, TSC has strengthened energy-saving efforts across its facilities and begun utilizing renewable electricity. Key initiatives include: rolling out and implementing energy conservation programs, developing renewable energy, stepping up the establishment of management systems, and introducing digital management systems. With a number of energy conservation and carbon reduction measures in place, we endeavor to not only gradually replace old equipment at our production sites with high-efficiency treatment equipment and optimize energy efficiency on an ongoing basis, but also roll out and engage in energy transition by installing renewable energy equipment such as solar power generation facilities across all operating sites, thereby progressively advancing its energy transition efforts.

For direct emissions, TSC plans to progressively implement source management and equipment upgrade strategies to control emission intensity and mitigate direct carbon emissions from operational activities. In 2024, TSC recorded a year-on-year decline in both Category 1 and 2 GHG emissions, largely driven by the increased use of renewable energy. **Category 2 emissions were reduced by 7,718.04 metric tons of CO₂e, representing a 18% decrease.** All emission reductions were in the form of carbon dioxide.





Product Carbon Footprint (PCF) Implementation Roadmap

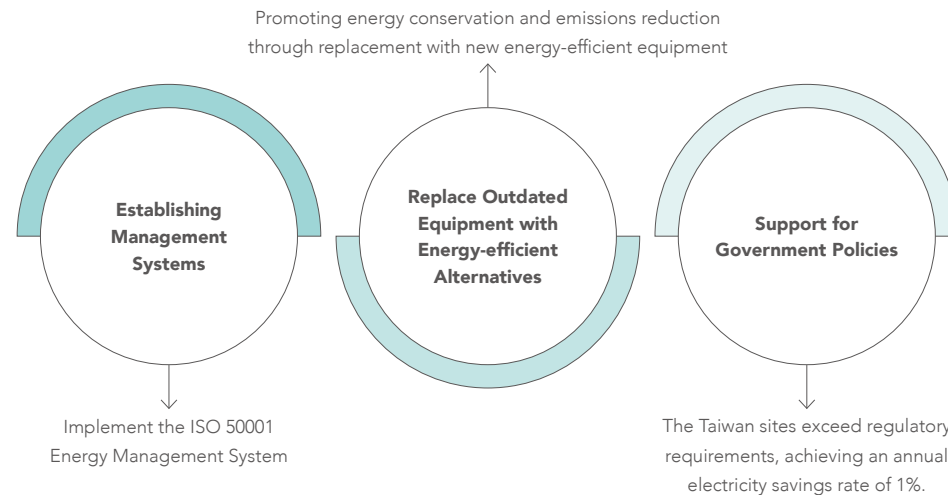


To better identify emission hotspots and enhance product competitiveness, TSC launched a full-scale Product Carbon Footprint (PCF) implementation plan in 2024. By calculating emissions throughout the stages of raw material sourcing, transportation, and manufacturing, the company aims to optimize energy and material efficiency throughout the product lifecycle, thereby advancing green innovation and long-term sustainability. Starting in 2025, product-specific analysis and life cycle inventory analysis will be gradually completed, with the goal of finalizing and passing third-party verification within the year.

5.2.2 Energy management GRI 302-1 302-3 302-4 TC-SC-130a.1

TSC is committed to improving energy efficiency and closely monitoring electricity and energy use across operations. Each site develops its own energy-saving plans based on actual usage, focusing on high-consumption equipment and replacing outdated systems with energy-efficient alternatives.

Since 2023, the Lije and Shandong sites have begun phased implementation of the ISO 50001 Energy Management System to establish a PDCA cycle and formalize energy management. Through data monitoring and analysis, TSC identifies energy-intensive areas and drives continuous efficiency improvements.



Energy Structure

The energy sources used at production sites include electricity, diesel, gasoline, and other fuels. In 2024, electricity accounted for approximately 99.8% of total energy consumption.

Percentage of renewable energy → **23%**

TSC has already integrated renewable energy, which comprised 23% of total energy use.

Other fuels are primarily used to power equipment such as emergency generators, forklifts, and lift trucks within the facilities. In recent years, the Shandong Site has replaced all diesel-powered forklifts with electric models, reducing diesel consumption by approximately 1.5 metric tons annually.

Energy Usage

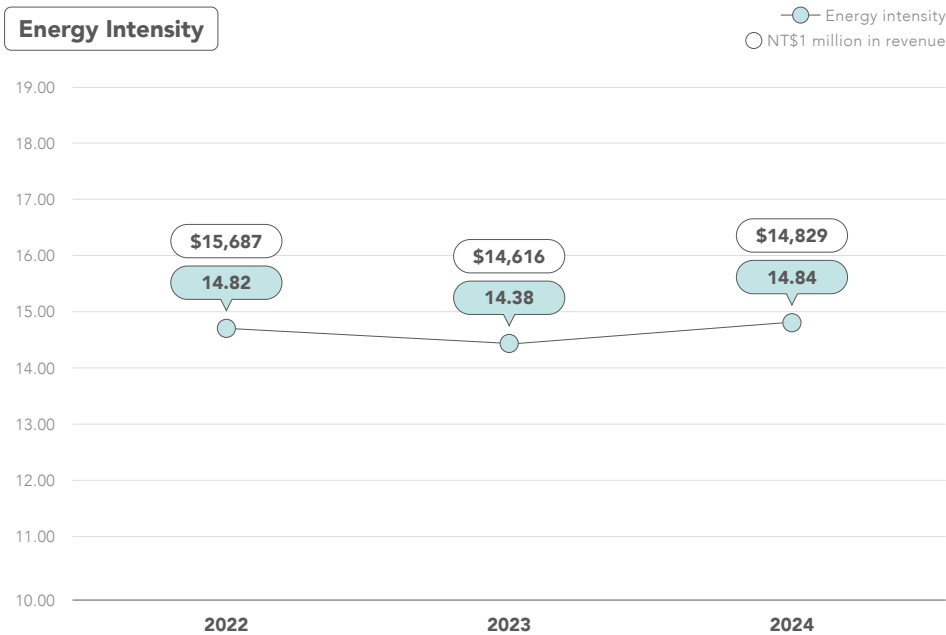
Unit:GJ

		2022	2023	2024
Non-renewable energy	Liquefied Petroleum Gas	1.01	1.52	1.26
	Diesel	213.21	143.75	92.12
	Gasoline	137.72	236.03	290.53
	Purchased electricity	232,071.46	209,759.41	169,497.21
Renewable energy	Purchased electricity	0	0	50,108.40
Total energy usage of the organization		232,423.40	210,140.70	219,989.52
Proportion of energy use from purchased electricity (%)		99.85%	99.82%	99.83%
Proportion of renewable energy (%)		0%	0%	22.78%

Note:

- Gasoline is not differentiated by octane rating.
- Conversion factors are based on the 2023 Energy Statistics Handbook published by the Energy Administration, Ministry of Economic Affairs: Gasoline: 7,800 kcal/L (1 liter = 0.0327 GJ); Diesel: 8,400 kcal/L (1 liter = 0.0352 GJ); Electricity: 860 kcal/kWh (1 kWh = 0.0036 GJ).
- All figures are rounded to two decimal places using the round-half-up method.
- There is no energy consumption related to heating, cooling, or steam, nor any sale of electricity, heating, cooling, or steam energy.
- In 2024, the total consumption of non-renewable energy was 169,881.12 GJ, while the total consumption of renewable energy was 50,108.40 GJ.

Energy Intensity



Note:

1. Energy Intensity = Total energy consumption within the organization (GJ) / Consolidated revenue (NTD million)
2. Revenue is based on the consolidated financial statements; energy consumption includes both renewable and non-renewable energy.

Renewable Energy Usage in 2024

TSC monitors global renewable energy policies, regulations, pricing, and market trends to develop long-term strategies and explore feasible options. In 2024, the Shandong and Tianjin sites adopted renewable energy through mechanisms such as renewable energy certificates and third-party power transfers, **totaling 50,108.40 GJ—accounting for 23% of TSC's total energy use.**

Other sites will continue evaluating renewable energy programs and taking concrete actions to reduce GHG emissions and mitigate environmental impacts from operations.

Energy Improvement Initiatives and 2024 Implementation Results (Compared to 2023)

As electricity is TSC's main energy source, all energy-saving efforts in 2024 focused on electricity reduction. Key initiatives included improving cooling tower and chiller efficiency, upgrading lighting, and replacing air conditioning systems to support energy and carbon reduction goals.

In 2024, TSC adopted the ISO 50001 Energy Management System to guide energy-saving and equipment renewal projects. These efforts led to **a reduction of 1,694.45 GJ in energy consumption compared to 2023, equivalent to approximately 223.1 metric tons of CO₂e emissions.**

Energy reduced

1,694.45 GJ

Reduced by

223.1
ton CO₂

2024 Implementation Results

Chilled and Cooling Water Pump Optimization - Yilan Site

To conserve energy, reduce carbon emissions, and enhance resource efficiency while supporting increased production capacity while reducing electricity load, In recent years, the Yilan Site has actively promoted the replacement of aging equipment in recent years. Projects include installing a temperature difference monitoring system for the main pipelines of chilled water and cooling water, adding frequency converters to chilled water and cooling water pumps, installing frequency converter control panels and associated distribution wiring, and introducing an automated air conditioning control system to improve overall chilled and cooling water efficiency. Yilan Site continued to advance the chilled water and cooling water pump improvement plan. In 2024, pipeline replacement was carried out to further enhance pump conversion efficiency.

Implementation results

- The operating power of the cooling water pump was reduced from 31.04 kW to **16.72 kW**
- The operating power of the chilled water pump was reduced from 19.48 kW to **10.18 kW**
- The combined operation of the Cooling Water Pump (CWP) and Chilled Water Pump (CHP) resulted in annual electricity savings of **205,000 kWh, equivalent to a reduction of 101.5 metric tons of carbon emissions**



Lighting Efficiency Optimization - Lije Site

To actively advance sustainable operations, the General Affairs Department at the Lije Site implemented a lighting energy efficiency project in 2024 as part of its commitment to energy management and carbon reduction goals. The project focused on enhancing the energy efficiency of the site's lighting systems, with the following key measures:

- ① Conducted a comprehensive inventory of all lighting equipment to ensure the effectiveness and completeness of the improvement plan.
- ② Replaced traditional high-energy-consuming mercury lamps with LED lighting throughout the facility to improve energy efficiency.
- ③ Reduced the use of mercury lamps to lower energy consumption and minimize environmental impact, thereby achieving energy conservation and carbon reduction benefits.

Moving forward, TSC will continue enhancing lighting efficiency by evaluating the replacement of fluorescent lights with LED tubes in cleanrooms and office areas, and promoting energy-saving practices such as turning off lights in machine rooms and outdoor areas during off-hours.

Implementation results

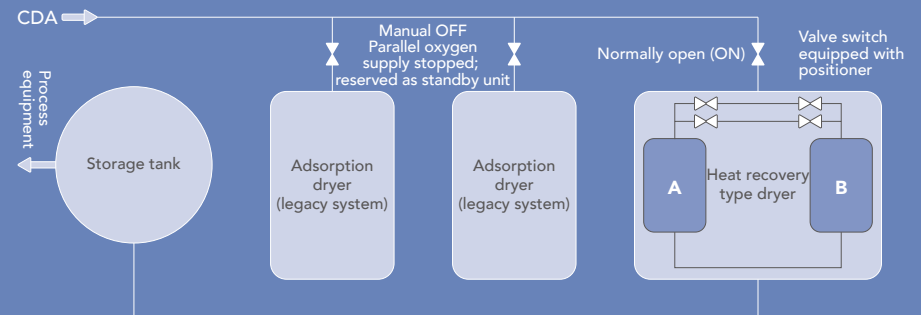
Mercury lamps were replaced with LED lighting, achieving annual electricity savings of **26,460 kWh**, with an average energy consumption reduction of **70%**

Annual electricity savings
26,460 kWh

Average energy consumption reduction of
70%

CDA Dryer System Energy Optimization - Lije Site

To enhance the energy efficiency of the compressed air system and reduce the risk of unexpected air supply interruptions, the Lije Site implemented an energy optimization project for its CDA (Clean Dry Air) dryer system in 2024. By adjusting equipment settings and improving control strategies, the project successfully reduced power consumption.



Implementation results

- Optimized the pneumatic valve control mechanism by installing positioners to ensure precise valve positioning during switching. This ensured that one valve was fully opened before the other was closed, thereby stabilizing operations and minimizing energy waste.
- Equipment air consumption was significantly reduced, with annual electricity usage decreasing from 360,555 kWh to 88,369 kWh, resulting in estimated **annual electricity savings of 272,186 kWh**.

Air Conditioning System Optimization: Enhancing Equipment Operating Efficiency - Lije Site

In 2024, the Lije Site carried out several initiatives to optimize air conditioning system efficiency, including enhancements to the chilled water system serving the warehouse and improvements to the process cooling water (PCW) pipeline. Strengthened inspection mechanisms and continuous auditing of system pipelines were conducted to ensure optimal shutdown protocols and equipment operating efficiency. These measures not only reduced electricity costs but also minimized unnecessary energy consumption.

Implementation results

- The usage of powered fluid pipelines in the large warehouse was reduced, and the chilled water flow for air conditioning was decreased, resulting in a savings of **24,854 kWh of electricity**.
- To address the high operating frequency of the PCW pump, the 6-inch PCW pipeline was modified, and heat exchangers and standby pumps were added. Losses were reduced and the flow distribution method of the PCW pipeline was improved, leading to an additional savings of **66,586 kWh of electricity**.

The chilled water flow for
air conditioning was decreased

24,854
kWh

PCW pump
electricity savings

66,586
kWh

5.3 Water Stewardship

Material Topics Water Stewardship

Policy and Commitment

- Comply with local water resource management regulations, aiming to improve water use efficiency through monitoring and record-keeping, while progressively strengthening water risk assessment and analysis. For sites with higher risk levels, implement water conservation mechanisms and set specific reduction targets.
- Commit to ensuring that all wastewater discharges comply with local regulations and effluent quality standards.

Management Approach and Evaluation Mechanism

- Regularly evaluate site-specific water risks using the WRI Aqueduct Water Risk Atlas, and apply tailored management measures.
- For sites with medium or higher water risk, implement a comprehensive water stewardship framework, including monitoring of water use, reclaimed water utilization, source diversification, and contingency planning.
- Maintain ISO 14001 Environmental Management System certification at all sites, reinforcing water stewardship through internal audits and external inspections.
- Establish Wastewater Management Procedures and drainage monitoring systems at each site; regularly test water quality parameters and report results to local authorities in compliance with regulations.

Action Plans and Performance

- **In the 2023 International CDP Water Security Assessment, the disclosure level has been upgraded from D (Disclosure) to C (Awareness) in 2024, indicating progress from basic disclosure toward enhanced awareness and response to water-related risks.**
- **In 2024, all sites complied with applicable wastewater discharge regulations, with no environmental exceedances or violations recorded.**

5.3.1 Water Stewardship GRI 3-3 303-1 303-3 303-4 303-5 TC-SC-140a.1

Approaches and Targets

As a semiconductor company, TSC recognizes the operational risks posed by climate change and water scarcity. In response, TSC continues to strengthen water stewardship across all sites by monitoring withdrawal, managing water quality, and maintaining ISO 14001 certification to drive ongoing improvements. Compliance with local water and wastewater regulations remains a key priority.

The Yilan and Lije sites are located in water-stable regions with consistent rainfall and low scarcity risk. The Tianjin site does not rely on groundwater and has experienced no water shortages. The Shandong site, identified as high risk by the WRI Aqueduct Tool, has implemented conservation measures since 2016, including eliminating high-consumption processes, promoting water recirculation, and reducing reliance on groundwater.

Water Resource Structure and Risk Management

TSC uses the WRI Aqueduct Tool to assess site-specific water risks. In Shandong, where water stress is high, the site aligns with local policies on groundwater restrictions and basin-wide water use limits. TSC has also built rainwater harvesting systems, shut down high-usage processes, and installed recycling equipment. These efforts have kept water use well below industry and regulatory limits, avoiding competition with other users.

Water stewardship is also extended to the supply chain. ISO 14001 certification is included in the evaluation of new and existing suppliers to improve environmental practices. TSC will continue to monitor water-related regulations, enhance site-level strategies, and collaborate with stakeholders to support sustainable water use.

Location	Geographical Features	Main Water Source	Water Risk	Management Mechanism
Yilan Site (Yilan County, Taiwan)	Two production sites in Taiwan are located in Yilan, a region with low-to-medium water stress. The Lanyang River Basin offers abundant water resources, making short-term shortages unlikely.	Groundwater (92%), tap water (8%)	Low-medium	Due to extended rainy seasons and the Yilan Site's proximity to the mountainside, along with a daily groundwater withdrawal of less than 100 tons, no signs of groundwater depletion or any need for water rationing have been observed.
Lije Site (Yilan County, Taiwan)		Surface water (Wulaokeng River) (91%), tap water (9%)	Low-medium	As the Wulaokeng River has consistently maintained its water flow over the years, the Lije Site currently does not require any water rationing measures.
Shandong Site (Shandong Province, Mainland China)	The Shandong Site is located in the northern Shandong Plain, near the Yellow River (130 km from its mouth) and the Bohai Sea (75 km away), with average annual rainfall of approximately 930 mm.	Groundwater (69%), tap water (31%)	Extremely high	Located in Binzhou City, the Shandong Site is subject to strict total volume controls are enforced by the local government on both Yellow River and groundwater sources. TSC has implemented long-term water conservation and resource management measures at Shandong Site for many years, resulting in unit water consumption significantly below both the industry average and the regulatory quota. Since 2016, the Shandong Site has decommissioned its most water-intensive operation—the pickling station—and upgraded equipment and recirculation systems in the electroplating process to reduce total water consumption. Going forward, the site will continue optimizing its water resource structure by gradually replacing part of the groundwater usage with tap water to reduce reliance on restricted sources and enhance water resource resilience.
Tianjin Site (Binhai New District, Tianjin, Mainland China)	The Tianjin Site is located in the Binhai New District in the eastern suburbs of Tianjin, facing the Bohai Sea to the east.	Surface water	Low-medium	The Tianjin Site's water is supplied by the Tianjin Development Zone Tap Water Company, primarily sourced from surface water. The site does not utilize groundwater and has not experienced water rationing or supply interruptions. Despite the current water supply stability, the site continues to follow ISO 14001 Environmental Management Systems requirements, including water monitoring and abnormal use record tracking. In response to evolving policies and site-specific usage patterns, water efficiency and risk management efforts will be continuously reinforced.

Note: 1. Other office branches, including Taipei and Hsinchu, use tap water as their primary source. As these offices are non-production facilities primarily used for domestic purposes, their water usage is minimal and has negligible impact on local water resources.

Water Withdrawal and Discharge Volumes in 2024

		Lije Site	Yilan Site	Shandong Site	Tianjin Site	Other Office Branches	TSC Total
Water withdrawal	Surface water	214.98	0.00	0.00	0.00	0.00	214.98
	Groundwater	0.00	32.76	155.09	0.00	0.00	187.85
	Seawater	0.00	0.00	0.00	0.00	0.00	0.00
	Third-party water (tap water)	21.23	2.56	69.45	300.65	2.34	396.23
	Total water withdrawal	236.21	35.32	224.54	300.65	2.34	799.06
Water discharge	Total Water Discharge	236.75	9.97	168.41	219.73	2.34	637.20
Water consumption	Total water consumption	-0.54	25.35	56.13	80.92	0.00	161.86

Note:

- Water withdrawal data from third-party sources (tap water) and surface water is derived from water bills, while groundwater withdrawal volumes are recorded using on-site water meter readings at each operating sites.
- The data collection scope covers all production sites and office branches, including the Taipei headquarters, Hsinchu office, and Hong Kong office. Data disclosure for the Taipei headquarters was estimated based on the proportion of water usage on each floor, as indicated in the office building's water bill. These office branches operate purely as administrative facilities and do not have separate water meters to track water discharge.
- According to the WRI Aqueduct Tool, water stress is calculated as: Total annual water withdrawals divided by total available annual renewable supply. Areas with a water stress index between 40% and 80% are classified as high water stress areas, while those with a water stress index above 80% are categorized as extremely high water stress areas. TSC exclusively relies on freshwater sources with a total dissolved solid content of $\leq 1,000$ mg/L. The production sites including Lije Site, Yilan Site, and Tianjin Site have water stress indices below 40%; the Shandong Site is situated in an extremely high water stress area, accounting for about 28% and 52% of TSC's overall water withdrawal and water consumption, respectively. All remaining office branches are located in areas with low water stress risk.
- In 2024, TSC had no water withdrawal from seawater or produced water resources.
- All process and domestic wastewater generated at TSC production sites undergoes on-site pretreatment before being discharged. This preliminary treatment is followed by connection to centralized wastewater treatment facilities operated by local governments or industrial parks, as required by local regulations. After further treatment by third-party service providers, the wastewater is discharged into nearby rivers or streams, which ultimately flow into the ocean.

5.3.2 Wastewater Management GRI 3-3 303-2 303-4

Wastewater Monitoring Mechanism

TSC has implemented a comprehensive wastewater management system to reduce environmental impact. Each site operates treatment facilities under permits aligned with local Effluent Standards, conducting daily water quality testing and regular third-party verification to ensure compliance.

Standardized Wastewater Management Operating Procedures are followed at all sites, detailing collection, monitoring, testing, and reporting protocols. Discharge and chemical dosage are recorded daily, with 24-hour monitoring in place. Data is reviewed by system engineers and supervisors, and monthly reports are submitted for site-level review.

Some wastewater contains trace amounts of nickel and fluoride. Taiwan sites comply with the Effluent Standards for semiconductor manufacturing; China sites follow the Integrated Wastewater Discharge Standards enforced by local authorities.

Historical Trend of Wastewater Discharge

Discharge volumes vary by site due to differences in production scale and activities. In 2024, TSC discharged a total of 636.91 million liters of wastewater. All sites remained in full compliance with applicable standards, and no water pollution incidents occurred.

Water Quality Control Mechanism

Yilan Site

Wastewater from the Yilan Site is discharged into the Yilan River under the supervision of the Site Affairs Department, which performs daily pH checks, weekly suspended solids tests, and semi-annual reporting, along with annual ISO 14001 audits. As wastewater mainly comes from cutting processes, it contains only minimal suspended solids (<5 mg/L) and remains neutral (pH 7 ± 1) without chemical adjustment, posing negligible environmental risk. Following the Environmental Protection Bureau's recommendation, TSC obtained a simplified wastewater discharge permit in 2024, including relocation of groundwater treatment tanks to prevent leakage and soil contamination.

Lije Site

The Lije Site discharges wastewater into Xincheng River, with its treatment system monitored 24/7 and water quality analyzed twice daily. Data is collected by environmental and site affairs staff, reviewed by engineers and supervisors, and compiled into monthly reports for senior management. Any exceedances trigger immediate analysis and corrective action. Management performance is certified annually under ISO 14001, and effluent quality is verified quarterly by third-party inspections, covering key parameters such as fluoride, nitrate nitrogen, nickel, ammonia nitrogen, suspended solids, COD, and pH, with results reported to the Ministry of Environment.

Shandong Site

The Shandong Site, licensed by the Bureau of Ecology and Environment, has established comprehensive wastewater management procedures and operates an on-site treatment station. Discharge water quality is continuously monitored 24/7 for key indicators—pH, ammonia nitrogen, COD, and flow rate—and consistently meets regulatory standards. In addition, a third-party agency collects at least four samples monthly to test 16 indicators, with results confirming compliance with the Discharge Standards for the Electronic Industry. Actual emissions, such as COD (~30 mg/L vs. 500 mg/L limit) and ammonia nitrogen (~0.2 mg/L vs. 45 mg/L limit), remain well below limits, minimizing environmental impact. The site has also established clear operational procedures, conducts inspections every two hours, and is equipped with an emergency accident pool to manage any anomalies and ensure stable, compliant discharge.

Shandong Site — Wastewater Process Optimization

In 2024, the Shandong Site optimized its wastewater discharge process by eliminating isopropyl alcohol (IPA), a key contributor to COD. This reduced the organic pollution load, improved wastewater treatment performance, and supported the site's commitment to clean production, green manufacturing, and sustainable development.

Tianjin Site

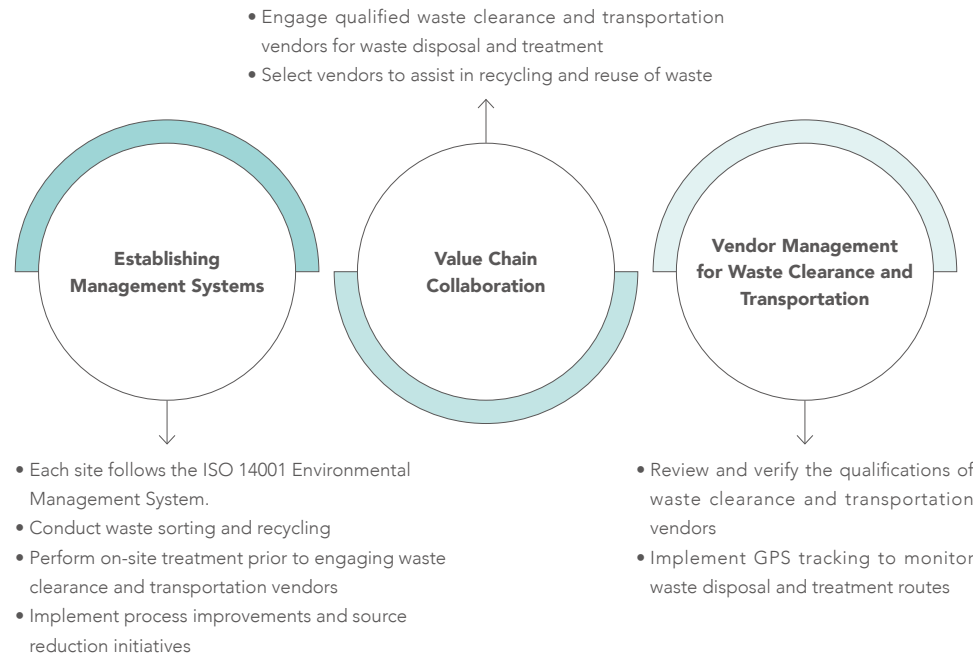
Wastewater discharged from the Tianjin Site is channeled to a municipal wastewater treatment plant. The site is equipped with an online wastewater monitoring system, which monitors the value of pollutants in wastewater on a daily basis and sends the data to the Environmental Protection Bureau. The testing unit of the site's vendors regularly collects water from the site to test the quality of discharge water, and files reports based on production data with the Environmental Protection Bureau. Key monitored substances include five-day biochemical oxygen demand (BOD_5), suspended solids, total nitrogen, total phosphorus, pH value, ammonia nitrogen, and chemical oxygen demand (COD). In addition, the Shandong Site engages external vendors to validate the content of its ISO 14001 implementation and related documentation, carry out performance evaluation in the area of management, and issue the relevant certificates on an annual basis.

5.4.1 Waste Management GRI 306-1 306-2 306-3 306-4 306-5 TC-SC-150a.1

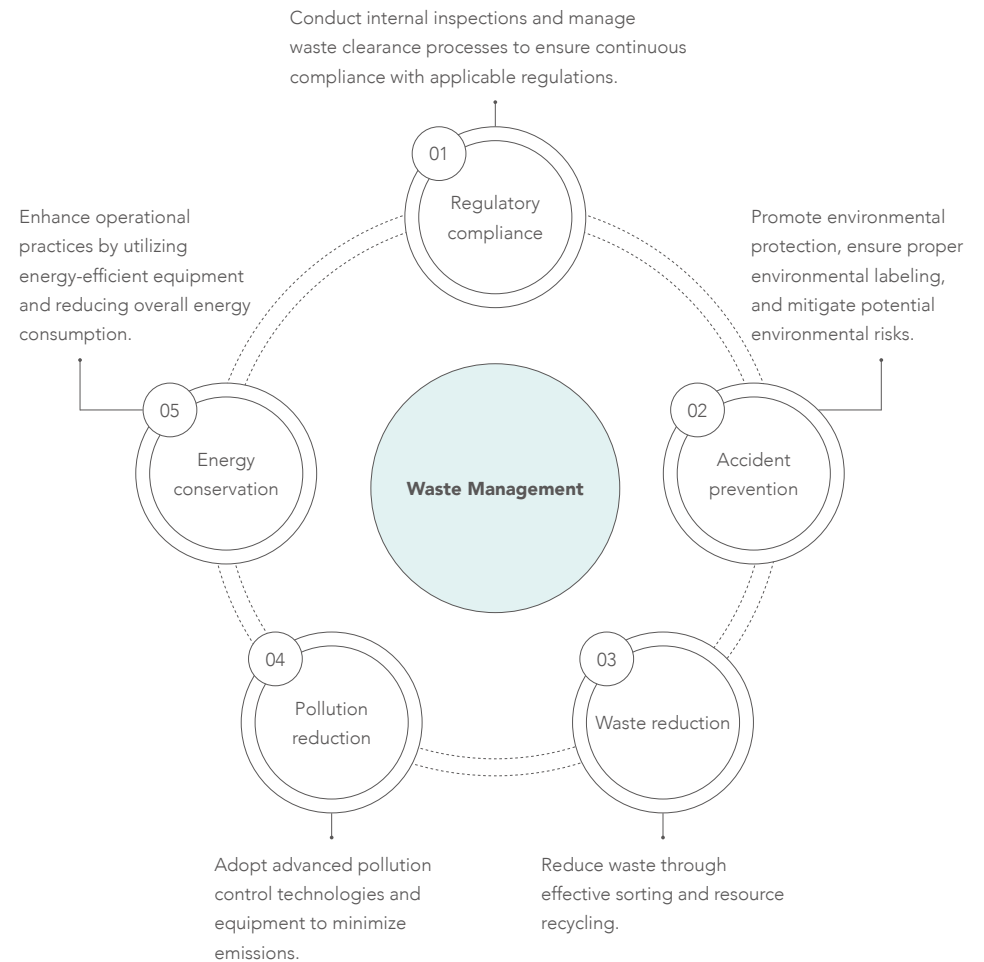
TSC is committed to minimizing environmental impact—particularly from waste—while improving resource efficiency and reducing operational costs. All sites are certified under ISO 14001 and conduct regular internal audits.

To manage waste responsibly, each site classifies on-site resource-type waste and outsources removal, processing, and recycling to licensed vendors. Special waste, such as chemical solvents, is temporarily stored in designated areas and handled by government-approved contractors.

To ensure traceability, TSC has established a contractor audit plan that includes on-site inspections, GPS tracking, and a comprehensive vendor management system to strengthen waste control practices.



TSC's Commitment to Waste Management



Waste Disposal Process

TSC utilizes various raw materials and process inputs in its semiconductor component production activities, which generate different types of waste. Key inputs include silicon wafers, chemicals (such as etchants and cleaning agents), additives (such as adhesives and resins), and packaging materials (such as wooden crates, pallets, and plastic films). Based on process characteristics, waste sources are categorized into four operational activity types:

① **Front-end processes (e.g., wafer cutting, etching, and cleaning):** generate waste such as heavy metal-containing sludge, organic solvent liquids, and wastewater treatment filter materials

② **Back-end assembly (e.g., adhesion, encapsulation, and testing):** generate adhesive residue, waste resin, and discarded electronic components

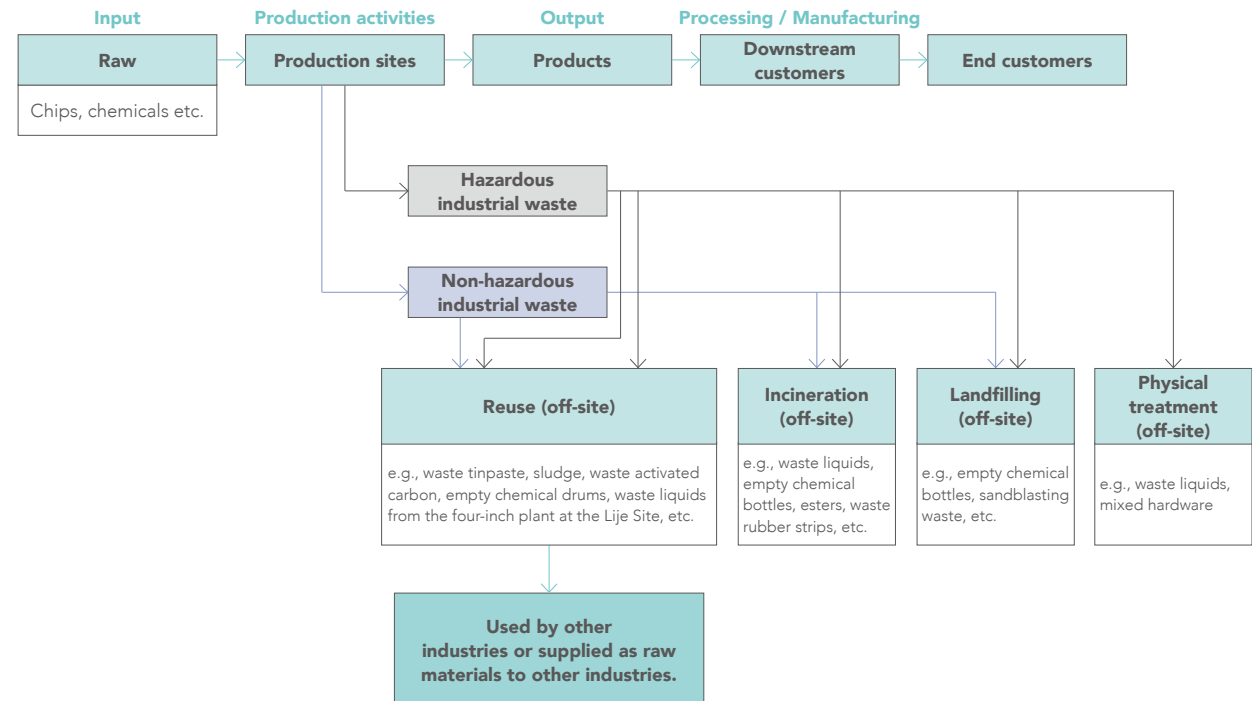
③ **Equipment and consumables replacement:** includes cleaning chemical drums, empty barrels, waste glass, and other non-product-related waste

④ **Packaging and shipment:** generates general industrial waste such as pallets, cardboard boxes, and heat-shrink plastic films.

To ensure effective waste management, each site follows a comprehensive system aligned with ISO 14001. This includes four key components: source reduction, classification and temporary storage, recycling, and outsourced treatment. All waste handling is documented and declared in accordance with regulatory requirements.

Hazardous and general industrial waste is mainly treated off-site by qualified vendors using methods such as physical treatment, incineration, landfilling, or recycling. Some sites conduct basic pre-treatment for empty chemical drums and waste liquids before outsourcing for reuse in other industries. General industrial waste is primarily managed through landfilling, incineration, or recycling.

Office waste from locations such as Taipei, Hsinchu, and overseas sites is treated as domestic waste and handled by licensed vendors in line with local regulations.



Waste Statistics

In 2024, TSC generated a total of 2,130.27 metric tons of waste, including 936.73 metric tons (44%) of hazardous industrial waste and 1,193.54 metric tons (56%) of non-hazardous waste. Each production site engages qualified waste clearance and transportation vendors to assist with waste disposal and treatment. Waste statistics for each production site are compiled internally by the site affairs unit and reported on a regular basis. Supporting documents, such as the triplicate waste weighing form, are retained for future reference in accordance with local government regulations.

To enhance waste management practices, the Lije Site has implemented a calcium fluoride sludge reduction program and partnered with designated vendors to recycle waste liquids from the four-inch plant. These waste liquids are fully recycled and reused as raw materials in cement manufacturing. The Yilan Site is working with external vendors to develop reuse mechanisms. The Shandong Site is promoting source reduction initiatives, including a program to replace heat-shrink plastic films, aiming to reduce raw material usage at the source and, in turn, decrease overall waste generation.

Total Waste in 2024

Unit: metric tons

Category		Item	Off-site	On-site
Hazardous waste	Direct disposal	Incineration (including energy recovery)	0	0
		Incineration (excluding energy recovery)	182.26	0
		Landfilling	1.15	0
		Other disposal methods	544.43	0
	Reuse	Preparation for reuse	0	0
		Recycling	208.89	0
		Other recycling operations	0	0
Total Hazardous Waste			936.73	0
Non-hazardous waste	Direct disposal	Incineration (including energy recovery)	0	0
		Incineration (excluding energy recovery)	52.84	0
		Landfilling	468.45	0
		Other disposal methods	0	0
	Reuse	Preparation for reuse	531.94	0
		Recycling and reuse	140.31	0
		Other recycling operations	0	0
Total Non-Hazardous Waste			1,193.54	0
Hazardous Waste + Non-hazardous Waste			2,130.27	

Note:

- "Other disposal methods" include physical treatment.
- In 2024, the total of hazardous industrial waste was 936.73 metric tons, and the reuse rate was 22%, including preparation for reuse, recycling, and other recycling operations. This figure was calculated based on the amount of hazardous industrial waste reused as a percentage of the total hazardous industrial waste generated.
- The non-hazardous industrial waste reuse rate was 56%, also including preparation for reuse, recycling and reuse, and other recycling operations. The calculation was based on the amount of non-hazardous industrial waste reused as a percentage of the total non-hazardous industrial waste generated.
- The classifications of "hazardous" and "non-hazardous" are based on the Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste in Taiwan, and the People's Republic of China's Law on the Prevention and Control of Environmental Pollution by Solid Wastes.
- The data in the table covers all production units. Office branches in Taipei, Hsinchu, and overseas are excluded, as the waste generated from these offices is categorized as general domestic waste. Such waste is collected and processed regularly by the buildings' designated waste clearance and transportation vendors in accordance with local government regulations.

Waste Reduction Actions

Lije Site

In 2024, waste reuse rate as high as

86%

The Lije Site actively promotes off-site resource utilization, converting production waste into reusable materials. **In 2024, the site achieved a waste reuse rate of 86%.** Through value chain collaboration, it has reduced energy consumption, lowered treatment costs, and improved recycling efficiency.

Key initiatives include: recycling calcium fluoride sludge with cement manufacturers, crushing waste glass for reuse, recovering noble metals from electronic waste, and working with vendors to distill waste liquids into raw materials—such as banana oil—for use in industries like paint manufacturing.

Waste Reduction

Lower Energy Consumption and Reduced Waste Treatment Costs

Benefits of Waste Recycling and Resource Regeneration

Yilan Site

The Yilan Site previously incinerated large volumes of packaging waste—such as wooden pallets and crates—generated from equipment and material purchases. To reduce waste, the site now collaborates with external vendors and partners from other industries to promote recycling and resource reuse.

Moving forward, the site will continue exploring reuse opportunities, such as converting waste plastic strips into eco-friendly bricks through vendor partnerships.

Reduction and Reuse of Waste Plastics and Waste Wood

• Yilan Site

In response to climate change, resource depletion, and stakeholder expectations, the Yilan Site has promoted the Waste Plastics and Waste Wood Reuse Project. This initiative focuses on source reduction and recycling to lower GHG emissions, reduce disposal costs, and achieve a balance between environmental and economic benefits.

Waste Wood: Increasing the reuse rate to support the transition to green energy

Through collaboration with waste clearance and transportation vendors, wood waste is collected, processed, and reconstituted into a new form of renewable energy. Compared to traditional fossil fuels such as diesel or heavy oil, biofuels derived from waste wood offer higher calorific value and **improve energy conversion efficiency by approximately 50%, while reducing waste processing costs by about 30%.**

Improve energy
conversion
efficiency by
50%

Reducing waste
processing costs
30%

Waste Plastics: Recycling and pelletizing to extend material lifecycle

Plastic waste is also collected, broken down, and reprocessed into recycled plastic pellets through cooperation with qualified vendors. The recycling treatment costs are **reduced by 75%** compared to incineration, effectively minimizing resource waste. The reuse mechanism is estimated to **reduce plastic waste emissions at the Yilan Site by approximately 10–20 metric tons per year**, thereby lowering the environmental impact.

Recycling treatment
costs are reduced by
75%
compared to
incineration

Reduce plastic waste
emissions at the Yilan Site
10-20
metric tons per year

The Yilan Site will continue expanding waste reduction efforts and exploring diversified reuse models. A new initiative—Eco-Brick from Mixed Plastics—is being planned in collaboration with vendors to develop eco-bricks using mixed plastic waste, such as discarded plastic strips. The project is expected to reuse 20–30 metric tons of plastic waste annually, reducing incineration volume.

• Shandong Site

To enhance resource efficiency, the Shandong Site continued to strengthen its packaging material reduction program in 2024, focusing on optimizing the management of cardboard boxes and plastic packaging materials to effectively reduce waste generation.

Results of Reducing Waste Cardboard Packaging

By controlling the use of cardboard boxes at the source, the amount of waste cardboard packaging generated per NT\$ 10,000 of production value was maintained at less than 1 kilogram, **achieving a 66% reduction**. This outcome not only reduced resource consumption but also demonstrated the effectiveness of waste reduction practices.



Results of Replacing Heat-Shrink Plastic Films

In 2024, the Shandong Site fully eliminated the use of heat-shrink plastic films by improving transportation and packaging processes. **This initiative resulted in a reduction of more than 6 metric tons of plastic waste**, effectively preventing single-use plastic materials from entering the waste stream and significantly reducing potential environmental impacts.



Waste Clearance and Transportation Management

Waste types vary by production site due to variations in manufacturing processes. To strengthen waste management, Taiwan and Shandong sites established waste clearance and transport procedures, including regulatory monitoring, periodic reviews, and continuous improvements. The Tianjin Site signed a government contract for centralized waste handling, while office locations had domestic waste managed by the property services.

Waste Clearance and Transportation Methods

Waste generated from production activities at TSC is categorized into non-hazardous industrial waste and hazardous industrial waste. The waste clearance and transportation process at Taiwan sites is outsourced to external vendors, following the procedures of the external waste clearance and transportation vendors, with all activities meticulously documented as follows:

• General industrial waste

On-site

Contact vendor for quotation → arrange waste clearance with vendor → issue clearance and transportation document → execute waste clearance and transportation

Off-site

Track vendor and vehicle until the vendor completes weighing and photo-taking procedures

• Hazardous industrial waste

On-site

Contact vendor to arrange clearance → issue waste clearance and transportation document → proceed with clearance → issue a three-part clearance document

Off-site

Modify the actual weight and verify the document → download and archive GPS tracking map → file triplicate form and related documents

Vendor Management for Waste Clearance and Transportation

For contracted waste treatment, TSC requires vendors to maintain valid licenses, comply with legal requirements, and undergo regular audits. Contracts are renewed periodically, and violations may lead to termination. To ensure proper oversight, TSC uses a GPS real-time tracking system, archives vehicle maps, and performs spot inspections. All supporting documents and equipment scrap reports are retained. The Lije Site audits vendors annually, while the Yilan Site audits them bi-monthly. Vendors are scored on a 5-point scale, with 90+ considered qualified. In 2024, all vendors were compliant.

Contractor Waste Assessment Items

Waste clearance and transportation	<ul style="list-style-type: none"> • Regular maintenance of clearance equipment • Pollution prevention and safety equipment for clearance operations • Assessment of the suitability and capacity of waste clearance and transportation equipment • Management of driver licenses and certification for hazardous goods transport personnel • Emergency response equipment, procedures, and manuals
Storage	<ul style="list-style-type: none"> • Compliance of on-site temporary storage quantities with permitted processing capacity • Compatibility of stored chemicals and proper regional classification • Groundwater/rainwater infiltration prevention measures • Response to abnormal spills in storage areas • Proper documentation of hazardous and non-hazardous waste clearance records
Industrial safety and fire protection	<ul style="list-style-type: none"> • Documentation for protective equipment • Feasibility of PPE usage and operational compliance • Inspection of fire safety equipment and maintenance of audit records • Implementation of security protocols and installation of fire protection systems • Other industrial safety management systems
Other	<ul style="list-style-type: none"> • Organizational structure and professional competence • Accuracy and completeness of online reporting and document handling • Relevant industry experience and performance history • Accuracy of submitted written information • Establishment of ISO 14001 system or equivalent operational standards

5.4.2 Air Pollution Prevention and Control

GRI 305-6 305-7

TSC is committed to air pollution prevention and environmental protection. All of our production sites comply with local environmental laws and regulations and undergo regular gas testing. The primary types of gases generated in the production process at our production sites include acid waste gas and volatile organic compounds (VOCs). In addition, a small amount of flue gas is emitted from the solid crystal welding process, which is treated by the acid-alkali scrubbers, ionization decomposition, fume filtration, and VOCs adsorption treatment systems, while a third-party inspection organization is commissioned to conduct regular inspections to ensure that the emission standards are met. Due to differences in the nature of wafer fabrication and assembly/testing processes at each plant, the types of air pollutants generated vary slightly. In 2024, all of TSC's production sites complied with local environmental regulations, with no violations related to air pollution control.

Air Pollutant Emissions

Unit: metric tons

	2022	2023	2024
Nitrogen Oxides (NOx)	2.596	6.382	1.125
Sulfur Oxides (SOx)	0.000	0.000	0.000
Persistent Organic Pollutants (POP)	0.000	0.000	0.000
Volatile Organic Compounds (VOC)	9.664	3.203	3.923
Hazardous Air Pollutants (HAP)	0.000	0.000	0.000
Particulate Matter (PM)	2.007	2.069	1.702
Ozone-depleting substances (ODS)	0.000	0.000	0.000
Other	1.651	0.556	0.241
Total hazardous gas emissions	15.918	12.210	6.991

Note:

- The data presented above is based on the average of monitoring data from the Site Affairs Department and three sets of inspection data from external inspection units. The real-time monitoring data is primarily sourced from our Lije and Yilan sites. On the other hand, the Shandong Site engages external inspection units to conduct regular inspections, while the Tianjin Site engages third-party inspection units to conduct three inspections, whose data was averaged.
- There were no emissions of sulfur oxides (SOx), ozone-depleting substances, persistent organic pollutants (POPs), particulate matter (PM), or hazardous air pollutants(HAP).
- In line with the 2023 amendments to the Air Pollution Control and Emission Standards for the Semiconductor Industry, issued by the Ministry of Environment, the source of statistics on VOCs at TSC's production sites in Taiwan was revised to the Report on Volatile Organic Substance and Inorganic Acids Pollution Control in the Semiconductor Manufacturing Industry.
- "Other" refers to three specific gas types—xylene, ethylbenzene, and non-methane hydrocarbons—monitored at the Tianjin Site, which require mandatory testing in accordance with the Atmospheric Pollutant Discharge Standards, where the emissions of these three types of gases meet the requirements of the local government.

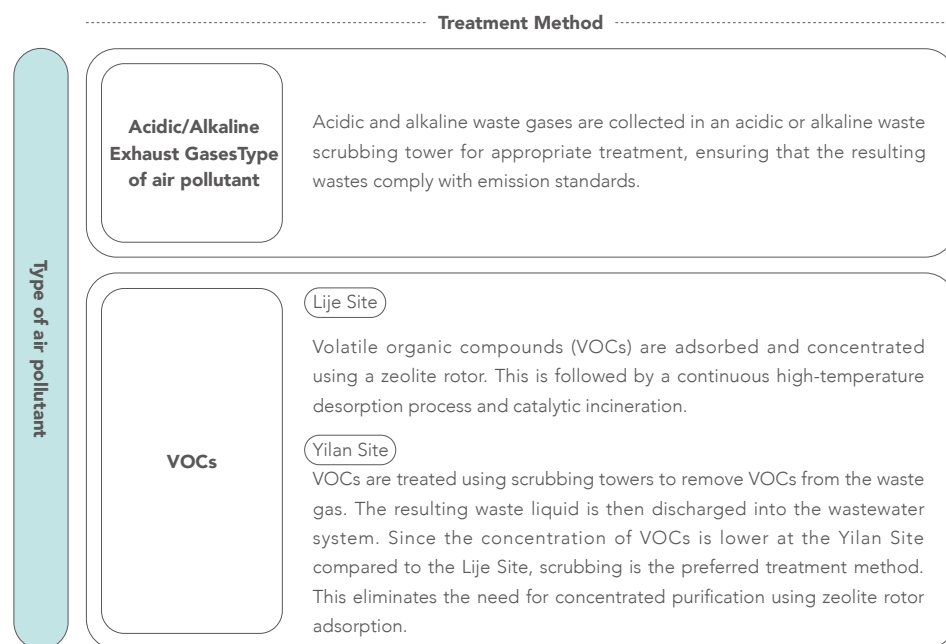
Monitoring of Air Pollution Prevention and Control

The manufacturing sites in Taiwan comply with the Air Pollution Control and Emissions Standards for the Semiconductor Industry. Regular monitoring is carried out through air pollution prevention equipment in parallel with both Treatment Methods for Different Types of Air Pollutants Acidic and alkaline waste gases are collected in an acidic or alkaline waste scrubbing tower for appropriate treatment, ensuring that the resulting wastes comply with emission standards. internal and external audits at TSC's Acidic or alkaline waste gas in mainland China, namely the Shandong and Tianjin sites, The average values and emissions rates are calculated based on the results of inspections conducted three times by a qualified third-party organization engaged by the Tianjin Site.

Waste Gas Treatment

TSC's primary air pollutants include acidic/alkaline exhaust gases and volatile organic compounds (VOCs). To mitigate pollution, TSC employs treatment equipment and processes corresponding to the type and properties of waste gases. Acidic and alkaline waste gas, as well as VOCs, are effectively managed through various control equipment, including acid and alkaline scrubbing towers, and zeolite rotor incineration systems, while continuous monitoring is conducted using the gas chromatography-flame ionization detector(GC-FID) system to ensure that the control equipment operates efficiently and meets regulatory standards.

Treatment Methods for Different Types of Air Pollutants



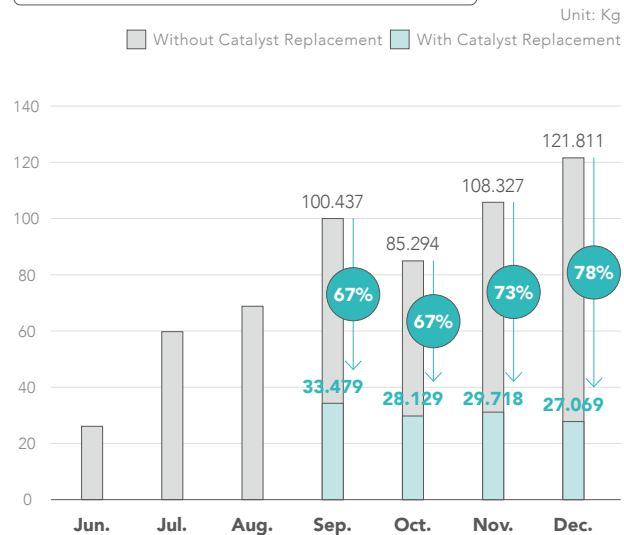
At the Lije Site, the scrubber tower utilizes a parallel method to process both acidic and alkaline waste gases. In the event of an emergency, the remaining equipment can be adjusted to handle the target exhaust treatment, while also coordinating with the production line to prevent air pollution. Furthermore, the zeolite rotor continuous incineration (RCO) system, which is employed to treat volatile organic exhaust gases, can be switched to an activated carbon tower as a parallel backup system during emergencies. This allows for simultaneous coordination with the production line to minimize environmental impact.

In 2020, the Shandong Site invested over NT\$4 million to upgrade its exhaust gas treatment facilities, which enable the purification and treatment of acidic gases, flue gas particulate matters, and VOCs using acid and alkali scrubbers, a filtration system, ionization decomposition, and an activated carbon adsorption system according to the properties of exhaust gas from different manufacturing processes. The filtration system adopts a two-stage approach: primary filtration using filter cotton and medium-efficiency filtration using filter bags, achieving a 93% removal rate for dust particles. The activated carbon adsorption system utilizes molecular sieve technology, with approximately 18m³ of activated carbon inside the adsorption chamber effectively adsorbing and purifying VOC emissions, ensuring stable and compliant discharge.

VOC Emission Reduction - Lije Site

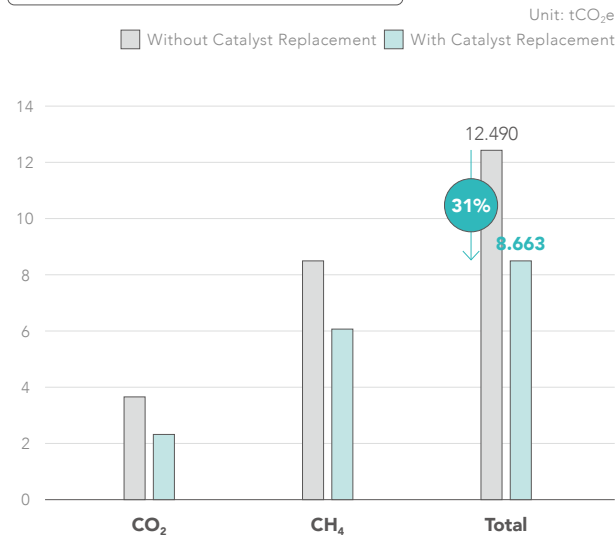
To integrate environmental management into daily operations, the Site Affairs Department at the Lije Site launched a VOC emission reduction project for the 4-inch organic exhaust treatment system in 2024. By utilizing automated GC-FID reporting for data analysis, the team, with its strong data sensitivity and system familiarity, identified emission reduction potential in the catalytic oxidizer of the 4-inch plant. System efficiency monitoring and optimization were carried out, effectively reducing VOC emissions from production and minimizing environmental impact.

Comparison of VOC Emissions in 2024



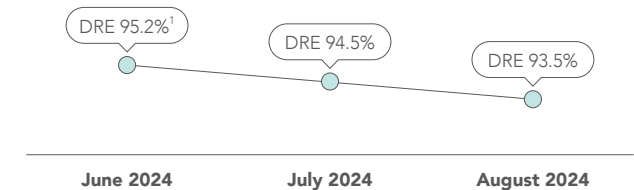
- From June to August 2024, monthly VOC emissions showed a continuous upward trend.
- If the catalyst bed had not been replaced, estimated VOC emissions (Kg)
- **The average emission reduction efficiency reached 71%.**

GHG Reduction Benefits in 2024



- Before the catalyst bed replacement, the greenhouse gas (GHG) emissions totaled 12.49 tCO₂e.
- After the replacement, emissions were reduced to 8.66 tCO₂e, resulting in a reduction of 3.83 tCO₂e.
- **The emission reduction efficiency reached 31%.**

1. Using Gas Chromatography-Flame Ionization Detector (GC-FID) to automatically generate reports for catalyst treatment efficiency analysis, it was observed that the catalyst performance was gradually declining:



Note: 1. DRE (Destruction and Removal Efficiency)

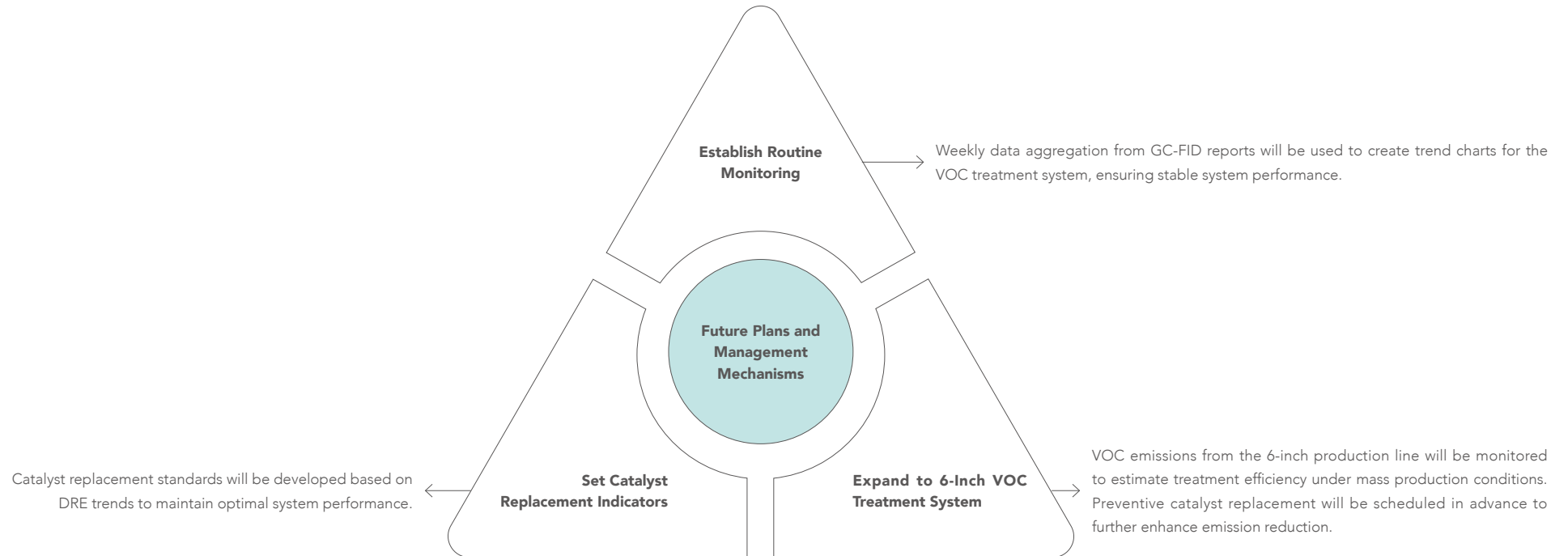
2. Catalyst Replacement and Equipment Optimization

- The catalytic incinerator originally housed four catalyst modules. During the project, one module was replaced without disrupting production. The total replacement time was approximately 0.5 days, during which the system was switched to an activated carbon tower to ensure continuous VOC adsorption and emission control.

3. Project Results and Reduction Benefits

- After the catalyst replacement in September 2024, the DRE significantly improved to **97.4%**.
- From September to December 2024, **the average VOC reduction efficiency was 71%.**
- For the entire year in 2024, **greenhouse gas (GHG) emissions were reduced by 31%**, contributing to a notable decrease in carbon emissions.

Future Plans and Management Mechanisms - Lije Site



Appendix I: GRI Standards Content Index

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2-3	Reporting Period, Frequency, and Contact Point	0.1 About This Report	P.3-4
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2-6	Activities, Value Chain, and Other Business Relationships	1.1.1 Company Overview 1.2.1 Board Operations	P.18-20 、 P.26-30
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2-17	Collective Knowledge of the Highest Governance Body	1.2.1 Board Operations	P.28
2-18	Evaluation of the Performance of the Highest Governance Body	1.2.1 Board Operations	P.28
2-19	Remuneration Policies	1.2.1 Board Operations 4.1.1 Diversity and Inclusion	P.29 、 P.78
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2-23	Policy Commitments	1.2.2 Ethical Business Practices 1.3.2 Regulatory Compliance 3.1.2 Sustainable Supply Chain Management 4.1.4 Labor Relations and Human Rights Management	P.31 、 P.36 、 P.66 、 P.98
2-24	Embedding Policy Commitments	1.2.2 Ethical Business Practices 3.1.2 Sustainable Supply Chain Management 4.1.4 Labor Relations and Human Rights Management	P.31 、 P.66 、 P.98
2-25	Processes to Remediate Negative Impacts	1.4 Information Security Management	P.38
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Appendix III: Climate-Related Information of TPEX Listed Company

In accordance with the TWSE's Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies, the following tables are disclosed.

Item	Implementation Status
1. Description of the Board of Directors and management's oversight and governance of climate-related risks and opportunities	Please refer to Section 5.1.1 Climate Governance and Strategies
2. Description of how identified climate risks and opportunities impact the company's business, strategy, and financial planning (short, medium, and long term)	
3. Description of the financial impact of extreme climate events and transition actions	
4. Description of how climate-related risks are identified, assessed, and integrated into the company's overall risk management processes.	
5. If scenario analysis is used to assess climate resilience, describe the scenarios, parameters, assumptions, analytical factors, and key financial impacts used	
6. If there are transition plans to manage climate-related risks, describe the plan and the metrics and targets used to identify and manage physical and transition risks	
7. If internal carbon pricing is used as a planning tool, describe the basis for price setting	No current plans in place; the company is still in the discussion phase.
8. If climate-related targets are set, describe the activities covered, GHG emission scopes, planning timelines, and annual progress; if carbon offsets or Renewable Energy Certificates (RECs) are used, indicate the source and quantity	Please refer to Section 5.1.1 Climate Governance and Strategies – Indicators and Targets"
9. GHG inventory and assurance status	Please refer to Section 5.2.1 Carbon Emission Management and Appendix 4.

Appendix IV: GHG inventory and assurance status

Basic Company Information

- ☐ Companies with paid-in capital of more than NT\$10 billion, steel or cement industries
- ☐ Companies with paid-in capital of more than NT\$5 billion but less than NT\$10 billion
- ☒ Companies with paid-in capital of less than NT\$5 billion

According to the regulations of the sustainable development roadmap for listed companies, the following information should be disclosed at a minimum

- ☒ GHG inventory of parent company
- ☐ GHG inventory of subsidiaries under consolidated financial statements
- ☐ Assurance of parent company
- ☐ Assurance of subsidiaries under consolidated financial statements

TSC's GHG Emissions in the Past Two Years

		2023	2024
GHG Emissions (tonnes CO ₂ e)	Scope 1	4,742.84	7,646.82
	Scope 2	37,251.39	26,629.36
Total Emissions (Scope 1 + 2)		41,994.22	34,276.18
GHG Emission Intensity (tonnes CO ₂ e/million NTD)		2.87	2.31
Other Emissions	Scope 3	15,755.42	20,176.18


Note:

- Scope 1 includes the parent company and subsidiaries: Yangxin Everwell Electronic Co., Ltd. and Tianjin Everwell Technology Co., Ltd. Other subsidiaries under consolidated financial statements will be gradually inventoried. According to the regulations of the sustainable development roadmap for listed companies, the company is required to disclose full 2026 consolidated inventory information in 2027 and 2028 inventory and assurance information in 2029. This year's disclosure is voluntary based on the current implementation status.
- Inventory data is calculated in accordance with ISO 14064-1:2018. Scope 1: Direct emissions from owned or controlled sources. Scope 2: Indirect emissions from imported electricity, heat, or steam.
- Emission intensity is calculated as total emissions (tonnes) / annual consolidated revenue (NT\$ million).

Appendix V: Sustainability Disclosure Indicators – Semiconductor Industry

No.	Indicator	Type	Unit	Section	Page
1	Total energy consumption, percentage of purchased electricity, and percentage of renewable energy used	Quantity	GJ, %	5.2.2 Energy Management	P.137
2	Total Water Withdrawal and Consumption	Quantity	Thousand cubic meters (1000 m ³)	5.3.1 Water Stewardship	P.144
3	Weight and recycling rate of hazardous waste generated	Quantity	Tonnes (t), %	5.4.1 Waste Management	P.149
4	Description of Occupational Accident Categories, Number of Incidents, and Rates	Quantity	%, count	4.2.3 Workplace Safety Management	P.110
5	Disclosure of Product Lifecycle Management: weight and recycling rate of scrapped and e-waste	Quantity	Tonnes (t), %	5.4.1 Waste Management	P.149
6	Description of Risk Management Related to the Use of Key Materials	Qualitative Description	N/A	3.1.1 Overview of the Supply Chain 3.1.2 Sustainable Supply Chain Management 3.1.3 Conflict Mineral Management	P.64-72
7	Total Monetary Losses Resulting from Legal Disputes Related to Anti-competitive Practices	Quantity	Reporting currency	No relevant legal proceedings related to legal disputes related to anti-competitive practices occurred at TSC in 2024	P.37
8	Primary product output by product category	Quantity	Varies by product type	2.1 R&D and Innovation	P.49

Appendix VI: Independent Limited Assurance Report



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Independent Limited Assurance Report

To Taiwan Semiconductor Co., Ltd.:

We were engaged by Taiwan Semiconductor Co., Ltd. ("TSC") to provide limited assurance over the selected information ("the Subject Matter Information") on the 2024 Sustainability Report of TSC ("the Report") for the year ended December 31, 2024.

Applicable Criteria of the Subject Matter Information

TSC shall prepare the Subject Matter Information in accordance with applicable criteria required by Article 4 of Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEx Listed Companies ("the Rules") and Global Reporting Initiative Standards ("GRI Standards") issued by Global Sustainability Standards Board as set forth in Appendix I.

Management's Responsibilities

TSC is responsible for determining its objectives with respect to sustainable development performance and reporting, including the identification of stakeholders and material aspects, and using the applicable criteria to fairly prepare and present the Subject Matter Information. TSC is also responsible for establishing and maintaining internal controls relevant to the preparation and presentation of the Subject Matter Information that is free from material misstatement, whether due to fraud or error.

Our Responsibilities


We performed our work in accordance with the Standard on Assurance Engagements TWSAE3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation in Taiwan and to issue a limited assurance conclusion on whether the Subject Matter Information is free from material misstatement. Also, we have considered appropriate limited assurance procedures according to the understanding of relevant internal controls in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the internal control over the design or implementation of the Report.

Independence and Standards on Quality Management

We have complied with the independence and other ethical requirements of the Code of Professional Ethics for Certified Public Accountant in the Republic of China, which is founded on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior. In addition, we applied Standards on Quality Management. Accordingly, we maintained a comprehensive system of quality management, including documented policies and procedures regarding compliance with ethical requirements and professional standards as well as applicable legal and regulatory requirements.

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Summary of Work Performed

As stated in applicable criteria of the Subject Matter Information paragraph, our main work on the selected information included:

- Reading the Report of TSC;
- Inquiries with responsible management level and non-management level personnel to understand the operational processes and information systems used to collect and process the Subject Matter Information.
- On the basis of the understanding obtained mentioned above, perform analytical procedures on the Subject Matter Information and if necessary, inspect related documents to gather sufficient and appropriate evidence in a limited assurance engagement.

The work described above is based on professional judgment and consideration of the level of assurance and our assessment of the risk of material misstatement of the Subject Matter Information, whether due to fraud or error. We believe that the work performed and evidence we have obtained are sufficient and appropriate to provide a basis of our conclusion. However, the work performed in a limited assurance engagement varies in nature and timing from, and is less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations

The Report for the year ended December 31, 2024 includes the disclosures of non-financial information that involved significant judgments, assumptions and interpretations by the management of TSC. Therefore, the different stakeholders may have different interpretations of such information.

Conclusion

Based on the work we have performed and the evidence we have obtained, as described above, nothing has come to our attention that causes us to believe that the Subject Matter Information has not been properly prepared, in all material aspects, in accordance with the applicable criteria.

Other Matters

We shall not be responsible for conducting any further assurance work for any change of the subject matter information or the criteria applied after the issuance date of this report.

The engagement partners on the assurance resulting in this independent auditors' report are Kuo, Yang-Lun and Hsiao, Pei-Ju.

KPMG
Taipei, Taiwan (Republic of China)
August 8, 2025

Notes to readers

The limited assurance report and the accompanying selected information are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of, the English and Chinese language limited assurance report and the selected information, the Chinese version shall prevail.

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Appendix 1 : Summary of the Subject Matter Information

No.	Corresponding Section	Subject Matter Information	Applicable Criteria										
1	1.3.2 Regulatory Compliance	<p>■ In 2024, there were no major violations related to anti-corruption, anti-competitive behavior, money laundering, or insider trading. Additionally, no other significant legal violations occurred^{Note(1)}. There were two cases in 2024 involving violations of the Gender Equality in Employment Act, and the Occupational Safety and Health Act.</p> <p>Note1: In accordance with Article 4 of the "Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities" a material violation refers to any single incident where the cumulative fine reaches or exceeds NTS1 million. In 2024, TSC did not experience any material violations or non-monetary penalties.</p> <p>■ Violations Summary in 2024</p> <table><tr><th>Penalized Site</th><th>Fault</th><th>Fine (NTS)</th></tr><tr><td>Lije Site</td><td>In a labor condition audit conducted in June 2024, it was found that the calculation of perfect attendance bonuses for shift personnel was affected by the use of menstrual leave. In July 2024, the site was penalized for violating Article 21, Paragraph 2 of the Gender Equality in Employment Act. (The employee's perfect attendance bonus was affected by applying for menstrual leave under the Gender Equality in Employment Act.)</td><td>\$20,000</td></tr><tr><td>Yilan Site</td><td>In August 2024, a labor inspection of work logs found unlicensed personnel operating designated high-pressure gas equipment. In September 2024, the site was penalized for violating Article 24 of the Occupational Safety and Health Act. (Failure to assign certified or trained personnel to operate designated hazardous equipment as required by the central competent authority.)</td><td>\$100,000</td></tr></table>	Penalized Site	Fault	Fine (NTS)	Lije Site	In a labor condition audit conducted in June 2024, it was found that the calculation of perfect attendance bonuses for shift personnel was affected by the use of menstrual leave. In July 2024, the site was penalized for violating Article 21, Paragraph 2 of the Gender Equality in Employment Act. (The employee's perfect attendance bonus was affected by applying for menstrual leave under the Gender Equality in Employment Act.)	\$20,000	Yilan Site	In August 2024, a labor inspection of work logs found unlicensed personnel operating designated high-pressure gas equipment. In September 2024, the site was penalized for violating Article 24 of the Occupational Safety and Health Act. (Failure to assign certified or trained personnel to operate designated hazardous equipment as required by the central competent authority.)	\$100,000	GRI Standards 2-27 Compliance with laws and regulations	
		Penalized Site	Fault	Fine (NTS)									
		Lije Site	In a labor condition audit conducted in June 2024, it was found that the calculation of perfect attendance bonuses for shift personnel was affected by the use of menstrual leave. In July 2024, the site was penalized for violating Article 21, Paragraph 2 of the Gender Equality in Employment Act. (The employee's perfect attendance bonus was affected by applying for menstrual leave under the Gender Equality in Employment Act.)	\$20,000									
Yilan Site	In August 2024, a labor inspection of work logs found unlicensed personnel operating designated high-pressure gas equipment. In September 2024, the site was penalized for violating Article 24 of the Occupational Safety and Health Act. (Failure to assign certified or trained personnel to operate designated hazardous equipment as required by the central competent authority.)	\$100,000											
2	3.1.1 Overview of the Supply Chain	<p>■ Local Supplier Procurement Overview</p> <table><tr><th></th><th>Unit: NTS</th></tr><tr><th></th><th>2024</th></tr><tr><td>Local Procurement Value</td><td>2,560,021,654</td></tr><tr><td>Total Procurement Value</td><td>4,004,220,444</td></tr><tr><td>Local Procurement Ratio (%)</td><td>63.93%</td></tr></table> <p>Note:</p> <p>1. TSC's key operational sites include all manufacturing facilities, namely Lije Site, Yilan Site, Shandong Site, and Tianjin Site.</p> <p>2. Local suppliers are defined based on the geographic location of each site: for the Yilan Site and Lije Site, local procurement refers broadly to suppliers within Taiwan; for the Shandong Site and Tianjin Site, it refers to suppliers within mainland China.</p> <p>3. The statistical scope includes categories of raw material suppliers and purchased finished goods suppliers, excluding suppliers of facility and labor services.</p> <p>4. The statistics include data on related party transactions.</p>		Unit: NTS		2024	Local Procurement Value	2,560,021,654	Total Procurement Value	4,004,220,444	Local Procurement Ratio (%)	63.93%	GRI Standards 204-1 Proportion of spending on local suppliers
			Unit: NTS										
			2024										
Local Procurement Value	2,560,021,654												
Total Procurement Value	4,004,220,444												
Local Procurement Ratio (%)	63.93%												

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No.	Corresponding Section	Subject Matter Information	Applicable Criteria																					
3	5.2.2 Energy management	<div>■ Energy usage at each site</div> <div>Unit: GJ</div> <table><tr><td rowspan="5">Non-renewable energy</td><td>Liquefied Petroleum Gas</td><td>1.26</td></tr><tr><td>Diesel</td><td>92.12</td></tr><tr><td>Gasoline</td><td>290.53</td></tr><tr><td>Purchased electricity</td><td>169,497.21</td></tr><tr><td>Renewable energy</td><td>Purchased electricity</td><td>50,108.40</td></tr><tr><td colspan="2">Total energy usage of the organization</td><td>219,989.52</td></tr><tr><td colspan="2">Proportion of energy use from purchased electricity (%)</td><td>99.83%</td></tr><tr><td colspan="2">Proportion of renewable energy (%)</td><td>22.78%</td></tr></table> <div>Note:</div> <div>1. Gasoline is not differentiated by octane rating.</div> <div>2. Conversion factors are based on the "2023 Energy Statistics Handbook" published by the Energy Administration, Ministry of Economic Affairs: Gasoline: 7,800 kcal/L (1 liter=0.0327 GJ); Diesel: 8,400 kcal/L (1 liter=0.0352 GJ); Electricity: 860 kcal/kWh (1 kWh=0.0036 GJ).</div> <div>3. All figures are rounded to two decimal places using the round-half-up method.</div> <div>4. There is no energy consumption related to heating, cooling, or steam, nor any sale of electricity, heating, cooling, or steam energy.</div> <div>5. In 2024, the total consumption of non-renewable energy was 169,881.12 GJ, while the total consumption of renewable energy was 50,108.40 GJ.</div>	Non-renewable energy	Liquefied Petroleum Gas	1.26	Diesel	92.12	Gasoline	290.53	Purchased electricity	169,497.21	Renewable energy	Purchased electricity	50,108.40	Total energy usage of the organization		219,989.52	Proportion of energy use from purchased electricity (%)		99.83%	Proportion of renewable energy (%)		22.78%	GRI Standards 302-1 Energy consumption within the organization
		Non-renewable energy		Liquefied Petroleum Gas	1.26																			
				Diesel	92.12																			
				Gasoline	290.53																			
				Purchased electricity	169,497.21																			
			Renewable energy	Purchased electricity	50,108.40																			
		Total energy usage of the organization		219,989.52																				
		Proportion of energy use from purchased electricity (%)		99.83%																				
		Proportion of renewable energy (%)		22.78%																				
		4	5.2.2 Energy management	<div>■ Energy intensity in 2024 was 14.84</div> <div>Note:</div> <div>1. Energy Intensity = Total energy consumption within the organization (GJ) / Consolidated revenue (NTD million)</div> <div>2. Revenue is based on the consolidated financial statements; energy consumption includes both renewable and non-renewable energy.</div>	GRI Standards 302-3 Energy intensity																			
5	5.3.1 Water Stewardship	<div>■ TSC conducted a water risk assessment using the WRI Aqueduct Tool developed by the World Resources Institute. The results identified the Shandong Site as being located in a region with high water stress.</div> <div>■ Water Withdrawal Volumes at TSC Operating Sites in 2024</div> <div>Unit: Megaliters</div> <table><tr><td rowspan="5">Water withdrawal</td><td></td><td>Lije Site</td><td>Yilan Site</td><td>Shandong Site</td></tr><tr><td>Surface water</td><td>214.98</td><td>0.00</td><td>0.00</td></tr><tr><td>Groundwater</td><td>0.00</td><td>32.76</td><td>155.09</td></tr><tr><td>Third-party water (tap water)</td><td>21.23</td><td>2.56</td><td>69.45</td></tr><tr><td>Total water withdrawal</td><td>236.21</td><td>35.32</td><td>224.54</td></tr></table>	Water withdrawal		Lije Site	Yilan Site	Shandong Site	Surface water	214.98	0.00	0.00	Groundwater	0.00	32.76	155.09	Third-party water (tap water)	21.23	2.56	69.45	Total water withdrawal	236.21	35.32	224.54	GRI Standards 303-3 Water withdrawal
		Water withdrawal			Lije Site	Yilan Site	Shandong Site																	
Surface water	214.98			0.00	0.00																			
Groundwater	0.00			32.76	155.09																			
Third-party water (tap water)	21.23			2.56	69.45																			
Total water withdrawal	236.21		35.32	224.54																				

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No.	Corresponding Section	Subject Matter Information	Applicable Criteria																	
5	5.3.1 Water Stewardship	<table border="1"> <thead> <tr> <th></th><th>Tianjin Site</th><th>Other office branches</th><th>TSC Total</th></tr> </thead> <tbody> <tr> <td rowspan="4">Water withdrawal</td><td>Surface water</td><td>0.00</td><td>214.98</td></tr> <tr> <td>Groundwater</td><td>0.00</td><td>187.85</td></tr> <tr> <td>Third-party water (tap water)</td><td>300.65</td><td>2.34</td></tr> <tr> <td>Total water withdrawal</td><td>300.65</td><td>2.34</td></tr> </tbody> </table> <p>Note:</p> <p>1. Water withdrawal data from third-party sources (tap water) and surface water is derived from water bills, while groundwater withdrawal volumes are recorded using on-site water meter readings at each operating sites.</p> <p>2. The data collection scope covers all production sites and office branches, including the Taipei headquarters, Hsinchu office, and Hong Kong office. Data disclosure for the Taipei headquarters was estimated based on the proportion of water usage on each floor, as indicated in the office building's water bill.</p> <p>3. According to the WRI Aqueduct Tool, water stress is calculated as: Total annual water withdrawals divided by total available annual renewable supply. Areas with a water stress index between 40% and 80% are classified as high water stress areas, while those with a water stress index above 80% are categorized as extremely high water stress areas. TSC exclusively relies on freshwater sources with a total dissolved solid content of $\leq 1,000$ mg/L. The production sites including Lije Site, Yilan Site, and Tianjin Site have water stress indices below 40%; the Shandong Site is situated in an extremely high water stress area, accounting for about 28% of TSC's overall water withdrawal. All remaining office branches are located in areas with low water stress risk.</p> <p>4. In 2024, TSC had no water withdrawal from seawater or produced water resources.</p>		Tianjin Site	Other office branches	TSC Total	Water withdrawal	Surface water	0.00	214.98	Groundwater	0.00	187.85	Third-party water (tap water)	300.65	2.34	Total water withdrawal	300.65	2.34	<p>GRI Standards</p> <p>303-3</p> <p>Water withdrawal</p>
	Tianjin Site	Other office branches	TSC Total																	
Water withdrawal	Surface water	0.00	214.98																	
	Groundwater	0.00	187.85																	
	Third-party water (tap water)	300.65	2.34																	
	Total water withdrawal	300.65	2.34																	
6	4.2.1 Workplace Safety and Health	<p>■ Description of the 2024 Occupational Safety Incident</p> <p>- Yilan Site: 1 Work-Related Accident in 2024</p> <p>Description: In 2024, the Yilan Site experienced one work-related accident. The main cause was that personnel were using a pneumatic gun for operations without wearing appropriate personal protective equipment, resulting in facial injuries from being hit by flying debris. Through accident investigation and improvement, additional safety goggles were allocated at various air gun operation sites, signs emphasizing the use of protective gear were increased, with clear indications of when to wear them. Additionally, education and training were strengthened along with the promotion of safety standards, and the frequency of inspections by occupational safety personnel and on-site supervisors was increased. As a result, no further incidents have occurred subsequently.</p> <p>- Shandong Site: 1 Work-Related Accident in 2024</p> <p>Description: In 2024, the Shandong Site experienced one work-related accident. The primary cause was that, upon noticing an equipment warning,</p>	<p>GRI Standards</p> <p>403-9</p> <p>Work-related injuries</p>																	

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No.	Corresponding Section	Subject Matter Information	Applicable Criteria																																	
		<p>the employee pressed the pause button but did not immediately stop the related operation, resulting in a right-hand crush injury. Following the incident, the company conducted an investigation, reviewed procedures, improved equipment, refined operating standards and safety guidelines, and strengthened employee training to prevent recurrence.</p> <p>■ 2024 Various Work-related Injuries Statistical Indicators</p> <table> <tr> <th>Category</th><th>Total</th></tr> <tr> <td>Number of Hours Worked</td><td>2,818,288</td></tr> <tr> <td>Recordable Work-related Injuries</td><td>2</td></tr> <tr> <td>Recordable Work-related Injury Rate</td><td>0.70</td></tr> <tr> <td>High-consequence Work-related Injuries (Excl. Fatalities)</td><td>0</td></tr> <tr> <td>High-consequence Work-related Rate (Excl. Fatalities)</td><td>0</td></tr> <tr> <td>Work Days Lost</td><td>16</td></tr> <tr> <td>Fatalities / Fatality Rate</td><td>0/0</td></tr> </table> <p>1.Total working hours calculation method: number of workdays in a year * average daily working hours * (number of employees on duty on December 31).</p> <p>2.The calculation scope includes five key locations: headquarters, Lije Site, Yilan Site, Tianjin Site, and Shandong Site.</p> <p>3.Number of work-related injuries, excluding traffic accidents caused by commuting to and from work.</p> <p>4.Rate of recordable work-related injuries = (Number of recordable work-related injuries ÷ Number of hours worked) × 1,000,000.</p> <p>5.Definition of High-consequence Work-related Injury: Work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within six month</p> <p>6.High-consequence work-related injuries Injury Rate (Excl. Fatalities) = (Number of high-consequence work-related injuries (excluding fatalities) ÷ Number of hours worked) × 1,000,000</p> <p>7.There were 36 non-employee on-site workers, primarily consisting of annual security staff, cleaning staff, and equipment contractors in Taiwan and Mainland China, with no work-related injuries or work-related illnesses.</p>	Category	Total	Number of Hours Worked	2,818,288	Recordable Work-related Injuries	2	Recordable Work-related Injury Rate	0.70	High-consequence Work-related Injuries (Excl. Fatalities)	0	High-consequence Work-related Rate (Excl. Fatalities)	0	Work Days Lost	16	Fatalities / Fatality Rate	0/0																		
Category	Total																																			
Number of Hours Worked	2,818,288																																			
Recordable Work-related Injuries	2																																			
Recordable Work-related Injury Rate	0.70																																			
High-consequence Work-related Injuries (Excl. Fatalities)	0																																			
High-consequence Work-related Rate (Excl. Fatalities)	0																																			
Work Days Lost	16																																			
Fatalities / Fatality Rate	0/0																																			
7	5.4.1 Waste Management	<p>■ Total waste in 2024</p> <table> <tr> <th rowspan="2">Category</th><th rowspan="2">Item</th><th colspan="2">Unit: metric tons</th></tr> <tr> <th>Off-site</th><th>On-site</th></tr> <tr> <td rowspan="4">Direct disposal</td><td>Incineration (including energy recovery)</td><td>0</td><td>0</td></tr> <tr> <td>Incineration (excluding energy recovery)</td><td>182.26</td><td>0</td></tr> <tr> <td>Landfilling</td><td>1.15</td><td>0</td></tr> <tr> <td>Other disposal methods</td><td>544.43</td><td>0</td></tr> <tr> <td rowspan="3">Reuse</td><td>Preparation for reuse</td><td>0</td><td>0</td></tr> <tr> <td>Recycling</td><td>208.89</td><td>0</td></tr> <tr> <td>Other recycling operations</td><td>0</td><td>0</td></tr> <tr> <td colspan="2">Total Hazardous Waste</td><td>936.73</td><td>0</td></tr> </table>	Category	Item	Unit: metric tons		Off-site	On-site	Direct disposal	Incineration (including energy recovery)	0	0	Incineration (excluding energy recovery)	182.26	0	Landfilling	1.15	0	Other disposal methods	544.43	0	Reuse	Preparation for reuse	0	0	Recycling	208.89	0	Other recycling operations	0	0	Total Hazardous Waste		936.73	0	<p>The Rules Table 1-8 No.3</p> <p>Total hazardous waste generated and percentage recycled</p>
Category	Item	Unit: metric tons																																		
		Off-site	On-site																																	
Direct disposal	Incineration (including energy recovery)	0	0																																	
	Incineration (excluding energy recovery)	182.26	0																																	
	Landfilling	1.15	0																																	
	Other disposal methods	544.43	0																																	
Reuse	Preparation for reuse	0	0																																	
	Recycling	208.89	0																																	
	Other recycling operations	0	0																																	
Total Hazardous Waste		936.73	0																																	

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No.	Corresponding Section	Subject Matter Information	Applicable Criteria
7	5.4.1 Waste Management	<p>Note:</p> <p>1."Other disposal methods" include physical treatment.</p> <p>2.In 2024, the total of hazardous industrial waste was 936.73 metric tons, and the reuse rate was 22%, including preparation for reuse, recycling, and other recycling operations. This figure was calculated based on the amount of hazardous industrial waste reused as a percentage of the total hazardous industrial waste generated.</p> <p>3.The classifications of "hazardous" and "non-hazardous" are based on the Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste in Taiwan, and the People's Republic of China's Law on the Prevention and Control of Environmental Pollution by Solid Wastes.</p> <p>4.The data in the table covers all TSC production units. Office branches in Taipei, Hsinchu, and overseas are excluded.</p>	<p>The Rules Table 1-8 No.3</p> <p>Total hazardous waste generated and percentage recycled</p>



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