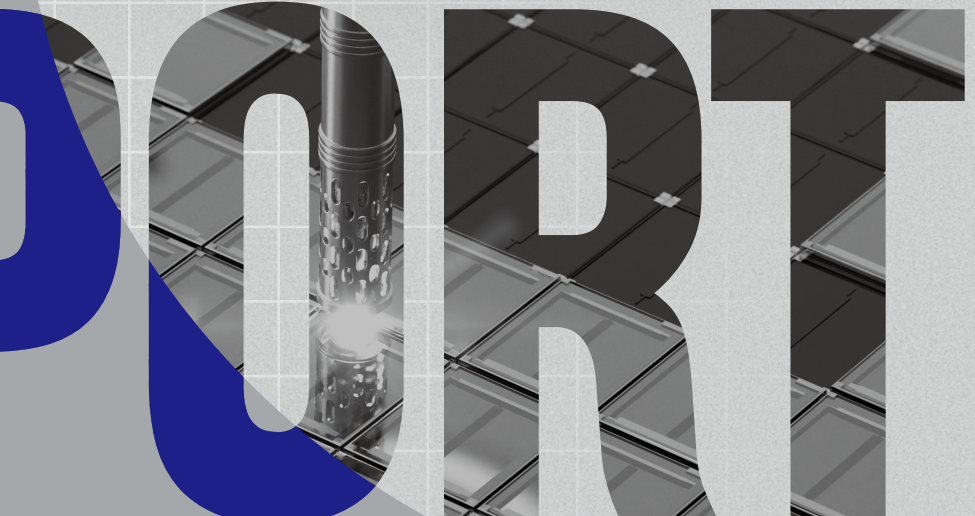
TAIWAN SEMICONDUCTOR

ESG REPORT

TSC Sustainability Report 2023



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About This Report

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Cover Story

TSC believes that "The power of business as the greatest platform for change." (Marc Benioff). In the pursuit of sustainable development, it is crucial to continuously listen to the voices of stakeholders and demonstrate unwavering perseverance.

TSC has been established for 45 years, with a focus on the power semiconductor industry and a commitment to long-term innovation and product development. The wafer on the cover design represents TSC's dedication to its core business and its emphasis on professionalism over the past 45 years. It conveys the Company's steady progress and unwavering commitment to sustainability goals. The incorporation of green elements symbolizes the integration of sustainable development with the core business, including TSC's efforts to mitigate and adapt to climate change, and promote green operations. The imagery of water droplets not only represents a crucial aspect of wafer manufacturing but also reflects TSC's aspirations towards sustainability goals, creating ripples of positive impact.

We look forward to utilizing the power of business to create positive effects, collaborating with partners from all sectors to achieve shared value for the greater good.

About This Report

Taiwan Semiconductor Co., Ltd. (referred to as TSC or the Company) aims to communicate its sustainable development strategies and performance in the environment, society, and governance to stakeholders. Starting in 2023, the Company published an annual sustainability report in both Chinese and English and disclose relevant information on its official website. This report is the second publication issued by TSC, covering the period from January 1, 2023, to December 31, 2023, and highlighting the Company's practices and performance in various ESG aspects.

First Publication	September 2023
Previous Version	September 2023
Current Version	July 2024
Next Version	Scheduled for release in July 2025

Note: In order to prioritize environmental protection, this report is primarily being issued in electronic format. Complete information can be found on the TSC official website.

Principles of Compilation

- **Sustainability Performance:**

  This report has been prepared in accordance with the 2021 GRI Standards issued by the Global Reporting Initiative (GRI), the Task Force on Climate-related Financial Disclosures (TCFD), the Sustainability Accounting Standards Board (SASB), and the Semiconductors Sustainability Accounting Standard 2023. And compiled in accordance with the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies.

- **Financial Performance:**

  The financial data in this report is derived from the individual financial statements audited by KPMG in Taiwan. Unless otherwise stated, all financial information expressed in NT$ is in units of NT$ thousand.

Scope of Report

TSC Group comprises the rectifier and barcode printer business. This report discloses the content of rectifier business operations and production sites, including:

1. Operations and Production Sites in Taiwan: Taiwan headquarters, Hsinchu Office, I-lan Site, and Li-Je Site
2. Overseas Production Sites: Shandong Site - Yangxin Everwell Electronic Co., Ltd., and Tianjin Site - Tianjin Everwell Technology Co., Ltd.

This report includes data from the Shandong Site and Tianjin Site starting from this year. Some of the data has been traced back to information before 2023. Any inconsistencies in the reporting period or adjustments in the scope of information disclosure will be noted and explained in the report. Regarding the barcode printer business, TSC Auto ID Technology Co., Ltd. and its Subsidiaries will be gradually incorporated into the report.

Explanation of Data

This report has been written with a rigorous approach, aiming to enhance the quality of data and various statistics. The major change this year is the addition of the Shandong Site and Tianjin Site to the scope of disclosure, which has led to variations in the report content and data compared to 2022. The discrepancies in other sections of the historical data, when compared to the previous version of the report, are clarified as follows:

Chapter	Explanation of Discrepancies	Data Discrepancy
2.1.1 Products and Services	• Update the total production data for 2022 to match the parent company only financial statements for 2023. • Update the sales revenue in the European market for 2022 to match the parent company only financial statements for 2023. • Update the sales revenue in other areas market for 2022 to match the parent company only financial statements for 2023.	• The original quantity of 7,062,352 Kpcs has been revised to 7,063,352 Kpcs. • The original amount of NT$1,776,181 thousand has been revised to NT$1,772,769 thousand. • The original amount of NT$106,315 thousand has been revised to NT$109,727 thousand.
5.2.1 Carbon Emission Management	Update Historical Data and Reference Coefficients	• The original data for direct greenhouse gas emissions from the Li-Je Site in 2021 were 27.8046, it has been revised to 27.8049, with a negligible difference in the decimal places and no significant impact. • The methane data for the I-lan Site in 2022 has been revised from 0.6330 to 0.6250, with a negligible difference in the decimal places and no significant impact.

Internal Audit

This report's content is derived from the annual sustainability performance and highlights of each department. After compilation and analysis by the ESG Office, it is submitted to the ESG Committee for approval and issuance. In 2023, TSC implemented an internal control system in accordance with the "Rules Governing the Preparation and Filing of Sustainability Reports by TPEx Listed Companies" of the Taiwan Stock Exchange Corporation. To enhance the preparation and verification mechanism of the Company's sustainability report.

External Confirmation

The Company has commissioned KPMG in Taiwan to conduct a limited assurance in accordance with the TWSAE3000 of the Taiwan ARDF on Financial Reporting Standards for Non-Historical Financial Information Audit or Review (established referring to ISAE 3000). The Certified Public Accountant/CPA's independent assurance statement is attached to "Appendix 6" of this report.

Contact Information

Should you have any questions or suggestions about the content of this report, please feel free to contact us.

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Message from the Chairman

Technology begins with humanity.

The rapid advancement of technology has facilitated our daily life. However, technology has also led to the over-exploitation of the natural environment and alienated people's care for the society. How to strike a balance between economic development and environmental protection, and how to bring back the power of goodness, love and tolerance to the society while enjoying the convenience are important issues that enterprises have to actively face nowadays. In the face of climate change, talent sustainability, social care and other challenges, TSC integrates ESG concepts into its daily operations and implements its corporate sustainability goals. In 2023, TSC, through the ESG Committee and the ESG Office, jointly examined issues related to the Company's sustainable governance, implemented sustainable governance standards, and continuously optimized the Company's internal management system. In terms of product development, we have progressively achieved our product R&D goals, optimized our product portfolio according to market trends and customer needs, and completed our validation and mass production successively. In response to the global trend of net-zero emissions, TSC continued to promote inventory operations in 2023, develop green transformation goals, and adhere to our environmental commitments. In addition, TSC has made unremitting efforts to create a healthy and friendly workplace environment through a comprehensive education and training system and employee opinion surveys. TSC will be celebrating its 45th anniversary in 2024, and over the years, TSC has reached many important milestones. From its humble beginnings in 1979 in a difficult investment environment, to establishing a presence in Yilan, to multiple major production shifts and the establishment of global operations, it has been a long and arduous journey. However, step by step, TSC has grown to become a global company with thousands of employees, and over the past decade has gained the favor of its customers and successfully entered the international automotive brand market. In the face of rapid changes in the environment, TSC has maintained its core business, through product innovation, R&D, and transformation, while implementing comprehensive ESG initiatives to reserve energy for the next wave of growth.

Implementing sustainable governance principles

Integrity has been the cornerstone of TSC's business operations for over 45 years. Every year, TSC actively participates in corporate governance evaluation system and continues to improve its management system based on the evaluation results. In 2023, in accordance with the "Corporate Governance 3.0 -Sustainable Development Roadmap" of the competent authority, TSC focused on the implementation of non-financial information disclosure, the issuance of a sustainability report, and the revamping of its official website to enhance external communication. At the same time, in order to actively respond to the needs of stakeholders, TSC plans to introduce the ISO 27001 Information Security Management System (ISMS) international certification, and is committed to building a comprehensive information security management level and policy to protect the security of Company and customer information. In 2023, TSC was honored to be selected by the Taiwan Institute of Directors and the Corporate Development Research Center (CDRC) as one of the "2023 Taiwan Best-in-Class 100", out of 1,779 listed and over-the-counter companies, which represents that TSC has been selected for its market, fundamentals, and sustainability.

Achieving product R&D goals

Although the recovery of the semiconductor industry was not as strong as expected in 2023, TSC still actively invested in product R&D and technological innovation in order to meet the needs of long-term momentum. In 2023, TSC set up a new R&D center in Hsinchu to bring in more professional talents and technologies, and our annual R&D expenses as a percentage of net revenues have been increasing year after year for the past three years. On the other hand, we are also driving transformation and diversification by entering multiple product lines, including automotive MOSFETs, TVS, and ESD products. Through strategies such as optimizing product structures and expanding sales channels, we are gradually enlarging our presence in the automotive and industrial control markets. TSC will continue to provide high-quality automotive-grade products to help our customers enhance product performance while contributing to energy conservation and carbon reduction efforts.

Fulfilling environmental sustainability visions

As the biggest problem facing mankind in the future is closely related to global warming and climate change, TSC follows Taiwan's 2050 net-zero transition goal and responds to government policies. At the same time, we also pay attention to international carbon tax and regulation trends, understand the supply chain and stakeholders' concerns about sustainability issues, and actively respond to the global carbon reduction vision. In 2023, we promoted a number of sustainability projects through the ESG Committee, the ESG Office and various functional groups, including the completion of the first-ever Task Force on Climate-related Financial Disclosures (TCFD) project, the completion of a quantitative assessment of climate risk in relation to the "increase in the cost of greenhouse gas emissions", and the incorporation of the results of the assessment into our overall operational considerations. In 2023, we drew up a roadmap for carbon reduction, promoted various energy-saving projects, introduced the ISO 50001 energy management system, launched a comprehensive ISO 14064 greenhouse gas inventory, and drew up a renewable energy layout plan. In the future, we aim to increase the proportion of green energy usage year by year, respond to the energy transition and reduce greenhouse gas emissions, and work with global enterprises to achieve net-zero emissions.

Promoting shared social values

Organization and teamwork is one of the most important elements of a sustainable business. Over the past 45 years, TSC has been fortunate to have experienced team members in various fields who have worked hard to make TSC what it is today, and in order for employees to grow together with the Company, in 2023, TSC formally approved the competency module and planned a three-year plan to build consensus, and integrate the spirit of functionality into daily work. In addition, in order to better understand the voices of employees, TSC launched the "Employee Opinion Survey" for the first time in 2023 to listen to the voices of employees in a timely manner through a variety of channels for reflecting their opinions, and to systematically understand the overall work experience and thoughts of employees, so as to create a perfect, healthy and happy workplace.

Embracing a sustainable future

TSC is approaching its 45th anniversary, yet our organization and culture remain vibrant and youthful, ready to embrace the next phase of growth. As a member of the global semiconductor supply chain, we look to the future with steadfast commitment to innovation, dedication, and professionalism. Regardless of economic fluctuations or environmental changes, we maintain a proactive attitude and flexible adaptability to enhance our resilience and competitiveness. Since 2022, we have been gradually building, driving, and initiating various sustainability themes. By 2023, we have continued to deepen these efforts, including implementing sustainable governance principles, achieving product R&D goals, fulfilling environmental sustainability visions, and promoting shared social values. TSC is committed to aligning with international standards and actively pursuing the United Nations Sustainable Development Goals (SDGs). We will transparently share our sustainability journey and achievements, working together with all stakeholders to realize our next phase of vision.

Chairman **Wang Shiu Ting**

Communication with Stakeholders and Analysis of Material Topics

Stakeholder Engagement GRI 2-29

TSC values and listens to the voices of various stakeholders. Through discussions and reviews within the units and departments under the ESG Committee, we gather information on internal and external groups or individuals that have an impact on or are affected by the Company's operations. We also reference the five principles of the AA1000 Stakeholder Engagement Standard (SES) to identify seven main stakeholders: suppliers, customers, employees, investors, government, media, and others (including the general public and academic institutions). Through regular and irregular communication with stakeholders, we aim to understand the actual and potential impacts of our operations on stakeholders. This understanding serves as the basis for our future planning of relevant preventive and mitigation actions.

Stakeholder	The Significance of TSC	Issues of Concern	Communication Frequency and Channels	2023 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.	• Regulatory Compliance • Product Liability	**Regular** Remote or on-site audit (Annually) **Time to time** - Suppliers meetings - Contractor environmental, health, and safety promotion - Questionnaire survey, RBA self-assessment questionnaire	✓ Promote suppliers to sign the "Declaration of Non-Use of Minerals from Conflict Areas," achieving a signing rate of 90%. ✓ Conduct audits, whether online or in person, for at least 9 automotive suppliers, ensuring all meet TSC's quality requirements for automotive components.
Customers	Customer support and recognition are the driving forces behind TSC's growth. We are dedicated to comprehending their needs, capturing industry trends, and delivering professional services to meet customer expectations.	• Social Participation • Business Ethics and Integrity • Information Security Management • Employee Safety and Health • Sustainable Supply Chain • Regulatory Compliance • Human Rights • Innovative Products and Services • Product Liability • Climate Strategy and Energy Management • Customer Relationship Management • Waste Management and Recycling	**Regular** - Customer Satisfaction Survey (Annually) - Corporate Sustainability Report and Official Website **Time to time** - Various types of communication and discussion meetings can be arranged based on customer requirements. - Customer questionnaire responses (such as EcoVadis, Platform of Carbon Disclosure Project (CDP), SupplyOn, etc.) - Customer Audit	✓ Conducting annual customer satisfaction survey and the result is 4.6. ✓ In 2023, the TSC released its inaugural sustainability report, showcasing its sustainable performance and accomplishments through meetings and emails. ✓ The number of customer ESG questionnaire responses exceeds 20. ✓ The official website revamp project was scheduled to be completed in 2023 to enhance the user experience and streamline the process of accessing product details for customers.
Employees	Employees are the most valuable asset of TSC. It is also the foundation of the Company's sustainable development. We strive to promote a sense of unity among our colleagues and work towards a brighter future together by offering a competitive remuneration and benefits system, along with a robust career development program.	• Business Ethics and Integrity • Innovative Products and Services • Customer Relationship Management	**Regular** - Labor-management Meeting (Quarterly) - Occupational Health and Safety Meeting (Quarterly) - Employee Meeting (Annually) - Employee Satisfaction Survey (Annually) - Performance Evaluation Explanation Seminar (Every Six Months) **Time to time** - Employee Interviews - Employee Feedback and Sexual Harassment Grievance Reporting Mailbox - Departmental Work Meeting	✓ No employee grievances were received in 2023. ✓ The "Employee Opinion Survey" was first launched in 2023 to systematically gather insights into the overall work experience and thoughts of colleagues. ✓ In 2023, TSC competency model was officially launched, aiming to foster a high-performance consensus among all employees.

Stakeholder	The Significance of TSC	Issues of Concern	Communication Frequency and Channels	2023 Communication Highlights and Results
Investors	Shareholders and investors are crucial sources of funding. By providing transparent information disclosure, we showcase TSC's operational strategies, profitability, and sustainability performance, thereby ensuring stable funding and generating investment value.	• Business Ethics and Integrity • Climate Strategy and Energy Management • Social Participation	Regular - Annual Shareholders' Meeting, and Annual Report (Annually) - Corporate Governance Evaluation System (Annually) - Financial Statements (Quarterly) - Investor Conference (Quarterly) Time to time - Face-to-face and Telephone Corporate Communication Meetings - Domestic and Overseas Investment Institutions Seminar - Company Website Operational Performance Update - Announcement of Material Information Regarding the Market Observation Post System	✓ In 2023, TSC conducted 5 investor conferences to publicly explain the highlights and performance of its sustainability efforts, aiming to promote two-way sustainable communication with investors.
Government	TSC is dedicated to maintaining stable operations and has established effective communication channels with competent authorities to stay informed about the latest regulatory trends. Additionally, TSC actively engages in relevant government initiatives.	• Business Ethics and Integrity • Information Security Management • Employee Safety and Health • Social Participation	Time to time - Official Document and Email Correspondence - Assessment, Evaluation, and Audit - Various types of meetings (such as seminars, investor conferences, and forums).	✓ Participating in Corporate Governance Evaluation System ✓ Actively maintaining smooth communication with the government, in accordance with the Financial Supervisory Commission's "Regulations Governing Establishment of Internal Control Systems by Public Companies", we have appointed a Chief Information Security Officer and a team of dedicated personnel, totaling 3 individuals, who are responsible for establishing the corporate cyber security management framework.
Media	The media plays the role of a bridge between TSC and stakeholders, helping stakeholders openly obtain accurate company information and solidify the Company's image.	• Business Ethics and Integrity • Regulatory Compliance • Innovative Products and Services • Climate Strategy and Energy Management • Water Stewardship	Regular Investor Conference Time to time - Face-to-face, and Telephone Interview - Company Official Website, Press Release - Social Media	✓ Held 5 investor conferences.
Others (such as the general public, academic institutions, etc.)	TSC has been actively seeking to understand local needs and collaborating with relevant public welfare and educational organizations to fulfill their corporate social responsibility	• Business Ethics and Integrity • Information Security Management • Employee Safety and Health • Diversity and Inclusion • Regulatory Compliance • Human Rights • Talent Recruitment and Retention • Customer Relationship Management • Social Participation • Sustainable Supply Chain • Innovative Products and Services	Regular Invoice Donation Time to time - Disaster Relief Donation - Assistance for Lunch and Tuition and Miscellaneous Expenses for Underprivileged Students - Blood Donation Charity Event - Industry-Academia Cooperation Meeting	✓ In 2023, we partnered with prestigious comprehensive universities to introduce the TSC Internship Program. Total internship hours are close to 1,500 hours. ✓ In 2023, the I-lan Site and Li-Je Site issued a total of 321 donation invoices to charitable organizations. ✓ The total amount of joint fundraising gift vouchers purchased by the I-lan Site and the Li-Je Site Employee Welfare Committee in 2023 reached NT$966,800.

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

TSC conducts a material topics analysis every year, following the GRI Standards, to establish the analysis process. This process consists of four steps: identification, evaluation, analysis & inspection, and approval. It aims to assess the actual and potential impacts of operational activities on the economic, environmental, and social aspects. This analysis serves as the foundation for developing and adjusting sustainability management strategies. To understand stakeholders' level of concern regarding TSC's sustainability issues, we expanded the distribution of questionnaires to both internal and external stakeholders in 2023, resulting in a total of 51 responses. This enables us to accurately identify stakeholder concerns and address their needs and expectations through various communication channels.

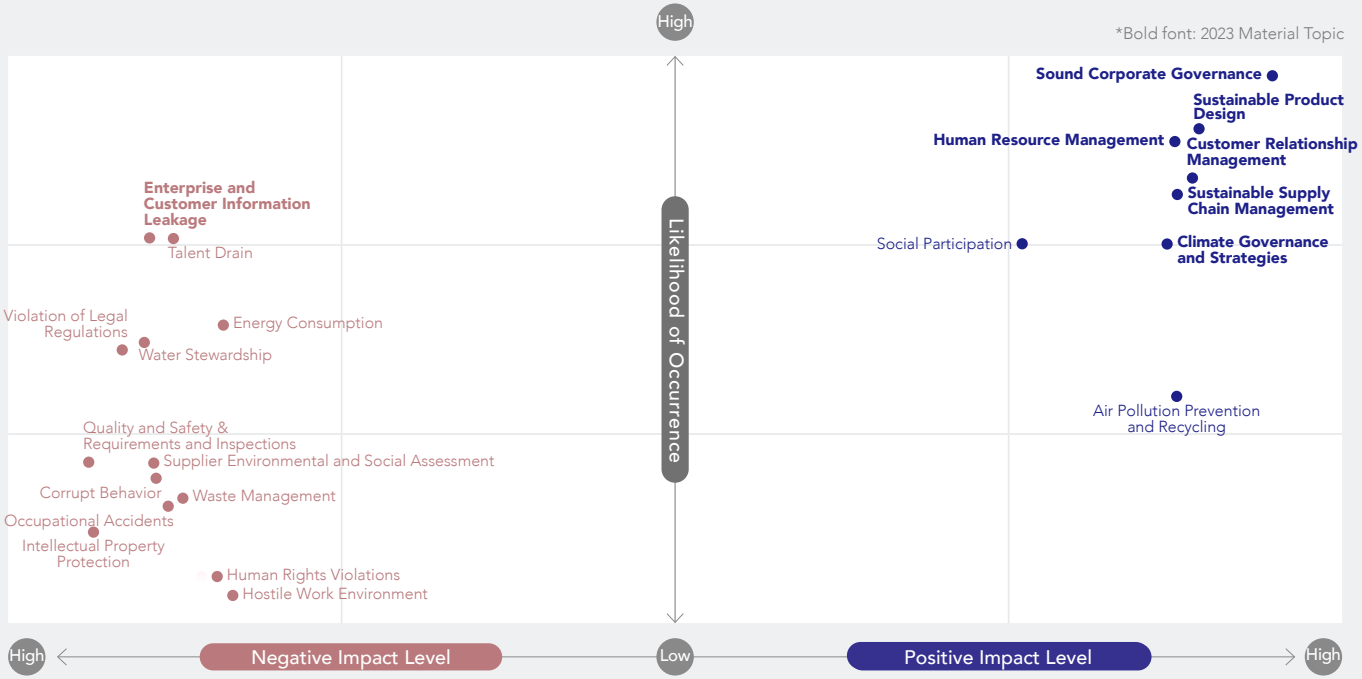
In 2023, TSC identified a total of seven material topics: Business Ethics and Integrity, Innovative Products and Services, Talent Recruitment and Retention, Customer Relationship Management, Sustainable Supply Chain, Information Security Management, and Climate Strategy and Energy Management. TSC has already started implementing TCFD and will continue to establish climate strategies and goals to support climate targets and reduce greenhouse gas. This year, Climate Governance and Strategy has been designated as one of the material topics.

Material Topic Identification Procedure

Process	Result
STEP 1 Identification • Communication Target: In reference to the five principles of the AA1000 Stakeholder Engagement Standard (SES), identify the seven primary stakeholders, which include suppliers, customers, employees, investors, government, media, and others (such as the general public and academic institutions). • Actual/Potential Impacts: By referencing information such as the Dow Jones Sustainability Indexes (DJSI), Carbon Disclosure Project (CDP), Sustainability Accounting Standards Board (SASB), Corporate Sustainability Assessment (CSA), United Nations Sustainable Development Goals (SDGs), industry regulations and norms, issues of concern to benchmark companies in the upstream and downstream, expectations of stakeholders, and opinions of expert consultants. We have summarized 21 actual and potential impacts, and identified and defined the most significant positive or negative impacts.	7 Main Stakeholders 21 Sustainable Issues
STEP 2 Evaluation • Degree of Impact and Significance: Based on the positive/negative impact and degree of significance on the environment, society, and economy in 2023, the issue is assessed on a three-level scale from 1 (zero impact) to 3 (serious impact). • Likelihood of Occurrence: Assess the future likelihood of occurrence based on the impact, using a three-level scale from 1 (impossibility) to 3 (high possibility). • Calculation of Impact Significance: Significance of the impact = Degree of Impact and Significance x Likelihood of occurrence	Assessment based on a three-level scale
STEP 3 Analysis & Inspection • Stakeholder feedback: Through the 2023 TSC Stakeholder and Material Topic Questionnaire, surveys were conducted on closely related and influential subjects. • Prioritization: Identify and prioritize sustainability issues into positive/negative impacts, using a threshold value of 75%. Any issue exceeding the threshold value will be classified as a material topic. • Select 7 sustainable issues of concern as the material topic for 2023, and create a material topic matrix.	7 material topics 51 valid questionnaires
STEP 4 Approval After review by the ESG Office, it is submitted to the ESG Committee for approval.	

2023 Material Topic Matrix

In response to the GRI Material Topics 2021, TSC considers factors such as industry, geographic location, and organization to define the positive and negative impacts of various sustainability issues. Through the concept of risk management, TSC identifies the actual and potential significance of these impacts. TSC set the X-axis of the material topic matrix to represent the organization's impact on the economy, environment, and society for each issue, with the magnitude of the impact differentiated by numerical values. The Y-axis of the matrix represents stakeholders' assessment of the issue's likelihood of occurrence.



2023 Material Topics Implications

Positive Negative

Aligned with the United Nations Sustainable Development Goals (SDGs)	2023 Material Topics	In Line with the 2022 Sustainable Topics	Positive/Negative Impact and Implications	Value Chain Impact			Management Policy (Corresponding Chapter)
				Upstream (such as suppliers)	TSC	Downstream (such as customers)	
Governance							
Industry Innovation and Infrastructure	Information Security Management	Information and Security Management	⊖ **Enterprise and Customer Information Leakage:** Information security vulnerabilities or hacker network attacks can result in the unauthorized disclosure of customer personal information or sensitive corporate information. This can potentially lead to legal disputes, illegal activities, and economic losses, including litigation costs and compensation. It may also expose customer information to unauthorized use.		●		1.4 Information Security Management
Peace, Justice and Strong Institutions	Business Ethics and Integrity	N/A	⊕ **Sound Corporate Governance:** Establishing a strong corporate governance framework is advantageous for the company to be included in the F4GTTE or enhance its competitiveness in the international capital market. By implementing various policies and promoting ethical standards, we encourage all employees to comply with legal regulations and integrate ethical practices into all business activities, thereby ensuring sustainable business operations.		●		1.2 Corporate Governance
Responsible Consumption and Production	Innovative Products and Services	• Product Services and Innovation • Intellectual Property • Responsible Products	⊕ **Sustainable Product Design:** Utilizing Product Lifecycle Management to reduce process waste and strengthen hazardous substance management in order to minimize the environmental impact of products. Additionally, identifying raw materials with recycling potential and promoting circular product design. Introducing cutting-edge technology in both the design and production stages, adhering to the innovative concept of "green products". Implementing production processes that are low in pollution and energy consumption, resulting in tangible benefits for greenhouse gas reduction.	●	●		2.1 R&D and Innovation
Partnerships for the Goals	Customer Relationship Management	Customer Relationship Management	⊕ **Customer Relationship Management:** Through regular customer meetings organized by the sales team, we can understand the actual needs of customers and make immediate improvements to operational plans. This will optimize and enhance the customer experience, as well as increase customer retention rate and loyalty, thereby improving economic performance.		●	●	2.2 Customer Relationship Management
	Sustainable Supply Chain	N/A	⊕ **Sustainable Supply Chain Management:** Through a fair and transparent selection process, considering factors such as quality, delivery schedule, prioritization procurement of local raw materials, and supplier sustainability issues management. Suppliers are encouraged to drive compliance with sustainability practices among their downstream suppliers, promoting economic inclusivity.		●	●	3.1 Supply Chain Management

Aligned with the United Nations Sustainable Development Goals (SDGs)	2023 Material Topics	In Line with the 2022 Sustainable Topics	Positive/Negative Impact and Implications	Value Chain Impact			Management Policy (Corresponding Chapter)
				Upstream (such as suppliers)	TSC	Downstream (such as customers)	
Society							
8 DECENT WORK AND ECONOMIC GROWTH Decent Work and Economic Growth	Talent Recruitment and Retention	Talent Attraction and Retention	⊕ Human Resource Management: Establish an attractive, diverse, and equitable remuneration and benefits system to increase employees' sense of identity and cohesion towards the Company. Develop diverse recruitment channels to recruit excellent talents to enhance operational efficiency. Meanwhile, enhance employee professional capabilities through a comprehensive talent development and cultivation system, provide appropriate positions for different employee characteristics, and thereby improve employee job satisfaction.		●		4.1 Talent Attraction and Retention
Environment							
13 CLIMATE ACTION Climate Action	Climate Strategy and Energy Management	• Mitigation and Strategies for Climate Change • Energy Management	⊕ Climate Governance and Strategy: Strengthening strategic deployment and the management of climate issues in enterprises (such as increasing the proportion of renewable energy sources) can both promote energy transition, and help to reduce environmental impacts such as carbon emissions and waste, mitigate global warming, and enhance the management measures of climate-related risks through investment. It also helps to lead the development of low-carbon industries and enhance the climate resilience of TSC.	●	●		5.1 Climate Governance and Strategies

Sustainability Performance Highlights

Environment

- Completion of the Quantitative Assessment of Task Force on Climate-related Financial Disclosures (TCFD)
- In 2023, energy savings reached 9,299.15 GJ.
- Li-Je Site has successfully implemented the ISO 50001 Energy Management Systems, thereby actively enhancing overall energy efficiency.
- Li-Je Site achieves a recycling and reuse rate of 100% for waste sludge, thereby promoting the concept of a circular economy.
- Continue to roll out and conduct greenhouse gas emission inventories, as well as expand the scope and items of these inventories.
- Shandong Site named the Benchmark Water-saving Unit in Shandong Province.

Society

- The average training hours per employee reached 62.12 hours.
- The median salary of full-time employees in non-supervisory positions in Taiwan in 2023 increased by NT$53 thousand compared to 2022, with a growth rate of 9.06%.
- The employee return-to-work rate after maternity leave has reached 100%.
- A total of 129 colleagues actively participated in the 2023 physical fitness promotion activity, as part of our commitment to promoting a diverse workplace health promotion. Collectively, they achieved a remarkable reduction of 126.8% in body fat percentage.
- The annual "Employee Opinion Survey" is being launched for the first year, with the aim of actively listening to employees' work experience and feedback.
- Over the years, social charitable assistance and donations to impoverished students have accumulated exceeded NT$15 million.

Governance

- The 2023 annual Corporate Governance Evaluation System ranking reached 21%-35%.
- Recognized as one of the "2023 Taiwan Best-in-Class 100 Companies" by the Taiwan Institute of Directors.
- No complaints were received from internal and external stakeholders' grievance in 2023, and there were no incidents of corruption.
- All locations will implement the "Network and Endpoint Monitoring System" to enhance information security measures. No information security breaches occurred in 2023.
- The research and development expenses as a percentage of net revenue increased by 1.64% compared to the previous year in 2023.
- Customer Satisfaction Survey Result has reached 4.6.
- TSC official website has been redesigned, resulting in an improved user experience.
- In 2023, Business Continuity Management (BCM) has been introduced to enhance the resilience and robustness of the supply chain.
- Local purchases account for 64.66% of procurement.
- The percentage of suppliers who have signed the "Declaration of Non-Use of Minerals from Conflict Areas" has increased by 12% compared to the previous year, reaching 90%.

Special Report: TSC's 45th Anniversary

A Letter from Taiwan Semiconductor

This year is the 45th Anniversary of the founding of Taiwan Semi! We have come a long way from starting with a single founder, to the global corporation now with thousands of team members. As a company, we have achieved many key milestones during this time, and we couldn't have done this without all of you. It is with much gratitude for us to stand here today, and reflect back on this exciting journey that we have been on.

While we are now 45, our organization feels very young and energetic to take on our next stage of growth. We are investing heavily into new product development, process optimization, and most importantly, building and cultivating our global teams. It is with great anticipation and excitement for us to execute the next phase of our vision, to continue serving our customers as best as possible, and being a positive force in the global semiconductor community.

In this newsletter, you will hear from our team members across our global teams and functions, on what Taiwan Semi means to them and how together we will embark on our future journey together. Enjoy it, stay well, and we are looking forward to you being a part of this next 45 years with Taiwan Semi!

Vice President of Product Marketing,
Wang Xing Lei (Sam Wang)

About Taiwan Semiconductor

Please provide a description of TSC using three words.

Dedication, Professionalism, and Innovation.

What does the 45th anniversary of TSC mean to you?

It is a tremendous achievement for the company to reach the 45th anniversary milestone. It symbolizes the continued dedication of Taiwan Semi to serve our customers as best as possible, in the power semiconductor space. Throughout the years, we've had so many wonderful team members that have helped the company achieve the great foundation that we have now. It is a time for gratitude for all of those team members, our customers, our partners, and our suppliers, to allow Taiwan Semi to have this success and milestone today.

What significant milestones did TSC achieve?

The Company has undergone significant transformation over the past decade. Previously, the majority of our revenue came from consumer products. However, in response to market changes, we have shifted our focus to the automotive and industrial markets, aiming to achieve a 70% share of our business. In the past 5-6 years, we have successfully entered the international automotive brand market. In 2022, we launched our first automotive-grade 40V MOSFET product. This achievement is the result of years of technological and product development, ensuring that our products have high quality and technological competitiveness in the market. We have received very positive feedback from our automotive customers, who have demonstrated outstanding performance in their respective applications. We also expect to continue achieving strong success with other customers and in other fields. Additionally, we will expand our automotive-grade MOSFET product line to include specifications of 60V, 80V, and 100V.

Taiwan has numerous semiconductor and supply chain manufacturers. What do you think sets TSC apart from others?

TSC is highly focused on meeting the demand for power semiconductors, particularly in the automotive and industrial sectors. We have already established a strong presence in overseas markets, including Europe and America, and our customer service has consistently delivered outstanding performance. Throughout the COVID-19 period, we have ensured uninterrupted supply by utilizing multiple logistics hubs and implementing strategic measures. For instance, when faced with port congestion, we prioritize more expensive air freight to meet customer demands, showcasing our reliability and trustworthiness. In terms of products, our current development primarily revolves around automotive standards, and our extensive product portfolio enables us to offer comprehensive solutions to our customers.

During your time working in TSC, what were some interesting and memorable experiences?

At the end of each year in Taiwan, a year-end party is held to express gratitude to all employees, suppliers, and partners for their efforts throughout the year. Along with delectable food, performances, and draws, we also incorporated entertaining games. On one occasion, we introduced a money box, and designated team members were given 30 seconds to enter and grab as much cash as possible. The atmosphere was filled with liveliness!

On this momentous 45th anniversary, would you like to express any thoughts or sentiments to your colleagues or clients?

Thank you to all of our team members for their dedication and enthusiasm towards the Company. This has been an exceptional and demanding journey.

Regarding the Semiconductor Market and Company Policies

Could you elaborate on the strategic shift towards digital marketing at TSC? What market trends or opportunities influenced this decision, and how does TSC plan to leverage digital platforms to enhance its brand presence?

Across the industry, engagement with customers have been continuously shifting towards a digital mode – this includes design-in processes, as well as information retrieval and exchanges. We have an aim to make it as easy as possible for our customers and partners to work with Taiwan Semi. As an example, in our newly launched website, we' ve enhanced many functionalities and data, to make it easy to use and access information regarding our products.

Along with this, we would like to engage more closely with our customer and partners via digital marketing as well. There are many exciting initiatives going on at Taiwan Semi, including multiple new upcoming product launches and developing application know-how. We will be leveraging digital marketing to share this information in the most effective and efficient way with our eco-system.

Can you shed light on the recent organizational changes at TSC? What factors or goals drove these changes, and how do they align with the company's overall vision and strategy?

Our organization and team members are the most important elements of our company. They have helped build and execute the vision that we have established. In last few years, we have been very fortunate to recruit seasoned veterans across all disciplines, including R&D, Product Marketing, Sales, and Operations to join Taiwan Semi. They have all brought tremendous vision on how product development, customer engagement, and operational excellence. I very much believe that these visions, along with rigorous execution, will benefit the company strongly going forward.

In terms of sustainable development and corporate social responsibility, what specific plans or initiatives has TSC implemented to contribute positively to the community and environment? How does the company measure the impact of its CSR activities?

ESG is a key focus for TSC, which includes the establishment of the ESG Committee to develop sustainable strategies and directions. Last year, we achieved a significant milestone by releasing our first sustainability report. Moving forward, we will continue to transparently share TSC's impact on ESG goals. Due to our geographical location, TSC has been actively involved in social activities in I-lan, such as providing scholarships to I-lan elementary schools and sponsoring events. We believe that investment in social activities should be ongoing, and our true commitment lies in long-term persistence.

Looking ahead, what is TSC's vision for the next 5 years? How does the company plan to adapt to evolving market conditions and emerging industry trends? Are there any key milestones or goals that TSC aims to achieve during this period?

It is an exciting time in the power semiconductor industry. In the era of AI, numerous emerging applications are arising. Alongside AI processing-related applications, electric vehicles, Advanced Driver Assistance Systems (ADAS), and charging stations are also thriving. Our products will support these significant industry trends and play a crucial role in infrastructure. Particularly in the new energy vehicle market, this sector will undoubtedly continue to grow. Our products are essential in the application of electric vehicle-related equipment, and we will also expand into the field of communication in the future. TSC will consistently monitor these industry trends, ensuring that our product portfolio aligns with them and always striving to support our customers.

TSC Product Marketing Vice President
Sam Wang

*For more profiles of individuals interviewed for TSC's 45th anniversary, please visit the official website of TSC.

1

Sustainable Operation and Governance

1.1 About TSC
1.2 Corporate Governance
1.3 Risk Management
1.4 Information Security Management

Suggested priority for referring to the stakeholders in this chapter:
☐ Supplier ☐ Customer ■ Employee ■ Investor ■ Government ☐ Media
☐ Others (such as the general public, academic institutions, etc.)

TSC aims to achieve sustainable operations and continuously improve its corporate governance structure. It promotes high standards of business ethics, focuses on the rights and interests of stakeholders, and strictly adheres to local legal regulations. The goal is to uphold the core value of integrity through robust mechanisms such as enterprise risk management and information security management. TSC will further enhance its corporate governance systems and actively engage with stakeholders, working towards the objective of sustainable operations.

1.1 About TSC

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

TSC (5425) was established in 1979 and is a leading global manufacturer of power semiconductor components. With over 40 years of manufacturing experience, TSC has been dedicated to R&D and innovation, as well as integrating core technologies to provide comprehensive solutions to global customers. The product range includes discrete devices, power management, sensors, and wide band gap, which can be widely applied in consumer electronics, communication devices, power management systems, industrial equipment, and automotive electronics. In recent years, TSC has actively promoted transformation and expansion in the automotive and industrial fields. Its strategies include expanding sales trades, actively participating in customer product development, and discussing product pricing strategies, aiming to enhance competitive advantages, strengthening sustainable supply chain services to customers, and continuously expanding global markets.

Subsidiary TSC Auto ID Technology Co., Ltd. (3611) was established in 1991 and is dedicated to the production and sale of barcode printers. It is a prominent manufacturer of cutting-edge thermal transfer and thermal direct label printing solutions. For further details about TSC Auto ID Technology, please visit the company's website and consult the annual report.

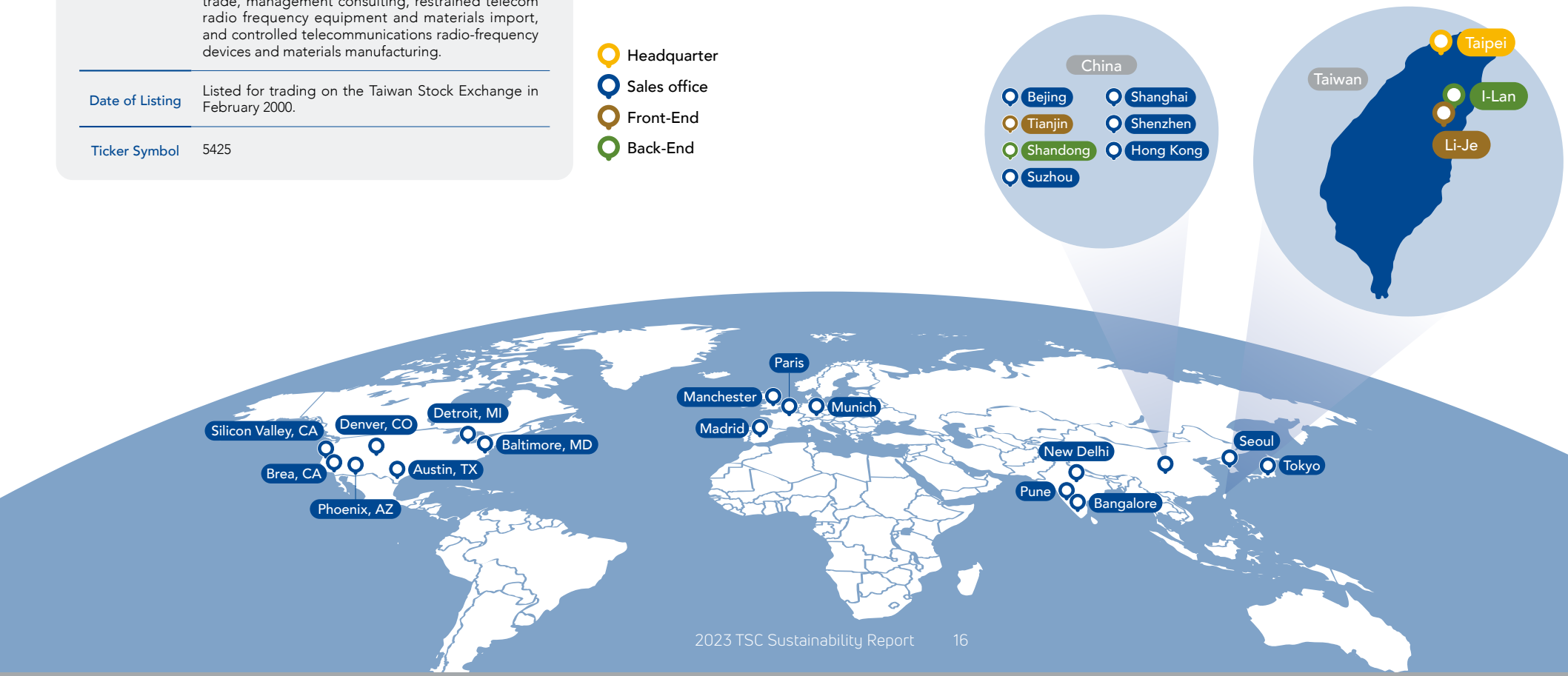
1.1.1 Introduction to TSC

Date of Establishment	Established in accordance with the Company Act in January 1979
Headquarters	Address: 11F., No. 205, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City, Taiwan (R.O.C.)
Capital	NT$2.634 billion
Industry	Semi-conductor manufacture
Affiliates	The business operations of Company affiliates include electronics components manufacturing, office machines manufacturing, computer and peripheral equipment manufacturing, international trade, management consulting, restrained telecom radio frequency equipment and materials import, and controlled telecommunications radio-frequency devices and materials manufacturing.
Date of Listing	Listed for trading on the Taiwan Stock Exchange in February 2000.
Ticker Symbol	5425

Operations

The headquarters of TSC is located in New Taipei City, Taiwan. There are four production sites, including wafer fabs and assembly sites, located in Taiwan and mainland China. The global service sites are located in mainland China, Hong Kong, Japan, South Korea, India, the United States, Germany, France, the United Kingdom, and other regions. The global employees are over 1600.

The R&D and manufacturing of power semiconductor is the core competitiveness of TSC. From product design, technology research and development, wafer manufacturing, assembly and testing, to global marketing of its own brand, TSC provides customers with a comprehensive power semiconductor solution. TSC's production sites are located in I-lan and Li-Je (Wujie Township, I-lan), Tianjin Province and Shandong Province in mainland China. TSC continues to strengthen technological innovation and integrates resources and collaborates with upstream and downstream supply chain partners to enhance market competitiveness.

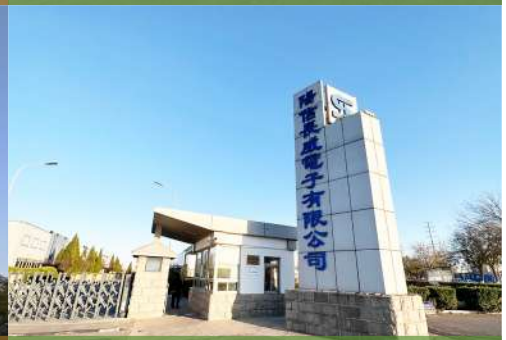


Main production locations

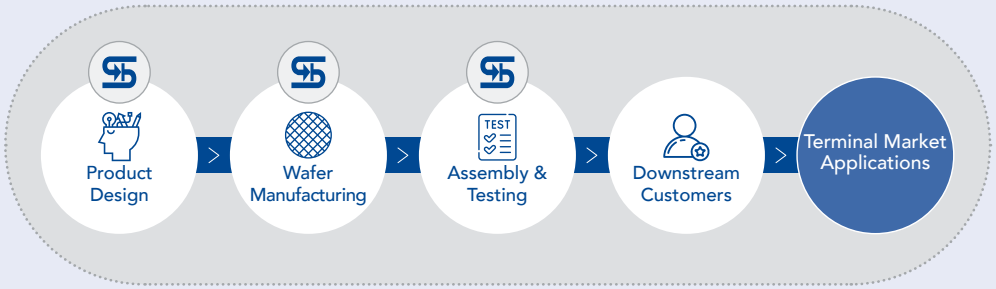

Li-Je Site (wafer manufacturing)

I-lan Site (assembly & testing)


Tianjin Site (wafer manufacturing) / Tianjin Everwell Technology Co., Ltd.


Shandong Site (assembly & testing) / Yangxin Everwell Electronic Co., Ltd.

Industry Value Chain



Sustainable Vision

Promoting Environmental Protection and Energy Conservation

Adhering to the principles of environmentally-friendly operations, we strive to optimize energy efficiency in order to minimize our impact on the environment and ecology.

Creating a Sharing Prosperity with Society

Create a friendly workplace, establish a comprehensive remuneration and talent development system, and dedicate efforts to integrating internal and external resources for social welfare.

Sound Corporate Governance

Committed to establishing a comprehensive management mechanism based on the principles of integrity and ethics in order to mitigate operational risks.

External Advocacy and Organizational Engagement

TSC strives to play an important role in the global market through continuous technological innovation and a complete deployment in the value chain, responding to changes in the international situation and industry together with other companies. TSC also actively participates in trade organizations and external initiatives related to its industry and sustainable development, leading the industry towards mutual benefit.

Name	Description	2023 Main Methods of Participation	TSC's Character and Participation
Industrial Development			
World Semiconductor Trade Statistics (WSTS)	WSTS is an international semiconductor industry organization responsible for collecting and publishing statistical data on the global semiconductor market. It assists the industry in making strategic decisions through analysis and forecasting, and its findings are important reference indicators for the semiconductor industry.	TSC became a member in 2012 and provides shipment information to WSTS on a monthly, quarterly, and semi-annual basis. WSTS regularly releases statistical information (including product categories and applications) and market forecast data for members' reference.	Member
Chinese National Association of Industry and Commerce (CNAIC)	The CNAIC is one of the representative organizations of Taiwan's business community, serving as a bridge for communication between the government and enterprises.	Participates in seminars and events organized by CNAIC on a regular basis to stay updated on the latest economic and trade situations and industry trends.	Member
Business Environment			
Shandong Province Binzhou Enterprise and Entrepreneur Federation	The social organization established by the Binzhou Municipal People's Government, with assistance from the Citizen-Owned Economic Development Service Center, aims to serve as a bridge between enterprise and society, as well as a bridge between enterprise and government. Its primary objective is to address the difficulties and challenges that private enterprises may encounter, provide suggestions and advice to the government, and facilitate coordination and assistance in promoting communication and cooperation among businesses.	Regularly participate in training sessions or events organized by the association, and actively suggest improvements for the local business environment and government services based on experiences and needs in Binzhou.	Director
Corporate Sustainable Development			
CommonWealth Magazine Group - ESG committee	The CommonWealth Magazine Group - ESG committee regularly convenes member discussions on legal regulations, customer requirements, and ESG trends such as carbon tariffs being implemented in various countries.	TSC was invited to become a corporate member in 2023 and participate in the SDGs Workshop, actively exchanging ideas with peers and companies from different industries, sharing its own corporate social responsibility and energy-saving measures in the semiconductor industry with the goal of jointly guiding the sustainable development of Taiwanese companies with industry leaders	Member
E.SUN A Call to Action for Sustainability	The initiative organization, initiated by E.SUN Bank in 2021, aims to encourage like-minded business partners to participate in and promote the implementation of ESG.	E.SUN Bank is one of the cooperative units of TSC. In 2023, TSC was invited to join the initiative, along with other advanced enterprises, in their pursuit of corporate sustainability. TSC has pledged to achieve net-zero emissions by 2050 and is actively implementing sustainable transformation.	Members of the Initiative
TCFD Task Force on Climate-related Financial Disclosures (TCFD)	In response to the TCFD initiative, TSC will implement climate change management based on the TCFD framework starting in 2022. We will follow the TCFD framework to identify climate risks and conduct risk and opportunity analysis through relevant responsible units based on transition and physical risks, and develop adaptation and mitigation strategies.	In 2023, a quantitative risk assessment on greenhouse gas emission cost increases was completed in accordance with TCFD, with detailed analysis provided in 5.1.1 Climate Governance and Strategies.	Members of the Initiative
CDP CDP (formerly Carbon Disclosure Project)	Through the CDP platform, we provide information on TSC's climate governance, strategies, risk opportunities and management, indicators and goals, and greenhouse gas emissions. We consistently review and enhance our carbon management strategies.	In recent years, TSC has been invited to respond to CDP questionnaires. In 2023, it preliminarily drafted an annual disclosure plan to enhance information transparency. Starting in 2024, it plans to integrate a comprehensive response to the annual CDP questionnaire.	Members of the Initiative
SBTi (Science Based Targets)	TSC supports the goals of the "Paris Agreement" and recognizes the importance of scientifically establishing net-zero emission actions. To more effectively formulate short-, medium-, and long-term carbon reduction targets, and to outline a clearer carbon reduction pathway, TSC plans to implement carbon reduction measures through phased planning.	TSC has formulated a medium- to long-term carbon management plan with four phases outlined as follows. Currently, the focus is on enhancing activities in the first phase, progressing gradually according to schedule: Stage 1 - Strengthen carbon inventory foundation, streamline supply chain, and promote energy-saving projects. Stage 2 - Establish strategies and goals, set SBT submission time, carbon emission hot spots management. Stage 3 - Submit SBT commitments, implement related education and training. Stage 4 - Implement science-based carbon reduction measures according to SBTs.	The members of the initiative have not yet submitted their commitments.

E.SUN A Call to Action for Sustainability

The acceleration of the net-zero transformation process is urgent. "E.SUN A Call to Action for Sustainability" was initiated by E.SUN Bank and its corporate partners in 2021. Through collaborative public advocacy, it actively implements ESG concepts. As a partner of E.SUN Bank, TSC is also dedicated to promoting sustainable development goals. It aims to take the lead and collaborate with numerous advanced enterprises to have a greater impact and create a more prosperous society.

2023 marked TSC's inaugural year of public advocacy participation. Through various forums and seminars, TSC interchanged with industry, government, and academic institutes, we gather insights into international net-zero trends and policies. By actively engaging with the advocacy platform and collaborating with more advanced enterprises, we learned from their experiences and established external resource channels to support TSC's journey towards net-zero transformation. We recognize that achieving our goals in this transformation necessitates a diverse range of internal and external resources. Moving forward, we will continue to share our experiences with esteemed partners and collaborate to drive sustainable transformation.

ESG

Sustainable Development Advocacy

TAIWAN SEMICONDUCTOR CO., LTD. and E.SUN Commercial Bank are jointly committed to the pursuit of sustainable development, with the goal of propelling Taiwan onto the international stage and showcasing it to the world. Both entities will continue to leverage their influence to create positive impacts.

TAIWAN SEMICONDUCTOR CO., LTD. pledges to set a target of achieving net-zero by 2050 and take immediate and sustained practical actions to implement sustainable transformation.

E.SUN Commercial Bank is committed to actively exerting its sustainable financial influence, collaborating with expert consultants to establish a platform for sustainable transformation, and assisting businesses in their transformation and upgrading.

Together, we will collaborate to formulate strategies and action plans for transformative upgrades, fostering business prosperity and advancing Taiwan's progress towards the international stage.

TAIWAN SEMICONDUCTOR CO., LTD.
Chairman

E.SUN FHC
Chairman
Joseph Huang

TSC and E.SUN Bank are dedicated to achieving sustainable development and have made a commitment to reach net-zero emissions by 2050. They are actively taking steps to implement sustainable transformation.

1.1.2 Financial Performance GRI 201-1 GRI 201-4

TSC believes that good operational performance is the foundation for the sustainable development of a company. In recent years, TSC has been deeply involved in the development of new products such as automotive electronics, industrial control, servers, and analog integrated circuits (ICs). The overall synergy and effectiveness of these efforts have become increasingly evident year by year. TSC complies with the principle of information transparency. We continuously improve capital efficiency and push for communication with stakeholders to provide them with a comprehensive understanding of our operations and growth.

In 2023, due to ongoing disruptions in the global political and economic conditions and weak consumer market demand, the global semiconductor supply chain was facing high inventory levels. TSC's revenue in 2023 reached NT$4.61 billion, accounting for 81% of the previous year's share, which was a higher base in 2022. The gross profit margin decreased by four percentage points, and the net profit after tax was approximately NT$720 million, resulting in earnings per share (EPS) of NT$2.89. Furthermore, the Shareholders' Meeting decided to distribute cash dividends for the year 2023 at a rate of NT$2 per share.

In 2023, despite the Company's overall financial performance not meeting expectations due to market conditions, the Company remains committed to enhancing competitiveness, continuously improving product value, strengthening integration benefits, and accelerating research and development. These efforts aim to create maximum synergy for the group and provide continuous feedback to society. For more information on the Company's operational performance and financial information, please refer to the TSC 2023 Financial Statements and Annual Report.

TSC 2023 Parent Company Only Financial Statements

TSC 2023 Corporate Annual Report

Overall Financial Performance

Unit: NT$ thousand

Type	2021	2022	2023
Operating Revenue	4,803,477	5,699,155	4,610,473
Operating Costs	3,954,927	4,437,327	2,954,250
Employee Salary and Benefits	526,993	700,267	648,608
Dividend Distribution	658,714	1,053,942	526,971
Interest Paid	5,341	9,810	21,285
Payments made to the Government[Note 1]	124,583	267,253	146,648

Note:
1. Payments made to the government include all the Company's tax payments and fines as reported.
2. The community investment project is expected to be disclosed beginning in 2024.
3. The overall financial performance is the TSC's parent company only financial performance. For comprehensive details, please consult the financial statements.

Revenue Proportion from the Government

Unit: NT$ thousand

Type	2021	2022	2023
Tax Reductions and Deductions	7,354	28,110	23,308
Investment Subsidies, R&D Subsidies, and Other Related Subsidies	488	1,879	1,460
Other	1,823	3,458	3,222

Note: The government has not held any shares in TSC in the past three years.

1.2 Corporate Governance

GRI 2-9 GRI 2-10~2-15 GRI 2-18~2-20 GRI 3-3 GRI 405-1

Material Topics -
Business Ethics and Integrity - Sound Corporate Governance

Policy and Commitments

Operating on the principle of integrity management, we are committed to establishing a sound corporate governance framework and complying with regulations to ensure the steady operation and growth of the Company, safeguarding the rights and interests of shareholders and stakeholders. Relevant policies and regulations include the "Rules of Work", "TSC Ethical Corporate Management Best Practice Principles", and "TSC of Ethical Conduct".

TSC Ethical Corporate Management Best Practice Principles

TSC of Ethical Conduct

Management Policy and Evaluation Mechanism

- Establish various corporate governance regulations and regularly conduct promotions for managers and employees.
- Regularly disclose both financial and non-financial information on the official website to improve transparency.
- Establish a reporting and protection mechanism to provide channels for internal and external stakeholders to submit grievances.
- Senior managers, corporate governance officers, and other members of the governance team regularly conduct internal and external educational training sessions.

Action Plan and Performance

- The Board of Directors is diverse in its composition.
- >50% of Independent Director Seats
- OTC Company Corporate Governance Evaluation System ranking reached 21%-35%.
- Recognized as one of the "2023 Taiwan Best-in-Class 100" by the Taiwan Institute of Directors.
- No complaints were received from internal and external stakeholders grievance in 2023, and there were no incidents of corruption.
- In 2023, the company redesigned its official website, meticulously organizing financial and non-financial information into distinct sections to enhance user experience.

1.2.1 Sustainable Governance

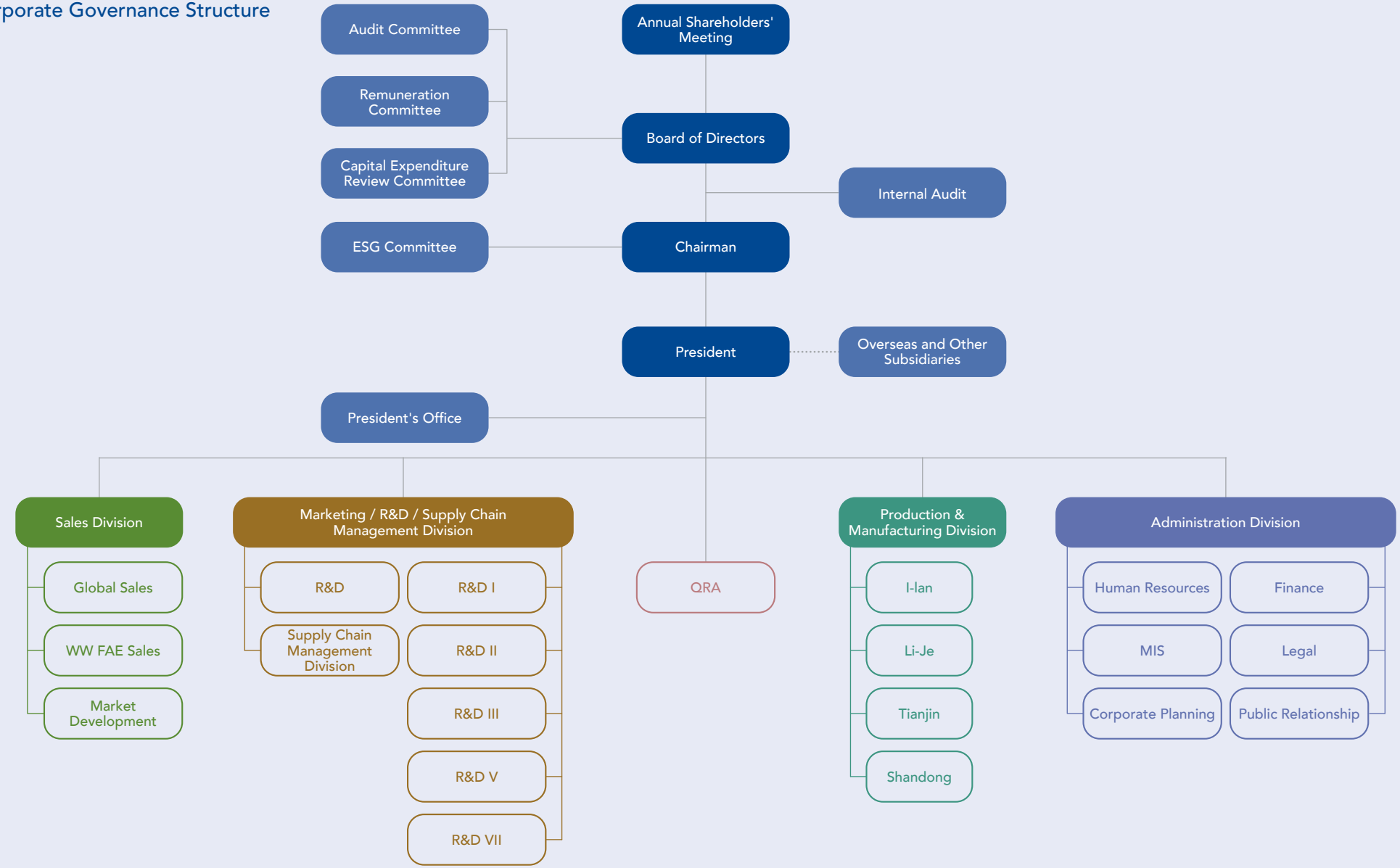
To ensure sound corporate governance, TSC complies with the principle of integrity in carrying out various business operations, strictly prohibiting any form of corruption, bribery, and fraudulent activities for personal or others' gain through the abuse of power. TSC has also set up a dedicated section for investors on its official website, regularly disclosing financial and non-financial information such as annual Shareholders' Meeting reports and ESG Reports. By enhancing information transparency, TSC strengthens communication with stakeholders and safeguards their rights and interests. TSC's Corporate Governance Evaluation System result for 2023 remains in the same range as the previous year, at 21%-35%. TSC will continue to improve its management system based on the results of the Corporate Governance Evaluation System.

In accordance with the result of the 2023 TSC Corporate Governance Evaluation System and in line with the guidelines of the competent authority's "Corporate Governance 3.0 Sustainable Development Road Map", the Company has been consistently enhancing its management system. Key project items include:

1. Implement non-financial information disclosure through the issuance of a sustainability report. Enhance the disclosure of sustainability report information by referencing international standards (including TCFD and SASB), providing investors with valuable ESG information for decision-making.
2. The Board of Directors quarterly manages the schedule for greenhouse gas inventory and verification.
3. To enhance stakeholder communication, establish a dedicated section on the new official website to provide updates on the results of stakeholder consultations.
4. Incorporate the process of compiling and verifying the sustainability report into the Company's internal control system to enhance sustainability governance.

New ESG Section on the Official Website

Corporate Governance Structure



Composition and Operation of the Board of Directors

The Board of Directors is the highest governance body of TSC, responsible for guiding the Company's strategy, supervising management, and being accountable to shareholders. The Board of Directors of TSC exercises its powers in accordance with laws, Articles of Incorporation, or resolutions of Shareholders' Meetings in relation to various operations and arrangements of the corporate governance system. In order to strengthen supervision and enhance management functions, the Board of Directors has established multiple Functional Committees, including the Audit Committee, and Compensation Committee, and has specified organizational regulations to assist the Board of Directors in fulfilling its supervisory responsibilities. The committees regularly report their activities and decisions to the corporate governance body and Board of Directors. TSC's Internal Audit is responsible for regularly conducting internal audit operations, and its effectiveness and efficiency are supervised by the Audit Committee.

Board of Directors of TSC is composed of 7 Directors, each serving an average term of 3 years, including 2 Directors who are employees or managers, 1 external Director who is not an employee, and 5 Independent Directors, in accordance with the regulations for the Compliance Requirements for the Appointment and Exercise of Powers of the Boards of Directors of TPEx Listed Companies. Furthermore, in accordance with Article 206 of the Company Act, Board of Directors should have a majority attendance. In 2023, Board of Directors of TSC held 7 meetings, with all 7 Directors (including Independent Directors) present. The average attendance rate of Directors in 2023 was 100%, demonstrating excellent attendance and compliance with regulations. The remuneration of all Directors (including Independent Directors) in 2023 accounted for 5.79% of the Company's net profit after tax.

Nomination and Selection of Directors

The Board of Directors establishes the election system for Directors in accordance with laws and the Articles of Incorporation. The selection process for all Directors is open and fair, in compliance with the "Articles of Incorporation of Taiwan Semiconductor Co., Ltd".

In addition, according to the Rules for Election of Directors established by the Company, the method of selecting Directors and Independent Directors adopts a cumulative voting system and a candidate nomination system, allowing shareholders holding a certain number of shares or more to propose a list of candidates to promote shareholder participation and avoid the monopolization or excessive use of nomination rights, thereby maintaining independence.

Election of Director

Diversity of the Board of Directors

According to the articles of the TSC Corporate Governance Best Practice Principles, the Company has established a policy of diversity and specific management objectives for the Board of Directors. The diversity of Board of Directors is achieved by taking gender, age, nationality, culture, professional background, and industry experience into consideration with regard to its composition. In this way, TSC can be guided by a diverse industry and international market perspective. Currently, all seven Directors of the Company are male R.O.C nationals, and each possesses the necessary knowledge, skills, and education for fulfilling their duties. Each of them has a wealth of expertise in accounting, finance, business, law, marketing, or industry technology. The Board of Directors is expected to undergo re-election in 2024, continuing efforts to enhance diversity of Board of Directors.

Board of Directors Members

Name of Director	Job Title	Gender and Age	Diversified Core Expertise							Functional Committee Members	Date First Elected	Attendance Rate
			Operational Judgment	Accounting and Financial Analysis	Business Management	Crisis Management	Industry Knowledge	International Market Relations	Leadership and Decision Making			
Wang Shiu Ting	Chairman	Male (61-77 years old)		✓	✓	✓	✓	✓	✓	ESG Committee (President)	1998.06.19	100%
TSC Auto ID Technology Co., Ltd. Representative: Wang Xing Lei	Director	Male (41-50 years old)	✓	✓	✓	✓	✓	✓	✓	Member of ESG Committee	2015.06.18	100%
UMC Capital Co., Ltd. Representative: Liu Chang Yu	Director	Male (41-50 years old)	✓	✓	✓	✓	✓	✓	✓	None	2021.07.26	100%
Jhan Cian Long (Independent Director)	Independent Director	Male (61-77 years old)	✓	✓	✓	✓	✓	✓	✓	Audit Committee (Convener) Member of Compensation Committee	2012.06.27	100%
Lin Bo Sheng (Independent Director)	Independent Director	Male (61-77 years old)	✓	✓	✓	✓	✓	✓	✓	Member of Audit Committee Member of Compensation Committee	2012.06.27	100%
Fan Hong Shu (Independent Director)	Independent Director	Male (51-60 years old)	✓	✓	✓	✓	✓	✓	✓	Member of Audit Committee Member of Compensation Committee (Convener)	2012.06.27	100%
Ma Shu Zhuang (Independent Director)	Independent Director	Male (41-50 years old)	✓	✓	✓	✓	✓	✓	✓	Member of Audit Committee	2021.07.26	100%

Note:
1. Please refer to the Company's Annual Report for information regarding the introduction of members of Board of Directors and their attendance at meetings.
2. The Chairperson of the highest governing body is the senior management.

Performance Evaluation of Board of Directors

To implement corporate governance and enhance the functioning and efficiency of the Board of Directors, we have established performance goals. In accordance with Rules for Performance Evaluations of the Board of Directors, TSC conducts an annual performance evaluation. In 2023, the evaluation was conducted online or through self-assessment forms. The evaluation was assessed the overall operation of the Board of Directors members, functional committees, and performance of each Director. The evaluation results and improvement plans were submitted to the Board of Directors.

Performance Evaluation Items of Board of Directors

- Participation Level in Company Operations
- Quality of Decision-Making by the Board of Directors
- Composition of the Board of Directors
- Selection and Continuing Education of Directors
- Internal Controls

2023 Internal Self-Assessment Results
Excellent to Outstanding

Management of Conflicts of Interest in the Board of Directors

TSC follows relevant laws and regulations, with Independent Directors serving as members of the Audit Committee to ensure the independence of the Board of Directors and fulfill its supervisory function. TSC discloses positions of the Board of Directors' members in other companies in the Annual Report, indicating that there is no cross-shareholding with major suppliers or other stakeholders.

Functional Committee

Functional Committee	Responsibilities	Frequency of Meeting	Major Resolutions
Audit Committee	The main purpose of the Audit Committee is to supervise the following matters: • The proper expression of the Company's financial statements. • Selection, appointment, independence, and performance of Certified Public Accountant / CPA • Effective implementation of internal controls within the Company. • Company compliance with relevant laws and regulations. • The management of existing of potential risks to the Company.	At least once per quarter; a total of 7 times in 2023.	• Annual and Quarterly Financial Statements Report • Internal Audit Activities Report • Major Investment Projects of the Company
Compensation Committee	The Committee is responsible for evaluating the compensation policy and system for Directors, Supervisors, and Managers of the Company in a professional and objective manner, and for submitting its suggestions to the Board of Directors as a reference in the decision-making process.	At least twice per year; a total of 3 times in 2023.	• Discuss and approve the performance evaluation of Directors and Managers for 2023. • Study and discuss the compensation of Directors and Managers for 2023. • Discuss and approve the proposals of the Compensation Committee for 2023 • Discuss and review the results of the performance evaluation of Directors and Managers of the Company in 2023 and relevance and reasonableness of salary and compensation. • Discuss and approve the review of the actual payment of various salaries and remuneration of the Company's Directors and Managers in 2023. • Discuss and approve the review of the Company's 2023 remuneration of Directors and remuneration case of employees.
Other Functional Committees			
Capital Expenditure Review Committee	Tracking operational performance by reviewing capital expenditure budgets, long-term development strategies, implementing plans, and making cost-effective adjustments.	At least once per quarter	• Discussion of capital expenditure budgeting, and implementation, revision, and addition of plans.
ESG Committee	• Formulate the Company's sustainable development policy. • The Company's sustainable development, including the establishment of goals, strategies, and implementation plans for sustainable governance, integrity in operational, environmental, and social aspects. • Review, track, and revise the implementation and effectiveness of the Company's sustainable development. • Pay attention to the concerns and supervisory communication plans of various stakeholders, including shareholders, customers, suppliers, employees, government, non-profit organizations, communities, and media.	At least twice per year; a total of 3 times in 2023.	• Proposal and discussion on TSC's renewable energy development strategy. • Proposal and discussion of TSC's carbon reduction pathway map and report on customer green energy usage requirements.

Board of Directors Remuneration Policies

The compensation provided TSC includes cash compensation, stock warrants, profit-sharing and stock ownership, retirement benefits or severance pay, various perks, and other substantial incentives. The scope of these measures is consistent with the guidelines for the disclosure of remuneration for Directors, Supervisors, and Managers in the Company's Annual Report. In order to improve the compensation system for Directors, Supervisors, and Managers, the Company has also established a Compensation Committee and formulated the "Remuneration Committee Charter".

The Compensation Committee evaluates the compensation policies and systems for the Company's Directors in a professional and objective manner, in accordance with its regulations. The evaluation considers individual performance, company performance, and the rational assessment of future risks. The Compensation Committee then presents recommendations to the Board of Directors for their consideration in decision-making. Once the remuneration for Directors is approved by the Board of Directors and reported to the Shareholders' Meeting, it is implemented in accordance with the "TSC Director Remuneration Range Table".

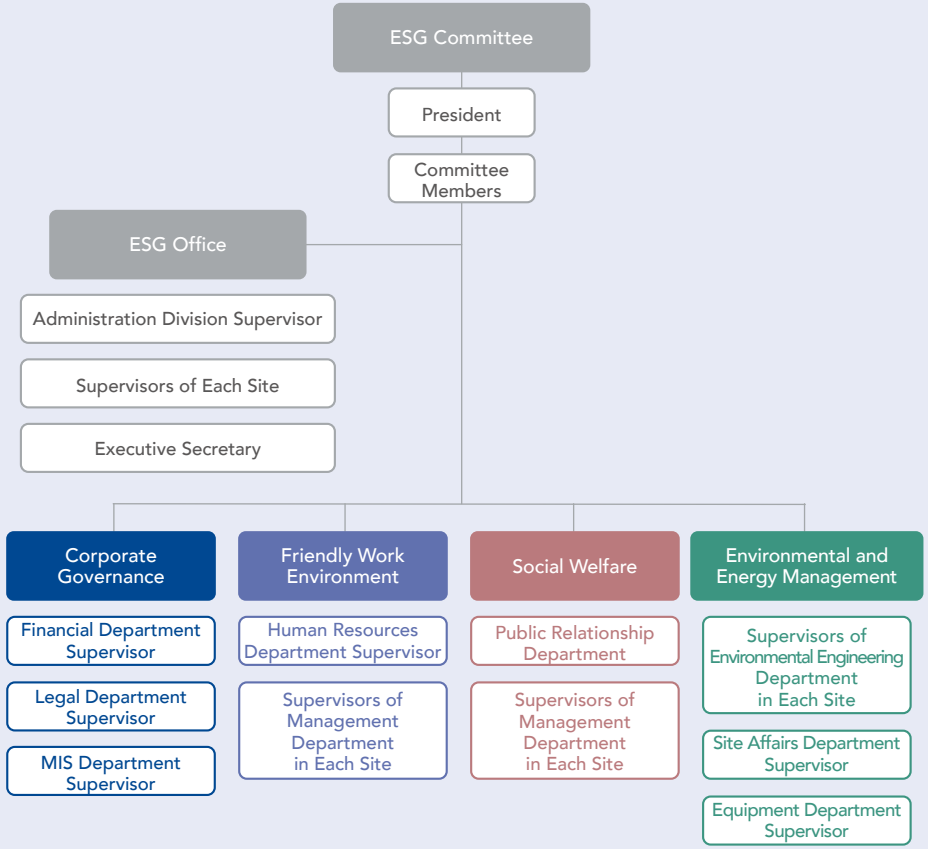
ESG Governance

The highest sustainable governance unit of TSC is the ESG Committee. It serves as the decision-making and supervisory unit for TSC's sustainable development efforts, dedicated to promoting environmental conservation and fulfilling social responsibilities. The committee has also formulated an ESG Committee Charter to ensure that the Company fulfills its responsibilities in safeguarding the rights and interests of the Company, employees, shareholders, and stakeholders. TSC aims to elevate the ESG Committee to the Board of Directors level by 2024 in order to enhance the overall governance of corporate sustainability.

The ESG Committee is responsible for formulating the Company's sustainable development policies, strategies, and implementation plans for corporate sustainable governance, integrity operation, and environmental and social goals. It is also responsible for reviewing, tracking, and revising the implementation and effectiveness of the Company's sustainable development. Additionally, ESG Committee should pay attention to the concerns of various stakeholders, including shareholders, customers, suppliers, employees, government, non-profit organizations, communities, and the media, and supervise communication plans.

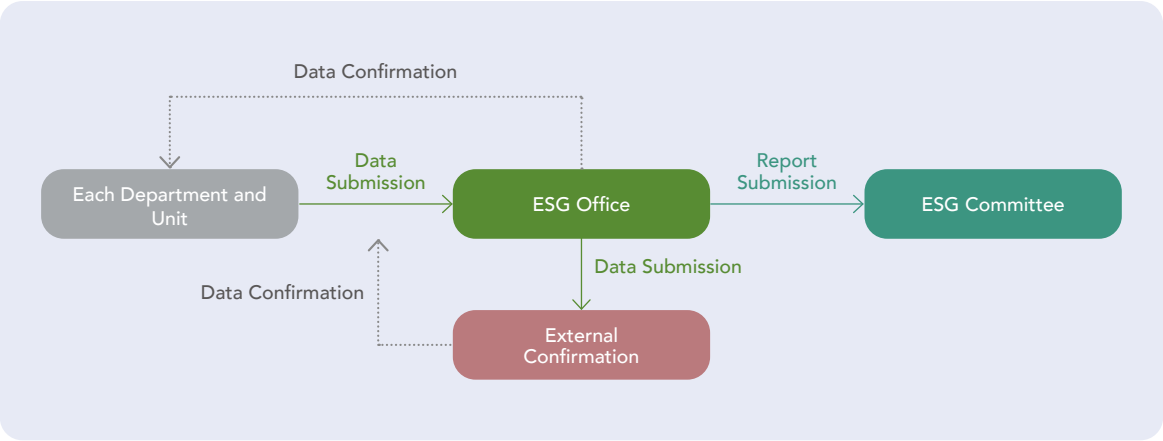
Under the ESG Committee are the ESG Office and the Corporate Social Responsibility Functional Team that ensure the promotion and implementation of corporate sustainable development-related work. The ESG Office is composed of supervisors of the Administration Division, and supervisors and executive secretaries of each site. They are responsible for managing relevant policies and action plans for sustainability goals, coordinating and tracking the progress of various actions, and reporting on the progress of sustainability projects and other significant issues to the ESG Committee at least twice a year.

Sustainable Governance Organizational Structure Chart



Information Disclosure of Sustainable Development

TSC shares its sustainability performance and achievements with stakeholders annually through the publication of a sustainability report. The process involves the ESG Office collecting annual sustainability performance data from various production sites and departments, verifying and consolidating the information. Once the report is confirmed by a third-party organization and approved by the ESG Committee, it is authorized for release. In 2023, TSC implemented an internal control system in accordance with the "Rules Governing the Preparation and Filing of Sustainability Reports by TPEx Listed Companies" of the Taiwan Stock Exchange Corporation to enhance the preparation and verification mechanism of the Company's sustainability report.

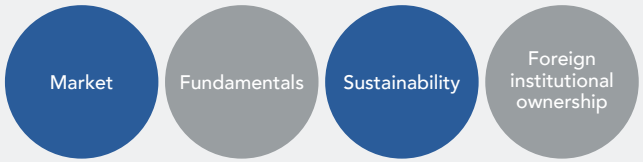


Highlight Story 02

TSC has been honored with the "2023 Taiwan Best-in-Class 100 Companies" award by the Taiwan Institute of Directors and Corporate Development Research Center (CDRC) in 2023. TSC's outstanding performance in the market, fundamentals, sustainability, and foreign institutional ownership set it apart from the 1,779 listed and OTC companies.

According to the selection principles of the Taiwan Institute of Directors, the Top 100 list serves as a benchmark for evaluating companies with excellent corporate quality that meet the recognition criteria from the perspective of international institutional investors. It simulates the investment methods of different global institutional investors. TSC, with its 45 years of establishment, is committed to strengthening its corporate governance system, improving communication with stakeholders, and promoting sustainable development.

TSC set it apart from the 1,779 listed and OTC companies



1.2.2 Integrity Management GRI 2-16 GRI 2-17 GRI 2-23 GRI 2-24 GRI 2-26

Integrity management has been the foundation of TSC's operations for the past 45 years. In addition to adhering to local regulations at all our business locations, the Company also establishes policies related to integrity management, as well as internal supervision and whistle-blower protection systems. We promote various training and advocacy programs to ensure that the behavior of all employees aligns with the moral values of TSC.

Policies and Norms of Ethical Conduct

TSC is committed to sound and integrity management, in accordance with relevant national laws and regulations, as well as guidelines and reference examples issued by the Taiwan Stock Exchange Corporation and the Taipei Exchange. We have established the "Rules of Work", "TSC Ethical Corporate Management Best Practice Principles", "TSC of Ethical Conduct", and various management measures as guiding principles for all employees (including managers) in their behavior and ethics, with the aim of shaping a corporate culture of integrity and moral values. All relevant regulations are announced and implemented in accordance with the internal control process after approval by the Chairman. As of 2023, TSC's production sites have maintained good compliance and have no record of any adverse litigation.

The integrity management policies and prevention plans are reviewed by the ESG Committee-Corporate Governance Team for implementation and compliance, and it is reported to the Board of Directors at least once a year. The relevant policies and operations are disclosed on the Company's internal management platform and official website for all employees and other stakeholders to access.

Internal Supervision of Integrity Management

The Internal Audit of the Company continues to use effective accounting systems and internal control systems to regularly analyze and supervise business activities within the scope of operations that involve higher risks of integrity violations. Through this, we establish audit targets, scope, items, frequency, and other preventive measures, and regularly conduct audits to ensure effective supervision and control. In addition to establishing internal monitoring mechanisms, we also appoint Certified Public Accountants / CPAs to conduct audits or engage professional consultants for assistance. After producing audit reports based on the audit results, we report on the implementation status to the Board of Directors at least once a year. For specific responsibilities of the Internal Audit, please refer to "1.3.1 Risk Management".

Whistle-blowing and Protection Mechanism

For improper behavior that violates the policy on unethical conduct, TSC has established a grievance email address, through which employees and relevant stakeholders can file grievances with the Company. The handling of grievances is kept confidential throughout the process to protect the whistleblower from any improper retaliation. Subsequently, the supervisors of each site, the Internal Audit, and the Legal Office will handle grievances according to their responsibilities. If a grievance involves significant corruption or other serious matters, it will be reported to the Chairman for further action. In 2023, no grievances were received from internal or external stakeholders, and no incidents of corruption occurred.

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

Violation of Integrity Grievance Reporting Procedure

Training and Information

When new employees join TSC, they are required to carefully read TSC Ethical Corporate Management Best Practice Principles, which include topics such as anti-corruption, respect for intellectual property, and compliance with laws and regulations. In the future, TSC will continue to strengthen related education and training. Starting in the second half of 2023, the Legal Department has planned to hold face-to-face education and training sessions on the Trade Secrets Act and intellectual property rights to ensure that TSC employees fully understand the relevant policies, content, and consequences of violating ethical behavior. The first session is scheduled for the second quarter of 2024. In addition, TSC also promotes and requires its supply chain to sign the "RBA Vendor Code of Conduct" to ensure that business partners who engage in commercial activities with the Company have guidelines to follow. See "3.1.2 Sustainable Supply Chain Management" for more details.

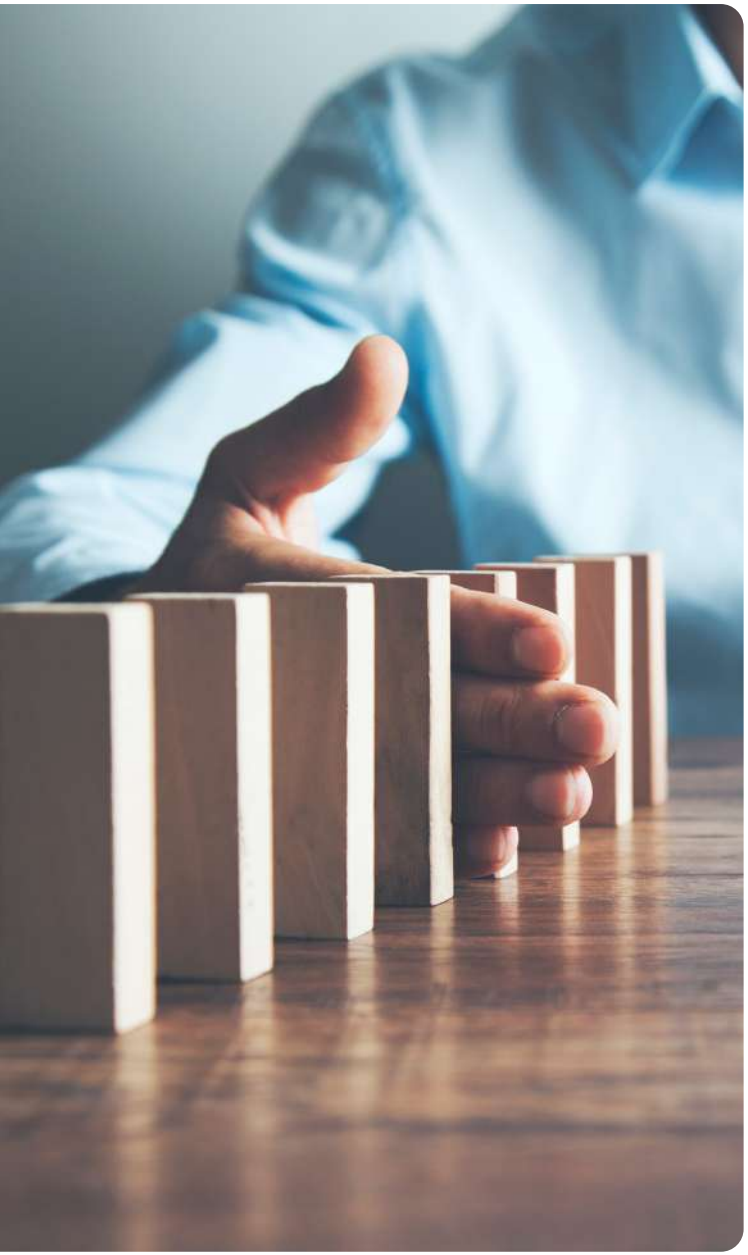
Senior Governance of Integrity Management

To align with national and industrial standards and uphold professional ethics, the Board of Directors and Senior Managers of TSC regularly participate in relevant legal training. The course topics include sustainable development, corporate governance, and taxation, among others. Through regular education and training for governance body and Senior Managers, we strive to implement honest and ethical business practices.

RBA Vendor Code of Conduct

Director, Independent Director, and Manager Training Overview in 2023

Job Title	Name	Date of Training		Organizer	Course Name	Hours
		Start	End			
Director	Wang Shiu Ting	10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Representative of Legal Entity as Director	Wang Xing Lei	10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Representative of Legal Entity as Director	Liu Chang Yu	03/14	03/14	Taiwan Academy of Banking and Finance	Corporate Governance Series Forum	3.0
		07/31	07/31	Taiwan Academy of Banking and Finance	Corporate Governance Series Forum	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Independent Director	Jhan Cian Long	09/18	09/18	Taiwan Corporate Governance Association	Corporate Governance by Board of Directors under ESG	3.0
		09/18	09/18	Taiwan Corporate Governance Association	Legal Matters Board Directors Should Know About Ethical Corporate Management Best Practice Principles	3.0
Independent Director	Lin Bo Sheng	10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Independent Director	Fan Hong Shu	05/05	05/05	Taiwan Corporate Governance Association	Enterprise Anti-Corruption - Case Analysis	3.0
		10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Independent Director	Ma Shu Zhuang	10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0
Vice President, Finance & Accounting Supervisor, and Corporate Governance Officer	Cheng I Cheng	10/19	10/19	Accounting Research and Development Foundation	(Continuing Education Program for Accounting Supervisor) Continuing Development Course of Accounting Supervisors of Issuers, Securities Firms, and Securities Exchanges	12.0
		10/24	10/24	Accounting Research and Development Foundation	Common Deficiencies in Financial Report Review and Important Internal Control Regulations	6.0
		10/26	10/26	Taiwan Corporate Governance Association	The Macro Vision of the Sustainable Development of Global Enterprises - From Vision 2050 to Action 2023	3.0
		11/09	11/09	Taiwan Corporate Governance Association	Potential tax risks under common business models of Taiwan entrepreneurs	3.0



1.3 Risk Management

1.3.1 Risk Management System

In order to identify and promptly grasp internal and external operational risks, safeguard the rights and assets of shareholders, employees, customers, and all internal and external stakeholders, as well as effectively control risks, TSC has constructed a sound risk management framework and policy and included all stakeholders within the scope of management. Additionally, regular risk identification and risk testing plans are proposed to ensure that potential risks arising from various operations are strictly regulated within the control range.

Risk Management Framework

The Board of Directors is fully responsible for establishing and supervising TSC's risk management framework. The current supervisory department for risk control is the President's Office, which is responsible for risk assessment and auditing. The risk control implementing unit under the Office of the President is the RBA Implementation Committee, established in accordance with the RBA Code of Conduct, with the President serving as the Chairperson. The committee is responsible for implementing overall risk control and related policy issuance for the headquarters and each site, and submits the risk assessment form to President in December annually for further submission to the Board of Directors for resolution, ensuring that its management objectives reasonably reflect market and operational changes of the Company.

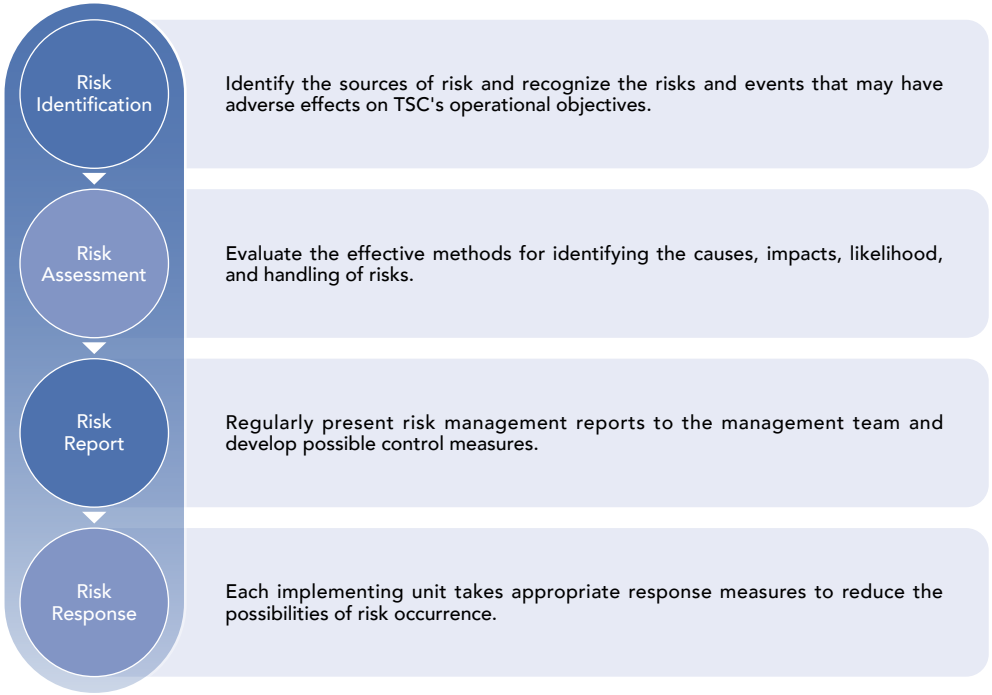
Starting in 2023, Supply Chain Management Department of TSC has enhanced its risk management system by implementing the "TSC Business Continuity Management Process". Factory managers, departments, and units will consistently enforce the organizational risk policy and mitigate identified risks through review and approval.

Ongoing Operations	Board of Directors	The Audit Committee supervises the highest decision-making body for risk management, which oversees enterprise risks and related management mechanisms and operations.
	Risk Control Execution Unit (including the President's Office and the Supply Chain Management Department)	Responsible for overseeing risk management, establishing appropriate management standards, and providing regular reports on risk identification results and the implementation of risk management to senior management.
Emergency Response	Each site and associated unit	Daily execution of risk management includes conducting annual themed exercises to promote emergency response plans.

Risk Management Policies

With reference to the RBA Code of Conduct, TSC has established relevant policies and management measures regarding professional ethics, social responsibility, safety and health, environment, and risk possibilities. This includes the revision and control of the Professional Ethics Risk Assessment Management Measures, Social Responsibility Risk Assessment Management Measures, and Risk and Opportunity Management Procedures by the President's Office. Additionally, the environmental safety and health departments and personnel of each site implement the Safety and Health Hazard Identification and Risk Management Procedures and Environmental Consideration Identification and Management Procedures based on ISO 14001 guidelines. These serve as guiding and implementing principles for risk management, facilitating risk identification and the development of mitigation measures. Currently, TSC's risk management process includes identification, assessment, reporting, and response, as shown in the diagram below.

Risk Management Procedures



Ongoing Operational Management

With the ongoing rise in global risks, TSC will be implementing risk management mechanisms and ensuring uninterrupted service. Starting in 2023, TSC adopted the framework and principles of operational continuity management to establish the TSC Business Continuity Management Process. This process enhances the management system to enable immediate response in case of emergencies and minimize losses or damages.

Our Business Continuity Management Process objectives

To ensure uninterrupted operations that support business continuity and meet customer demand, regardless of natural or man-made disasters.

To reduce the risk and harm of emergencies, each site has established emergency response mechanisms and measures. Regular drills are conducted to assess potential risks, review preventive measures, and improve the ability to respond promptly and recover effectively. These sites have implemented risk management for potential events such as supply chain disruptions, labor shortages, critical equipment failures, earthquakes, fires, and interruptions to water, gas, and electricity supply, in accordance with relevant environmental, safety, and health regulations.

Risk Identification Assessment and Response

According to the annual The Global Risks Report released by the World Economic Forum (WEF), categorizes key risks into five major types: economic, environmental, geopolitical, social, and technological. With the increasing emergence and probability of new global risks, TSC incorporates emerging risk topics into its analysis scope and regularly reviews them to formulate corresponding response measures. In response to external environments and challenges such as climate change, TSC evaluates the likelihood of occurrence and significant negative impact of each risk based on its nature, identifying the following risks.

Category	WEF Risk Topics	Potential Impacts on TSC's Operation	TSC Countermeasures
Economy	Rising Inflation Due to the impact of the Russo-Ukrainian war and the COVID-19 pandemic, countries worldwide are grappling with challenging inflationary pressures. Consequently, they have adopted contractionary monetary policies, resulting in a global rise in the cost of living.	Since 2022, the overall semiconductor industry's consumption has experienced a sluggish recovery momentum due to the impact of the pandemic and war, leading to weak terminal demand. Impact on TSC's short-term operational performance.	• Continuously adjusting product strategies, stabilizing the strong demand in the automotive and industrial control industries, and expanding market presence consistently. This plan will be implemented over a period of five years. • Actively participate in customer product development, understand market trends and demands, and develop a diverse product line.
Environment	Natural Disasters and Extreme Weather With the growing frequency and severity of climate change-related disasters globally, the impact and influence of both natural and man-made hazards on damage and casualties have become significant.	Extreme weather conditions may lead to potential energy and water resource crises in the future, as well as an increased probability of various natural disasters. In response to extreme weather, governments worldwide are increasingly focusing on strengthening carbon emission reduction measures. This includes the implementation of carbon taxes or fees (such as the European Union's Carbon Border Adjustment Mechanism (CBAM)). Taiwan has also announced the implementation of the Climate Change Response Act in 2023, which officially incorporates the 2050 net-zero emissions target into regulations and gradually imposes carbon fees. Mainland China has also taken measures such as dual control of total energy consumption and intensity as well as power rationing to drive the energy transformation of businesses. As a result, companies may be compelled to increase operational costs.	• To mitigate the impact of environmental disasters and reduce the costs caused by environmental damage, it is essential to actively participate in various environmental protection and energy-saving activities. This includes implementing annual replacement plans and energy-saving measures in all site areas, as well as expanding the scope of greenhouse gas inventory. • Design and produce environmentally friendly products by implementing measures such as water recycling, energy reduction, and minimizing the negative impact of operations on the natural environment. • In order to promote the development of renewable energy, a plan has been devised to decrease carbon emissions and establish targets and a roadmap. Concrete measures will be implemented to achieve energy conservation and carbon reduction. The interim targets for renewable energy have been set at 10% by 2025 and 20% by 2030. A thorough risk assessment has been conducted on the material topics of climate change, and appropriate risk management policies or strategies have been formulated. Please see 5.1.1 Climate Governance and Strategies for more information.
Geopolitics	Geoeconomic Conflict Countries affect business activities through the formulation or revision of laws, including Export Administration Regulations (EAR) and tense cross-strait relations, which may affect Chinese customers or suppliers and result in the loss of potential business opportunities. Additionally, the Russian invasion of Ukraine has caused energy supply fluctuations and triggered geopolitical risks, intensifying the tension in the international regional situation.	Geopolitical risks may have a significant impact on interest rates and exchange rates, affecting the development of economic globalization. They may also affect TSC's entry into new markets or face issues such as supply chain disruptions, which would have a potential impact on TSC's operations.	• In order to enhance the regional investment strategy and establish a diversified supply chain, our goal is to reduce dependence on any single country or region. • Continuously monitor changes in the international situation and customer demands, and strengthen flexible plans to maintain competitiveness in the industry. • The Supply Chain Management Department is implementing the operational continuity management program to improve traceability management, procurement management, and other areas, with the aim of achieving sustainable supply chain goals.
Technology	Widespread Cybercrime and Insecurity With the advancement of digital technology, information security risks are becoming increasingly complex. In recent years, there have been frequent incidents of data breaches and cyber attacks, both domestically and internationally. As a result, companies have been compelled to prioritize the issue of information security risk management.	Due to a network security failure, the lack of sufficient capability to defend against cyber attacks can result in incidents such as ransomware, hacker threats, and phishing websites. These incidents can lead to the leakage of important company assets and trade secrets, and can even have a negative impact on production and manufacturing systems.	• TSC has appointed a Chief Information Security Officer and a team of dedicated personnel who are responsible for developing the organization's cyber security management framework. As a functional unit within the Company's MIS Department, they regularly report to the Board of Directors and present information-related risk issues, response and improvement measures, and regulatory compliance reviews during monthly risk management meetings. • An implementation plan for the ISO27001 Information Security Management Systems is being developed to address the critical infrastructure within TSC. For detailed schedule planning, please refer to 1.4 Information Security Management.

Internal Control and Internal Audit

In accordance with the Regulations Governing Establishment of Internal Control Systems by Public Companies, an Internal Audit directly subordinate to the Board of Directors has been established to set up a comprehensive internal risk control system and effectively implement it. An internal audit plan is conducted once a year between November and December, and the audit plan for the following year is reported to the Board of Directors in order to respond to changes in the internal and external environment of the group and ensure the design and the continuous effectiveness of the system. In 2023, a total of 106 audit operations were carried out, with most internal control risks being minor. All necessary improvements were completed by the end of the year.

TSC annually conducts listed and OTC company audits and assurance. During the auditing, the effectiveness of the internal control systems is also examined. The accounting firm performs the Company's internal control information cycle testing and covers testing and evaluation of TSC's internal control system to ensure proper risk management and business operations.

The main purpose and execution requirements of the Internal Audit are to investigate and evaluate deficiencies in the internal control system and the efficiency of operations as well as providing timely improvement suggestions to assist the Board of Directors and management in fulfilling their responsibilities. The Internal Audit adopts independent full-time internal auditing, conducting regular and irregular business audits and financial audits to effectively evaluate the soundness, reasonableness, and effectiveness of the internal control systems.

Internal Audit Operations Process

In addition to conducting annual audits of items required by laws and regulations, the Internal Audit also considers the results of the Company's operational risk assessments when developing the audit plan for the following year and specifying the audit items. The plan is then implemented after approval by the Audit Committee and the Board of Directors. Any internal control deficiencies and abnormal matters that are discovered are communicated to the audited units, and if necessary, improvement plans and expected completion dates are obtained. The Internal Audit tracks the progress of the improvements and continues to monitor them until they are completed.

The audit report must be completed by the end of the following month and submitted to the Audit Committee for review. Quarterly, the progress in addressing deficiencies must be reported to the Audit Committee and the Board of Directors for consideration. In case of major violations or potential significant harm to the Company, it should be promptly reported to the President of each headquarters, the Audit Committee, and the Board of Directors.

2023 Work Priorities

Self-Assessment Operation of Internal Control

The Internal Audit conducts self-assessment exercises in each department and Subsidiary annually. It consolidates the identified internal control deficiencies and improvement measures to assess the effectiveness of the overall internal control system for the Board of Directors and the President. Subsequently, a statement on the internal control system is issued. This statement is also reported on the Market Observation Post System and published in the annual report.

Subsidiary Supervision

Include each Subsidiary within the scope of internal audit. Assist and supervise the implementation of internal control systems. Issue work reports to notify each Subsidiary of any abnormal indicators, facilitating timely adjustments and improvements.

Internal Audit Education and Training

Each year, we participate in the internal audit courses organized by the Financial Supervisory Commission to enhance our professional skills and risk management awareness. We also disclose the list of internal auditors and their training records on the Market Observation Post System. The training topics for 2023 included Practices and Key Auditing Points in the Production Cycle, The Role of Internal Audit in Sustainable Information Management and Internal Control, and Internal Audit Guidelines for Sales and Collection Cycles and Compliance with Laws and Regulations, totaling 7 sessions.

Risk Reporting Mechanism

In addition to risk management, TSC includes all employees in the scope of overall risk management. Currently, employees can use the Company's internal network Employee Grievance Mailbox platform to proactively report potential risk items and assist in managing the impact of various internal and external risks. No employee grievances were received in 2023.

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

TSC engages in all operational activities, striving to comply with relevant laws and regulations in the jurisdictions where it operates. The Company established various internal operating procedures and continuously paid attention to any domestic and international laws and regulatory policies that may affect its operations, making necessary adjustments at any time. The TSC Ethical Corporate Management Best Practice Principles, clearly stipulate that all employees should comply with the Company Act, Securities and Exchange Act, Political Donations Act, Government Procurement Act, and other regulations. It strictly prohibits bribery, accepting bribes, or giving or receiving political donations. It also adopts relevant preventive measures for business activities that pose a higher risk of dishonest behavior within the scope of Article 7, Paragraph 2 of the Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies, or other business activities. We comply with the highest professional ethical standards to uphold the Company's reputation and maintain the trust of all stakeholders.

To avoid improper disclosure of information and ensure the consistency and accuracy of external information, TSC has established a sound internal system for processing and disclosing significant information. Additionally, in order to prevent insider trading, the Company has formulated and published the Internal Handling of Significant Information and Prevention of Insider Trading Management Measures on its website for compliance.

TSC Ethical Corporate Management Best Practice Principles

TSC Internal Handling of Significant Information and Prevention of Insider Trading Management Measures

Regulatory Compliance Status

In 2023, there were no significant incidents of anti-corruption, anticompetitive behavior, money laundering, or insider trading. There were also no other major legal violations occurred[Note 1]. However, there were two cases that violated Article 7, Paragraph 1 of the Water Pollution Control Act. These cases were promptly addressed within the specified time frame. We have also developed plans for improving water quality and optimizing wastewater treatment processes. For more information, please refer to 5.3.2 Wastewater Management. TSC will continue to closely monitor regulatory changes and regularly review internal operating procedures to minimize the risk of non-compliance and ensure adherence to legal requirements.

Violations and Improvement Measures in 2023

TSC Li-Je Site		
Fault	Fines	Improvement Measures
On January 10, 2023, the water sampling quality test results for the discharge port (D01) did not meet the effluent standards (suspended solids: 33.8 mg/L, maximum limit: 30 mg/L).[Note 2]	NT$221 thousand	• To educate and train the personnel on the site, it is important to establish a regular cleaning schedule and keep a record of the cleaning activities. If the inspection personnel conduct sampling during the cleaning process, explanations should be provided and the D01 cleaning records should be presented as evidence.
On July 24, 2023, the water sampling quality test results for the discharge port (D01) did not meet the effluent standards (suspended solids: 42.0 mg/L, maximum limit: 30 mg/L).[Note 3]	NT$179 thousand	• Short-term goals: Restore pipeline functionality, enhance the number and strength of pipeline supports, and install liquid level alarms between pipelines. • Long-term: The material of the pipeline should be changed from UPVC to stainless steel. Additionally, a backflushing pipeline should be added to ensure regular cleaning of the pipeline, reducing structural damage and blockages.

Note:
1. Major violations are in accordance with the provisions of the "Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities." In 2023, TSC did not encounter any major violations.
2. On January 10, 2023, the Environmental Protection Bureau, Yilan County conducted an inspection at the site during the cleaning of the personnel release monitoring well for the environmental abnormality incident. However, our personnel failed to inform the sampling personnel about the need to postpone the sampling, which resulted in a violation.
3. On July 24, 2023, an environmental anomaly occurred when the discharge pipeline in the D01 site's wastewater treatment unit ruptured. The emergency shutdown and repair process took approximately 12 hours. After the pipeline was repaired, the structure (calcium salt) that had formed on the pipe's inner wall peeled off and was discharged at the outlet. Upon discovery, an emergency shutdown was implemented for treatment. The next day (July 25, 2023), filtration operations were carried out at the outlet until all the adhered substances inside the pipeline were discharged.

1.4 Information Security Management

GRI 3-3 GRI 2-25 GRI 418-1

Material Topics -
Information Security Management - Enterprise and Customer Information Leakage

Policy and Commitments

We are actively developing a comprehensive information security management policy, which includes the formulation of the Information and Communication Policy and Network Data Security Management Policy. We plan to implement ISO 27001 Information Security Management Systems (ISMS) and irregularly enhance internal awareness and understanding of information security through various means. This will help us minimize operational risks resulting from human error or improper use of security assets.

TSC's Policy on Information and Communication Policy and Network Data Security Management

Management Policy and Evaluation Mechanism

- Establish a Chief Information Security Officer (CISO) and a team of dedicated personnel to track the Company's information security indicators and address related risk issues.
- Regularly review the information security environment of each site and office, and enhance employees' awareness of digital security maintenance through education and training, or promotion.
- Evaluate and implement external information security audits and vulnerability scanning.
- Regular monitoring of the implementation status of equipment information security.

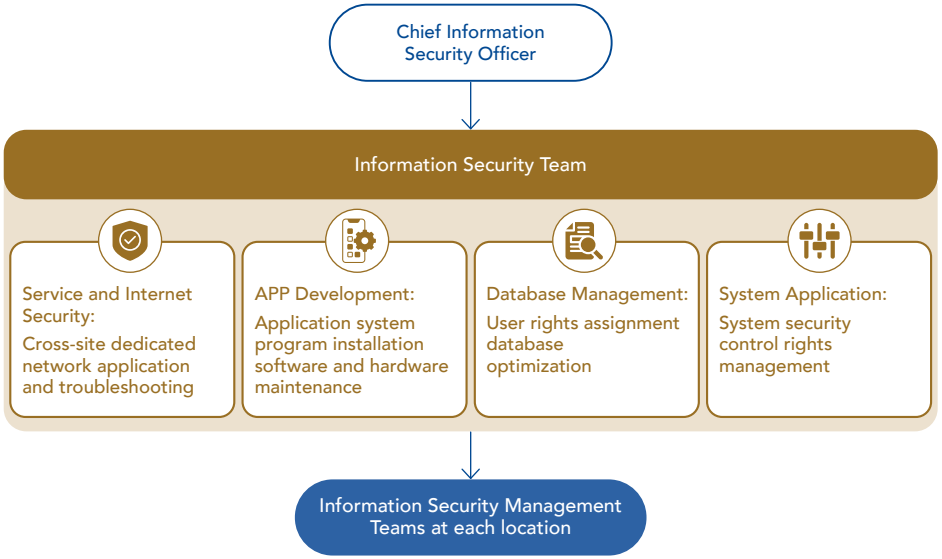
Action Plan and Performance

- Periodic review of the information security operations plan.
- Implementation status of action improvement plan following regular review of external information security inspection.
- Completed the promotion of internal information security education and training in 2023.
- In 2023, TSC implemented a test of the "Network and Endpoint Monitoring System" at all of its locations.

To ensure the security of the Company and customer information, TSC is dedicated to actively developing a robust information security management system and policies. We have appointed a Chief Information Security Officer (CISO) and a team of experts responsible for establishing the enterprise information security management framework. As a functional unit within TSC's MIS Department, we track various information security indicators and related risk issues across the Company. We are also planning to implement the ISO 27001 Information Security Management Systems, and are currently in the vendor selection and preparatory phase.

In the meantime, through irregular information security project testing, we examine whether there are vulnerabilities at the policies and management level, reducing the frequency and probability of information security incidents. In recent years, TSC has also gradually introduced information security protection equipment and organized related education and training to establish a complete information security system.

Information Security Management Structure



Information Security Management Policies

With the rapid development of information technology, businesses are facing an increasing number of information security threats and risks. In particular, ensuring the security of corporate information assets and maintaining personal privacy has become a crucial issue for businesses due to frequent internal data exchange. TSC adheres to the "Guidelines for Cyber Security Management of Listed and OTC Companies" and considers recommendations from TWCERT/CC. We have established policies such as "Information and Communication Policy and Network Data Security Management" and procedures including "Information Cycle and Electronic Data Control Procedures" based on these guidelines. Each site follows general principles while developing internal procedures tailored to information security requirements, aiming to achieve comprehensive regulatory standards in information security management.

TSC's Key Focuses of Policy Implementation on Information and Communication Policy and Network Data Security Management

1. All user information activities utilizing Internet resources within the Company, including incoming and outgoing emails, are automatically backed up and recorded on a dedicated network server.
2. All authorized network personnel should refrain from using functions that consume a significant amount of network bandwidth, downloading large amounts of data, or sharing data unrelated to personal business. All information regarding network connections is logged on the network proxy server for external internet connections. If it is determined that the aforementioned information is unrelated to business and has a detrimental impact on the Company's network operation or compromises confidential information, it will be reported to department supervisors and the general management unit for approval and appropriate action.
3. For internet instant messaging software or cloud sharing software, personnel in the information unit should submit an annual usage list for review by the highest management supervisor of each department. The list should then be transferred to the information unit for configuration or record storage.

   In order to prevent employees from using illegal software and to protect the Company's assets, it is necessary for employees to sign the "TSC Software and Hardware Affidavit". This agreement is designed to safeguard the integrity of Company assets and protect the intellectual property rights that are protected by laws and regulations.

In response to the government's promotion of the "Cyber Security Management Act" and to enhance self-security protection, TSC has developed a plan to implement the ISO 27001 Information Security Management Systems (ISMS) starting in 2022. The vendor selection phase began in 2023, and certification for critical infrastructure's essential information systems required for continuous operation is expected to be completed by 2025. This initiative aims to strengthen the security protection of the information infrastructure. The implementation is expected to optimize existing management systems and establish more comprehensive control standards in terms of management, technology, training, and other aspects, thereby consolidating TSC's information security system.

Plans to Receive ISO 27001 ISMS Certification

Preparatory Work - Data Center Hosts' Enhancement of Information Security Operations

In response to the constantly changing information environment and varying risks, TSC remains committed to collaborating with information equipment manufacturers, external information security sites, and other units to regularly update application equipment and software based on recommendations, while also patching security vulnerabilities. In 2023, we will continue to promote the update of hardware controllers for server storage space in the data center, as well as virtual software patching, in order to continuously strengthen critical infrastructure equipment. Furthermore, we have plans to further enhance these efforts in 2024 as part of the preliminary preparation for the implementation of the ISO 27001 management system.

- Storage space hardware controller update: In accordance with the manufacturer's recommendation, it is advised to carry out an update of the storage controller to address any security vulnerabilities.
- Virtual software patching: Software vendors respond to self-discovery and releases from external information security sites by implementing version changes and installing security vulnerability patch programs.

Selecting Consultant Vendors
Q1 2023 to Q3 2024

Review and Establishment of Information Environment and System
Q4 2024

Certification Auditing
Q1 2025

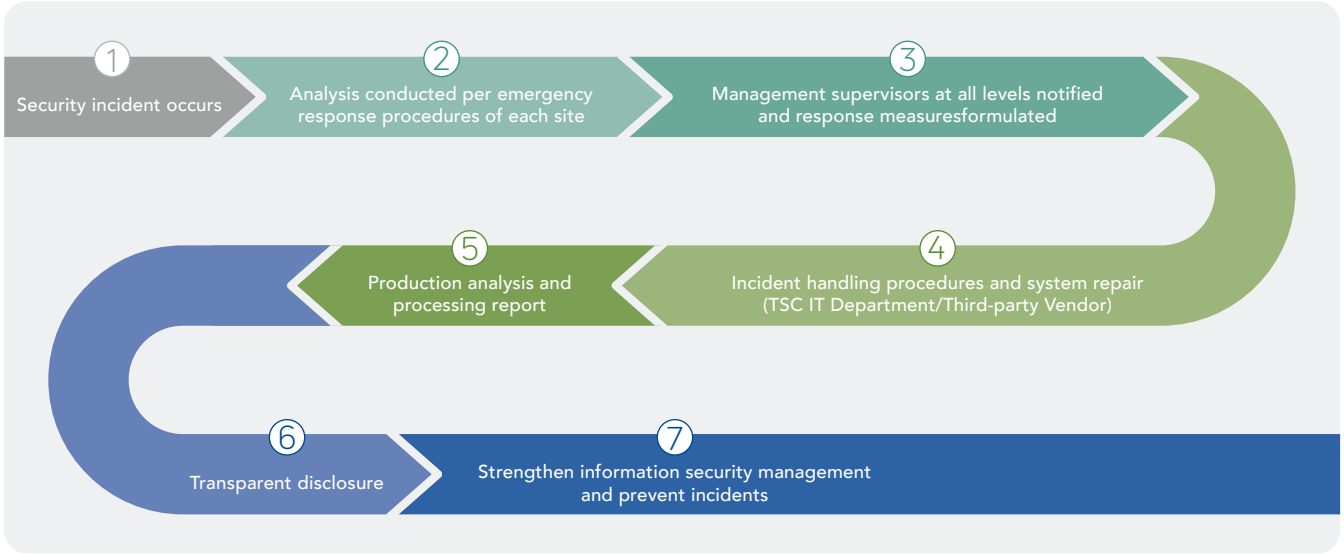
Identification of Information Security Risks

Considering the value and importance of information security to TSC, we conduct a preliminary analysis of potential threats and vulnerabilities, estimate the likelihood of occurrence and impact of risks, evaluate the level of urgency and scope of impact, rank risks, plan corresponding management measures, in order to reduce the potential negative impacts on our operations, reputation, financial status, competitiveness, and related negative aspects when information security incidents occur.

Notification and Handling of Information Security Incidents

For the notification and handling of information security incidents, each site of TSC has specifically established information security notification and handling procedures. When a security incident occurs, the information unit will report to various departments and determine the level of the incident. If it is a major security incident, it will immediately report to supervisors at all levels and the risk management organization, and activate corresponding measures and actions according to the emergency response procedures and items at each site. Overseas sites also report major incidents to the Taipei headquarters and take contingency measures. After the incident is resolved, the information security management team will submit an analysis and handling report to the ESG Committee for evaluation, then provide explanations to TSC's customers and trading partners as well as take corrective measures to prevent the recurrence of incidents and maintain the trust of stakeholders.

Grievance Channel for TSC's Stakeholders
External Stakeholder Whistleblower Mailbox:
anticorruption@ts.com.tw



Establishing a Protection Plan and Information Security Culture

To encourage employees to stay up-to-date with information security knowledge, each site of TSC has become a member of TWCERT/CC. Through our collaboration with TWCERT/CC, we conduct irregular security testing to ensure the implementation of the Company's information security defense and maintenance. Additionally, during the annual financial audit conducted by TSC's accounting firm, we hired professional auditors of Information Technology Audit (ITA) to perform IT audits. These audits include testing and evaluating various aspects of the ITA system, such as functional testing, security vulnerability testing, and data integrity testing. The purpose is to verify the reliability, security, and effectiveness of the system, ensuring that TSC's ITA system can meet business needs and provide reliable data support. In terms of internal promotion, we are committed to promoting information security education and training. We schedule relevant knowledge training to enhance employees' autonomous information defense capabilities and competence. In December 2023, we will conduct a comprehensive cyber security general education and training for all personnel in the Taiwan region.

2023 Cyber Security General Education and Training - Promotion of Advertising Letter Management System Usage

Hackers are constantly evolving their attack methods, and many threats originate from attacks launched through email, followed by the use of malicious websites, programs, and other tools to achieve their invasion goals. To ensure that colleagues can use the email system confidently and filter outgoing emails, thereby reducing the risk of exposure to malicious emails, TSC has implemented an advertisement email management system. This system can intercept various types of attack emails before they reach the mail server, effectively reducing phishing, forgery, and other virus emails.

Information Security Risk Incidents and Countermeasures

In December 2023, TSC's American site discovered a Trojan malware alert. The relevant colleagues promptly reported the alert to the headquarters' MIS Department and management unit. Through collaborative efforts between the headquarters and the vendor, endpoint controls were immediately activated, restricting specific IPs and implementing permission controls. As a result, the alert was successfully removed. Thanks to real-time alerts and a robust information security incident response mechanism, the incident had no negative impact on operations and no significant data breaches occurred.

Introducing Endpoint Protection Testing to Mitigate Information Security Threats

The information security problem is becoming more intricate as hackers continuously evolve their attack methods. To enhance our security system, TSC implemented a "Network and Endpoint Monitoring System" test at all locations in 2023. This test included vulnerability scanning, penetration testing, and other techniques to simulate hacker attacks to proactively detect threats and promptly report them, enabling early identification of hacker activity, improved real-time response capabilities, timely solution development, and mitigation of potential information security risks. In the future, during the process of digital transformation, there may be increasingly complex and severe information security challenges. TSC will continue to seek and integrate top-notch information security technologies to comprehensively enhance the overall security protection network in areas such as operating systems, network security, and endpoint protection.

Integrating ERP Systems of Overseas Sites to Establish a Real-time Cross-border Team

As a multinational company, TSC frequently encounters challenges in team collaboration and communication, including remote operations and time differences. The inability to communicate in real time can have an impact on the senior management team's ability to develop agile business strategies. In March 2023, TSC headquarters launched the Enterprise Resource Planning (ERP) Information System Integration Project. Colleagues from the headquarters' MIS Department were dispatched to the U.S. subsidiary to aid in the implementation, and it was officially launched in January 2024.

By integrating information within the group, business data such as procurement, inventory, and order sales can now be connected in real-time. This has reduced the time it takes for information to flow from 3 days to real-time updates, greatly improving communication efficiency. Additionally, it has increased the speed of decision-making for the business team and decreased the risk of customer churn.

Customer Privacy Protection

In view of the globalization of TSC's business and services, we are committed to implementing protection mechanisms for personal privacy and personal information to prevent leakage, abuse, and theft, thereby safeguarding the rights and interests of personal privacy. In the event of customer data leakage, TSC will respond in accordance with the guidelines set out by the information security policy. The Company planned to gradually introduce the ISO 27001 Information Security Management Systems as a management mechanism starting in 2023, reducing the potential impact and risks of customer data breaches by following international standards.

In addition to international standards, information security-related messages and advocacy will be increased through various channels and meetings in the future to enhance employees' awareness and understanding of information security, explicitly specifying the legal use scenarios, storage measures, responsible departments, and handling procedures for personal data incidents, continuously strengthening customer privacy protection. In 2023, there were no incidents of violating customer privacy or losing customer confidential information, and no complaints were received regarding the violation of customer privacy or loss of customer data.

2

Innovative Products and Services

2.1 RD and Innovation
2.2 Customer Relationship

Suggested priority for referring to the stakeholders in this chapter:
■ Supplier ■ Customer ■ Employee ■ Investor □ Government ■ Media
■ Others (such as the general public, academic institutions, etc.)

TSC aims to implement sustainable development, and hopes to reduce the environmental impact caused by business activities, in line with the spirit of "Take from Society, Give Back to Society". The Company has established product environmental protection specifications to control the hazardous substances in its products. In addition to complying with the requirements of the EU RoHS directive and REACH regulation, TSC upholds the principles of environmental protection and HSF (Hazardous Substance Free) in the design and production stages, continuously incorporating the concept of green products. Measures such as using non-hazardous raw materials and adopting low-pollution and energy-saving production processes have gained favor from automotive customers, allowing TSC to contribute substantial benefits in greenhouse gas mitigation through its core R&D capabilities.

2.1 R&D and Innovation

Material Topics -
Innovative Products and Services - Sustainable Product Design

Policy and Commitments

- Continuously monitor regulatory trends related to materials and related issues, ensuring that all products 100% comply with regulations and adhere to all applicable laws and regulations.
- Establishing an internal culture of quality management, advocating for a zero-defect commitment for our products, which includes zero errors, zero warranty claims, zero returns, and zero defects.
- Provide energy-efficient product solutions to minimize the environmental impact of manufacturing and packaging as much as possible.

Management Policy and Evaluation Mechanism

- Continuously invest resources in researching and developing innovative products, as well as optimizing processes to improve efficiency and reliability. This will enable us to provide end customers with more energy-efficient products.
- The TSC Environmental Compliance database has been established to manage hazardous substances in accordance with the EU RoHS directive, REACH regulations, and other relevant regulations.
- The quality management system undergoes regular verification by third parties, such as IATF 16949 and ISO 9001.
- To address the car supplier's implementation of online or physical audit programs, such as VDA 6.3 process audits and ISO 9001 quality management standards, in order to ensure that the products meet automotive quality specifications.

Action Plan and Performance

- Continuously developing a range of innovative products, such as MOSFET, automotive low-power voltage stabilizer ICs, and ESD products, while also ensuring thorough verification and mass production.
- A full material disclosure was conducted for 9,909 products, with a disclosure rate of 99.6% based on the weight percentage of the products.
- In 2023, a total of nine automotive suppliers underwent audits based on the VDA 6.3 process audit and ISO 9001 quality management standard.
- There were no incidents of non-compliance with hazardous substance management in 2023.

2.1.1 Products and Services

GRI 3-3 GRI 416-2 GRI 417-1 GRI 417-2 TC-SC-000.A TC-SC-000.B

TSC is mainly engaged in the manufacturing of Rectifiers, Transistors and LED Drivers, Assembly, Testing, and After-sales Service. Its product line includes Rectifiers, protection diodes, Metal-Oxide-Semiconductor Field-Effect Transistors (MOSFETs), bipolar transistors, ultra-low power voltage regulations, ESD protection diodes, high-voltage low-loss flow regulators, fast recovery rectifiers, LED drivers, sensors, and wide band gap. These products are mainly used in three major fields: automotive electronics, industrial markets (charging piles, power tools, pneumatic device equipment), and consumer electronic products.

Vertical integration is one of TSC's competitive advantages. We provide end-to-end services, from R&D and design, and production, to assembly, testing, and sales. This integrated approach optimizes the manufacturing process and reduces communication errors.

Total output of main products

Unit: Kpcs

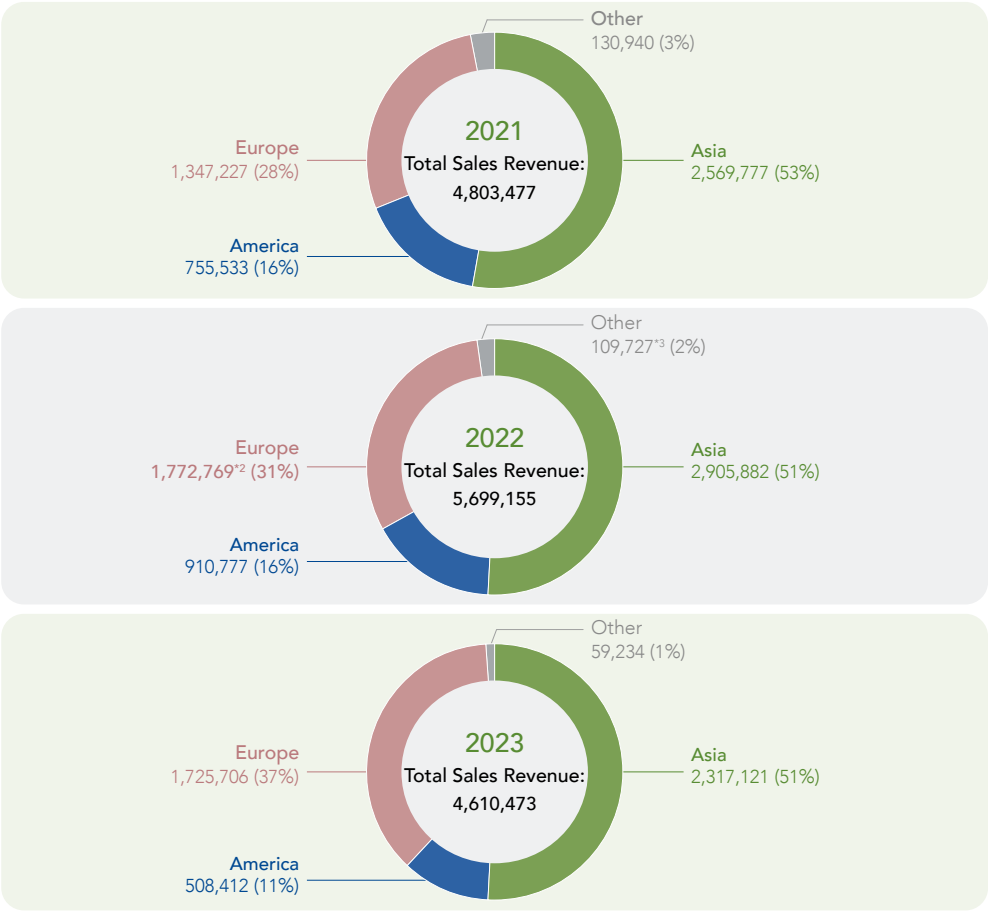
Main Product	Indicator	2021	2022	2023
Rectifier*1	Production Capacity	9,568,832	9,566,990	6,103,225
	Production Quantity	7,063,712	7,063,352*3	4,505,401

Note:
1. Due to the wide variety of TSC's products and the significant differences in production units, considering the reasonableness and accuracy of the information, only the total production of the Main Product - Rectifiers is disclosed.
2. The overall production volume is expected to decline in 2023 due to the semiconductor industry's overall consumption not recovering as strongly as anticipated.
3. Update the total production data (original 7,062,352 Kpcs) for 2022 to match the parent company only financial statements for 2023.

In 2023, TSC achieved a self-production rate (percentage from its own factories) of approximately 70% for its products, with the remaining 30% outsourced or purchased externally. In recent years, TSC has actively pursued transformational initiatives and adjusted its product sales strategies. By the end of 2023, the automotive and industrial markets accounted for about 60% of total revenue. Regarding sales in major regional markets, Asia represented 51%, while Europe and the Americas combined accounted for 48%, showing minimal change compared to 2022. Other regions accounted for 1%.

Main regional market sales status and proportion

Unit: NT$ thousand



Note:
1. In 2023, the total sales decreased compared to the previous year due to the overall market conditions.
2. Update the sales revenue (original NT$1,776,181 thousand) in the European market for 2022 to match the parent company only financial statements for 2023.
3. Update the sales revenue (original NT$106,315 thousand) in other areas market for 2022 to match the parent company only financial statements for 2023.

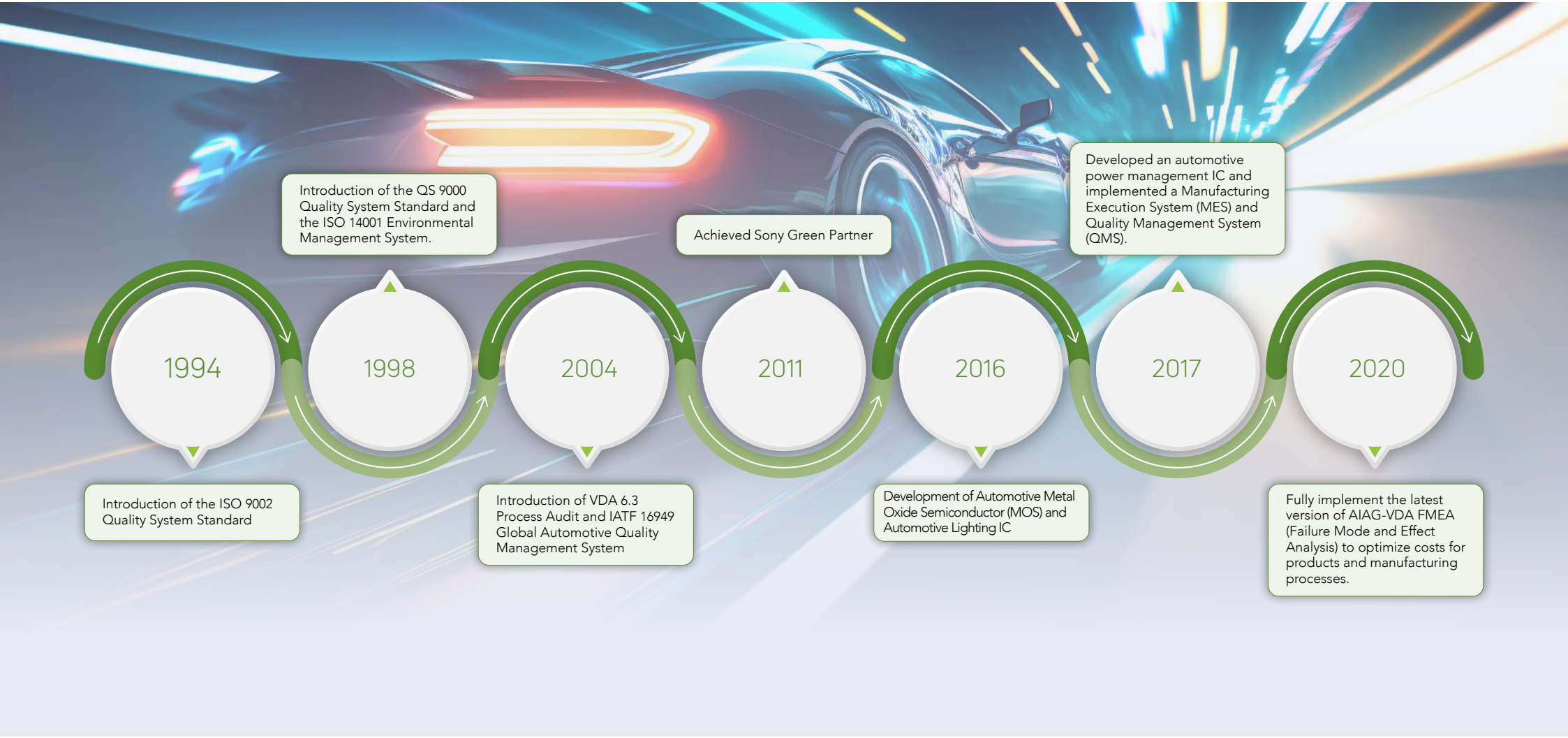
Multi-Faceted Strategy Layout

To provide customers with more comprehensive product solutions, TSC has continuously improved its technological innovation and R&D capabilities in recent years. It has also formulated short-, medium-, and long-term product development strategies to meet customer needs and market trends. In addition to establishing a sound product development strategy, TSC also promotes a comprehensive quality management system. These two schemes are complementary to each other, forming the foundation of TSC's competitiveness.

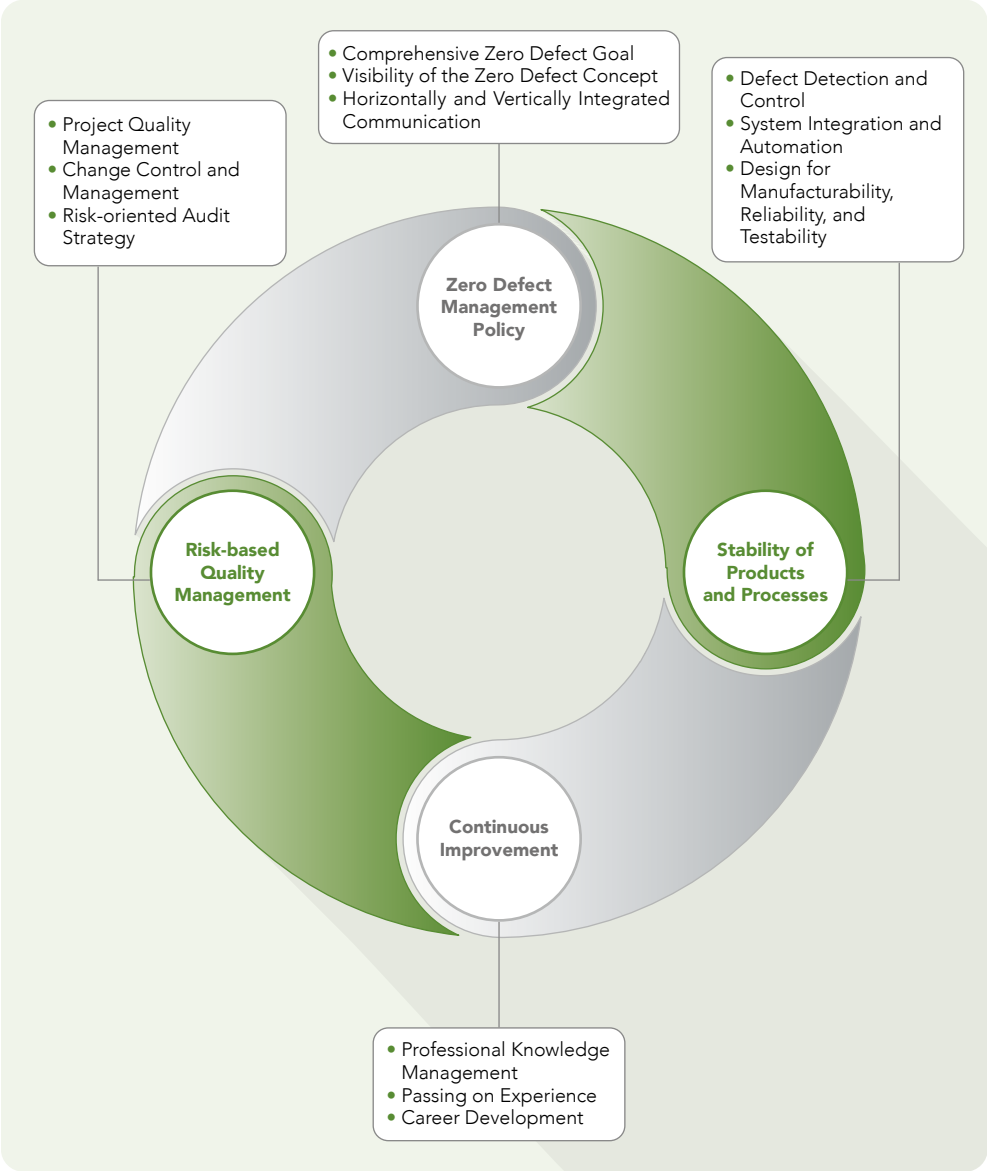
Short-term Strategy	Mid-term Strategy	Long-term Strategy
Product Development		
• Gain a deep understanding of market demands and rapidly introduce products to the market; such as continuously developing more efficient automotive semiconductor components like advanced MOSFETs, Wide Bandgap Semiconductors, and High-Efficiency Rectifiers. • Develop new product variants using existing technology and product platforms to meet different customer needs. • According to customer needs and market trends, conduct a comprehensive product portfolio optimization. • Discover new application scenarios and apply existing products to new markets and fields.	• Strengthen R&D on safety and reliability, improve product quality and market trust. • Strengthen cooperation with customers, provide custom products and services, and increase market share. • Develop a new product ecosystem. • Promote sustainable development and green manufacturing. • Continue to develop new markets and application fields, and increase product application scenarios and market size.	• Strengthen research and practice on product life-cycle management to achieve long-term sustainable development. • Promote green design and green manufacturing of products to achieve environmental protection and sustainable development goals. • Develop cloud-based products and services to achieve the sharing and collaboration of smart and digital products. • Promote product circular economy and resource utilization, achieve product recycling and waste reduction, and achieve sustainable development goals.
Technological Advancement		
• Introduce new talents and technologies to enhance R&D and manufacturing capabilities. • Accelerate product smartification and digitization to enhance product added value and market competitiveness. • Strengthen the R&D and manufacturing procedures of products to improve efficiency and product quality. • Strengthen cooperation with suppliers to improve supply chain efficiency and reliability.	• Introduce new materials and technologies to improve product performance and power consumption ratio. • Promote product design and testing automation to improve product development efficiency and product quality. • Promote smart manufacturing and industrial internet to enhance production efficiency and product quality. • Strengthen corporate innovation culture and R&D capabilities, enhance innovation vitality and competitiveness of the business. • Promote green manufacturing and strengthen green technology R&D.	• Promote the application of cutting-edge technologies such as artificial intelligence and machine learning to enhance the intelligence and autonomy level of products. • Continue to advance technology R&D to maintain a technological competitive advantage. • Promote comprehensive corporate digital transition to enhance corporate intelligence and digitization level. • Promote deep collaboration and innovation with industry chain partners, jointly advancing industrial development.

Product Quality Management

TSC has been fully implementing the Zero Defect Strategy in its automotive supply chain since 2004, after verifying compliance with the global automotive industry quality management system IATF 16949 and the quality system ISO 9001. By implementing a rigorous quality management system, TSC has successfully achieved the objective of continuous product improvement and defect prevention, ensuring the delivery of high-quality products to customers in the global automotive industry.



Quality Management Policy and Goals



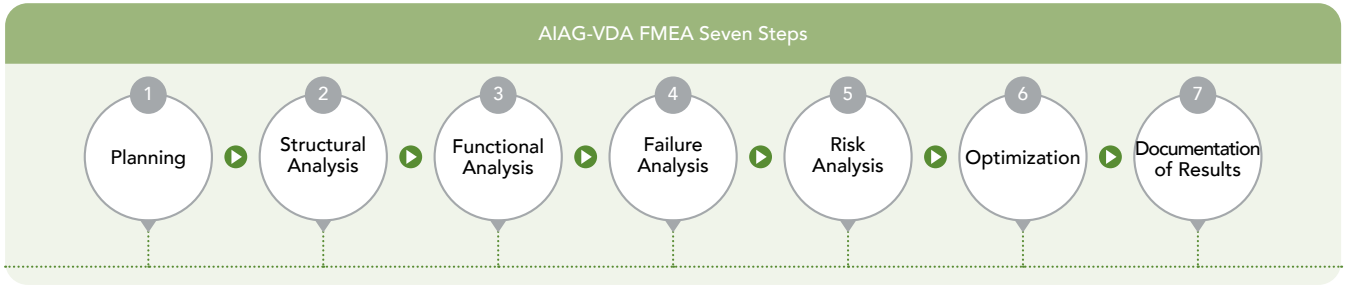
Comprehensive Quality Management Capability Building

In order to effectively implement the quality management policy, TSC has undertaken relevant capability building in organizational culture, personnel skills, equipment, and system automation. This includes promoting horizontal and vertical communication to ensure the spirit of "zero defects" is company consensus. TSC has also introduced more talented individuals with extensive experience, strengthened the professional knowledge of internal engineers and supervisors, expanded training in specific automotive technologies, and laid the foundation for product quality management. Additionally, TSC is gradually introducing automated equipment and systems to enhance the efficiency of quality management.

Establishment of Organizational Culture	Implementation of Zero Defect Concept Employee Communication Cross-Departmental Communication
Staff Upskilling	Employing More People with Professional Experience Continuing Education Training
System and Equipment Automation	MES Factory Operations Control System Customer Relationship Management QIMS Quality Integrated Management System SPC Statistical Process Control System

Reliability Analysis

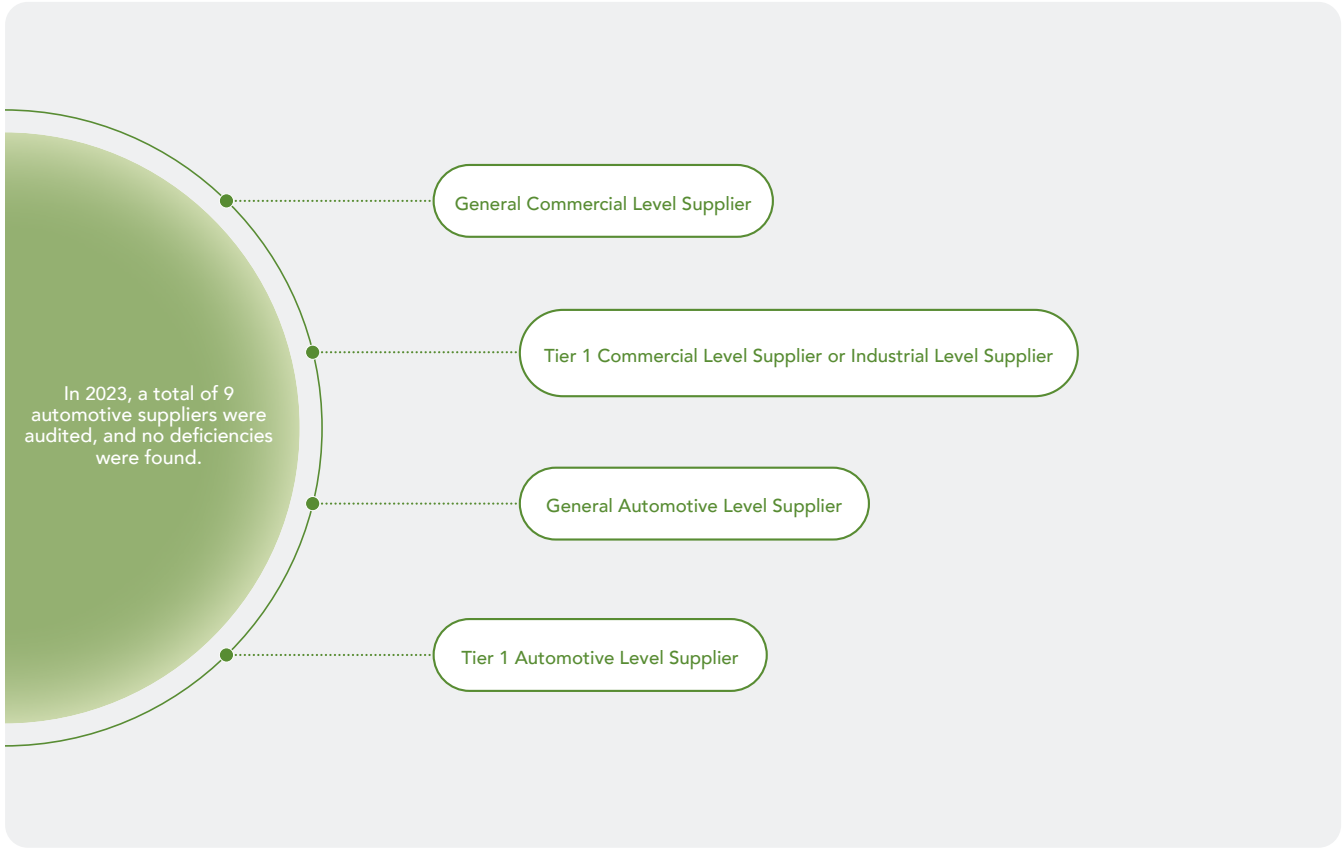
Since 2000, we have strengthened our management through VDA6.3 process audits and IATF 16949. By integrating our existing quality management system, we assist in internal diagnosis and optimization, refine our zero-defect goals, and enhance competitiveness in the automotive supply chain. Additionally,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



Automotive Supplier Audit

To effectively manage automotive suppliers and distinguish their capabilities, TSC categorizes them into four categories. Regular audits are conducted based on the VDA 6.3 process audit and ISO 9001 Quality Management Standards* to ensure that the product quality of upstream suppliers meets TSC's high standards. In 2023, a total of 9 automotive suppliers were audited, and no deficiencies were found.

Note: Regular audits include on-site audits, online audits, and written audits, among other forms.



Health and Safety Impact Assessment of Products

In recent years, TSC has been developing the automotive market. Major European and American automotive manufacturers pay great attention to the high quality and precision of their products because of the importance of automobiles in terms of personal and traffic safety. If there are any malfunctions, it may result in unforeseen risks and impacts. Defects in automotive electronics not only pose potential risks to personal safety but also lead to negative impacts on corporate reputation through subsequent product recalls. Therefore, customers have extremely high requirements for the products provided by TSC. Only by offering high-quality products, implementing a Zero Defect Policy, and continuously monitoring the development trends of harmful substance regulations at home and abroad can we maintain a competitive advantage.

Through assessment, the products offered by TSC are not end products. The products and services provided by TSC in 2023 have no significant impact on health and safety, and there have been no incidents that violate relevant health and safety regulations for products and services. TSC will continue to strive to manage the health and safety impacts of its products and make the sustainable development blueprint more complete.

Product Chemical Substances Control and Disclosure

Many chemical substances are used in the production process of TSC products, and there is a risk of harm to human beings and the environment. As such, the control of chemical substances is crucial. In recent years, environmental substance regulations have been updated frequently, and the number of regulated items has increased year by year, reflecting the increasing international attention to chemical management. Meanwhile, customers also attach great importance to the composition, showing their attention to the subsequent R&D, design, manufacturing, and quality maintenance of purchased parts. To allow customers to quickly understand the chemical substances contained in products for accelerating demand matching, TSC set up a Material Composition Declaration system of the internal website.

In the past, when customers or agents inquired about materials, they had to convey their needs through the Sales Division and go through various internal processes to obtain detailed information about the composition of the product. This communication flow increased the operation time and caused a lack of immediacy in clarifying doubts for customers or agents, resulting in possible missed business opportunities. Therefore, TSC's MIS Department has designed a unique system, the MCD Environmental System, to control and manage the chemical composition of products and establish a list of hazardous substances. The information on the substances contained in the products is continuously compiled and disclosed on the official TSC website. Currently, all products have MCD data sheets, and customers, suppliers, and other external stakeholders can quickly search for specific products that meet their needs through the self-service feature on the TSC official website, accelerating the overall communication process and saving time on back-and-forth communication.

In 2023, TSC disclosed the complete material composition of 9,909 products, achieving a disclosure rate of 99.6% by product weight percentage, surpassing the previous year's target of 97%. Moving forward, TSC will further promote the disclosure of complete material composition for product components, integrating them into a transparent and comprehensive material information database. This will involve analyzing high-risk materials to ensure the production of environmentally friendly products by TSC.

Hazardous Substances Management

We believe that the management of hazardous substances is a crucial part of sustainable management, which is also important for customers. The Company strictly complies with international regulations, such as the EU RoHS directive, REACH regulations, etc., and has established a TSC Environmental Compliance database to manage hazardous substances. We provide manufacturing services that are more environmentally friendly and disclose hazardous substances in response to customer needs, supporting customers in expanding the green product market.

For a complete list of environmental laws and regulations followed by TSC, please refer to the official website's Compliance with Environmental Laws and Regulations.

During the product development stage, TSC adheres to quality management system frameworks such as ISO 9001 and IATF 16949 to conduct PDCA reviews. This ensures the assessment of all product health and safety impacts. Additionally, we incorporate customer requirements into each production site. In 2023, TSC's products and packaging design and manufacturing have complied with local regulations and 100% meet customer requirements for hazardous substance management. There were no violations of regulations on product information labeling or voluntary agreements, nor were there any incidents leading to fines or warnings.

We strictly comply with the product import regulations or instructions of various countries. After internal verification, the product pass rate in 2023 is 100%. Regarding the EU RoHS directive, TSC has obtained third-party testing reports.

Laws or Directives	Compliance Rate of TSC Products
RoHS*1	100%
REACH	
Safe Drinking Water and Toxic Enforcement Act	
End-of-Life Vehicle (ELV)	
Persistent Organic Pollutants (POPs)	
U.S. Environmental Protection Agency - Toxic Substances Control Act (TSCA)	
JEDEC J-STD-609	
Volatile Organic Compounds (VOCs)	

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

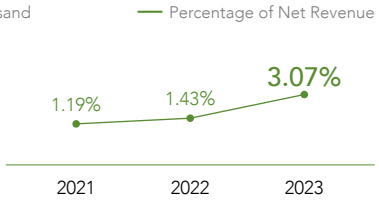
2.1.2 Innovation and R&D

TSC continues to invest in product R&D and technological innovation, gradually introducing more professional talents and technologies. As the scale continues to grow, TSC continues to expand the R&D team in 2023, including new technical professionals in ESD, wide band gap semiconductors, automotive low-power voltage stabilizer ICs, and other product lines. The Hsinchu Office of the R&D team was established in 2023. In addition, TSC incorporated the R&D performance of new products into the performance bonus evaluation criteria for researchers to encourage the team to actively pursue innovation. Over the past three years, the annual investment in innovative R&D has increased year by year, and its percentage of net operating revenue has also increased with the growth of operating revenue. In 2023, R&D expenses accounted for 3.07% of net operating revenue, representing a 1.64% increase.

R&D Expenses and Percentage of Revenue

Unit: NT$ thousand

	2021	2022	2023
R&D Expenses	56,976	81,604	141,341
Net Revenue	4,803,477	5,699,155	4,610,473



New Product Development Plan

In recent years, TSC launched a number of new product development projects, including MOSFETs, automotive low-power voltage stabilizer ICs, ESD, and other products. These projects have undergone continuous validation and have been successfully put into mass production. The products involve different applications of semiconductor technology, such as automotive electronics, Advanced Driver Assistance Systems (ADAS), Internet of Things, 5G, etc., laying the foundation for the Company's long-term development. For instance, we completed the development of the SiC 650V Schottky Diode (MPS) by the end of 2023, and it has already undergone various verification. It is scheduled to enter mass production in the first quarter of 2024. For further details, please refer to the "Highlight Story: R&D of SiC 650V Schottky Diode (MPS)".

TSC has established an effective project management system to track and manage tasks and progress across departments, in order to respond to the technical challenges, market uncertainties, product design, and quality control issues associated with developing new products. Additionally, the Company conducts training and exchange activities to enhance employees' skills and knowledge in product development, and to promote cross-department collaboration and communication.

Expected Benefits of Product Development

With the further development of power electronic products, the demand for components in applications such as Uninterruptible Power Supply (UPS), Data Centers, and even On-Board Chargers (OBC) and charging pile circuits has been increasing year by year. High-performance power electronic products operating at high voltage and power are receiving more attention. Compared to traditional silicon (Si) materials, the new silicon carbide (SiC) semiconductor materials have significant advantages in terms of thermal conductivity, device switching speed, device size, and resistance. Due to its material properties, SiC Schottky products have lower conduction and switching losses compared to traditional Si FRED, as well as better heat dissipation capabilities. This indirectly leads to the reduction of product size and energy-saving and carbon-reducing effects.

In contrast to the traditional Schottky diode (SBD), this project focuses on the R&D of the Merged PiN and Schottky diode (MPS) to achieve better device characteristics (voltage (VR) and current (IR)). The terminal design incorporates Junction Termination Extension, which improves device efficiency and enhances the electrical characteristics of the on-state resistance (Ron), ultimately significantly increasing device performance and competitiveness.

The test results of the 806W CCM PFC application circuit show that the SiC MPS device developed by TSC outperforms the traditional Si FRED in terms of key parameters VF, Trr, and Qrr. It also demonstrates greater stability during high-temperature operation and comparable performance to SiC devices from Tier1 IDM manufacturers.

The future SiC 650V Schottky Diode (MPS) product will be built upon the existing foundation for process optimization and design. The goal of the Gen2 product development is to improve performance by 20%, further reducing switching losses and component size to enhance product competitiveness. Additionally, the development of SiC 1200V Schottky Diode is underway to meet the increasing demand for higher voltage products. TSC will also develop products in various assembly forms to cater to multiple market demands.

Practicing Intelligent Factory

To improve factory efficiency, enhance process quality, and meet customer delivery requirements, TSC established the Automation Development and Integration Department in 2018. It introduced Manufacturing Execution System (MES) and Equipment Automation Program (EAP) to optimize processes and product traceability, thereby improving efficiency and achieving intelligent production. In order to expand MOSFET's production capacity, TSC plans to invest over NT$200 million in new equipment from 2022 to 2025. Additionally, it plans to invest approximately NT$7 million in unlimited quantity EAP software licenses to meet the needs of the new equipment.

Digital System Management (MES/EAP)

Equipment can remotely and automatically perform parameter setting, and automatically retrieve production programs. When products are put into production, the system can immediately designate the process flow. Additionally, production information can be digitized and visualized.

Automatic equipment

Intelligent sensing technology allows the equipment's robotic arm to automatically load and unload materials. The equipment can complete the entire process automatically, enhancing operational efficiency.

Product traceability

Through data management for statistical analysis, it provides preventive and troubleshooting functions. For example, it can query the product batch code to track all quality issues that occur during the production process and perform traceability analysis on the entire history of that batch of products, achieving effective production and continuous improvement purposes.

In order to enhance factory efficiency, improve process quality, and meet customer delivery requirements, TSC made an investment in the planning of an automated factory in 2017. The digital transformation of the factory is guided by three main aspects: digital management, intelligent processes, and smart inspection. The goal is to gain customer trust through advanced information technology. By 2023, the automation coverage of equipment in both Li-Je Site and wafer fab will increase compared to 2022, reaching a 70% automation rate.

Digital Management

- **Material management:** Managed through digital systems, it can automatically schedule the order of material issuance and verify its accuracy. Meanwhile, the system isolates expired and abnormal items to reduce the impact of human error.

Smart Manufacturing Process

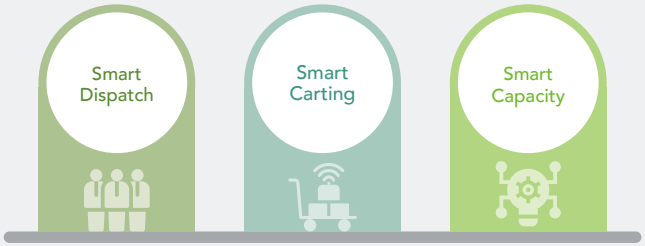
- **Diffusion process:** Using smart sensing technology, the equipment can automatically load/unload throughout the entire process, control temperature, and automatically perform air intake.
- **Photolithography process:** Using smart sensing technology, the equipment is equipped with an automatic alignment control system to reduce the risk of manual alignment and improve the appearance yield.
- **Etching process:** Using smart sensing technology, the equipment can automatically acidify/soak/swing/change the tank according to the formula, while monitoring whether the water resistance value reaches the standard, improving electrical yield.
- **Thin film process:** Using intelligent sensing technology, the equipment can automatically load/unload the whole process and automatically switch the coating material.
- **Probing and testing process:** Using smart sensing technology and digital management, the equipment can automatically switch production between different wafers and upload information, as well as monitor wafer yield and provide alerts and analysis for low-yield wafers.

Intelligent Detection

- **Visual inspection:** Using smart sensing technology and digital management, it is possible to conduct automatic visual inspection and mark defective products, and simultaneously uploading photos of defects data facilitates analysis and continuous improvement.
- **AI appearance defect recognition:** Introducing AI image detection technology to identify and classify appearance defects. This technology generates labeled images for each defect category and imports the recognition results into the database for classification and statistics. Establishing a unified standard for defect recognition, which helps track the analysis of defect causes and provides a reference for process improvement. Ultimately, this enhances product quality.

Developing an Intelligent Automated Production System to Move Towards Smart Manufacturing

In order to enhance product quality, meet automotive standards, and work towards the goal of zero defects, Li-Je Six-inch Wafer Site launched the Smart Production Project in 2023. This project involves partnering with a well-known domestic automation production expert team to implement smart dispatching and automated storage systems. The main objectives of the project are to improve production efficiency, meet customer quality requirements, and achieve research and development milestones. The expected benefits of the project include improving Activation, enhancing space utilization rate, and promoting environmental sustainability. The project is currently in progress.



Improve the Activation

- AMR (Autonomous Mobile Robot) automatically transports materials and semi-finished products, thereby reducing the need for manual transportation, accelerating the production process, and shortening the production cycle time.
- The Real-Time Dispatch (RTD) intelligent system management can optimize scheduling and production, effectively reducing waiting time for wafers and lots, and improving machine activation.

Improving Space Utilization

- The Stocker system effectively utilizes factory space by maximizing storage capacity through vertical or dense storage, thereby saving floor space.
- The Stocker system can seamlessly integrate with the production management system, enabling real-time monitoring and adjustment of inventory status. This integration improves the efficiency and accuracy of material management.

Friendly Environment

Automated transportation helps to reduce energy consumption and carbon emissions, which aligns with TSC's goals and trends in green manufacturing.

On the other hand, regarding the assembly testing equipment, TSC has been gradually purchasing new types of networked and automated machines since 2017 and conducting assembly testing processes. We have also purchased EAP software licenses to achieve process parameter control and automation access. The applicable products include diodes and MOSFETs. With the increasing number of newly purchased equipment each year, more software automation engineers are needed to assist in the implementation and development of EAP. As of the end of 2023, through hardware, software, and manpower recruitment, I-lan Site has used machines with EAP automation capabilities to produce over 95% of its products. Future new products and machines will also be equipped with EAP functionality to maintain the intelligent operation of the factory.

- Material management: Utilize digital systems to achieve visualized warehouse management, thereby improving inventory turnover efficiency, reducing stagnant materials, enhancing product quality traceability, and increasing production efficiency.
- Test process: Using digital management, it is possible to achieve automatic parameter setting, health index warning and disposal, as well as visualization of all production information.
- Automated tool life monitoring management: Utilizing digital management to assist in the monitoring of tool life for assembly process machines (cutting and compound removal), enhancing quality control capabilities.

Intellectual Property Protection

Intellectual property represents the intellectual results and achievements of the company's investment in technology development, especially for the long-term development of the company, it is a significant intangible asset. TSC has formulated the Intellectual Property Management Measures as the basis for the management and maintenance of group intellectual property rights. Meanwhile, in order to enhance the importance and economic value of our company's R&D technology and cultivate patents, the Company regularly commissions external firms to provide intellectual property and patent-related training courses for internal R&D and technical personnel.

In the face of the changing structure and rapidly advancing technology in the semiconductor industry, TSC has redefined its goals and strategies for the management and maintenance of intellectual property rights. We aim to optimize existing technologies and focus on researching core technologies, conducting an inventory and review of all patents within the group, and retaining patents with economic value. Additionally, TSC places greater emphasis on applying for new invention patents with higher levels of "originality" and "novelty". TSC continues to collaborate with a technology company in the United States to develop new technologies, prioritizing quality over quantity. As of now, TSC has been granted and holds 35 valid patents, including 33 invention patents, 2 utility model patents, and 1 design patent was granted and licensed in 2023.

In order to strengthen the determination of TSC's intellectual property deployment, the Legal Department, together with the senior management of the Company, not only plans regular intellectual property training or industry-related courses for R&D and technical personnel, but has also started planning and formulating new internal management measures and systems (including the introduction and promotion of trade secret systems) to enhance the content of technology and patents, and protect the core technology and patents of the Company. By the end of 2023, the plan is to invite international intellectual property law firms to TSC in the first quarter of 2024 to provide education and training on "essential patent knowledge for R&D personnel" to the R&D team in TSC.

To encourage TSC employees to actively engage in research, invention, and innovation, and to improve product quality and functionality, thereby enhancing TSC's competitiveness, there are numerous incentive measures, including proposal rewards, approval rewards, patent infringement reporting rewards, patent rejection rewards, licensing rewards, and annual rewards, which encourage employees to collectively protect TSC's intellectual property rights through diverse criteria.

2.1.3 Developing Sustainable Products GRI 301-1 GRI 301-2

In addition to continuing to roll out smart factories, and improve production efficiency, TSC is actively engaged in product innovation and the development of high-efficiency products. TSC aims to achieve product sustainability by gradually replacing energy-consuming products with more efficient alternatives. For instance, the adoption of high-performance rectifier diodes instead of traditional diodes, along with significant investments in new product development, enables end customers to reduce energy consumption and indirectly decrease carbon emissions.

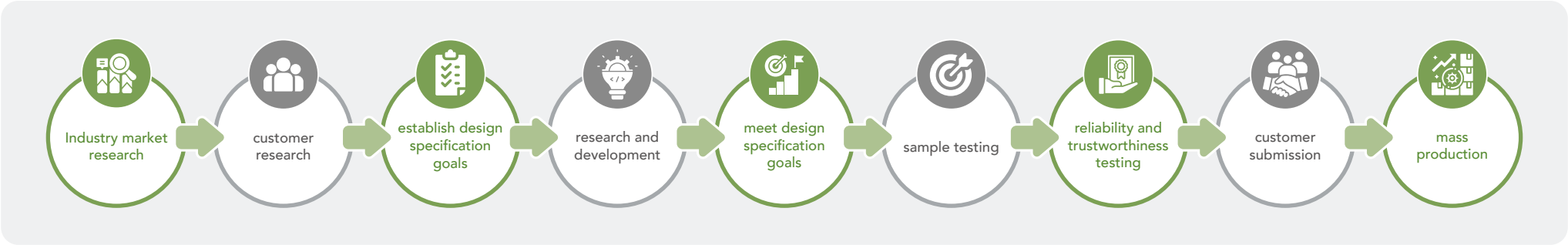
In addition, TSC agrees with the concept of green packaging and remains committed to ensuring the recyclability of raw materials and packaging materials. Additionally, the Company prioritizes customer instructions and packaging requirements, promptly coordinating with upstream suppliers to accurately label relevant symbols on the packaging in accordance with international standards.

Developing Sustainable Products

With the advent of the era of 5G and electric vehicles, the market demand for products that are resistant to high temperatures and high pressure, high power, and low power consumption has increased. Considering the excellent performance and good heat dissipation of SiC semiconductors in high voltage and high power applications, as well as their wide use in electric vehicles, charging piles, and 5G, TSC launched a new generation R&D project of power devices in 2022. The project applied third-generation semiconductor materials, SiC and GaN, to existing products in order to introduce power MOSFET products with lower power consumption and higher efficiency.

Starting in 2022, TSC has collaborated with the integrated industry's professional wafer fabs and power semiconductor assembly factories to jointly develop SiC Schottky Rectifiers. Currently, the samples fully meet the design specifications and pass reliability and trustworthiness testing. The first generation of SiC Schottky Rectifiers was launched by Q1 2024. In the future, TSC will continue to make efforts to apply silicon carbide materials to products of different specifications, such as 650V-1200V Schottky products or higher power 1200V MOSFET products. This will not only maintain robust growth in operations but also contribute to energy savings, in line with sustainable operation.

Product Development Execution Process



A Sustainable Product Case from TSC

TSC is a prominent manufacturer of power semiconductor. Its products consist of semiconductor components that are customized and utilized based on customer requirements. In recent years, TSC has made significant advancements in research and development, enhancing product performance and reliability. As a result, the Company is able to offer customers higher specification products.

Silicon Carbide Schottky Diode	High-performance power semiconductor devices offer several advantages over traditional silicon Schottky diodes: • High heat resistance: Capable of operating at elevated temperatures, suitable for use in high-temperature environments. • High voltage interrupting capability: Capable of handling higher voltages, which is advantageous for applications in high-voltage power environments. • Low reverse recovery time: Silicon carbide Schottky diodes have a significantly lower reverse recovery time compared to silicon diodes. This characteristic helps to minimize switching losses and enhance circuit efficiency and speed. • Higher efficiency: Low forward voltage drop and low reverse recovery characteristics can reduce power consumption and improve overall efficiency in power conversion applications. • Small size and weight: Due to the material properties of silicon carbide, it can offer higher performance in smaller sizes, making it crucial for applications with limited space or where weight reduction is important. • Long lifespan: The durability and high temperature resistance of this product result in a longer lifespan compared to traditional silicon diodes. As a result, maintenance and replacement costs are reduced.
Low Power Consumption Voltage Regulator	• Extending battery life: Low-power voltage regulator ICs can reduce battery consumption in battery-powered devices, thereby extending the operating time of the device. This is especially crucial in applications such as portable devices, wireless sensors, and Internet of Things (IoT) devices. • Reducing heat generation: Low-power voltage regulator ICs typically generate less heat, which reduces the need for cooling and simplifies the design of cooling systems. This is especially beneficial for small electronic devices or thermosensitive applications. • Simplified circuit design: Low-power voltage regulator ICs usually do not necessitate intricate heat management or additional radiators, thereby simplifying circuit design and reducing design and manufacturing costs. • Improving energy efficiency: Low-power voltage regulator ICs not only reduce their own power consumption but also exhibit high-efficiency voltage regulation performance. This feature helps to decrease the overall energy consumption of the system and assists end customers in creating more environmentally friendly and energy-saving product applications. • Smaller size: The low-power voltage regulator IC generates less heat, eliminating the need for a large radiator. As a result, the circuit board and equipment can be made smaller. This is especially beneficial for portable and space-limited applications. • Improved reliability: Lower heat generation and reduced cooling requirements result in a decreased risk of failures, which is crucial for applications (such as medical equipment and industrial control) that necessitate long-term stable operation. • Support for environmentally friendly applications: With the growing awareness of the environment, low-power voltage regulator ICs contribute to reducing energy consumption and promoting sustainable and eco-friendly electronic products.
High-voltage low-loss rectifier	The objective is to develop a device that can efficiently rectify high voltage environments while minimizing losses during the conversion process. • Efficiency improvement: Low-loss rectifiers generally have a lower forward voltage drop and a shorter reverse recovery time. These characteristics help to reduce losses in the energy conversion process, resulting in improved overall efficiency. • Reduced heat generation: The rectifier generates less heat due to low losses. This not only reduces the need for cooling but also minimizes the risk of failures caused by overheating. • Higher voltage withstand capability: High voltage rectifiers have the ability to handle higher voltages, enabling them to be used in high-power conversion and transmission applications in environments with higher voltages without being easily damaged. • Longer lifespan: High-voltage rectifiers are usually designed to be durable, and capable of withstanding high voltage with minimal losses. This design feature helps to extend their lifespan and reduce maintenance and replacement costs. • Wide application: The high-voltage, low-loss rectifier has a wide range of applications in various fields, including power supplies, inverters, electric vehicles, solar inverters, and industrial automation. • Reduced component size: These rectifiers typically do not require large radiators due to their efficient operation and reduced heat generation. As a result, the overall circuit board size can be smaller, which is particularly beneficial for portable and space-constrained applications. • Reducing operating costs: An efficient rectification process leads to reduced energy consumption and lower operating costs.

Management of Raw Materials and Packaging Materials

TSC offers a range of services in the semiconductor industry, from front-end wafer manufacturing to back-end assembly and testing. The wafer fabrication process involves the use of chemicals, etchants, developers, and silicon wafers. Our assembly and testing facilities utilize lead frames, compounds, and carrier tapes. We are committed to reducing resource waste by constantly improving our production processes. In selecting raw material suppliers, we uphold strict standards and adhere to the procurement management procedures and operational specifications of each plant to ensure compliance with regulations and quality requirements.

Each site plans the packaging form based on the annual production plan, product category, customer demand, and environmental regulations. Currently, all materials used in the Li-Je Site are recyclable, including reusable cardboard boxes, plastic packaging materials, and cushioning materials. The I-lan Site also works with suppliers to recycle and reuse packaging materials, such as packaging rolls and plastic boxes, on an annual basis.

Total Amount of Production Material Consumption Used

Unit: kg

	2021		2022		2023	
	Weight	Percentage	Weight	Percentage	Weight	Percentage
Renewable material	290,701	7%	194,610	5%	158,453	6%
Non-renewable material	3,781,160	93%	3,713,706	95%	2,418,640	94%
Total Amount of Material Consumption	4,071,861	100%	3,908,316	100%	2,577,093	100%

Note:
1. Adjustments will be made to the unit weight of renewable materials in certain factories in 2021 and 2022, followed by a unified update in 2023.

Total Amount of Packaging Material Consumption Used

Unit: kg

	2021		2022		2023	
	Weight	Percentage	Weight	Percentage	Weight	Percentage
Renewable material	174,336	22%	154,915	23%	112,337	23%
Non-renewable material	632,035	78%	530,463	77%	369,046	77%
Total Amount of Material Consumption	806,371	100%	685,378	100%	481,384	100%

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. For instance, bonding wires for assembly, and spools for packaging at the I-lan Site are sent back to the original equipment manufacturer for recycling and reusing. In 2023, a total of 1360 spools and 580 plastic boxes for packaging materials like lead frames were recycled. In the future, TSC will develop more value chain collaborations to establish suitable recycling methods and encourage circular reuse.

2.2 Customer Relationship Management GRI 3-3

Material Topics - Customer Relationship Management

Policy and Commitments

Through our global logistics locations and service strategies, we aim to offer customers comprehensive and reliable solutions to meet their needs. We are flexible and supportive in customizing solutions to fit each customer's specific requirements. Furthermore, we are dedicated to maintaining customer trust and service quality by facilitating effective two-way communication channels to fulfill all customer needs.

Management Policy and Evaluation Mechanism

- According to the Company's internal customer management procedures, customer relationship management is implemented to maintain customer relationships, monitor performance continuously, and make ongoing improvements.
- According to the Company's internal procedures for customer satisfaction and scorecard management, satisfaction evaluation indicators are established and service performance is regularly reviewed based on the data analyzed from the annual satisfaction survey.
- Customer Education and Training
- Dedicated Sales and Customer Service Window

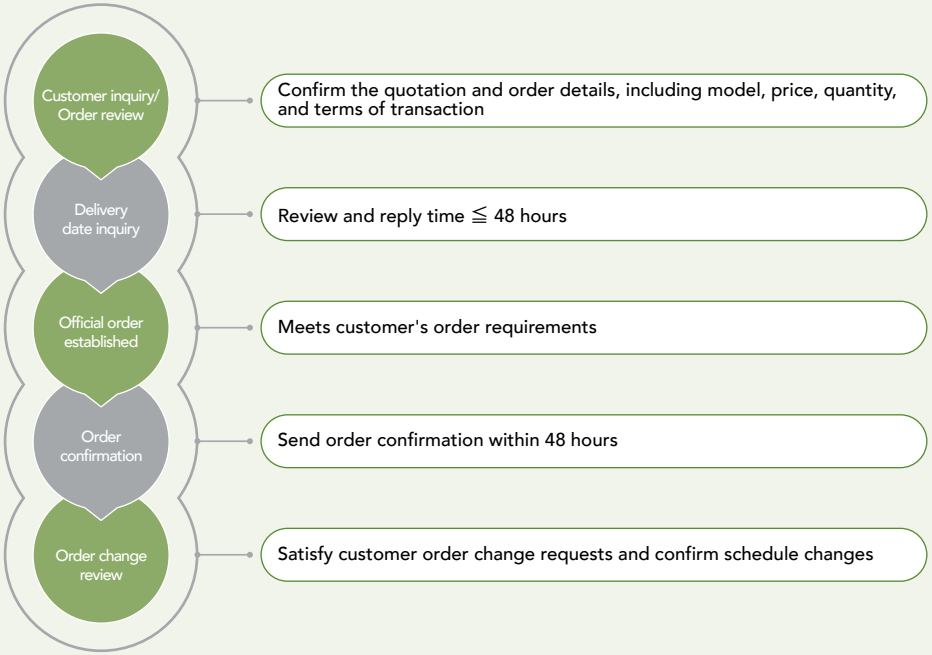
Action Plan and Performance

- Regularly conduct customer satisfaction surveys: Conduct regular customer satisfaction surveys to understand satisfaction levels with Company products and services, as well as potential areas for improvement. The customer satisfaction survey for 2023 resulted in a score of 4.6.
- Analysis and investigation results: Analyze the investigation results, identify the key factors that influence customer satisfaction, and determine potential improvement measures.
- Provide customers with educational and training resources to help them gain a better understanding of the usage and value of our products or services.
- Organize seminars, training sessions, and other events to increase customer awareness of the Company's products.
- To ensure that customers can easily express their needs, opinions, and problems through dedicated sales and customer service channels, while also ensuring that the Company can respond to and resolve issues in a timely manner.

2.2.1 Customer Satisfaction Improvement

TSC is committed to maintaining customer trust and service quality, and as such takes responsibility for customer satisfaction. Good customer relationship management can facilitate customer satisfaction and loyalty. If there are any deficiencies in customer relationship management, they may negatively impact product sales and Company operations. Smooth two-way communication is the primary element of customer relationship management. TSC's official website has a clear product information and inquiry system. Sales and Field Application Engineers also cooperate with agents to hold product application briefings from time to time, so that customers can easily obtain the latest and most complete product information.

The Company maintains close communication with customers through comprehensive customer service, including proactively contacting and visiting customers, conducting satisfaction surveys, and providing a smooth channel for communication of grievances. Based on customer needs and feedback on products and services, TSC continuously optimizes customer experience and reduces product defect rates and recall rates, thereby improving customer retention and Company performance. In terms of customer inquiries, orders, and other demands, TSC aims to respond to customers within 48 hours in accordance with our internal customer management procedures. The Sales unit would provide negotiation and communication services with customers. The process is as follows:



Product Information Inquiry Platform

To provide customers with more comprehensive product information, TSC initiated an official website redesign project in 2023 and successfully launched it by the end of 2023. This redesign represents the most substantial improvement in recent years. The website will aim at providing richer information on product items, types, and fields of application, allowing customers to compare and query in real-time online, and filter based on specifications and their own needs, thereby improving customer satisfaction in accessing product-related information. In addition, when conducting sales and contacting customers, specific product URLs can be provided as references to enhance matching demands and communication efficiency. In the future, website interface and information updates will also be continuously optimized.

TSC's Website Revamp Project Creates a Refreshing User Experience

The official website represents the corporate image. In order to provide a smoother and more convenient user experience for global users, TSC initiated a website redesign project in 2023, with a focus on enhancing and optimizing various functionalities.

- Enhancing user website experience: The official website is a crucial component of the company's image. This project is the most significant website redesign in recent years, which involves redesigning the navigation to make it more intuitive, ensuring users can easily find the information they need.
- Content Refinement: include an extensive review and update of website content to ensure accuracy, relevance, and alignment with our brand messaging. High-quality content also helps us rank in search engines for better visibility.
- A quality on-site search: TSC offers a wide range of products. In this revision, the official website provides relevant results to enhance the user experience.
- Product one-stop shop program implementation: TSC's customers and potential customers are located globally. We provide users with an interface on our website that allows them to obtain info about products they want without requiring assistance from sales/FAE. Work with QRA dep to make it convenient for users to access.

In the Application section, shows our products are utilized in diverse industries including automotive, industrial, power supply, computing, consumer electronics, and telecommunications. Grounded in a dedication to innovation, our components establish industry benchmarks for efficiency, empowering our global customer base to create energy-efficient and state-of-the-art solutions. The term sustainability has become more and more popular lately. We TSC also remain committed to addressing all aspects of ESG concerns, listening to stakeholder feedback, and promoting positive environmental, social, and economic growth through a comprehensive sustainable governance framework. Site search offers an efficient alternative to sifting through numerous web pages. Adding a filtering function to the search results page also assists users in narrowing down extensive search results and finding the information they need. In the future, we will continue to optimize user experience based on user feedback:

- Feedback and Iteration: Make iterative improvements based on user suggestions and changing needs. Regularly review the website's performance and make adjustments as needed.
- Content Updates: continuously update and add new content to keep the website dynamic and engaging.
- SEO Optimization: Implement SEO best practices such as optimize content, meta tags, images and ensure proper URL structures to improve the website's visibility on search engines.
- Future Planning: integrate new features or technologies to ensure the website remains competitive and aligned with the company objectives.

Customer Grievance Channel

To protect customer rights, TSC provides customers with diverse channels for filing grievances. For example, customers can provide feedback or file grievances through various regional sales in a timely manner. When a grievance is received by the Sales Division, the division will proactively contact the customer within 48 hours to understand the situation of the abnormal product, including quality, delivery, and service, and promptly handle the grievance case according to the operating regulations per the Company's "Procedures of the Customer Service Management". Then, the FAE/AE and the Quality Assurance Department would understand the grievance situation and clarify the cause, in order to formulate a solution and minimize losses for both parties. In 2023, we received 1 customer grievance.

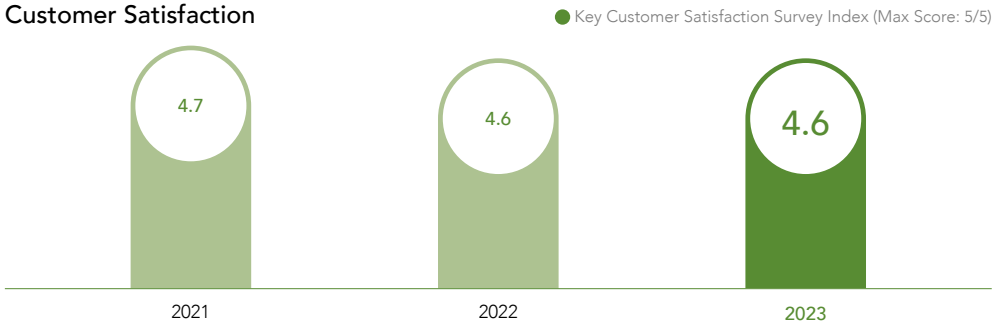
Customer Grievance Process and Improvement Actions

Customer Grievance	Emergency containment measures/Cause analysis	Develop countermeasures	Implement standardization of strategy
After receiving the complaint, take immediate follow-up disposal within 48 hours	Conduct failure analysis to clarify reasons for customer grievances, including human error, equipment failure, communication misunderstandings, etc.	After receiving samples, propose improvement measures within 5 to 7 days	Submit a report on failure analysis improvement and standardize improvement measures
May 22, 2023: A certain product has been reported with abnormal peeling of the pin plating.	The investigation of the factory's shipment information and related records did not uncover any abnormalities. After conducting a thorough review and analysis of the production records, it was discovered that three batches had been stored for an extended period of time prior to the deoxidation process. Cause Analysis: The lead wire had been stored for an extended period of time prior to the deoxidation process, which led to increased oxidation of the lead wire. Consequently, the deoxidation effect is diminished within the same deoxidation operation time. The remaining oxidation of the lead wire weakens the bond between tin and copper during the subsequent tin plating process, resulting in abnormal peeling of the tin plating in customer applications.	Improvement Measures: It is important to clearly define that the pre-oxidation maintenance time should not exceed 2 hours. If it exceeds 2 hours, the material must be placed in a dilute acid liquid for a maximum of 12 hours.	June 5, 2023: The amendment of the specification for the Bright Tin Electroplating Operation was completed.

Customer Satisfaction Survey

In addition to a smooth grievance channel, customer satisfaction surveys are also crucial for maintaining customer relationships. TSC annually conducts customer satisfaction surveys to understand customer needs and improve product quality, converting those needs into tangible actions to enhance the Company's long-term competitiveness. At the beginning of each year, TSC selects a list of customers for satisfaction surveys based on the previous year's revenue. After confirming customer contact information by regional sales, the system sends out satisfaction surveys covering product, delivery, and service content. The surveys are filled out over one month, and sales conduct statistical analysis on the collected surveys. They will proactively seek further feedback from customers who gave lower scores and propose specific improvement measures based on their opinions and evaluations. After implementing improvement measures for six months, sales will send satisfaction surveys again to customers who gave low scores in the middle of the year to confirm the effectiveness of the improvements. Over the past three years, the Company has consistently received customer satisfaction scores of 4.5 or above, and we will continue to maintain a high level of service quality in the future.

Customer Satisfaction



Note: The above index cover the TSC Group's rectifier business unit and do not include data from re-sent satisfaction surveys.

3

Responsible Procurement

3.1 Supply Chain Management

Suggested priority for referring to the stakeholders in this chapter:
☐ Supplier ■ Customer ☐ Employee ☐ Investor ☐ Government ☐ Media
■ Others (such as the general public, academic institutions, etc.)

Not only do the products and services provided by suppliers have a direct impact on TSC's products and operations, but their fulfillment of corporate social responsibility also has an indirect impact on TSC's business ethics. Therefore, TSC and our suppliers, as mutually supportive partners, not only support RBA's vision and goals, but also promote sustainable supply chain assessment. This includes requiring all suppliers to sign up for the RBA Supplier Code of Conduct and setting our clear provisions in various areas, namely labor, health and safety, the environment, and business ethics, with a view to jointly protecting workers' human rights, promoting anti-discrimination and anti-harassment, and engaging in occupational safety, environmental, and ethical corporate management, as well as avoiding the use of minerals from conflict zones, thereby achieving the goal of sustainable supply chain. TSC hopes to make a positive impact in green operations while solidifying our primary businesses.

Material Topics -
Sustainable Supply Chain - Sustainable Supply Chain Management

Policy and Commitments

Supply chain members are one of the key partners for TSC's sustainable growth. TSC is committed to maintaining close partnerships with key and strategic suppliers in terms of quality, delivery, cost, service, and technique (QDCST), so as to sustain the company's operations and ability to serve customers. At the same time, TSC works with our suppliers to fulfill corporate social responsibility from the environmental, social, and corporate governance (ESG) aspects in accordance with the Responsible Business Alliance (RBA) Code of Conduct to enhance our sustainable competitiveness.

The RBA Code of Conduct

Management Policy and Evaluation Mechanism

- TSC has formulated the RBA Supplier Code of Conduct according to the RBA Code of Conduct, aimed at not only requiring our suppliers to comply with laws and regulations in the regions where they run their business, but also setting out clear provisions in various areas, including labor, health and safety, the environment, business ethics.
- TSC regularly updates this code of conduct according to the official version released by RBA, and also discloses it on our official website.
- TSC has established the Regulations Governing Vendor Management for the purpose of supplier management and evaluation.
- TSC not only analyzes and keeps abreast of events that may potentially affect supply continuity, but also activates the business continuity plan in a timely manner to implement response or preventive measures.

Action Plan and Performance

- In 2023, TSC successfully introduced the business continuity management (BCM) system for the purpose of management and regular tracking, so as to monitor potential risks at all times and optimize the resilience and strength of our supply chain.
- The proportion of local procurement to overall procurement at TSC has remained above 60% for three years in a row.

3.1 Supply Chain Management

3.1.1 Supply Chain Overview

TSC's production sites are primarily located across Taiwan and China. As of the end of 2023, TSC had a total of 299 suppliers to provide products and services for customers worldwide. TSC's key suppliers are defined as suppliers of manufacturing services for the company's products and materials required for production. In 2023, TSC had a total of 176 key suppliers, 123 of which were Tier 1 suppliers.

Production site	I-lan Site*3	Shandong Site	Tianjin Site*4	Li-Je Site	Total
Key supplier*1	58	49	37	32	176
Tier 1 suppliers*2	53	29	21	20	123
Subtotal	111	78	58	52	-

Note:
1. These figures indicate the total number of suppliers of materials listed on the bill of materials (BOM) and vendors that provide manufacturing services, excluding suppliers of equipment and related factory services.
2. Tier 1 suppliers refer to suppliers of primary materials.
3. These figures indicate the number of suppliers with which the I-lan Site, for procurement purposes, and the Outsourced Semiconductor Assembly and Test (OSAT) team engage.
4. These figures include the number of suppliers with which the Tianjin Site engages for procurement and outsourcing purposes.

Local Procurement

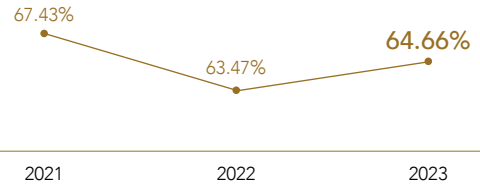
TSC recognizes the importance of sustainable operation and considers its impact in every aspect of our business, including procurement targets and amounts. Although most of our production equipment and raw materials are sourced overseas, TSC's operating sites are committed to collaborating with local suppliers to build a lean, robust, healthy, and sustainable supply chain. In 2023, local procurement accounted for 64.66% of the total amount of procurement at TSC, reaching over 60% for three years in a row. In the future, we will continue to build stable partnerships and bolster mutual trust, in hopes of increasing the percentage of local procurement, thereby facilitating social and economic development.

Procurement from local suppliers at key operating locations Unit: NT$

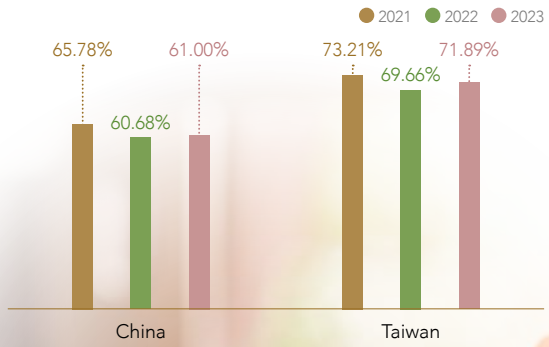
	2021	2022	2023
Amount of procurement from local suppliers	3,021,004,430	3,258,261,400	2,385,856,083
Total amount of procurement	4,480,449,620	5,133,808,220	3,690,102,856

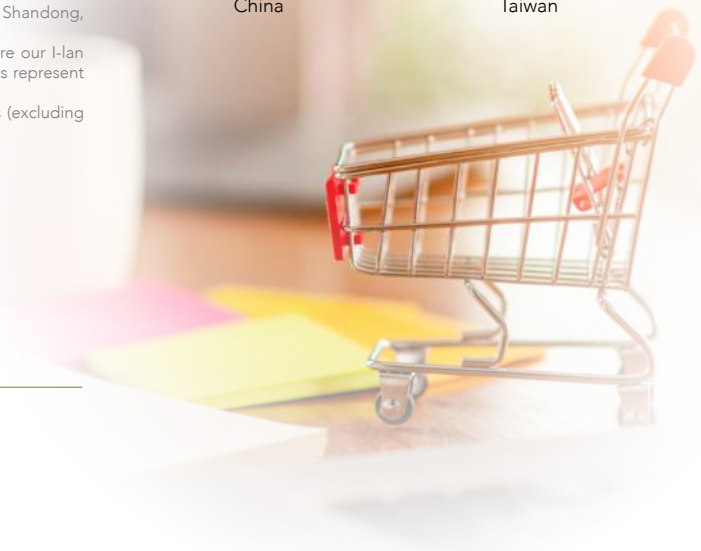
Note:
1. TSC's primary operating sites comprise all production sites, including our Li-Je, I-lan, Shandong, and Tianjin sites.
2. Local suppliers are defined according to the geographical location of each plant, where our I-lan and Li-Je sites represent the entire Taiwan region, while our Shandong and Tianjin sites represent the China region.
3. The statistical scope includes categories of raw material and finished product suppliers (excluding triangular trade).

Distribution of local procurement at TSC



Percentage of procurement from local suppliers



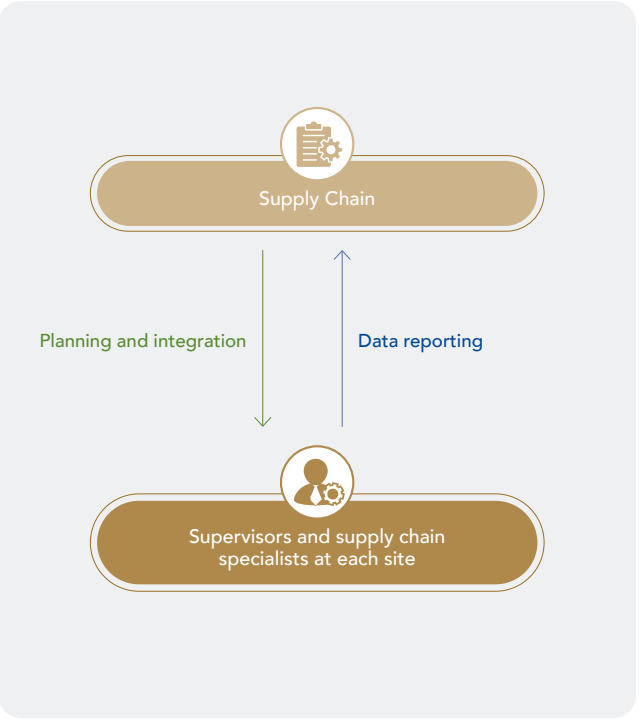


3.1.2 Sustainable Supply Chain Management GRI 2-23 GRI 2-24 GRI 3-3 GRI 308-1 GRI 408-1

Supply Chain Management Measures and Strategies

Sustainable supply is an critical component of TSC's commitment to sustainable supply chain management. In recent years, geopolitical factors, including wars, trade wars, and pandemics,

have transformed the presence of companies worldwide in the industrial supply chain. Against the backdrop of external turbulence, TSC deeply acknowledges the need to bolster supply chain resilience through various means, such as supplier diversification, BCM, and monitoring of inventory levels, so as to cope with potential risks and crises. In 2022, TSC established the Supply Chain Management Department, which is tasked with integrating procurement resources from each site and optimizing the overall supply chain. Sustainable chain management at TSC encompasses various aspects such as resources, demand, manufacturing, and supply. We review the collaborative process flow and operating rules of both production and sale sides, as well as the design of features of the auxiliary operating system based on the monthly production and sales cycle along with the weekly production and sales management platform mechanism, in order to ensure the integration of processes, cut the design of non-standard operations, and comply with the principles of internal audit and internal control, while leading cross-functional teams to support the company's operational growth target with a collaborative model that is in line with industry practices to the greatest extent possible.

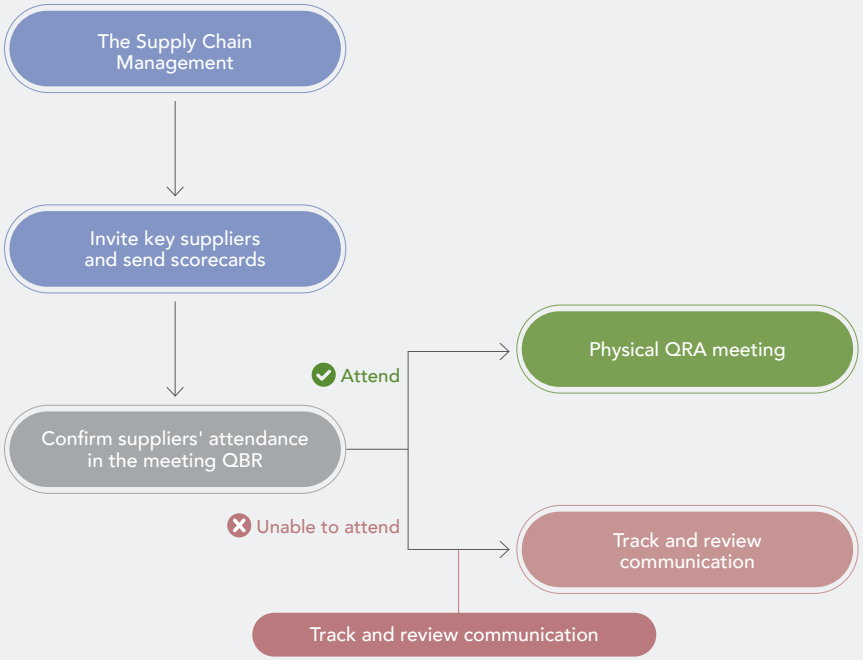


In an effort to ensure that supply chain scheduling considers inventory risks and meets customer needs, the Supply Chain Management Department follows the principle of supply continuity to ensure uninterrupted supply in unforeseen or force majeure events in compliance with the principles of supply continuity, supplemented with flexible control of inventory policy based on changes in product and market demand. In 2023, TSC introduced the BCM system while gradually developing secondary suppliers to minimize procurement risks. Through the management of supply chain issues and collaboration with the headquarters, each site review potential risks at all times, optimize supply chain resilience and strength on an ongoing basis, as well as provide feedback and review consensus on the strategies and implementation of upstream processes, with a view to ensuring balance and consistency in the supply chain.

While integrating organizational resources and strategies, TSC also engages in collaboration with customers. By connecting contracts with information technology, we maintain collaboration and timely exchange of information between both parties to enhance the intensity of supply chain collaboration and its flexibility in response to contingencies while working towards lowering supply chain costs and enhancing efficiency together, enhancing information transparency on both sides, and jointly improving the flexibility of the supply chain system to respond to demand or external factors. On the other hand, TSC also plans training for supply management talents, strengthening information synchronization across departments, and reducing procurement costs by implementing automation and standardized management.

Strengthening Communication with Suppliers

In hopes of fostering a strong and robust partnership with the supply chain to achieve the goal of sustainable supply chain management, TSC aims to roll out communication channels that are more transparent and effective, such as quarter business review (QBR), aimed at maintaining close collaboration with primary and strategic suppliers in various areas, namely quality, delivery, cost, service, and technique (QDCST) while monitoring the ability of suppliers (Tier) to manage their supply chain system (Tier 2). In addition, TSC continues to implement a scorecard assessment mechanism to examine the practices and performance of suppliers in various areas with the expectation of driving continuous improvement in the supply chain through brand influence.



Three Core Elements in Supplier Management

Laying the Foundation

- Integrate production and sales plans, as well implement and promote the PDCA management cycle, to lay the foundation for structured and institutionalized supply chain management.
- Improve order service response efficiency and capability.
- Promote systematization and information transparency in product management through the integration of product development process and horizontal business communication, maintain a fundamental supply chain environment with no dead ends, as well as support product development and introduction and go-to-market launch and sale activities.

Stable Growth

- Establish strategic sourcing to plan and execute supply chain strategies, as well as enhance the scope, flexibility, and strength of the supply chain.
- Bolster the ability and flexibility of the supply chain in responding to changes, track and improve the cost-effectiveness of opportunities for joint procurement in the supply chain, and enhance the efficiency of integrating book building at the headquarters and various sites through centralized control and strategy-guided implementation at various sites.

Sustainable Operation

- Implement and realize the value of information flow in corporate business management, gradually progress towards the digitalization of corporate business management with KPIs, assist the management team in quickly identifying problem areas and causes, swiftly initiating action plans and solving problems while executing the continuous improvement process (CIP) on an ongoing basis to enhance the company's competitiveness.
- Endeavor to rapidly grasp opportunities to enhance organizational performance and business process efficiency through the integration of AI technology.

Supplier Sustainability Impact Assessment

TSC continues to keep a close eye on and review supply chain resilience. In addition to the basic criteria for supplier selection, which include technique, delivery, quality, and cost, TSC also conducts comprehensive evaluation from the economic, environmental, and social aspects, with a view to putting our risk management and sustainability philosophy into practice. In an effort to ensure that our suppliers work together towards the goal of sustainability, TSC has taken the initiative to formulate the RBA Supplier Code of Conduct in compliance with the RBA Code of Conduct since 2017. This code of conduct, which is applicable to all operating sites upon approval by the Chairman, not only requires suppliers to comply with the laws and regulations in the regions where they run their business, but also sets out clear provisions in various areas, such as labor, health and safety, the environment, and business ethics, whose content encompasses workers' human rights, anti-discrimination and anti-harassment, occupational safety, the environment, and ethical corporate management. TSC regularly updates this code of conduct based on the official version release by RBA and discloses it on our official website for stakeholders' reference and compliance purposes.

Furthermore, not only are new suppliers required to sign up for the RBA Supplier Code of Conduct, but TSC also carries out supplier evaluation in accordance with the Regulations Governing Vendor Management, which encompasses the supplier's records of environmental and social impacts, and whether the supplier implements various standards and certifications that extend to environmental protection, safety and health, and management systems, such as the ISO 14001 Environmental Management Systems and ISO 45001 Occupational Safety and Health Management Systems standards, in hopes of stepping up efforts to fulfill corporate social responsibility together with our suppliers.

At the same time, we also keep track and review laws and regulations on materials-specific issues, such as tantalum, tin, tungsten, and gold in product composition, ban on Russian steel materials triggered by the Russian-Ukrainian war, restrictions on the export of specific materials from China induced by the US-China trade war, and investigations into products or materials manufactured with Uyghur forced labor in violation of human rights, or restrictions and impacts of specific laws and regulations on the supply chain. TSC adopts policies, conducts due diligence, and make declarations to ensure the vitality of our supply chain and the provision of services and protection for customers. Please refer to 3.1.3 Conflict Minerals Management for more details.

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. • 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 Supplier Code of Conduct: The supplier is required to comply with and sign up for TSC's RBA Supplier 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	**Produce and monitor** 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 2023, TSC's operating sites did not add any new supplier, while our existing suppliers did not violate the aforesaid code of conduct.

Highlight Story 01

TSC's Tianjin Site develops secondary suppliers for electroless nickel plating materials to minimize procurement risks

All this while, the Tianjin Site only has a single supplier of electroless nickel plating materials. In an effort to minimize procurement risks and lower procurement costs, the Tianjin Site initiated the secondary supplier development program in April 2022, and successfully signed a collaboration agreement with a secondary supplier in 2023.

This secondary supplier of electroless nickel plating materials is originally a qualified vendor at the Tianjin Site, which primarily supplies photoresist and other chemical products. Under this program, the Tianjin Site first confirmed the samples of electroless nickel plating materials. Next, the Engineering Department at the Tianjin Site was designated to conduct a feasibility assessment based on a number of assessment indicators, such as the appearance of the nickel layer surface and the thickness of the inner layer. The test results for electrical properties at room temperature met the specifications required by the Tianjin Site as no shift in the distribution of electrical properties was observed. In the future, we will continue to refine management of single suppliers at our sites and develop secondary suppliers in order to bolster supply chain resilience.

Highlight Story 02

Highlights of production capacity and inventory management by the OSAT team at the I-lan Site in 2023

In 2023, the semiconductor industry adopted a conservative outlook as end-user demand was not as strong as during the COVID-19 pandemic period. Facing the pressure of long-term contracts with some suppliers, the OSAT team at the I-lan Site conducted a detailed review of inventory level, production capacity estimation, and product strategy, with a view to figuring out what is most favorable for the company.

The OSAT team collaborated with the Sales Department to discuss various feasible solutions in terms of various conditions such as price and shipment. At the same time, the OSAT team actively worked with the Legal Department to assess the feasibility of modifying and adding terms to the agreement so as to minimize legal risks arising from a breakdown in business negotiations. In the end, the OSAT team managed to obtain prices that meet sales requirements and more flexible ways to fulfill contracts through internal review as well as ongoing negotiation and communication with suppliers while maintaining collaborative partnerships with them.

3.1.3 Conflict Minerals Management

Based on corporate social responsibility and the protection of international human rights, TSC has established the Conflict Minerals Management Regulation and pledged not to use minerals from conflict zones in our products. Meanwhile, we communicate the conflict minerals management requirements to our suppliers through the Responsible Minerals Assurance Process (RMAP) and conduct due diligence for the entire supply chain. In procurement, we encourage suppliers to opt for smelters or refineries that have been certified by third parties as prohibiting the use of conflict minerals from the Democratic Republic of Congo or neighboring countries. We require suppliers to sign the Declaration of Non-Use of Minerals from Conflict Zones during the supplier assessment process. We aim to collaborate with suppliers to reduce social and environmental impacts. In addition, the Company also discloses information about smelters and mineral sources in the supply chain based on the resultsof mineral reports filled on the official website, as released by the Responsible Minerals Initiative (RMI).

Conflict Minerals Management Measures

Conflict Minerals Survey

Tantalum, tin, tungsten, and gold (3T1G), as well as cobalt are raw materials that may be used in the manufacture of electronic products, whereas conflict minerals refer to minerals mined in armed conflict zones and in violation of human rights, including materials mined in the Democratic Republic of the Congo or in neighboring countries. TSC complies with the results of mineral reports issued by the Responsible Minerals Initiative (RMI) to avoid using metals from conflict zones.

At the same time, TSC explicitly requires suppliers to abstain from using raw materials, such as 3TG and cobalt, that are mined under illegal and abusive working conditions like forced labor and abuse of child labor. Additionally, we encourage suppliers to establish their own minerals management policies and pass them on to the next level of suppliers. In addition, we also encourage suppliers to purchase minerals from non-conflict smelters certified by the Responsible Minerals Assurance Process (RMAP) or other independent third-party auditors. This ensures that TSC does not use minerals from conflict zones in our products.

TSC reassesses the list of smelters used in our products in accordance with the Conformant Smelters List published on the official RBA website, and surveys suppliers of conflict minerals through questionnaire audits. In order to understand suppliers' sources of minerals, we utilize the RMI Conflict Minerals Reporting Template (CMRT) for the survey, requiring all suppliers to disclose the sources of their minerals and sign the Declaration of Non-use of Minerals from Conflict Zones, guaranteeing that the procurement sources are not from conflict zones and comply with requirements of both customers and laws and regulations. In 2023, a total of 148 suppliers, or 90% of our suppliers, completed the signing process, up 12% from the previous year. We endeavor to fulfill corporate responsibility through joint monitoring with suppliers to eliminate incidents involving violations of humanitarianism and create the value of corporate sustainability.

Signing status of the Declaration of Non-use of Minerals from Conflict Zones at TSC's operating sites

Operating site	Number of suppliers confirmed to have signed the declaration	Total number of suppliers	Signing rate
Li-Je Site	30	32	94%
I-lan Site	37	47	79%
Shandong Site	49	49	100%
Tianjin Site	32	36	89%
Total	148	164	90.24%

Declaration of Non-use of Minerals from Conflict Zones

4

Equal Workplace

4.1 Talent Attraction and Retention

4.2 Protecting the Workplace Environment

Suggested priority for referring to the stakeholders in this chapter:
☐ Supplier ☐ Customer ■ Employee ☐ Investor ■ Government ☐ Media
■ Others (such as the general public, academic institutions, etc.)

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's 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 Talent Attraction and Retention

Material Topics -
Talent Recruitment and Retention - Human Resource Management

Policy and Commitments

- Create an engaging and inclusive system to increase employee engagement and unity, and develop diverse recruitment channels to attract exceptional talent to join TSC
- Improve the talent development and nurturing system, strengthen the diverse capabilities of employees, and integrate career planning for their development and growth.

Management Policy and Evaluation Mechanism

- Talent is recruited through various channels, both online and offline, based on the growth needs and strategic goals of each region. Talent development strategies are also implemented.
- Conduct an annual company-wide training needs assessment to understand the technical skills, professional knowledge, and leadership management needs of supervisors and employees. Based on these needs, plan appropriate courses in the training curriculum design framework.
- Stay informed on the laws and regulations governing compensation and benefits in different regions and develop appropriate strategies in a timely manner.

Action Plan and Performance

- Promote the Referral Incentive Program. By 2023, approximately 20% of total hires will come from employees recommended by their current colleagues.
- In 2023, the average number of training hours per employee in Taiwan was 62.12 hours.
- Beginning in 2023, the TSC Semi-Functional Module will be built, integrating and applying functional modules for performance assessment. This will help supervisors assess their colleagues' functional behaviors and provide timely and effective feedback.

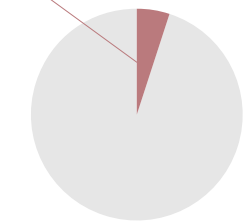
4.1.1 Diversity and Inclusion GRI 2-7 GRI 2-8 GRI 2-19 GRI 2-20 GRI 3-3 GRI 401-1 GRI 405-1 GRI 405-2 TS-SC-330a.1

Manpower Structure

Talent is a critical asset for TSC. Our goal is to create a diverse, equal, and inclusive 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. As a result, our workforce consists of employees from around the world, including various Asian countries such as Taiwan, Singapore, Japan, the Philippines, Malaysia, India, and Vietnam. These employees are spread across our headquarters and various factory locations. In fiscal year 2023, the number of employees in Taiwan increased by more than 3% compared to 2022 in response to the Company's long-term development plans and organizational adjustments, including the establishment of various specialized departments and the expansion of existing departments in the Taiwan region, such as the addition of an R&D engineering department and the expansion of manufacturing, equipment, and quality control personnel. The total number of employees in Taiwan and overseas production sites in 2023 is 1,446, all of whom are full-time employees.

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

There are 73 **foreign nationals**, representing 5% of the total workforce



Note:
1. 1 overseas worker, accounting for 0.1%.

2023 Employee Distribution

Category			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 Total Number of Employees
Age	Under 30 years old (inclusive)	Taiwan	64	69.6%	28	30.4%	92	6.4%
		Mainland China	46	59.0%	32	41.0%	78	5.4%
		Subtotal	110	64.7%	60	35.3%	170	11.8%
	31 to 49 years old	Taiwan	269	56.4%	208	43.6%	477	33.0%
		Mainland China	171	24.7%	520	75.3%	691	47.8%
		Subtotal	440	37.7%	728	62.3%	1,168	80.8%
	50 years old and above (inclusive)	Taiwan	36	56.3%	28	43.8%	64	4.4%
		Mainland China	24	54.5%	20	45.5%	44	3.0%
		Subtotal	60	55.6%	48	44.4%	108	7.5%
Employee Category	Permanent Employee	Subtotal	610	42.2%	836	57.8%	1,446	100.0%
Total			610	42.2%	836	57.8%	1,446	100.0%

Note:
1. Employee category is determined per the GRI guidelines,with all being full-time employees. There are no part-time employees, temporary employees, or non-guaranteed hours employees.
2. The percentage represents the ratio of the number of employees in this category to the total number of employees.
3. The reference date for the calculation of the data is December 31, 2023.
4. Due to the expansion of the reporting boundaries to include the factory area in mainland China from fiscal 2023, the number of disclosed data has changed significantly compared to the previous year.

Distribution of Management and Non-Management Levels in 2023 (by Age and Gender)

Category			Management Level		Non-Management Level	
			Male	Female	Male	Female
Age	Under 30 years old (inclusive)	Taiwan	0	0	64	28
		Mainland China	0	2	47	33
		Subtotal	0	2	111	61
		Percentage	0%	1%	9%	5%
	31 to 49 years old	Taiwan	63	33	206	175
		Mainland China	29	74	143	450
		Subtotal	92	107	349	625
		Percentage	38%	44%	29%	52%
	50 years old and above (inclusive)	Taiwan	23	9	13	19
		Mainland China	5	6	17	7
		Subtotal	28	15	30	26
			11%	6%	3%	2%
	Subtotal		120	124	490	712
Total			244		1,202	

Note:
1. 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.
2. Employee category is determined per the GRI guidelines.
3. The percentage represents the ratio of the number of employees in this category to the total number of employees.
4. The reference date for the calculation of the data is December 31, 2023.
5. Due to the expansion of the reporting boundaries to include the factory area in mainland China from fiscal 2023, the number of disclosed data has changed significantly compared to the previous year.

Employee Distribution (Based on Diversity Indicators)

Category		2021		2022		2023	
		Number of People	Percentage	Number of People	Percentage	Number of People	Percentage
Indigenous Peoples (Ethnic minorities)	Taiwan	5	0.9%	8	1.3%	5	0.8%
	Mainland China	8	0.8%	6	0.7%	7	0.9%
	Average Proportion		0.9%		1.0%		0.8%
People with Disabilities (Disabled person)	Taiwan	5	0.9%	6	1.0%	5	0.8%
	Mainland China	3	0.3%	3	0.4%	3	0.4%
	Average Proportion		0.6%		0.7%		0.6%
Total		21	1.5%	23	1.7%	20	1.4%

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 uses multiple channels to recruit talent in order to continually increase the diversity of talent sources. Online recruitment platforms such as LinkedIn, 104 Job Bank, Qirc, Zhaopin and TEDA are used to increase TSC's visibility. The company creates dedicated pages and posts job openings on these platforms. In addition, TSC uses offline recruitment fairs and employee referrals to attract high-quality talent, thereby improving its market competitiveness. By promoting job openings to highly qualified candidates, TSC aims to attract more domestic and international mid-to-senior level and professional talent. Going forward, TSC will continue to develop talent strategies in line with the Group's growth needs and strategic goals. This includes reviewing talent needs, developing training plans in conjunction with career development, and motivating employees to learn and grow.

From a sustainable management perspective, talent is a critical asset for any organization. By minimizing talent turnover and improving overall human resource management, the Company can achieve operational stability. In the future, TSC will focus on enhancing internal education and training for employees, as well as providing rotation opportunities to nurture internal talent and showcase a diverse development system and growth prospects.

New Employees

		2021		2022		2023	
		Total	Percentage	Total	Percentage	Total	Percentage
Gender	Male	160	48%	159	56%	95	67%
	Female	175	52%	126	44%	47	33%
Age	Under 30 years old (inclusive)	168	50%	146	51%	56	39%
	31 to 49 years old	163	49%	126	44%	76	54%
	50 years old and above (inclusive)	4	1%	13	5%	10	7%
Region	Taiwan	123	37%	184	65%	119	84%
	Mainland China	212	63%	101	35%	23	16%
Total		335	100%	285	100%	142	100%

Note: Percentage is calculated by dividing the number of each category of employees by the total number of new employees in that year.

Employee Turnover

		2021		2022		2023	
		Total	Percentage	Total	Percentage	Total	Percentage
Gender	Male	127	48%	112	46%	113	52%
	Female	137	52%	129	54%	103	48%
Age	Under 30 years old (inclusive)	84	32%	91	38%	66	31%
	31 to 49 years old	163	62%	130	54%	126	58%
	50 years old and above (inclusive)	17	6%	20	8%	24	11%
Region	Taiwan	109	41%	109	45%	97	45%
	Mainland China	155	59%	132	55%	119	55%
Total		264	100%	241	100%	216	100%

Note:
1. Percentage is calculated by dividing the number of each category of employees by the total number of turnovers in that year.
2. All employees are full-time and permanent.

Remuneration Policies

Employee compensation and benefits are established according to the Labor Standards Act and local labor laws at operational locations and are managed in accordance with the Company's articles of incorporation and related management regulations to ensure that overall employee compensation complies with government regulations and market trends. Additionally, a clear employee performance evaluation system is implemented, reviewed annually, and optimized to incentivize outstanding talent. Regarding employee remuneration distribution in Taiwan, bonuses are determined based on employees' job performance, scope of responsibilities, and special contributions, following the 'Employee Bonus and Stock Option Scheme'

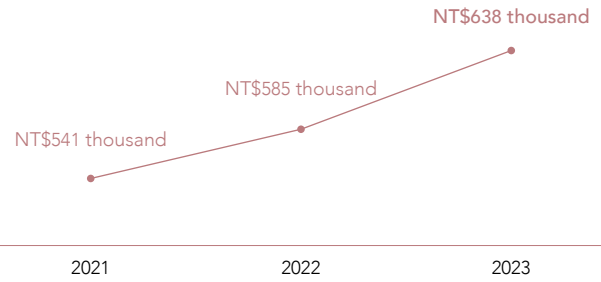
With respect to executive compensation, TSC has a "Compensation Committee" that reviews the performance evaluation criteria for directors, supervisors, and executive officers, as well as annual and long-term performance goals, policies, systems, standards, and compensation structures. The Committee then makes recommendations to the Board. The performance evaluation and compensation of directors and executive officers are based on industry norms and take into account individual performance evaluation results, time spent, responsibilities assumed, achievement of personal goals, performance in other positions, as well as the Company's short- and long-term business goals, financial condition and assessment of individual performance in relation to the Company's operating performance and future risks. The Compensation Committee held two meetings during 2023 to ensure the competitiveness and fairness of compensation.

Gender Remuneration Ratio

Basic Salary with Remuneration- Female: Male				
Year	Assistant Vice President Level	Manager and Assistant Manager Level	Section Manager Level	General Employees
Taiwan				
2021	0.42:1	0.30:1	0.78:1	0.75:1
2022	NA*	0.37:1	0.69:1	0.72:1
2023	NA*	0.36:1	0.64:1	0.77:1
Mainland China				
2021	NA*	1.02:1	0.77:1	0.97:1
2022	NA*	0.95:1	0.83:1	0.89:1
2023	NA*	0.93:1	0.86:1	0.85:1

Note:
1. There may be slight differences in the gender pay ratio due to individual performance, seniority, and other factors. Salary standards in Taiwan are the same for men and women and are not affected by gender.
2. There are no female assistant vice presidents in Taiwan for 2022-2023
3. In Mainland China, there will be no positions of factory director or higher available from 2021 to 2023.

Median Salary of Full-time Employees in Non-supervisory Positions- Taiwan



The median salary of full-time employees in non-supervisory positions in Taiwan increased by NT$53 thousand in 2023 compared to 2022, with a growth rate of 9.06%.

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

	2021	2022	2023
Median	NT$77.6 thousand	NT$69.7 thousand	NT$59.5 thousand

Establish a referral incentive program to encourage colleagues to make recommendations.

In order to increase the motivation of our colleagues in Taiwan and expand their professional networks, we recommend high quality professionals and technical experts to join our team. We are also strengthening our internal referral recruitment efforts. In 2022, we launched an enhanced referral incentive program, which will be evaluated on its first anniversary in 2023. To facilitate this, we have created a dedicated section on our employee platform that provides detailed information about the referral process and incentive programs. In addition, we regularly announce internal job openings to keep our colleagues informed and encourage them to share these opportunities with professionals on social platforms or with their outstanding friends and family. This proactive approach encourages our colleagues to refer and attract new partners who are highly valued within our organization.

Announcement of the Annual Incentive Program to Enhance Employee Engagement

During the one-year implementation of the Referral Incentive Program, approximately 20% of the total hiring rate was attributable to employees referred by their current colleagues. This underscores the importance of peer referrals as an important channel in the recruitment process. To recognize this achievement and to thank internal colleagues for their referrals, TSC invites both the referrer and the referred person to share their experiences with the referral program. This fosters a positive work culture and a sense of unity through sincere reactions and a pleasant working atmosphere among colleagues, which contributes to career development within the company. By announcing the list of nominated employees and sharing their experiences, we not only recognize the efforts of the nominating colleagues, but also demonstrate the spirit of unity among colleagues, which reinforces the positive impression of TSC and strengthens the employer brand image internally. This, in turn, creates a willingness to recommend more top talent to join the Company.

Continue to Promote and Deepen the Employer Brand Image of TSC

The referral incentives will continue to be implemented next year to increase the frequency of project sponsorship, improve employee engagement and attract more talent to TSC. This initiative will help build a culture of unity and collaboration.

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

Talent Retention

To help retain top talent, TSC offers an equal pay policy and a variety of benefits. This enhances employee engagement and makes talent a sustainable source of energy. In addition, TSC continuously monitors market salary levels, regularly reviews the overall compensation structure and benefit policies on an annual basis, maintains effective communication channels with employees, and uses these as an important basis for formulating comprehensive compensation and benefits, including base salary, allowances, performance bonuses, etc. The goal is to ensure competitive salary levels that attract, develop and retain elite talent over the long term, thereby supporting the Company's continued growth and sustainable operations.

To ensure a stable internal promotion system, TSC not only prioritizes promotion opportunities for employees whose qualifications meet the requirements, but also regularly reviews employee performance and evaluates career development aspects. Adjustments are made based on job functions and development potential. In response to industry changes and operational challenges, TSC actively promotes talent development. In addition to investing adequate resources in internal training, TSC also implements overseas training and succession planning programs to enhance the professional skills and knowledge levels of its human resources. Internal rotation mechanisms are also in place to broaden the skills of employees and ensure that they are placed in appropriate roles, which enhances organizational flexibility.

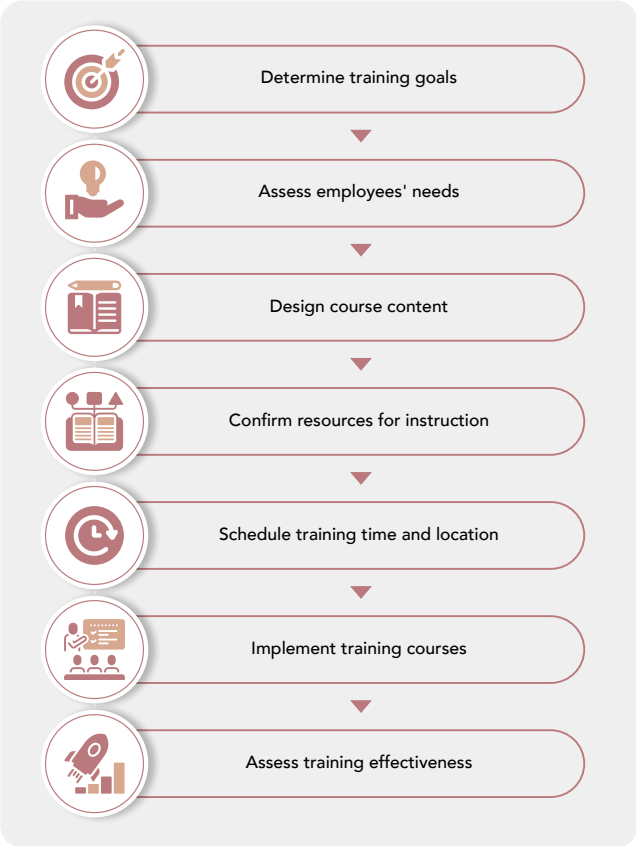
Talent Development and Cultivation

TSC attaches great importance to cultivating and developing talents of supervisors and colleagues at all levels. In order to meet the needs of the company's development, TSC conducts an annual company-wide training needs survey to understand the technical skills, professional knowledge, and leadership and management needs of supervisors and employees. Based on these needs, corresponding courses are planned and designed in the training curriculum framework.

The arrangement of training resources is based on the nature of the training courses, using both internal and external resources. For example, internal trainers with expertise in the specific area are selected from within the company, or external experts with the required expertise are hired as trainers. In addition, carefully selected external learning resources are provided to enhance and keep colleagues' knowledge and skills current. In 2023, the Taiwan region invited external trainers to conduct competency module development courses and invited middle and senior managers as well as potential talents to participate. Through various learning activities, participants were guided to understand the competency modules and integrate the spirit of competency into their work practices. Subsequently, internal trainers focused on the core competency of accountability and execution in internal training, making it a concrete commitment closely linked to key company projects. At the same time, in 2023, the Taiwan region provided online learning resources for colleagues to engage in self-directed learning and improve their office skills. This not only improves colleagues' work skills, but also effectively promotes cross-departmental communication skills.

Course Planning Process

In order to enable our employees to leverage their professional expertise and knowledge skills, TSC places significant emphasis on the planning and implementation of professional training. This is done to showcase the training effectiveness and relevant applications of employees' learning outcomes. The main planning process is as follows:



Comprehensive and Diverse Training

TSC offers various training courses to employees of different position level and genders 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 2023, the average number of training hours per employee was 62.12 hours.

New Employee Training

Pre-employment training can be effective in helping new employees quickly understand the Company overview, organizational structure, company rules, business philosophy, importance of quality and management policies. In addition to familiarizing new employees with company policies on their first day, TSC continues to schedule training on common company language, such as core values and competency modules, one to two months after their arrival. This allows employees to further understand and integrate into the Company's culture. All department managers continuously update the training plan for new employees in their respective departments.

Management skills training

To improve the management skills of supervisors, promote effective communication at work, and provide employees with a sound workplace, training is not only targeted at newly promoted supervisors but also provides specialized training according to organizational needs to assist mid-level managers in enhancing their leadership abilities. TSC will continue to conduct training on the management capabilities of supervisors at all levels in accordance with the Company's mission and operational goals.

Professional skills training

Each department organizes external training courses based on job-specific skills, such as project management, research and development expertise, supply chain management, and ESG studying. In addition, employees can also regularly participate in on-the-job training for environmental protection, quality assurance, occupational safety and health, and various professional competencies based on their skill levels, training assessments, or laws and regulations to lay the foundation for their own job needs and future development.

Average Training Hours in 2023

		Taiwan	Mainland China
Gender	Male	63.74	58.59
	Female	49.95	68.07
Position Level	Management Level	63.57	72.76
	Non-management level	56.85	64.01
Total Number[Note]		698	900
Total Training Hours		40,601.40	58,665.57
Average Training Hours		58.17	65.20
Total average training hours (total training hours / total number of people)		62.12	

Note: Method of calculating total number: The total number of individuals who received training between January 1, 2023 and December 31, 2023.

Enhancing Employee Management Skills

Strengthening Managerial Leadership Influence Using the 70-20-10 Rule

To focus on cultivating middle managers and high-potential talents, systematically enhancing leadership and communication skills, effectively managing teams, and achieving organizational goals, TSC launched a series of initiatives in 2023. Through the 70-20-10 rule, TSC initiated a leadership enhancement program in Taiwan to develop versatile and multi-faceted leadership and decision-making skills. This initiative is designed to ensure robust organizational development and business operations. Details of the plan are as follows:

Progress	Description	70 - 20 - 10 Rule
STEP 1 Online Questionnaire	Pre-class use of online resources to gather student needs	10
STEP 2 Training Program	Through a series of courses led by three professional trainers, employees will be guided and trained through real-life case studies to gain an understanding of key management issues and interpersonal communication styles. They will also learn how to communicate effectively with individuals from different generations and apply their knowledge to team communication, goal setting, and interdepartmental collaboration.	20 + 10
STEP 3 Application and Feedback	After completing the course, participants apply the theoretical methods and tools to their work by applying them to individual cases. They then receive feedback from the instructor and their peers, allowing them to make real-time adjustments to their management skills.	70 + 20 + 10
STEP 4 Initiate Personal Development Plan	After reviewing the current state of management skills with peers and direct supervisors, and combining the development goals agreed upon through post-class practical exercises, efforts are made to improve the management skills and abilities of middle-level managers, and to demonstrate the goal of transferring and demonstrating daily execution skills from top to bottom.	70 + 20
STEP 5 Review mid-term individual development plan	By applying the management skills learned through practical case studies in the workplace and receiving timely feedback from immediate supervisors, individuals can strengthen their management skills.	70 + 20
STEP 6 Review end-of-term individual development plan	Anticipate stage-wise reviews of colleagues' development status, understanding and leveraging leadership capabilities as the cornerstone.	70 + 20

Guidance through external instructors to enhance supervisors' management thinking, reflected in practical work scenarios.

Performance Management and Development

To ensure fair and reasonable evaluation of employee performance and effective implementation of the Company's annual operating goals from top to bottom, clear performance evaluation methods are in place in TSC's Taiwan region. Each year, a regular performance evaluation is conducted for all supervisors and peers in the company, which serves as the primary basis for job changes, salary adjustments, and bonus distributions. The evaluation focuses on individual mid- to long-term goals (OBJ), performance against key performance indicators (KPI), and evaluation of development projects. Through the principles of performance goal setting, supervisors can communicate organizational and personal goals, closely align talent development direction, and collectively contribute to the company's operational growth. In addition, starting in 2023, supervisors at level six and above will have the opportunity to practice functional goal setting and self-assessment through the introduction of functional modules. The goal is to raise the level of demonstrated skills through daily practice and improve the company's sustainable management approach to talent development.

In 2022, a group of internal instructors distinguished through internal certification stood out. In the first half of 2023, they were recognized and awarded certifications with the support and acknowledgment of senior executives. They regularly conducted courses on goal-setting principles, guiding new colleagues to communicate achievable targets with clear and measurable indicators to their supervisors. This aims to achieve personal and organizational performance, with a target of 100% participation of new hires in 2023. Additionally, the courses are open for current employees to refresh their knowledge, inspiring them to set challenging and specific goals once again.

In mainland China, indirect employees undergo an annual performance review, which includes a self-assessment by the employee and a review by the supervisor. This process helps monitor the progress of individual and organizational performance. For senior management positions, performance is also evaluated based on key performance indicators. On the other hand, the performance of direct reports is assessed on a monthly basis and the overall assessment is summarized at the end of the year. In the future, the mainland region will implement a new performance evaluation system that uses clear and measurable indicators. This will enable supervisors and colleagues to interact and evaluate each other's performance in a transparent manner, with the goal of facilitating mutual success for individuals, organizations, and the company as a whole.

With the support of senior executives, TSC cultivates internal instructors for goal-setting courses and conducts certification recognition

Through the active transfer of knowledge and experience by internal trainers, our goal is to increase employees' motivation to learn and improve the effectiveness of their learning.

Percentage of Employees Undergoing Performance and Career Development Review

	2021				2022				2023			
	Male	Female	Total	Review Percentage	Male	Female	Total	Review Percentage	Male	Female	Total	Review Percentage
Taiwan Region												
Management Level	71	38	109	100%	78	42	120	100%	86	42	128	100%
Non-management Level	228	203	431	100%	272	220	492	100%	283	222	505	100%
Mainland Chinese Region- Tianjin Site												
Management Level	18	28	46	100%	18	29	47	100%	16	28	44	100%
Non-management Level	79	174	253	100%	80	169	249	100%	74	150	224	100%
Mainland Chinese Region- Shandong Site												
Management Level	22	56	78	100%	21	54	75	100%	18	54	72	100%
Non-management Level	168	402	570	100%	164	381	545	100%	133	340	473	100%

Collaborating to Cultivate Talent and Foster Professional Competence

Constructing Competency Modules

To continually shape the culture and adapt to future development trends and growth strategies, TSC has established functional modules to foster a shared commitment to high performance among all employees. We achieve this through focused workshops, leveraging functional inertia, and conducting scientific analysis. Working with focus groups, we explore the key drivers of successful organizational functions, conduct interviews, and gather real-world experiences, perspectives, and expectations related to successful functional paradigms. We integrate TSC's mission, vision, business philosophy, values, and operational growth objectives and extract the functional module system through qualitative research and quantitative statistical results. This allows us to outline TSC's functional framework and define clear behavioral expectations that align with strategic development directions. The TSC Functional Module was officially approved in early 2023 and will be implemented from the base in Taiwan, along with a planned three-year competency development and implementation plan.

Deep-rooted Concept of Functional Seeds

The functional modules are primarily divided into three core functions: accountable execution, teamwork, and pursuit of excellence; and two leadership functions: strategic capability and team leadership. Each function has specific operational definitions of behaviors. Under each function, there are different criteria for demonstrating proficiency, accompanied by explanations of varying levels of behavioral intensity. These functions are visually represented in a series of blue tones, symbolizing each colleague's commitment to accountable execution, teamwork, and pursuit of excellence. The leadership functions are highlighted in vibrant red, guiding the team forward with confidence.

For the first major functional rollout, we provided professional guided coaching to key executives. This coaching included a variety of learning activities such as classroom lectures, video analysis, experiential activities, group discussions, and post-course assessments. The goal of this coaching was to help executives understand the functional modules, improve their functional thinking, and integrate the spirit of the functions into their work practices. The first series of functional courses, with the active participation of key executives, totaled 686 hours of training. In July 2023, after introducing the daily practice of TSC's new inertia-functional module and the performance formula for breaking inertia, the functional module was officially introduced to all employees.

By actively participating in the course, colleagues will gain an understanding of the TSC vocational module and learn how to overcome inertia.

The instructor uses various teaching methods to help colleagues recognize differences in job competency levels

Creating an environment that fosters the development of professional skills

In addition to extensive and rigorous functional training, our key leaders lead by example in their daily work to ensure that their team members understand and practice their functions. We also foster a supportive environment for functional advocacy. We have developed various advocacy materials based on functional modules to create a functional atmosphere in the office. In addition, we provide regular advocacy sessions to give employees ample opportunities for functional practice. We also have customized personal learning passports and knowledge cards that employees can refer to at any time. We regularly showcase examples of exemplary functional behavior to help employees understand the different levels of performance. At the same time, to cultivate a culture of constructive feedback, we encourage employees to observe each other's functional behavior in their work and provide continuous feedback. This enables us to identify functional stars and functional sharing experts, and promotes exemplary behavior as functional models. We also use a reward mechanism to motivate employees and reinforce their understanding of their functions.

By implementing the Personal Learning Passport, colleagues can gain a deeper understanding of TSC's commitment to talent development

Initiating the Implementation of Culture

To help colleagues actively embody each function and encourage them to implement the function concept in their work projects, three core functions will be gradually unlocked through targeted internal training. The first function to be introduced is responsible execution, in which key project managers and the Human Resources Department work together to develop daily implementation training for responsible execution. This training enables key supervisors to make suggestions to each other and to make commitments to work projects. The participation rate for this course reached 100%, and the accountable execution action goals and plans of colleagues in the course have become concrete commitments to implement specific actions, which is closely in line with the spirit of accountable execution to achieve important company projects. In the future, courses on team collaboration, pursuit of excellence, and leadership function will also be held in succession.

Colleagues actively participate in course discussions and interactions, seeking inspiration and feedback

Internal trainers use instructional design to engage employees and translate it into learning outcomes

Initiate a Talent Development Action Plan to Achieve Sustainable Growth

Meanwhile, in 2023, TSC plans to gradually incorporate and use the content of the functional modules for performance evaluation. This will include evaluating the work of new employees, developing personal plans for mid-level managers, and establishing annual performance evaluation criteria. These measures will help managers assess the functional behaviors of their colleagues, provide timely and effective feedback, and improve job performance. TSC is committed to valuing the career development of its employees and working with them to seize growth opportunities.

The semi-functional module in Taiwan was established to foster consensus and establish practices, as well as develop mechanisms for tracking and resolving issues to effectively implement our values.

4.2 Protecting the Workplace Environment GRI 401-2 GRI 401-3

4.2.1 Employee Health and Benefits

The well-being and overall health of employees are crucial aspects of the company's sustainable operation. By offering comprehensive benefit plans, flexible policies, and a range of health promotion initiatives, TSC is able to attract and retain exceptional talent. This not only increases employee satisfaction and work efficiency, but also ensures the company's stable growth and long-term competitiveness.

Employee Care

Employee Group Insurance	In Taiwan, a wide range of group insurance products are offered to employees, including term life, accident, medical, hospitalization, and cancer insurance. Employees' dependents are also eligible for coverage, ensuring comprehensive protection. In mainland China, social insurance and provident fund contributions are made for each employee, demonstrating a commitment to employee welfare and social responsibility. This not only ensures basic protection for employees in areas such as medical care, retirement and unemployment, but also provides a housing provident fund, further enhancing employees' quality of life and job satisfaction. By providing comprehensive benefits, employees can feel that their personal well-being is being taken care of, thereby increasing loyalty and ensuring the stable development of the Company.
Employee Stock Ownership Trust	In Taiwan, in accordance with the shareholder meeting charter and agreements, employees are awarded a subsidy of 30% of the actual deposit amount as company incentives, encouraging all colleagues to participate in business operations and jointly create excellent operational performance.
Childcare Policy	To implement the concept of "caring for employees," TSC in Taiwan responds to employees' needs to balance career development and family care in accordance with the Gender Equality in Employment Act and the Regulations for Implementing Unpaid Parental Leave for Raising Children. TSC has established a system of unpaid parental leave, maternity leave, prenatal care leave, and paternity leave. Employees can apply for parental leave or adjust their working hours to achieve work-life balance. In addition to complying with regulations, TSC has also established comprehensive employee benefits such as childcare subsidies and education incentives, and provides a birth allowance for each baby as a congratulatory gesture. In mainland China, various regions have implemented childcare leave, maternity leave, breastfeeding leave and nursing leave in accordance with local laws and regulations to ensure that employees receive the necessary support and protection during the childbirth and childcare periods.

Employee Unpaid Parental Leave in Taiwan

	2021			2022			2023		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of Employees Eligible to Apply for Parental Leave in the Year (A)	28	14	42	23	13	36	16	19	35
Actual Number of Employees who Applied for Parental Leave in the Year (B)	2	1	3	1	4	5	2	4	6
Application Rate (B/A)	7%	7%	7%	4%	31%	14%	13%	21%	17%
Number of Employees who have Taken Parental Leave and are Eligible for Reinstatement in the Year (C)	2	3	5	0	2	2	0	3	3
Actual Number of Employees who Applied for Reinstatement in the Year (D)	2	1	3	0	2	2	0	3	3
Reinstatement Rate (D/C)	100%	33%	60%	0%	100%	100%	0%	100%	100%
Number of Employees Reinstated in the Previous Year (E)	1	2	3	2	1	3	3	6	9
Number of Employees Remaining One Year After Reinstatement in the Previous Year (F)	1	2	3	2	1	3	3	6	9
Retention Rate (F/E)	100%	100%	100%	100%	100%	100%	100%	100%	100%

Retirement Plan

TSC has implemented a retirement pension system to ensure the well-being of employees after they retire. This system is designed in accordance with the law, including the retirement procedures outlined in the Labor Standards Act and the defined contribution plan specified by the Labor Pension Act. Additionally, the Labor Retirement Reserve Supervisory Committee has been established. Since July 1, 2005, TSC has been allocating 6% of the retirement pension to employees' Individual Labor Pension Accounts monthly, as regulations require. If employees choose to make voluntary contributions to their retirement pension, the contribution will be deducted from their monthly salary and transferred to their Individual Labor Pension Accounts at the Bureau of Labor Insurance, based on the voluntary contribution rate. Employees can select either the relevant pension provisions of the previous or new retirement system, while maintaining their work seniority before implementing these regulations. For the fiscal year 2023, TSC has fully allocated retirement pension expenses of NT$20,172 thousand to the Bureau of Labor Insurance, in accordance with the retirement pension allocation method. For overseas subsidiaries, retirement provisions are determined based on local legal requirements. The retirement benefit expense recognized for the year 2023 amounted to NT$58,180 thousand.

TSC's benefit plan is in accordance with the Labor Standards Act. The retirement pension for employees is determined by their years of service and the average salary in the six months prior to retirement. Qualified actuaries annually calculate and allocate funds to the Workers' Retirement Reserve Funds Account at the Bank of Taiwan to ensure employee retirement benefits. As of the end of 2023, the balance in the Workers' Retirement Reserve Funds Account at Bank of Taiwan is NT$39,945 thousand. The retirement fund, as stipulated by the Labor Standards Act, is managed by the Bureau of Labor Funds, Ministry of Labor, and its utilization is governed by the Regulations for Revenues, Expenditures, Safeguard, and Utilization of the Labor Retirement Fund. The minimum annual return on the settlement and distribution of the fund must not be lower than the return based on the interest rate of a two-year fixed deposit in a local bank

Incentive System and Employee Benefits

To foster a positive learning culture, TSC publicly recognizes leaders, exemplary employees and individuals from various regions. These awards recognize employees for their contributions, service and exceptional performance, making them role models for their peers to emulate.

All employees in various regions of Taiwan receive welfare bonuses for festivals such as the Mid-Autumn Festival, Labor Day and the Dragon Boat Festival. In addition, Employee Benefit Committee and unions in each region organize various benefits each year, including maternity gifts, scholarships for employees' children's education, wedding gifts, birthday gifts, condolence gifts for illness or death, and other subsidies. These initiatives are designed to make colleagues feel cared for and supported. We express our gratitude for everyone's hard work and create cherished memories through festive activities and year-end banquets.

2023 Incentive System and Benefit Expenditure in the Taiwan area

Item		Frequency	Highlights
Festivals	Mid-Autumn Festival	Once a year	The Company distributes annual holiday bonuses to express blessings and gratitude, motivate employees to work actively, and enhance overall performance
	Dragon Boat Festival		
	Labor Day		
	Subsidies for Marriage, Funerals, and Festivals - Cash Gifts for Childbirths	Number of Applicants Approved	The Company has an Employee Welfare Committee that organizes a range of benefits and activities annually. In 2023, the committee primarily allocated its benefit funds towards cash gifts for occasions such as childbirth, marriage, birthdays, as well as providing condolence money for instances of illness, injury, and bereavement.
	Subsidies for Marriage, Funerals, and Festivals - Cash Gifts for Marriages		
	Subsidies for Marriage, Funerals, and Festivals - Condolence Money for Bereavements		
	Subsidies for Marriage, Funerals, and Festivals - Condolence Money for Injury or Illness		
	Other (Birthdays)	Once a year	
Employee-related	Childbirth Subsidy - Parental Subsidy	Number of Applicants Approved	To help employees feel more comfortable raising and nurturing the next generation and to address the challenges of an aging population, TSC has implemented a number of benefits and assistance programs for employees who have children. These initiatives are designed to help employees balance their career development and family responsibilities. In 2023, TSC provided childcare subsidies to 72 employees and educational incentives to 129 employees, demonstrating our commitment to caring for our employees and fostering a harmonious work-life environment. These efforts ultimately contribute to employee retention.
	Childbirth Subsidy - Educational Benefits		
	Meetups	Planned by the Benefits Committee, multiple times per year	In 2023, we will listen and respond to the expectations of colleagues in each region. We will do this by organizing events or providing gift cards to meet our colleagues' needs and demonstrate our concern for their quality of life outside of work.
	Senior Employees	Based on annual planning, multiple times per year	At the year-end banquet, publicly present certificates and gold jewelry to eligible senior employees as a token of appreciation for their years of service and contributions. Exemplary employees are nominated by each department and selected by senior management to receive bonuses and certificates. At the same time, the list of exemplary employees and their achievements are announced, motivating employees to serve as positive role models for one another.
	Exemplary Employee		
	Physical Examinations	The headquarters holds an annual meeting, while the factory holds a biennial meeting.	TSC collaborates with a professional medical team to provide employees with health check-ups that exceed regulatory requirements, conducted regularly. In 2023, a total of 154 employees underwent health checks, with ongoing follow-ups and health management
	Christmas Gift Distribution	Form and frequency of activities determined according to festivals.	In 2023, senior executives from each district dressed up as Santa Claus to show appreciation for their colleagues' efforts. They distributed small, warm gifts, creating delightful memories for the employees.
	Year-end Banquet	Form of year-end banquet determined according to annual planning.	The annual year-end banquet event will be held in the factory area in 2023. Colleagues will gather together in a lively atmosphere to enjoy a delicious lunch, thrilling performances, and interactive games. There will also be opportunities to win attractive cash prizes. The event aims to provide a shared time for relaxation, communication, and celebration

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.

2023 Workplace Health Promotion Results:

Health Services

- 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 workplace misconduct, health advice on medical issues, and return-to-work assessments.
- Regularly hold annual health seminars that cover topics such as weight loss and lung cancer prevention to promote health education

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.
- Prevent repetitive musculoskeletal disorders: Conduct a survey using a questionnaire to assess workers' musculoskeletal symptoms, including fatigue and soreness, to determine the level of discomfort and to evaluate task-related hazards. Make necessary job adjustments.
- 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.

Physical Examinations

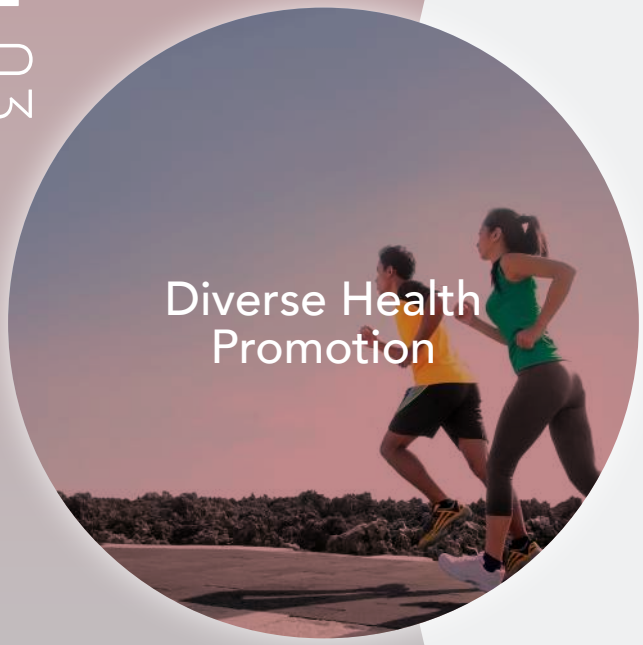
- Routine health check-ups: Arrange for employees to participate in health checks according to regulations.
- Health Tracking Management: Professional evaluation of health tracking proficiency by on-site medical staff in every district. For those in need of further health tracking, all of them have had -to-face interviews arranged during regular on-site medical services, achieving a tracking rate of 100 %.

Health Promotion Activities

- In Taiwan, the "Get Active" campaign was organized to promote participation in sports events among colleagues. A total of 30 colleagues participated, covering a distance of 42.5 kilometers in cycling, 6 kilometers in swimming, 80 kilometers in running, and 400 meters in dragon boat racing. In addition, the martial arts category won a bronze medal and the tennis category placed second in the team event. This initiative provided a platform for colleagues to showcase their athletic skills outside the workplace.
- In the mainland China region, sports competitions are held, including badminton and skipping competitions. These competitions encourage employees to participate in sports, foster friendship and have fun together. They also enhance teamwork awareness and promote growth in a relaxed and enjoyable atmosphere.

Promote lung cancer prevention and health-oriented weight loss seminars to enhance colleagues' health awareness

Warm Christmas Gift Giving



Diverse Health Promotion

TSC is committed to ensuring the physical and mental well-being of its employees. In fiscal 2023, TSC plans to launch a series of health promotion initiatives at its Taiwan site to foster a culture of wellness and create a healthy work environment.

Health Knowledge

Monthly health information sessions cover a variety of health topics, including comprehensive strategies for calcium intake, basic steps for building muscle and reducing fat, and dental care, to increase employees' health awareness. In addition, professional medical staff are available for consultation on relevant health issues, enabling employees to become familiar with health concepts and prioritize self-health management.

Healthy Eating

From the source to the table, this practice is common in Taiwanese workplaces. We are engaged in hydroponic vegetable farming activities to provide fresh vegetables to our colleagues. With a focus on food and agriculture education, we emphasize hands-on experience, allowing colleagues to participate in every step of the process, from planting seedlings to harvesting and preparing dishes. This enhances their understanding of the vegetable growth process, improves their ability to make nutritious food choices, and promotes the development of healthy eating habits. A total of 64 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 225 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

Healthy Movements

- **Creating a Healthier Life**

  Continuing the spirit of healthy weight management from 2022, we aim to promote physically active lifestyles and healthier living among colleagues. The 2023 Healthy Body Promotion Campaign was launched in September with 129 colleagues participating. By encouraging colleagues to adjust their diet and exercise plans on their own, the campaign aims to reduce body fat or increase lean mass. It also aims to correct misconceptions about weight loss through dieting and emphasizes the importance of mastering the correct key steps for better muscle gain and fat loss. This initiative integrates with TSC's core competency of responsible execution, maintaining a healthy physique to cultivate a healthy lifestyle. During the campaign, colleagues received guidance from professional nutritionists on proper dietary practices and engaged in daily physical activity regardless of weather conditions. Through three months of dedicated effort, colleagues collectively reduced their body fat percentage by 126.8%. The champion of the initiative achieved a remarkable 10.1% reduction in body fat, demonstrating significant progress and improved health among participants who persisted in their efforts.

- **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. By demonstrating their personal interest in sports and actively participating in sports competitions, employees have the opportunity to immerse themselves in the event atmosphere, dedicate themselves to training and effort, achieve their self-set goals, and enhance their self-confidence and sense of accomplishment. During the program, employees actively participate in a variety of athletic events, including marathons, swim meets, tennis tournaments and martial arts competitions. They also form groups with colleagues who share their passion for sports to motivate each other. By combining the pursuit of excellence with their core competencies, they strive for outstanding results in the competitions. Ultimately, some employees achieve remarkable success, placing in the top three in competitions that surprise and instill a sense of pride in all involved. TSC will continue to promote a variety of health promotion activities to encourage colleagues to prioritize both physical and mental health and to maintain a healthy state as part of a sustainable lifestyle.

Colleagues actively participate in various sporting events.

4.2.2 Labor Relations and Human Rights Management

GRI 2-23 GRI 2-24 GRI 406-1 GRI 407-1 GRI 408-1 GRI 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, TSC complies to international labor and human rights standards. These standards include the UN Guiding Principles on Business and Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, and the UN Universal Declaration of Human Rights. Additionally, TSC complies with local regulations and follows the Responsible Business Alliance (RBA) Code of Conduct. The RBA Social Responsibility Management Manual, which has been approved by the Chairman, is publicly available. TSC actively establishes a corporate social responsibility management system and conducts human rights risk assessments. We conduct self-checks, customer audits, and third-party verifications to address any identified human rights issues. Based on the results of these assessments and reviews, TSC continuously strives for improvement to achieve our risk management objectives and implement relevant practices. In November 2023, we will undergo a third-party audit.

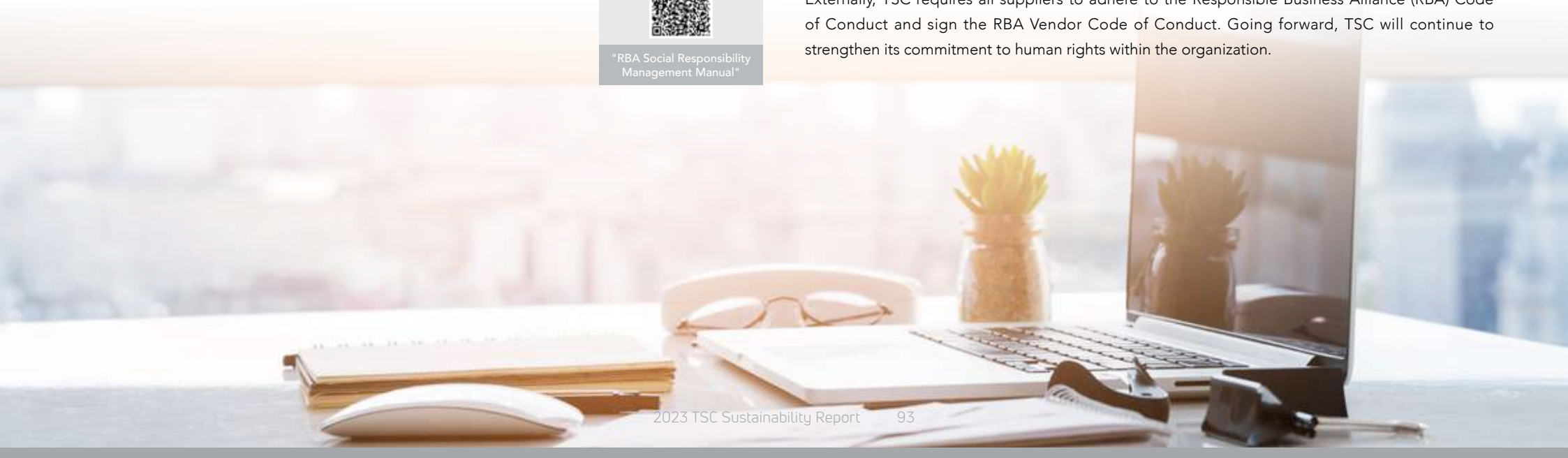
"RBA Social Responsibility Management Manual"

Establishing a Consensus on Corporate Social Responsibility

To ensure all colleagues understand the corporate social responsibility (CSR) policies and commitments, and to establish consensus, TSC conducted CSR education and training sessions at its two Taiwan factories throughout 2023, with a participation rate of 100%. Through universal participation and educational training, this initiative strengthened colleagues' awareness of CSR and collectively reinforced the commitment to CSR implementation.

Implementation of Corporate Social Responsibility Practices

To align with the establishment of the corporate social responsibility management system, TSC has undertaken a comprehensive review and revision of internal management policies, operating procedures and other documents. The goal is to ensure consistency in communication, writing, and actions to implement corporate social responsibility policies and commitments, as well as the Company's strategies, operating policies, and procedures. By 2023, all internal management regulations and operating procedures will be either newly issued or revised. 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) Code of Conduct and sign the RBA Vendor Code of Conduct. Going forward, TSC will continue to strengthen its commitment to human rights within the organization.



Human Rights Management Measures

Goal	Action Plan Taken	2023 Performance Exhibition
Eliminate the Use of Child Labor	• The "Regulations on the Prevention and Protection of Child and Youth Labor" have been implemented. • Please carefully review the recruitment process to ensure that child labor is not employed.	No Employment of Child Labor and Youth
Preventing Discrimination	• Please review the operational processes related to human resources to ensure that there is no discrimination or bias in the management of human resources. • Ensure equal rights and opportunities regardless of race, gender, religion, nationality, or other identities, respecting colleagues' beliefs and customs	• Completed a thorough review of multiple regulations, procedural documents and operational processes to ensure that no discrimination or bias is present in any operation. Comply to applicable standards, resulting in no incidents of discrimination • 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.
Freedom of Association	• Regularly hold labor-management meetings for labor-management consultations • Respect the legitimate right of colleagues to freely form or join organizations	• Every quarter, we hold a labor-management meeting where colleagues can make suggestions and receive feedback. • Regularly conduct appropriate training to ensure that employees have a clear understandingof policies and regulations regarding Freedom of Association and Collective Bargaining. Aim to complete factory training and achieve a 100% training completion rate by 2023. • In 2023, it was determined that there were no operational sites or suppliers that violated the rights of Freedom of Association and Collective Bargaining.
Freedom in Employment and Pevention of 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.
Eliminate Workplace Violence and Illegal Infringement	• 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.	• Train and promote the elimation of workplace violence and unlawful acts to all colleagues, with a goal of 100% training completion by 2023.. • Through various channels for complaints and suggestions, as well as regular inspections, there have been no incidents of workplace violence or illegal violations • No human rights-related complaints were filed in 2023
Ensure that Wages Comply with Legal Requirements	• 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	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, and that no arbitrary deductions are made. Any violations are promptly addressed

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's various communication and complaint channels. TSC clearly defines and implements work rules and related complaint procedures, and posts information on the company intranet to ensure the smooth operation of communication channels so that colleagues' voices can be effectively conveyed and addressed. In 2023, there were no complaints from colleagues, and we tracked and responded to their suggestions accordingly.

Real-time Promotion

- Intranet- The latest Company news is released from time to time.
- Email Notification- Announcement of company regulations and delivery of messages from senior executives to employees.
- Bulletin Board- Providing information on labor-related policies, health and safety, and event updates.

Two-way Communication

- Proposal to Improve the Physical Employee Suggestion Box and Email Inbox- Enhancing Colleague Feedback Collection and Communication
- Service/Complaint Hotline- Establishing dedicated phone lines and email addresses
- Labor-Management Meeting- A Labor-Management Meeting is held in various factory areas for the purpose of communication.

Labor-Management Communication

The labor-management meeting is an important channel for fostering a positive labor-management relationship. Starting in 2023, these meetings will be held quarterly at various locations in Taiwan to discuss employee benefits and labor-related issues. In addition, the Tianjin and Shandong plants also hold annual union meetings to facilitate communication.

Branch	Communication Frequency	Main Communication Issues in 2023
Taiwanese Locations	Once per quarter	Improvement of working environment Attendance and Legal Compliance Employee Activities Vacation Maintenance Seminar
China Shandong Factory, Tianjin Factory	Once a year	Recommendation of Labor Model Representative Election of Employee Representative Local Labor Law Promotion and Signing of Document

In 2023, the focus in various regions of Taiwan is on employee comfort and well-being, while the plants in Tianjin and Shandong, mainland China, address regional concerns. 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.

Initiating Employee Opinion Survey to Facilitate Communication and Consensus through Diverse Channels

TSC's workforce is diverse, and interaction and communication with colleagues can help the Company continue to evolve. To gain a deeper understanding of colleagues' perspectives, TSC conducted its first "Employee Opinion Survey" in April 2023. The survey covers four main aspects: commitment, teamwork, management, and corporate identity. In accordance with the principle of confidentiality, the survey is expected to be conducted annually to gain insights into the overall work experience and thoughts of colleagues. Employee feedback is essential to developing company policies and creating a cohesive work environment. Based on the survey results, colleagues generally consider themselves part of the TSC team, take pride in teamwork, and demonstrate accountability and a commitment to excellence in their work. In addition, colleagues are open to suggestions and feedback and strive for positive change. This proactive attitude is a key driver of the Company's development, as it reflects a strong commitment to embrace change and take on new challenges. According to the survey results, more than 70% of colleagues place a high priority on developing benefits and systems. As a result, TSC will share the survey results internally in June and work to improve the following areas to foster mutual growth for employees and TSC:

Promoting communication and consensus, while enhancing the overall experience

Through labor-management meetings, all-hands meetings, feedback hotlines, physical mailboxes, email, QR codes, and annual surveys, we have established a diverse and real-time feedback mechanism to foster a culture of effective communication. Colleagues are encouraged to share their ideas promptly, and relevant departments actively receive and respond to feedback. Through these communication channels, our goal is to cultivate an open and collaborative culture within the company while improving the overall work experience.

Career Development and Training, Motivation, and Retention

By actively promoting the TSC Competency Program through training, leading by example, and recognizing exemplary individuals, our goal is to instill a strong sense of competency and foster a positive culture and environment. We encourage colleagues to actively demonstrate positive behaviors through feedback and rewards, allowing everyone to learn from excellence and gain a better understanding of concrete examples of competency. This approach not only motivates and retains top talent, but also improves the overall performance of the team. In addition, we have made continuous efforts to improve the public environment and mechanisms, and to create a safer and more conducive working environment based on suggestions from colleagues. We will also implement various systems, platforms, and information sharing methods to provide more convenient and real-time services.

TSC employees participate in providing feedback on employee opinions, promoting the exchange and sharing of ideas

In the future, we will continue to communicate through various channels and annual employee surveys to ensure harmonious employee relations and achieve our sustainable development goals. We are committed to creating a diverse, equal, and inclusive environment that is friendly to all.

4.2.3 Workplace Safety Management

GRI 403-1~403-6 GRI 403-8~403-10 TC-SC-320a.1 TC-SC-320a.2

TSC recognizes that providing a safe and healthy work environment is critical to sustainable operations. To effectively improve the management of the workplace environment, TSC has implemented a comprehensive company-wide environmental, health and safety policy. This policy focuses on six key areas: regulatory compliance, accident prevention, waste reduction, pollution prevention, energy conservation and green design. In addition, TSC has developed occupational health and safety operating procedures in accordance with relevant laws and regulations. The company is committed to maintaining occupational safety and health standards to ensure the well-being of its employees. Of note, as of 2023, TSC has not received any penalties for occupational safety violations across its entire network of facilities.

Occupational Safety Management System

The safety management framework of each TSC plant follows the ISO 45001 Occupational Health and Safety Management System, with a coverage rate of 100% and verification already completed. The Environmental Health and Safety (EHS) personnel oversee the system's operation in practice, following the "Plan-Do-Check-Action" framework. In addition to implementing various occupational health and safety procedures, supervision and continuous improvement are conducted through the Occupational Health and Safety Management Committee. This management system applies to all activities, products, and services of TSC's four plants, and includes all employees, contractors, subcontractors, and visitors who enter the premises. They are required to comply with company regulations and requirements to maintain system effectiveness and consistency, thereby achieving occupational health and safety management objectives.

ISO 45001 Certificate

I-lan Site

Li-Jie Site

Tianjin Site

Shandong Site

Risk Identification, Assessment, and Management Policy

Taiwanese companies regularly conduct occupational health and safety risk assessments through their occupational health and safety management systems. They have a team of occupational safety and health personnel who address safety and health impacts during the manufacturing process, such as the use of organic solvents, acidic or alkaline chemicals, pipeline transportation, forklift handling, and high-pressure gas use. These companies establish safety operating standards, which are implemented by dedicated personnel, and regularly conduct hazard identification and risk assessments to ensure compliance and stay abreast of regulatory requirements. In addition, each site develops improvement activities or projects and establishes control mechanisms. In addition to pre-operational inspections, they conduct regular on-site inspections and periodic spot checks to correct unsafe behaviors, improve safety equipment, and reduce risks. If employees identify imminent hazards in the workplace, they have the right to stop work and evacuate to a safe place, and the company will not take disciplinary action.

"Zero accidents" and "zero occupational illnesses" are the primary goals of TSC. The effectiveness of the management system is ensured through annual internal cross-unit audits, external audits and reviews. A reporting mechanism is in place and regular safety meetings are held. In addition, machine safety management inspections and accident investigations are conducted to maintain safety and health performance.

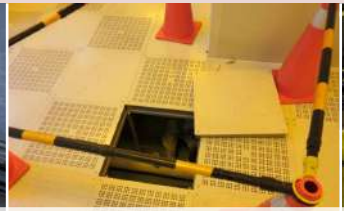
Taiwan Plant	
ISO management procedures are used to assess and manage various operations for risk, including contract management, procurement management, change management, and inspection management. Non-routine hazard risk assessment and identification is performed using.	
Contract Management	To enhance contractor safety management, ensure the quality of their work, and maintain safety and hygiene during construction, TSC has implemented the Contractor Management Measures. These measures encompass various actions, such as establishing agreements, issuing hazard notifications prior to construction, inspecting machinery and equipment, verifying personnel qualifications for site access, assigning dedicated supervisors, conducting on-site safety inspections, and implementing control measures for high-risk operations. Application forms for these operations are utilized and reviewed to uphold construction safety standards.
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 to address personnel, machinery and equipment, raw materials, construction methods, and operating environments. For instance, modifications to the engineering design or configuration of machines can potentially pose safety and health risks. To mitigate these risks, TSC conducts thorough risk assessments, provides necessary training, updates relevant information, and performs safety confirmations prior to implementing any changes.
Inspection Management	Regular inspections are conducted in the TSC factory area. These inspections help us identify abnormalities and potential hazards by detecting operational safety observations. This allows us to effectively reduce and control risks.

Mainland China Sites
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.

Construction Safety Supervision Conducted by Li-Jie Site

Hazard Communication and Safety Briefing Before Commencing Work

Personal Protective Equipment



Safety Measures at the Entrance

Personal Protective Equipment

Occupational Injuries and Occupational Safety Incidents

TSC has established emergency response procedures in the event of a workplace injury or safety incident. In the event of an incident, immediate contingency measures are taken in accordance with company and local legal requirements. This includes establishing an effective reporting system, internally notifying the Safety and Health Department and supervisors, externally notifying the appropriate authorities, and contacting fire and medical services for assistance. When safety and health incidents occur, a project investigation is initiated to address areas such as elimination and substitution, work process adjustments, education and training, provision of personal protective equipment, management of equipment and supplies, and monitoring and control. These improvements are designed to minimize the impact of accidents and prevent their recurrence.

Mainland China Sites

- Develop emergency response plans for production safety accidents and manage related incidents.
- Perform comprehensive risk assessments of the production process to identify potential accident hazards.
- Develop different emergency plans for different types of accidents, taking into account possible emergencies such as fire, leakage, and explosion. Clearly define the responsibilities and roles of each team member, and establish an effective notification system to ensure timely communication in emergency situations.
- Train and drill the team regularly on detailed emergency procedures, including emergency evacuation, first aid, and firefighting, to ensure that team members are familiar with the emergency plans and can execute them effectively.
- Periodically inspect emergency and back-up supplies to ensure their effective use in the event of an accident, and ensure that the workplace is stocked with sufficient first aid equipment and medications, and that employees are trained in their use to maximize their effectiveness in emergencies.
- Contact the local fire department to secure their assistance and establish a cooperative partnership for mutual support. By addressing the key points above, establish a comprehensive and effective emergency response plan for production safety incidents to minimize losses from accidents.

Description of the 2023 Occupational Safety Incident

Shandong Factory: 2 Work- Related Accidents in 2023	
Description	改善措施
From 2021 to 2023, a total of 5 occupational accidents occurred at the Shandong site. The main causes were slips and falls and hazards caused by careless operation of equipment and machinery.	In response to each accident, the factory promptly implemented improvement measures, including maintaining clean floors, regularly inspecting and repairing equipment, providing safety training, using appropriate tools, and providing protective equipment. These measures are aimed at reducing workplace accidents, promoting employee safety awareness and proper operation, and providing appropriate personal protective equipment. Implementation of these measures will help improve the safety of the work environment and minimize the recurrence of similar incidents.

Various Occupational Accident Statistical Indicators

Relevant Indicators	2021	2022	2023
I-lan Site			
Total Working Hours	315,360	340,288	343,896
Work Accident	0	0	0
Traffic Accident	0	0	1
Injury Rate (IR)	0	0	0
Disability Frequency Rate (FR)	0	0	0
Lost Days	0	0	0
Lost Days Rate (LDR)	0	0	0
Disabling Severity Rate (SR)	0	0	0
Number of Deaths	0	0	0
Li-Je Site			
Total Working Hours	511,528	609,558	699,832
Work Accident	1	0	0
Traffic Accident	0	6	8
Injury Rate (IR)	0.39	0	0
Disability Frequency Rate (FR)	1.95	0	0
Lost Days	5	0	0
Lost Days Rate (LDR)	1.95	0	0
Disabling Severity Rate (SR)	9	0	0
Number of Deaths	0	0	0
Headquarters (including the Hsinchu Office)			
Total Working Hours	193,664	204,680	228,527
Work Accident	0	0	0
Traffic Accident	0	0	3
Injury Rate (IR)	0	0	0
Disability Frequency Rate (FR)	0	0	0
Lost Days	0	0	0
Lost Days Rate (LDR)	0	0	0
Disabling Severity Rate (SR)	0	0	0
Number of Deaths	0	0	0

Relevant Indicators	2021	2022	2023
Shandong Site			
Total Working Hours	2,150,804	1,959,712	1,334,957
Work Accident	1	2	2
Traffic Accident	2	1	1
Injury Rate (IR)	0.09	0.20	0.30
Disability Frequency Rate (FR)	0.77	1.57	1.75
Lost Days	34	75	34
Lost Days Rate (LDR)	3.16	7.65	5.09
Disabling Severity Rate (SR)	15.81	38.27	25.47
Number of Deaths	0	0	0
Tianjin Site			
Total Working Hours	597,600	587,640	537,840
Work Accident	0	0	0
Traffic Accident	0	0	0
Injury Rate (IR)	0	0	0
Disability Frequency Rate (FR)	0	0	0
Lost Days	0	0	0
Lost Days Rate (LDR)	0	0	0
Disabling Severity Rate (SR)	0	0	0
Number of Deaths	0	0	0
Total			
Total Working Hours	3,768,956	3,701,878	3,145,052
Work Accident	2	2	2
Traffic Accident	2	7	13
Injury Rate (IR)	0.11	0.11	0.13
Disability Frequency Rate (FR)	0.53	0.54	0.64
Lost Days	39	75	34
Lost Days Rate (LDR)	2.07	4.05	2.16
Disabling Severity Rate (SR)	10	20	11
Number of Deaths	0	0	0

Note:
1. The calculation scope includes a total of five locations: Taiwan headquarters, Li-Jie site, I-lan site, and mainland China
2. In 2023, there were 0 cases of severe occupational injuries. (Definition of severe occupational injuries: those causing workers to be unable or find it difficult to recover to their pre-injury state within six months.)
3. The mortality rate caused by occupational injuries in 2023 was 0.
4. According to the occupational accident report, there are 13 individuals who are not employees but whose work and/or workplace is under the control of the Company. These individuals primarily include security personnel and equipment contractors from the Li-Jie site and I-lan site. There have been no reported occupational accidents or diseases among them.
5. Traffic accidents are not classified as work-related accidents and are not taken into account when calculating various indicators.
6. Injury Rate (IR) = Total number of occupational accidents ÷ Total working hours x 200,000.
7. Disability Frequency Rate (FR) = Number of disability injuries ÷ Total working hours x 1,000,000.
8. Disability Severity Rate (SR) = Total number of lost days ÷ Total working hours x 1,000,000.
9. Lost Days Rate (LDR) = Number of lost days ÷ Total working hours x 200,000.

Procedure for Handling Safety and Health Accidents

Personnel injury and illness incident reported to the Occupational Safety Department

↓

Assistance in medical treatment for the injured and sent to the hospital

↓

Occupational safety unit reports to the supervisory authority

↓

Department where the incident occurred conducts an investigation and proposes improvement measures

↓

Department of Safety and Security reviews and evaluates the effectiveness of the improvements

↓

Case closed and kept on record for future reference

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.

Annual occupational safety and health training is conducted in the mainland China factories. The training covers topics such as fire safety, safety colors and signage, occupational health and safety, and traffic safety. 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 2023.

Fire Evacuation and Emergency Response Drill at Li-Jie site

Notify the Fire Department

Proceed to the Assembly Point According to the Evacuation Route

Roll Call, Disaster Prevention Briefing

Practical Fire Extinguisher Training

Chemical Disaster Response Drill

Item	Session	Number of Participants	Hours of Usage
General Safety and Health Education Training for New and Current Employees	88	3,033	7,565
Fire Safety Training (Drill)	9	2,064	4,848
Training for Various Occupational Safety Personnel (New)	25	31	158
Safety and Health Promotion Campaign	4	1,178	3,143
Total	126	6,306	15,714

Note: The data includes a total of 5 locations, which are Taipei Headquarters, Li-Jie site, I-lan site, Shandong site, and Tianjin site.

Occupational Disease Prevention Measures

TSC attaches great importance to occupational disease management and actively takes measures to protect the health of its employees. It has maintained a record of zero occupational diseases[Note] for three consecutive years. The Taiwan plant conducts the identification of special hazardous operations in accordance with the law, and cooperates with work environment monitoring, special hazardous operation health examinations, and health management by factory doctors and nurses. It establishes various procedural documents and operating procedures in accordance with the ISO 45001 occupational health and safety management system. The factory in mainland China conducts regular occupational disease risk assessment and occupational disease risk factor testing, as well as annual employee occupational disease examinations, to ensure the health and safety of its employees.

The Taiwan factory convenes Occupational Safety and Health Committees quarterly to assess health management, occupational disease prevention, and health promotion matters. According to the issues that may cause physical and mental illness in the workplace, specialized operating procedures are established for implementation. At the same time, occupational health service personnel are stationed at the workplace to actively take care of employees' health. Regular monitoring of the work environment controls the factors that may cause occupational diseases. Health checks and questionnaires are conducted to understand employees' own health conditions. Professional health care personnel conduct health interviews and on-site visits to understand the health status of employees. In 2023, the participation rate in special health checks at the Taiwan plant was 100%, and efforts will continue to maintain the physical and mental health of employees.

Note: For the past three years, TSC has not recorded any cases of occupational illness, including persons who are not employees but who work in or are present on the Company's premises.

Occupational Health Services

With the goal of achieving zero occupational accidents, TBC has actively prioritized the well-being of its employees and fostered a workplace that is both friendly and conducive to good health. A total of 158 consultations and interviews were conducted at the Taiwan plant in 2023, and the "TBC Excellence Sports Bonus" was introduced to encourage colleagues to participate in sports events. In addition, the company organized the "Build a Healthier Life - Weight Loss Competition," which provided colleagues with the opportunity to lead vibrant and healthy lives. In order to minimize the incidence of occupational diseases, the mainland China factory introduced mandatory occupational health examinations for all employees. In addition, two awareness courses on the prevention of occupational diseases were held with a total of 822 participants.

1. Annual Physical Examinations and Special Health Hazard Check-ups.
2. Comprehensive operation environment monitoring and chemical classification management are conducted every six months throughout the entire site.
3. Annually, health questionnaires are distributed to proactively assess the physical and mental well-being of our employees.
4. Promote the implementation of measures to prevent overwork, excessive stress, human factor hazards, and workplace misconduct.
5. Protection for maternal health, employees with disabilities, and middle-aged and elderly health.
6. Contracted occupational health service physicians conduct quarterly visits, interviews, follow-ups, and care. If employees with hypertension are scheduled for medical treatment, their medication status will be monitored until blood pressure control improves, thereby reducing the risk of stress-related diseases.
7. Establishing Employee Personal Health Records and Regularly Tracking Status
8. Regularly conduct lectures on health-related topics.
9. Conduct health promotion activities on a regular basis.

Occupational Safety and Health

TSC in Taiwan 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 management 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.

Emergency Disaster Preparedness Enhancement

TSC actively prioritizes workplace safety. In fiscal 2023, each plant will focus on implementing practical emergency response measures to improve the skills of all employees and further strengthen disaster prevention and response at each plant.

Enhancing Venue Safety: Improving Emergency Response Capability

From January 2023, the Li-Jie plant will start to install medical facilities. The hardware equipment will be jointly evaluated by the occupational safety and medical staff to establish a medical room that meets the specific hazards of the factory. Emergency equipment and chemical decontamination agents will be provided to enhance the plant's safety response capabilities and improve the health care environment for employees. In September, a toxic disaster response drill is planned under the supervision of the local environmental protection authority. The drill aims to ensure effective response and control in the event of a disaster, test response and rescue capabilities, and evaluate the efficiency of accident handling. By becoming familiar with various notifications and preparations, it will improve communication and coordination among departments, ensuring the safety of employees' lives and proper environmental protection.

Enhancing Protection and Response Capabilities

Wearing protective equipment correctly is also an important aspect of improving emergency response capabilities. Since August 2023, the I-lan plant has implemented a project inspection to ensure that protective equipment is worn and to confirm its effectiveness in the workplace. A process flow chart has been created to guide colleagues in correctly identifying and using the equipment. By prioritizing their own safety, employees can quickly assess and effectively respond to various emergency situations. Starting in October 2023, the I-lan plant will implement a rotating schedule for the fire self-defense team, which will promote a sense of responsibility among team members and enable more efficient operation of emergency response groups. Through twice-yearly day and night evacuation drills and dormitory drills, the impact of disasters can be minimized, and processes can be reviewed and strengthened to improve the team's self-defense and firefighting capabilities.

Building Cohesion in Safety Awareness and Emergency Response Capabilities

From June 2023, the Tianjin plant organized all employees to watch a promotional video on safety production. The video will be played continuously in areas with high personnel density, such as the cafeteria and production area. In addition, safety propaganda brochures are distributed to promote understanding of the importance of safety and reinforce the concept of safety production. For high-risk operators, the "I Know the Risks of Hot Work" campaign will be launched to improve the knowledge of hot work safety among plant and maintenance personnel. This will also strengthen the inspection of non-compliant hot work activities and improve the level of hot work safety management. Regular fire drills will be conducted for all employees to improve fire safety awareness and crisis response capabilities. By conducting a series of activities during the Safety Production Month, the enthusiasm of employees for safety production will be consolidated, and the safety awareness and emergency response capabilities of employees at all levels will be fully influenced to ensure the smooth progress of safety production work.

Received the Fire Safety Award

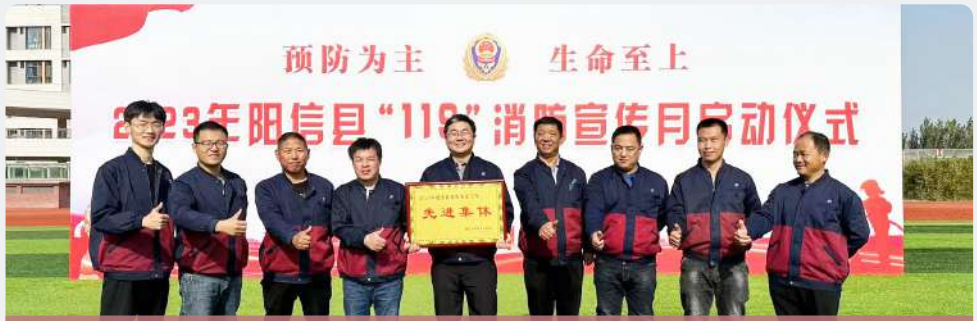
- Since 2023, the Shandong site has been equipped with three automatic external defibrillators (AEDs) on its premises, making it the first company in Yangxin County to have AEDs on its production line. In addition, 50 colleagues have been trained in the use of AEDs and have obtained first aid certificates, strengthening the workplace's emergency response capabilities and improving the factory's ability to handle medical emergencies.

- In June 2023, under the theme "Everyone Talks Safety, Everyone Knows Emergency Response," the Company conducted a comprehensive employee awareness campaign. The campaign included the distribution of safety production warning videos, discussions on safety topics during morning meetings, and group presentations on safety production regulations for all employees. The goal was to familiarize everyone with key safety production standards. In addition, department managers were invited to share significant accident case studies to emphasize the importance of safety production to all colleagues. Finally, all employees participated in signing a safety slogan banner to symbolize their commitment to safety production.

- The plant conducted a total of 29 emergency drills during the year, covering various scenarios such as special equipment, confined spaces, chemical spills, forklift overturn and heat stroke. More than 30 fire safety drills were also conducted, including evacuation drills for both day and night shifts. To simulate a real fire situation, an outdoor mock fire scene was set up to practice firefighting with fire extinguishers. Employees became familiar with emergency response procedures through hands-on experience and on-site training.

- In November 2022, we actively encouraged our colleagues to participate in the fire safety learning platform. They engaged in reading fire information, watching fire videos, and participating in quiz activities to earn points. Together, we achieved a monthly fire safety learning score of over 200,000 points in June 2023, ranking among the top 3 in the county with a total score of over 2.54 million points. This concrete action demonstrates our commitment to the requirements of the fire department and showcases our achievements in fire management, earning us the "2023 Advanced Collective in Fire Safety Work" award (only 3 companies in the county received this award). For TSC, this is not only a source of pride, but also a recognition of the emergency response and disaster prevention skills of every colleague in the plant.

In the future, TSC will continue to implement various emergency preparedness measures to ensure the maintenance of its employees' emergency response and disaster prevention capabilities, thereby collectively ensuring workplace safety.



The Shandong site received the "2023 Advanced Collective in Fire Safety Work" award, establishing itself as a leading example in the county.

5

Green Manufacturing and Operation

5.1 Climate Governance and Strategies

5.2 Energy Resource Management

5.3 Waste Management

Suggested priority for referring to the stakeholders in this chapter:
■ Supplier ■ Customer □ Employee ■ Investor □ Government ■ Media
□ Others (such as the general public, academic institutions, etc.)

The climate change issue should brook no delay. In order to mitigate the impact on the natural environment, and achieve energy and carbon reduction, TSC is committed to maintaining the spirit of sustainable development and minimizing the environmental impact of our operating activities. In an effort to assess risks and opportunities arising from climate change and propose strategies to cope with them, TSC has been promoting the Task Force on Climate-related Financial Disclosures (TCFD)-based impact assessment since 2022, where the assessment results will be disclosed annually on our official website and in our sustainability reports. At the same time, TSC not only carries out carbon emissions management based on the results of our greenhouse gas inventory, but has also introduce the ISO 14001 Environmental Management System and the ISO 50001 Energy Management System with respect o various areas, including energy sources, water resources, waste, wastewater, and air pollution prevention and control, with a view to implementing various environmental management actions on an ongoing basis.

5.1 Climate Governance and Strategies GRI 3-3 GRI 201-2

Material Topics -
Climate Strategy and Energy Management - Climate Governance and Strategy

Policy and Commitments

Actively promote energy conservation programs to enhance energy efficiency, study and develop energy alternatives, and reduce the impact of greenhouse gas emissions on the environment through various climate actions to bolster climate resilience.

Management Policy and Evaluation Mechanism

- Conduct regular assessments on the financial impact of climate change based on the TCFD framework.
- Continue to roll out and conduct greenhouse gas emission inventories, as well as expand the scope and items of these inventories.
- Pass the ISO 14064 standards certification process.
- Roll out and implement various energy resource reduction programs and track the progress of these programs on a regular basis.
- Draw up a CDP rating plan.

Action Plan and Performance

- A quantitative assessment of climate-related risks and opportunities was completed based on the TCFD framework.
- The coverage rate of greenhouse gas inventory at each operating site reached 50%.
- In 2023, our Li-Je and Shandong sites have been awarded the ISO 14064 certification, with the scope of inventory expanded to include Categories 3 to 6 emissions at the same time.
- TSC saved 2,567 GJ of energy in 2023.
- Our operating sites in Taiwan have completed on-site survey and assessment for the construction of solar energy facilities in 2023.

5.1.1 Climate Governance and Strategies

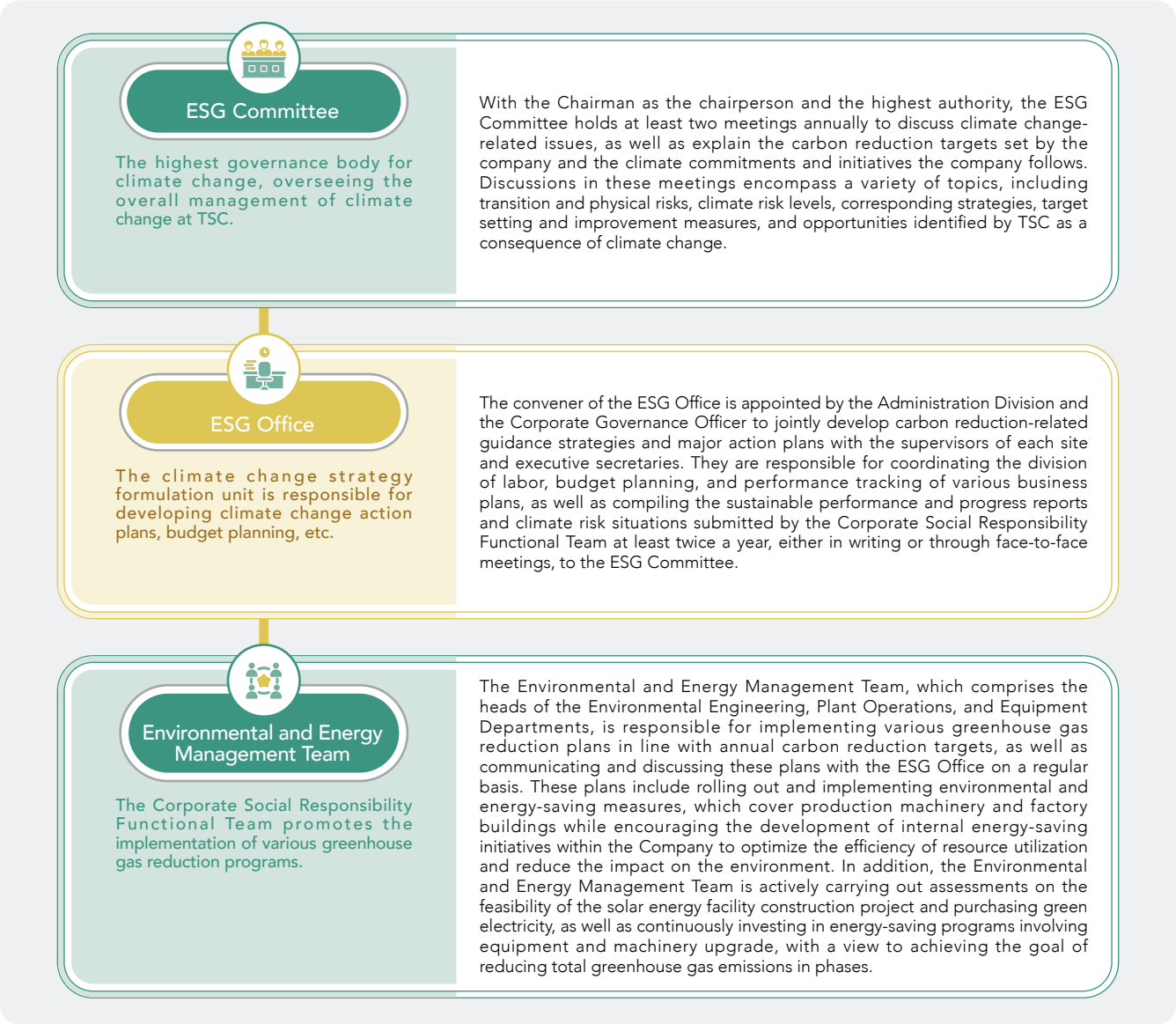
TSC pays close attention to risks and business opportunities that may arise from climate change. Hence, TSC discloses our management approaches and response measures in response to climate-related risks and opportunities in a transparent manner in compliance with the Rules Governing the Preparation and Filing of Sustainability Reports by TWSE-listed Companies promulgated by the Taiwan Stock Exchange Corporation while referencing the TCFD recommendations on climate-related financial disclosures. With the mutual integration of our climate risk and opportunity management mechanism and corporate risk management process, we continue to engage in low-carbon transition and bolster the company's resilience to climate change in four directions: governance, strategy, risk management, as well as metrics and targets.

Management approach based on the TCFD recommendations		Implementation status in 2023
Governance	TSC's ESG Committee is a functional committee at board level, chaired by the chairman and the highest-ranking executive. The committee is responsible for overseeing climate-related risks, opportunities, response strategies, goals, preventive measures, and concrete outcomes.	In 2023, the ESG Office reported the to the ESG Committee on the management mechanism concerning climate change issues and climate-related risks and its actual implementation to the ESG Committee. A total of three meetings were convened in 2023.
	The ESG Office annually reviews and assesses climate change issues, planning response plans, promoting risk protection, reviewing performance execution, and regularly reporting to the ESG Committee.	The ESG Office is responsible for formulating climate change-related guidance strategies. After formulating the main action plans, the Environmental and Energy Management Team of the Corporate Social Responsibility Functional Team is tasked with implementing climate-related actions.
Strategy	TSC has developed a methodology for assessing climate change risks and opportunities in accordance with the TCFD framework, with a view to identifying short-, medium-, and long-term climate risks and opportunities.	• TSC evaluates the climate risks we and our upstream and downstream value chains face in terms of potential impact, possibility of occurrence, and potential vulnerability to develop and implement response measures. For more information, please refer to the tables below, Climate-related Risks and Impacts on TSC Value Chain and Climate-Related Risks and Response Measures for TSC. • TSC identifies climate-related opportunities according to the characteristics of the business and TSC's low-carbon strategy planning. Please refer to the table below titled "Climate-related Opportunities" for more details.
	TSC has developed a methodology for assessing climate change risks and opportunities in accordance with the TCFD framework, with a view to identifying short-, medium-, and long-term climate risks and opportunities. TSC analyzes the potential operational and financial impacts of significant climate risks and opportunities on our company based on the TCFD framework.	**TSC completed the assessment on the impact of increased greenhouse gas** emissions costs under different scenarios of major climate risks. Please refer to the "Climate Risk Impact Assessment and Scenario Analysis" section for more details.
	TSC analyzes climate risks in different scenarios, as well as assesses short-, medium-, and long-term carbon reduction strategies.	In 2023, TSC analyzed the impact of increased cost of greenhouse gas emissions based on the International Energy Agency's (IEA) Announced Pledges Scenario (APS) and Net Zero Emissions by 2050 Scenario (NZE), and developed climate change strategies and relevant mitigation measures.
Risk management	TSC has established a climate change risk identification procedure based on the TCFD framework.	TSC identifies climate change risks with reference to climate change laws and regulations. Please refer to the Climate Risks and Opportunities section for more details on climate change risk identification procedure.
	• TSC develops corresponding adaptation and mitigation strategies based on the results of climate risk identification and ranking. • TSC integrates the climate risk identification procedure into our existing risk management procedure.	The materiality of office risk identification is driven by the ESG Office. Based on the materiality of climate risk, strategies and measures are formulated by the ESG Office. After confirmation by ESG Committee, these measures are implemented in daily operations and integrated into the risk management process.
Metrics and targets	TSC has set climate change-related management indicators to facilitate annual performance tracking.	TSC set "reducing total greenhouse gas emissions," "using renewable energy," and "enhancing energy efficiency" as our climate change performance metrics.
	TSC conducts inspections and discloses Scope 1 and 2 greenhouse gas emissions annually to examine the impacts caused by our company's operations.	TSC continues to implement carbon reduction measures based on the results of various inventories and assessments, with a view to reducing greenhouse gas emissions from the organization. Please refer to 5.2.1 Carbon Emissions Management for more details.
	TSC reviews climate management goals achievement annually.	The ESG Office regularly reviews the project performance of the Environmental and Energy Management Team of the Corporate Social Responsibility Function Group on climate change mitigation to confirm the progress of indicators and goals, compiles and reports to ESG Committee, and regularly monitors the implementation results.

Climate Governance

In 2022, TSC established the ESG Committee, a functional committee at the Board level, to oversee climate-related risks, opportunities, response strategies, goals, preventive measures, and specific outcomes. The ESG Office will hold at least two meetings each year to report on and discuss the implementation performance of climate change-related issues, risk response strategies, greenhouse gas reduction, renewable energy layout, water resource utilization with the ESG Committee.

The ESG Committee has established the ESG Office. After formulating relevant sustainability policies and guidelines by ESG Office, the Corporate Social Responsibility Functional Team is responsible for executing these policies. The Environment and Energy Management Team is specifically in charge of climate change-related issues, including achieving annual carbon reduction targets, implementing greenhouse gas reduction plans, and promoting renewable energy development. The organizational structure and division of responsibilities for climate risk management at TSC are detailed as follows.



Climate Risks and Opportunities

To improve the climate-related risks and opportunities management mechanism, TSC has established the climate-related risk management procedure in compliance with the TCFD guidelines. The procedure consists of the five steps:

STEP 01

Compile a list of climate risks and opportunities
The ESG Office convened a discussion to establish a list of TSC climate risks and opportunities by referencing the TCFD recommendations, including risk and opportunity types, international sustainability indicator evaluation, and climate risks of concern to benchmark companies.

STEP 02

Analyze the scope of risk impacts
The ESG Office examines the extent and scope of various risks to TSC's operations by distributing questionnaires to each site and its supervisors. After that, the supervisors of departments evaluate the risks based on three aspects: potential impact level, potential vulnerability, and possibility of occurrence. The impact level of each risk is then ranked in percentile order.

STEP 03

Rank risk by materiality
The analysis results are cross referenced with the position of each risk on the matrix chart. If the risk satisfies both conditions - (1) it fell within the top 20% of risk values and (2) it landed in the high vulnerability and high impact region of the matrix (yellow area) - the risk is categorized as high risk; otherwise, it is low risk; if only one condition is met, it is classified as the next level of risk.

STEP 04

Confirm and report
The ESG Officereports climate risks, corresponding opportunities, response strategies, and the risk matrix to the ESG Committee Member. This process should be confirmed with the ESG Committee.

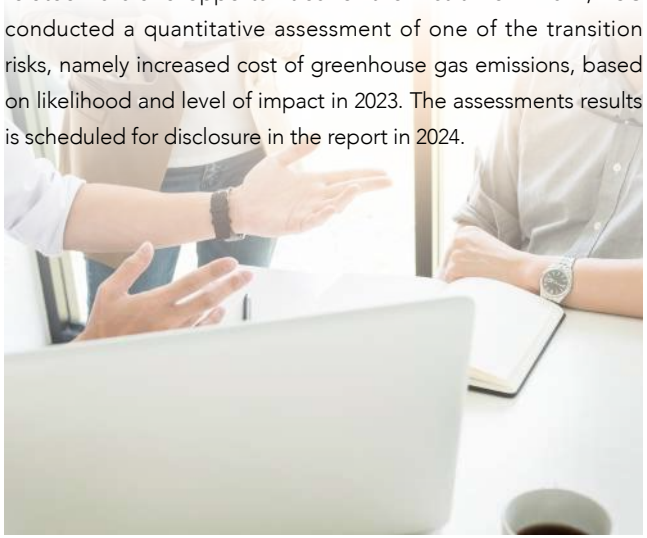
Condition 1: Risk Value

- Ranking is done by multiplying the scores of all risk vulnerabilities, impact levels, and possibility of occurrence. The top 20 to 30% is considered high risk, while the bottom 20 to 30% is considered low risk.
- This logic is a comprehensive consideration of vulnerability, impact, and possibility of occurrence.

Condition 2: Matrix Position

- The yellow area in the matrix is designated as high risk, in need of risk mitigation due to its relatively high fragility and impact level.
- The gray area in the matrix is designated as low risk, in need of resource reallocation due to its relatively low fragility and impact level.

TSC compiled 10 climate-related risks and three climate-related opportunities by taking into consideration the characteristics of operations and evaluating climate risks and opportunities based on potential impact, possibility of occurrence, and potential vulnerability while referencing the TCFD recommendations, including risk and opportunity types, evaluation of international sustainability indicators, and climate risks that benchmark companies are concerned about. The transition risks identified by TSC include increased cost of greenhouse gas emissions, increased sustainability-related demands and regulations, and changing customer behavior; while the physical risks identified by TSC include acute risks such as increased severity of extreme weather events such as typhoons and heavy rain over the short term, and chronic risks such as rising mean temperatures over the long term. We plan to identify and assess climate-related risks and opportunities every three years, while taking into consideration the frequency, characteristics, and timing of these risks. In the remaining years, we will review and confirm the current risks and ensure the adequacy of response measures. After analyzing related risks and opportunities for the first time in 2022, TSC conducted a quantitative assessment of one of the transition risks, namely increased cost of greenhouse gas emissions, based on likelihood and level of impact in 2023. The assessments results is scheduled for disclosure in the report in 2024.



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

In order to understand the impact of climate risks on TSC's value chain, we reviewed the impact and scope of various risks on upstream suppliers (wafer materials and diffusion materials), TSC's own operations, and downstream customers (information products, communication products, digital appliances, automotive electronics, etc.). Department heads at TSC ranked the impact of each risk within the three groups, namely upstream suppliers, TSC's own operations, and downstream customers, using the three-level scoring method. The scores were arranged in percentile order, with the top 33.4% considered to have a high impact, 33.4% to 66.7% considered to have a moderate impact, and the remaining 33.3% considered to have a low impact. This process identified the level of impact of climate risks on TSC' s value chain, which then serves as a reference for operational strategies.

Climate-related risks and their impact on TSC's value chain

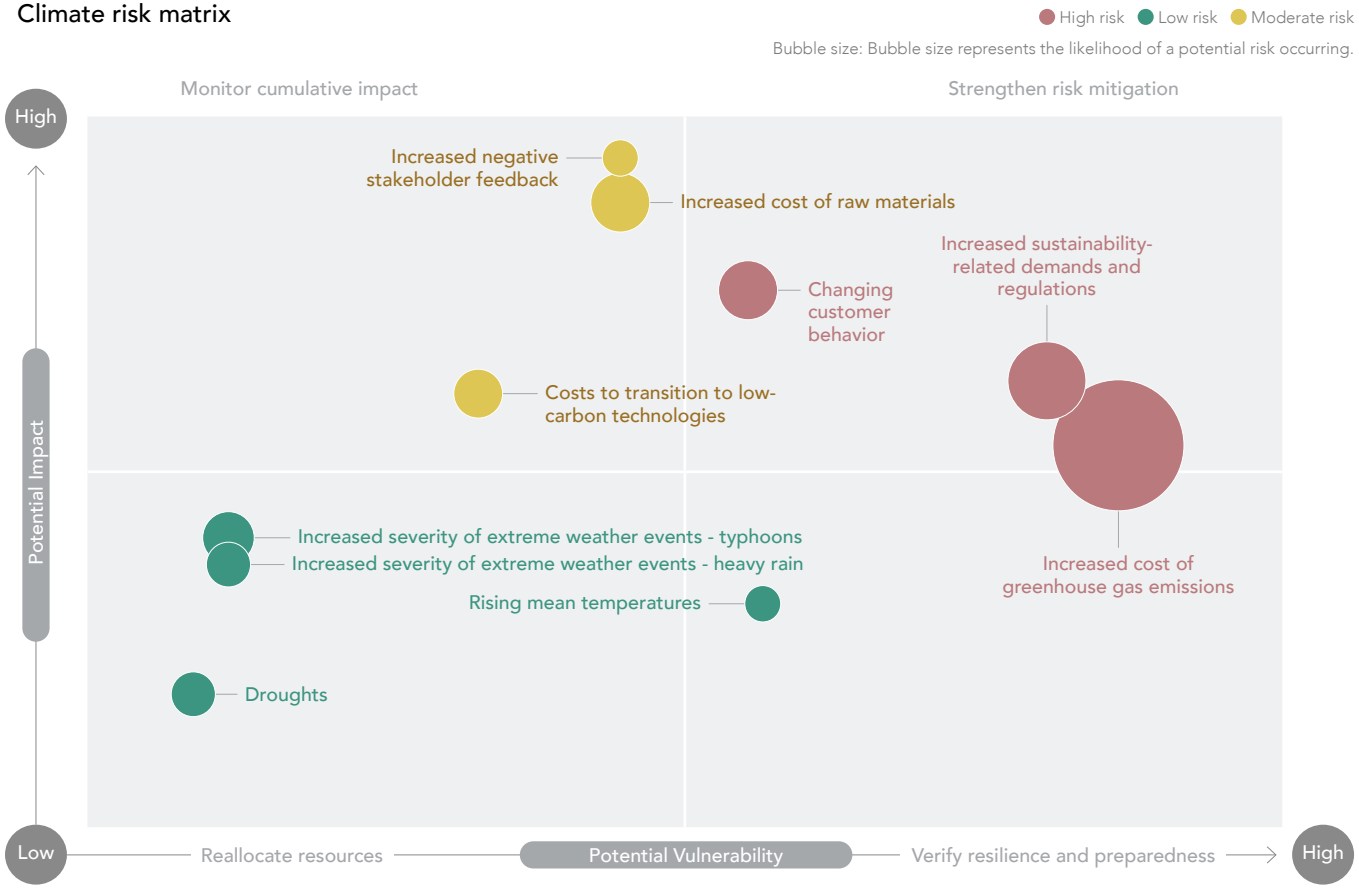
● Low ● Moderate ● High

Type	Dimension	Risk	Impact on value chain		
			Upstream	TSC	Downstream
Transition risk	Policy and legal	Increased cost of greenhouse gas emissions	●	●	●
		Increased sustainability-related demands and regulations	●	●	●
	Market	Changing customer behavior	●	●	●
		Increased cost of raw materials	●	●	●
	Technology	Costs to transition to low-carbon technologies	●	●	●
	Reputation	Increased negative stakeholder feedback	●	●	●
Physical risk	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

In an effort to understand the impact of climate risks on TSC, department heads at TSC (including those at our I-lan, Li-Je, Shandong, and Tianjin sites) reviewed the impact of various risks on TSC by giving scores to climate-related risks from three aspects: potential impact, potential vulnerability, and likelihood of occurrence. The materiality of climate risks to our operations was comprehensively assessed from these three aspects, while the impact levels of each risk were ranked in percentile order. The top 20% were considered high-risk, while the next 20 to 30% were considered low-risk. According to these results, the risks were examined and placed within a matrix. If a risk met both of the following conditions - (1) the risk fell within the top 20% of risk values and (2) the risk landed in the high vulnerability and high impact region of the matrix (yellow area) - then it was classified as high-risk; otherwise, it was classified as low-risk. If only one condition was met, the risk was classified as a risk at the next level. Using the above methodology, a climate-related risk matrix for TSC was completed, and the results were used as a reference for developing risk response and mitigation plans for TSC, as well as crisis management mechanisms.

Climate risk matrix



TSC assessed the potential impact of the identified 10 risks on TSC's operations and financial planning based on the analysis of the materiality of climate risks, and then formulated the corresponding risk response measures, which are detailed in the following table. In consideration of the possible impact of climate-related risks and opportunities on various aspects of our operations, TSC actively rolls out and implements energy-saving programs, studies and draws up our renewable energy plan, and continues to keep a close eye on climate-related policies. These measures will be incorporated into our daily operations management and risk management procedures on a ongoing basis upon confirmation by the ESG Committee.

Climate-related risks and response measures

Low Moderate High

No.	Dimension	Risk	Impact on TSC	Potential financial impact	Period of impact on TSC	Risk level	Response measures and strategies
Transition risk							
1	Policy and legal	Increased cost of greenhouse gas emissions	Following the implementation of the Climate Change Response Act in Taiwan and climate-related policies and regulations in various countries (such as carbon taxes or tariffs, carbon trading systems, carbon price or fees, etc.), TSC may need to pay carbon fees, carbon taxes, and carbon tariffs on products in the future. Also, the related regulations may become stricter year by year, and the costs and carbon taxes will thus also increase year by year.	Increased costs	Short term	High	• Adopt energy-saving equipment • Develop innovative products • Adopt low-carbon or renewable energy. For instance, renewable energy accounted for 50% of energy consumption at our Tianjin site in 2023. • Raise carbon reduction awareness among employees
2	Policy and legal	Increased sustainability-related demands and regulations	According to Taiwan's Pathway to Net-Zero Emissions by 2050, energy transition is listed as one of the main strategies, actively promoting the maximization of renewable energy. In addition, the Renewable Energy Development Act in Taiwan stipulates that users with an electricity contract capacity of 5000 watts or more must have a 10% renewable energy obligation by 2025, all of which promote TSC's accelerated climate action, such as increasing the proportion of renewable energy, reducing product carbon footprints, and enhancing climate-related management.	Increased costs	Short term	High	• Improve product performance • Adopt low-carbon or renewable energy sources • Optimize energy management on an ongoing basis • Improve employees' knowledge and skills in carbon management
3	Market	Changing customer behavior	Customers choose to use lower carbon and lower environmental impact products or request the company to provide more transparent environmental information products/services to meet the trend of global net zero emissions and reducing environmental impact. If TSC cannot meet these requirements, there may be a potential risk of losing customers.	Reduced revenue	Medium term	High	• Develop products or services that minimize environmental impact. • Improve product performance • Use eco-friendly packaging materials.
4	Market	Increased cost of raw materials	In recent years, extreme climate changes have occurred frequently, causing instability in raw materials supply and increasing the difficulty of mining and transportation of raw materials. Factors such as natural disasters may block mining roads and high temperatures may reduce productivity, making it difficult to control the supply of raw materials and causing a shortage of raw material supply, increasing transportation and scheduling costs, and increasing operating costs.	Increased costs	Medium term	Moderate	• Keep a close eye on suppliers' level of focus on climate issues • Conduct supplier risk assessment to avoid or reduce purchases from high-risk production areas
5	Technology	Costs to transition to low-carbon technologies	Due to the growing international trend towards carbon reduction, many companies have begun requiring their supply chains to adopt sustainable and low-carbon actions. TSC is gradually planning its transition and promoting carbon reduction technologies and equipment, which will have an impact on TSC's operating costs.	Increased costs	Medium term	Moderate	• 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	Owing to the growing importance of climate change issues, stakeholders prefer low-carbon or environmentally friendly companies that contribute positively to humans and the environment. If TSC does not take proactive measures, we will not be able to meet stakeholder expectations and may damage the Company's reputation.	Reduced capital	Long term	Moderate	• Strengthen climate change response and prevention • Enhance appropriate disclosure of our company's climate action information • Strengthen communication with stakeholders

Low Moderate High

No.	Dimension	Risk	Impact on TSC	Potential financial impact	Period 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: • Typhoons may destroy the power system, causing partial regional power outages, leading to operational or service interruptions. • Typhoons may cause supply chain disruption. • Asset insurance premiums in high-risk areas have increased, increasing operating costs.	Increased costs	Medium term	●	• 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	Increasing frequency and amount of heavy rain may cause damage to production sites, production interruptions, and transportation disruptions that prevent employees going to work.	Reduced revenue	Medium term	●	• 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 caused by droughts lead to water supply interruptions, increased water fees, and disruptions in the purchase of external water sources, affecting the water usage in factories. This may also cause interruptions in operating activities.	Increased costs	Medium term	●	• Implement water-saving measures • Study and draw up a water reclamation program to increase consumption of reclaimed water
10	Chronic	Rising mean temperatures	Climate change has led to an increase in the duration of high temperatures, electricity demand, and rising energy costs globally. Moreover, droughts caused by high temperatures pose a risk of operational disruptions.	Increased costs	Long term	●	• Implement water-saving 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

According to the identification results, the top three opportunities were "improved product efficiency," "use of more efficient production and distribution processes," and "participation in renewable energy programs."

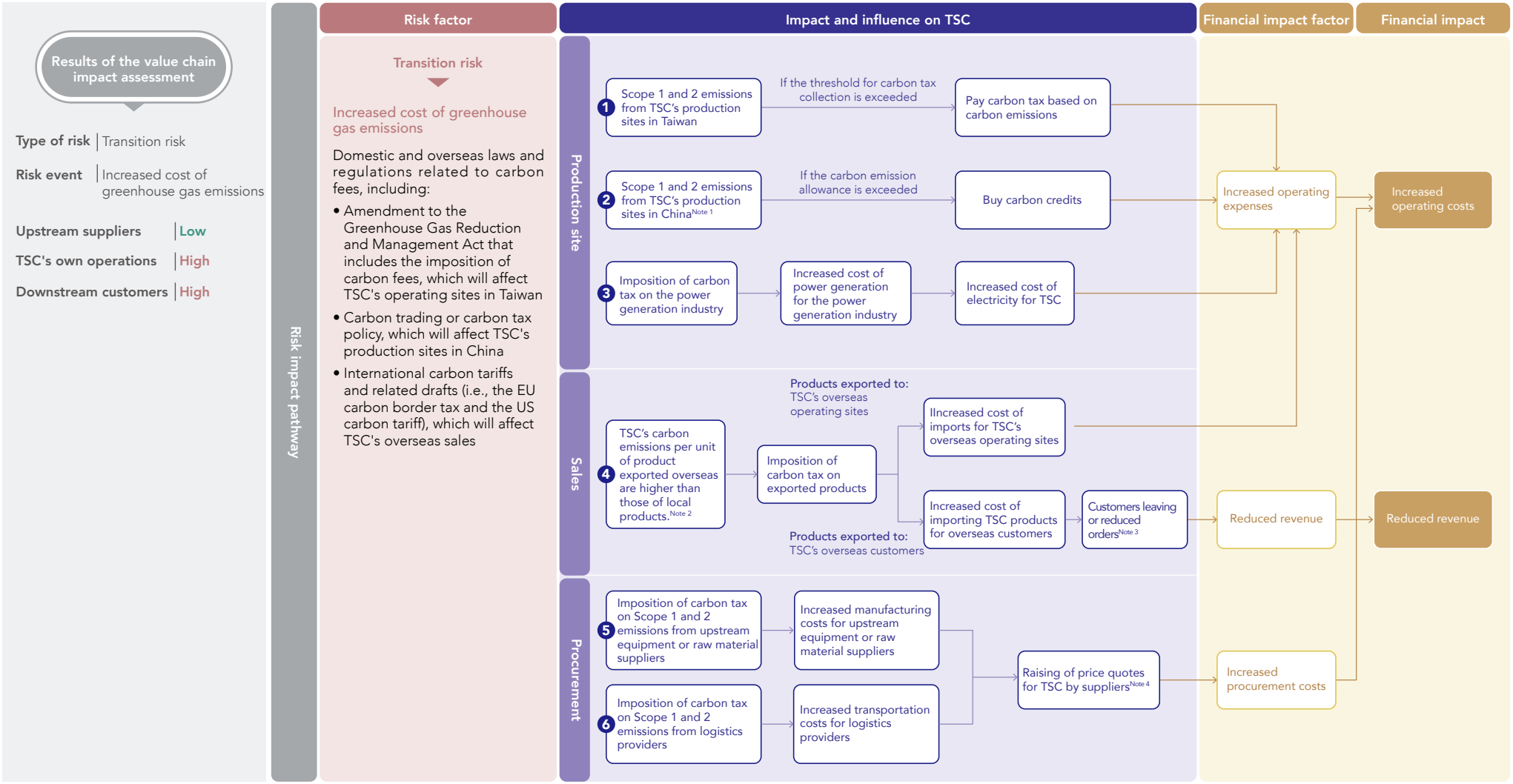
No.	Dimension	Opportunity	Significance to TSC	Potential financial impact	Period of impact on TSC
1	Products and services	Enhanced product performance	We are actively working to improve the energy efficiency of our products, aiming to assist customers and users in reducing energy consumption and greenhouse gas emissions during product use. In light of the rapid growth of the new energy vehicle chip market and the 5G industry, TSC will persist in optimizing product performance, expanding our market presence, and increasing profitability.	Increased revenue	Short term
2	Resource efficiency	Use of more efficient production and distribution processes	By enhancing the energy efficiency of production processes and transportation logistics, as well as bolstering material, energy resource, and waste management, it is feasible for TSC to decrease energy resource consumption and carbon emissions, thereby reducing operating costs.	Reduced costs	Medium term
3	Resilience	Participation in renewable energy programs	To promote the adoption of low-carbon energy and establish a diversified power supply to enhance climate resilience, it will be feasible for TSC to sustain our transition towards low-carbon energy by constructing and procuring renewable energy sources.	Changing 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

Following the rollout of climate risk and opportunity assessment analysis in 2022, TSC prioritized the quantitative assessment of the transition risk, namely **"increased cost of greenhouse gas emissions,"** according to risk level, probability of occurrence, and level of impact in 2023. Aside from the path of impact of "increased cost of greenhouse gas emissions" on TSC, the impacts of carbon fees and tariffs on TSC's value chain and own operations under different scenarios were also taken into consideration, while the assessment results were employed in the adjustment of TSC's operating strategies and the review of TSC's risk tolerance while revising the relevant response measures on a rolling basis.

Climate risk impact pathway - Increased cost of greenhouse gas emissions



Note：
1. In the current carbon market in China, the semiconductor industry is not included in the scope of carbon trading control. Therefore, this project will be assessed under the hypothetical scenario, where "the semiconductor industry is included in the carbon emissions trading mechanism in China."
2. As there is no announcement under the current carbon tax system stipulating that semiconductors or electronic products are placed under carbon tax control, this project will be assessed under the hypothetical scenario, where "the semiconductor industry is included the scope of carbon tax control under the EU carbon border adjustment mechanism (CBAM) and the US border carbon adjustment system."
3. The actual extent of shift in sales orders is affected by various factors such as product irreplaceability and price advantage.
4. Raising of price quotes is affected by suppliers' cost-shifting ability.

In order to analyze the future impact of climate change on TSC, we initiated the analysis process based on the Net Zero Emission by 2050 (NZE) scenario and the Announced Pledges Scenario (APS) proposed by the International Energy Agency (IEA), with the intention of understanding the impact of different scenarios on TSC.

As climate change continues to escalate, the rollout of laws and regulations related to carbon fees both at home and abroad, including the EU CBAM, Taiwan's carbon pricing policy, and China's carbon trading and tax policy, may lead to increased production costs for TSC. Furthermore, these policies and regulations not only impact TSC directly, but also have repercussions throughout the value chain. If suppliers become subject to these fees, the costs of relevant raw materials and equipment investments may rise gradually.

At the present stage, TSC has assessed the three impacts under two carbon fee scenarios, namely NZE and APS: increased operating expenses, reduced revenue, and increased procurement costs.

1. Increased operating expenses

Following the rollout of carbon tax across various countries, including the carbon trading mechanism in China, carbon fees imposed by the Ministry of Environment in Taiwan, and the EU CBAM, TSC may face the risk of having to pay carbon taxes or purchase carbon credits according to our carbon emissions if the threshold for carbon tax collection or carbon emission allowance is exceeded. In view of the fact that electricity suppliers may raise electricity prices to shift the cost of greenhouse gas emissions, there could be a certain percentage of increase in electricity prices by 2030, which will lead to increased operating expenses and costs on TSC's part. According to estimates, TSC's Shandong Site may be subject to carbon taxes if the Chinese carbon trading market includes the semiconductor industry in the country's carbon emissions trading mechanism, which could result in potential financial impacts on TSC.

In an effort to cope with increased operating costs, TSC will actively engage in energy transition through various initiatives, including studying and drawing up renewable energy development plans, as well as rolling out and implementing energy conservation and carbon reduction programs at all our production sites, with the intention of minimizing the financial impacts of this risk.

2. Reduced revenue

As TSC's products are primarily exported overseas, these exported products may be subject to carbon tax or carbon fee if semiconductors or electronic products are included in the scope of international carbon tax-related policies. This may indirectly affect overseas customers' intention to purchase products from TSC and cause them to switch their focus on purchasing products with lower carbon content from other competitors, which in turn poses great challenges to TSC in the sales market and thus lead to reduced revenue for TSC.

TSC will focus on low-carbon operations and improving product performance as the primary strategy. This will involve offering customers more competitive low-carbon products and services, while also consistently reducing the risk of customer order shifting due to increased cost of greenhouse gas emissions.

3. Increased procurement costs

Climate-related laws and regulations may have an impact on not only TSC, but also our suppliers and logistics providers, which in turn lead to increased production and transportation costs, thereby putting TSC at risk of cost shifting by suppliers and thus resulting in increased procurement costs for TSC.

Aside from keeping a close eye on developments related to international climate-related laws and regulations on an ongoing basis, we also maintain active communication with our suppliers to learn about the impact of carbon tax and fee-related policies on our suppliers, in hopes of minimizing the financial impacts of tax shifting on material procurement and logistics services to the best of our ability.

Risk factor	Climate scenario	Scenario assumptions	Carbon fee in 2024 (Unit: monetary amount per ton of CO_2e)	Scenario analysis factor	Possible financial impact
Transition risk- Increased cost of greenhouse gas emissions	Scenario 1 NZE	Under the NZE scenario, the global energy sector is expected to achieve net-zero carbon emission in 2050, where greenhouse gas emissions will decrease year by year, whereas global average temperature rise will be less than 1.5°C by 2100.	• Asia- Taiwan: NT$300 Tianjin, China: RMB34.30 Shandong, China: RMB45.61 US$90 by 2030 • Europe- USD 80.82 元 • US- US: US$55 US$140 by 2030	• Cost of carbon tax • Electricity charges for production sites • Carbon tariffs on exported products • Procurement costs	**The financial impact of increased cost of greenhouse gas emissions accounts for approximately 0% to 5% of total revenue,** which primarily emanates from the following: 1. Production sites are subject to carbon fees if the statutory requirements for Scope 1 and 2 emissions are exceeded: According to estimates concerning to production capacity and electricity consumption at TSC's four production sites across Taiwan and China before 2030, it is likely that TSC could cross the carbon fee threshold if the statutory limits for Scope 1 and 2 emissions are exceeded in the future, which in turn leads to increased cost of emissions. 2. Impact of carbon tax or fee shifting from purchased electricity: As the power generation industry in the region where our production sites are located is also subject to carbon fee, there could be a shift in the cost of power generation to electricity tariffs, which in turn leads to increased cost of purchased electricity for TSC. 3. Impact of carbon tariffs on exported products: Exporting TSC's products to countries that implement carbon tax may lead to increased costs for TSC as a result of carbon tariffs. 4. Impact of tax or fee shifting on material procurement: Owing to rising carbon prices, upstream equipment or raw material suppliers are facing increased production costs, which may be passed on to TSC, thus resulting in increased procurement costs for TSC.
	Scenario 2 APS	Under the APS scenario, all the greenhouse gas reduction and net-zero targets declared by governments around the world will be achieved on time and in full. Greenhouse gas emissions are projected to reach a peak in mid-2020s, while global average temperature will increase by 1.7°C in 2100.	• Asia- Taiwan: NT$300 Tianjin, China: RMB34.30 Shandong, China: RMB45.61 US$40 by 2030 • Europe- USD 80.82 元 • US- US: US$55 US$135 by 2030		

Climate Change Risk Metrics and Targets

In an effort to cope with the impact and challenges of climate change, TSC endeavors to meet the Taiwan government's net-zero target by 2050. Echoing the Taiwan government's policy on climate change, not only do TSC's operating sites in Taiwan achieve a minimum 1% reduction in electricity consumption each year, which is better than that required by law, but TSC has also developed ISO-related management systems through the rollout of numerous energy conservation and carbon reduction programs. In 2023, TSC has initiated the Renewable Energy Research and Development Project, with the related work plan to be carried out gradually in due course.

Carbon reduction strategy	Content	Current implementation status
Rolling out and implementing energy conservation programs	Continue to carry out equipment upgrade and energy management through regular equipment inspections, as well as replace old energy-consuming equipment with new energy-saving ones, in order to enhance the effectiveness of our carbon reduction efforts. Please refer to 5.2.2 Energy Management for more details.	Our operating sites have completed many energy conservation programs each year while reducing carbon emissions from energy-consuming equipment. TSC saved up to 2,567 GJ of energy in 2023.
Developing renewable energy	Draw up renewable energy utilization program based on an energy conservation, energy creation, and energy storage mindset, which prioritizes the installation of solar panels on the rooftop of our operating sites, supplemented by the purchase of green electricity.	Our operating sites in Taiwan have completed on-site surveys and assessments for the construction of solar energy facilities in 2023. Related construction works will gradually commence upon completion of detailed study.
Stepping up the establishment of management systems	Continue to update our ISO management systems and pass third-party verification on a regular basis. Please refer to 5.2.1 Carbon Emissions Management for more details.	In 2023, our Li-Je and Shandong sites have been awarded the ISO 14064 certification, with the scope of inventory expanded to include Categories 3 to 6 emissions at the same time, whereas our Li-Je site has been awarded the ISO 50001 Energy Management Systems certification.
Introducing digital management systems	Assess smart carbon management solutions and replace manual input with digital technology to improve data quality. Endeavor to carry out intelligent monitoring and collect data in real time to facilitate analysis and forecasting.	TSC is expected to carry out the supplier selection process in 2024, and establish a carbon management platform while each operating site conducts their own inventories.

5.2 Energy Resource Management

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

Natural resources are shared by the whole world. As TSC recognizes the critical role we play in the semiconductor production chain, TSC is committed to enhancing our energy efficiency, with a view to preventing the depletion of natural resources due to overuse, and thus protecting the living environment for future generations. In 2023, TSC not only expanded the scope of greenhouse gas inventory and developed alternative energy solutions, but also replaced old equipment with new ones through various energy conservation programs to enhance energy efficiency, in hopes of minimizing the impact of our operations on the environment through various actions.

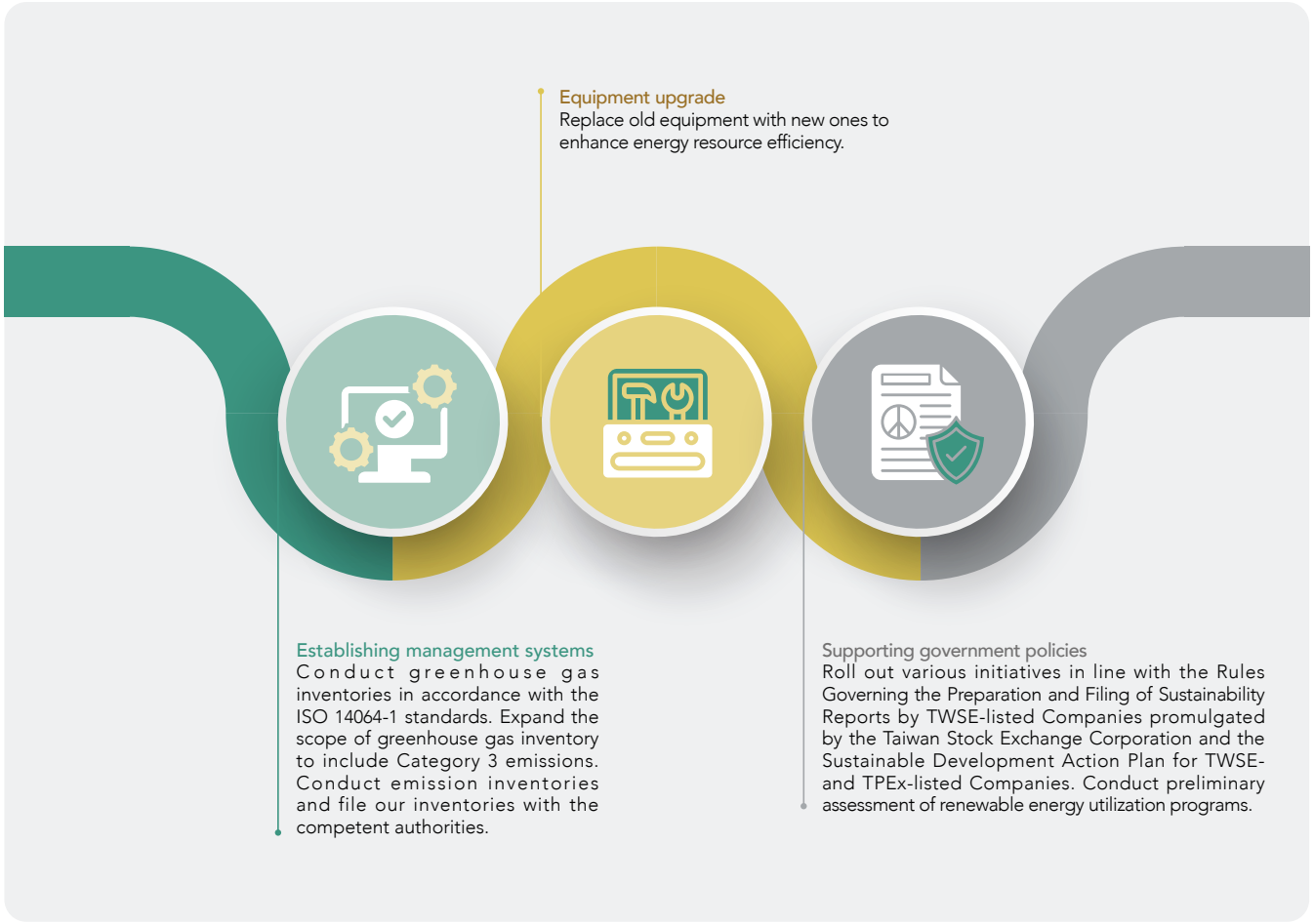
Coverage of environmental sustainability-related ISO management systems standards at TSC's production sites

Standards	Coverage	Verification body
ISO 14001 Environmental Management Systems Standards	100%註1	TUV
ISO 50001 Energy Management Systems Standards	25%註2	TUV
ISO 14064-1:2018 - Greenhouse Gas Inventory Standards	50%註3	TUV

註：
1. 台半全數生產據點皆通過 ISO 14001 環境管理系統
2. 利澤廠於 2023 年通過 ISO 50001 能源管理系統
3. 利澤廠、山東廠通過 ISO 14064-1:2018 溫室氣體盤查

5.2.1 Carbon Emissions Management

We conduct direct and indirect greenhouse gas inventories in compliance with the ISO 14064-1 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.

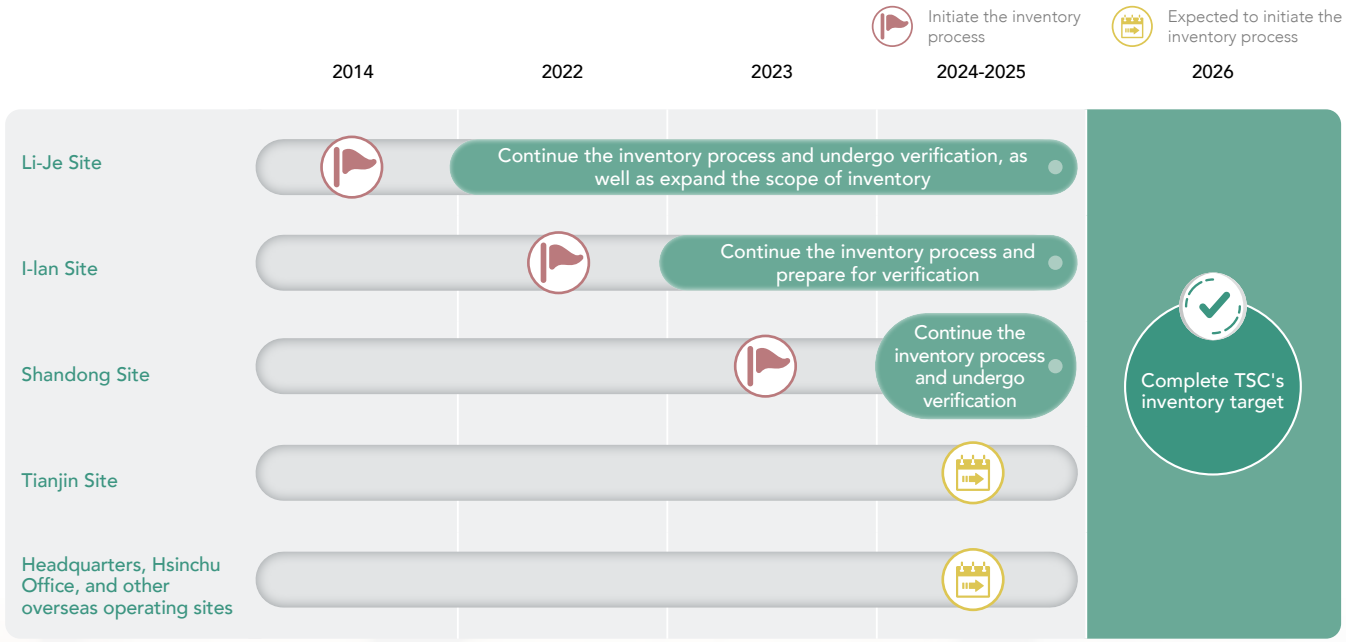


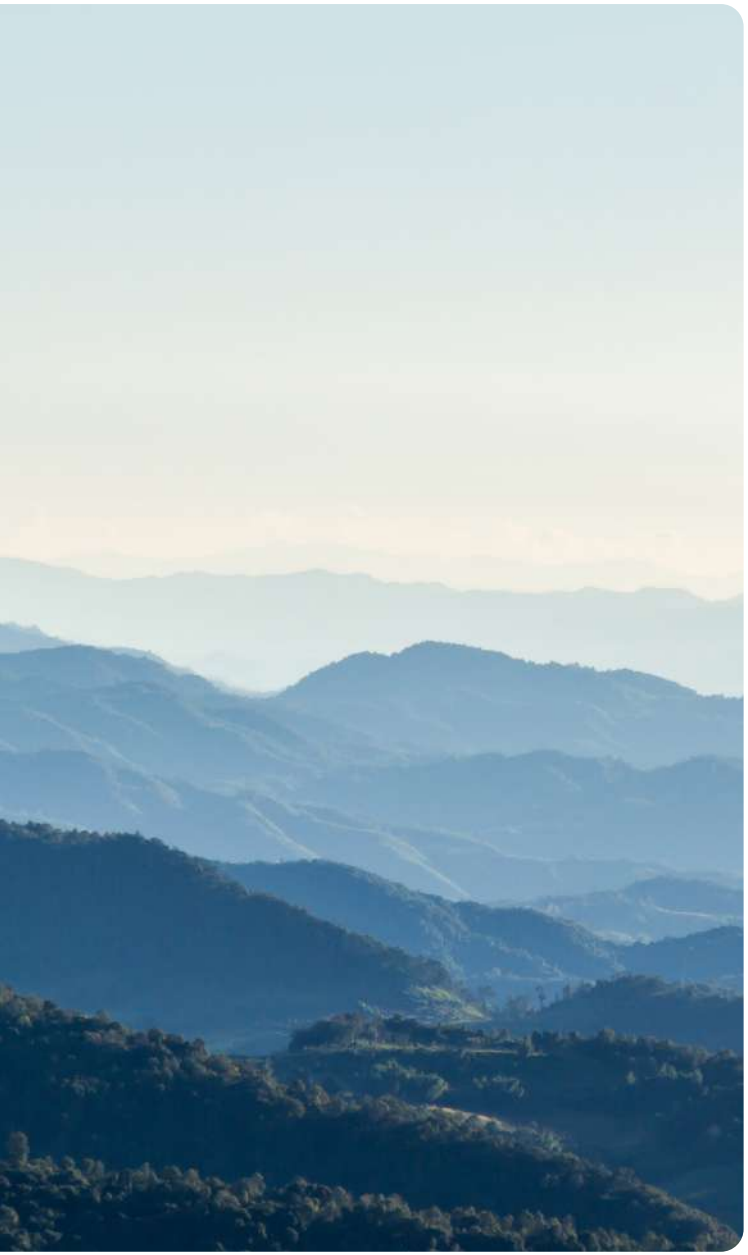
Greenhouse Gas Inventory

All TSC production sites have put in place a greenhouse gas inventory mechanism in accordance with the ISO 14064-1 standards. TSC also includes the progress of these inventories in the matters to be regularly reported to the Boar 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 asother overseas operating sites, by 2026. In addition, we continue to expand emissions categories in accordance with the latest ISO 14064-1:2018 standards, in hopes of understanding the emissions hotspots of the organization through our inventory and setting more accurate greenhouse gas reduction targets. In 2023, there was a slight increase in TSC's overall greenhouse gas emissions due chiefly to the expanded scope of inventory at our Li-Je and Shandong sites, as well as emissions of perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3) as a consequence of the newly developed manufacturing processes at our Li-Je site.

Carbon emissions at TSC are dominated by Category 2 emissions from purchased electricity. Since carbon emissions primarily emanate from all our production sites, greenhouse gas emission inventory was first rolled out at each production site, while our overall greenhouse gas inventory is scheduled for completion by 2026.

Progress of greenhouse gas inventory at TSC's operating sites





Greenhouse gas emissions at TSC's operating sites in 2023

Unit: tCO_2e

Category	Source of emission	Type of greenhouse gas	Emissions	Total
I-lan Site				
Category 1	Stationary combustion	CO_2、CH_4 and N_2O	0	0.8534
	Mobile combustion	CO_2、CH_4 and N_2O	0.2479	
	Process emission	VOCs	0	
	Fugitive emission	CH_4	0.6055	
Category 2	Purchased electricity	CO_2	4,003.7533	4,003.7533
Li-Je Site				
Category 1	Stationary combustion	CO_2、CH_4 and N_2O	1.3322	4,699.6808
	Mobile combustion	CO_2、CH_4 and N_2O	5.9009	
	Process emission	PFCs、HFCs、N_2O、SF_6 and NF_3	4,676.5465	
	Fugitive emission	HFCs、CO_2 and CH_4	15.9012	
Category 2	Purchased electricity	CO_2	10,103.8808	10,103.8808
Categories 3 to 6	Transportation emissions (Category 3) and emissions from products used by the organization (Category 4)	CO_2	5,123.5114	5,123.5114
Shandong Site				
Category 1	Stationary combustion	CO_2、CH_4 and N_2O	39.51	39.51
	Mobile combustion	CO_2、CH_4 and N_2O		
	Process emission	VOCs		
	Fugitive emission	CH_4		
Category 2	Purchased electricity	CO_2	23,261.74	23,261.74
Categories 3 to 6	Transportation emissions (Category 3) and emissions from products used by the organization (Category 4)	CO_2	10,641.92	10,641.92

Note:
1. Greenhouse gas inventory data was compiled using the operational control approach.
2. Our production sites in Taiwan made the relevant calculations using the electricity carbon emission factor in 2022, while the GWP values for our Li-Je and I-lan 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.
3. The Li-je site calculated process emission based on the "Greenhouse Gas Emission Factor" announced by the Ministry of Environment on February 5, 2024. The emission sources include PFCs, HFCs, N2O, SF6, and NF3, resulting in an increase in direct emissions for 2023 compared to previous years.
4. The Tianjin site and our other operating sites are scheduled to initiate the inventory process before 2025.
5. The Shandong site initiated the inventory process in 2022.

Direct and indirect greenhouse gas emissions at TSC's production sites over the past few years

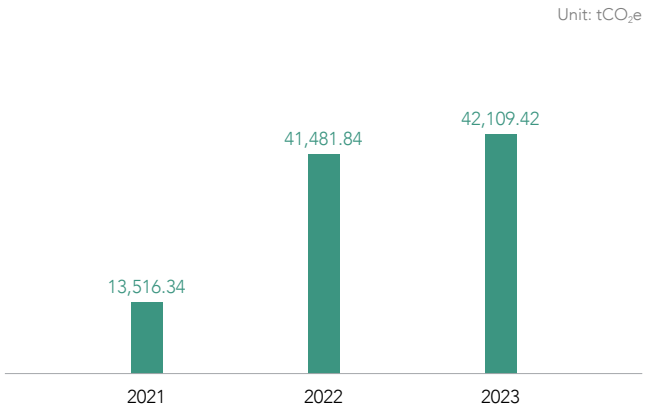
單位：tCO_2e

		Li-Je Site			I-lan Site			Shandong Site			Total		
		2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Direct emissions	Category 1	27.8049	34.247	4,699.6808	0.8214	0.9059	0.8524	N/A	101.6407	39.5100	28.6263	136.7940	4,740.0432
Indirect emissions from energy	Category 2	9,604.0632	10,341.862	10,103.8808	3,883.6527	3,997.2177	4,003.7533	N/A	27,005.9631	23,261.7431	13,487.7159	41,345.0428	37,369.3772
Total Category 1 and 2 emissions		9,631.5678	10,376.109	14,803.5620	3,884.4741	3,998.1236	4,004.6057	N/A	27,107.6038	23,301.2500	13,516.3422	41,481.8368	42,109.4204

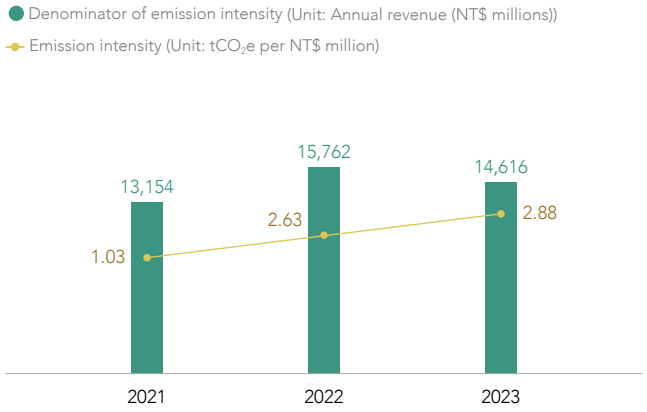
Note:
1. Greenhouse gas inventory data was compiled using the operational control approach.
2. Our production sites in Taiwan made the relevant calculations using the electricity carbon emission factor in 2022, while the GWP values for our Li-Je and I-lan sites were adopted from the IPCC AR5 and AR4 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.
3. The Li-je site calculated process emission based on the "Greenhouse Gas Emission Factor" announced by the Ministry of Environment on February 5, 2024. The emission sources include PFCs, HFCs, N2O, SF6, and NF3, resulting in an increase in direct emissions for 2023 compared to previous years.
4. The Tianjin site and our other operating sites are scheduled to initiate the inventory process before 2025.
5. The Shandong site initiated the inventory process in 2022.

Direct and indirect greenhouse gas emission intensity per unit of revenue

• Total greenhouse gas emissions



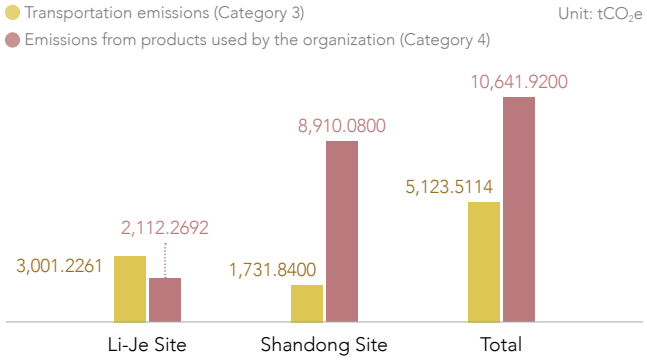
• Emission intensity



Note:
1. The diagram above does not include our Tianjin site, headquarters, Hsinchu Office, and other overseas operating sites as they are yet to conduct greenhouse gas inventories.
2. Total greenhouse gas emissions represents the sum of Category 1 and 2 emissions at our Li-Je, I-lan, and Shandong sites. Specifically, emissions at our Li-Je and I-lan sites were included in the calculation of total greenhouse gas emissions for 2021, while emissions at the Shandong site was added from 2022 onwards.
3. The denominator of emission intensity is annual consolidated revenue in NT$ millions.
4. There has been an upward trend in overall emissions due to the expanded scope of inventory; however, consolidated revenue remained group-wide.

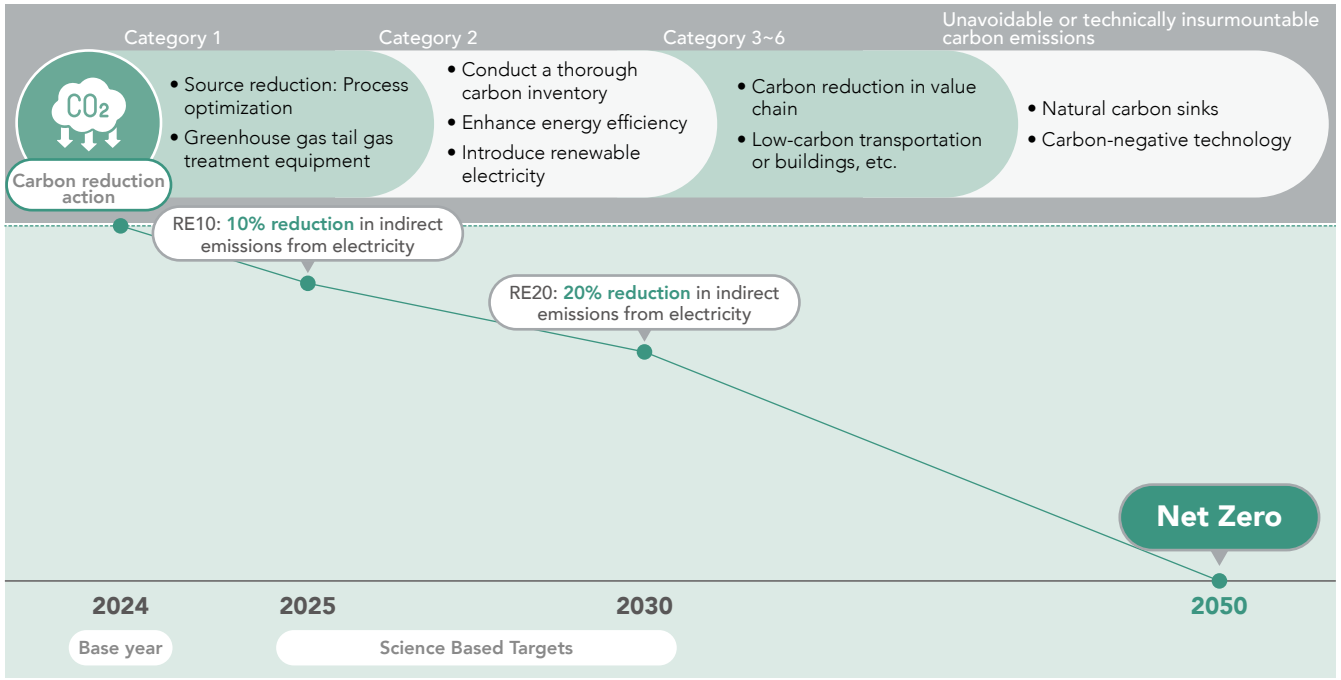
Other indirect greenhouse gas emissions (Categories 3 to 6) in 2023

Our Li-Je and Shandong sites began to expand the scope of inventory, which initially covers Category 1 and 2 emissions only, and conduct inventories of other indirect greenhouse gas emissions in 2022. TSC will continue to improve the scope of inventory and roll out the inventory process at other production sites. TSC's other indirect greenhouse gas emissions for 2023 was 15,765,4314 tCO_2e.



Note:
1. The Li-Je Site made the relevant calculations based on the electricity carbon emission factors for 2022, while the GWP values for the Li-Je Site was adopted from the IPCC AR5 emission factors.
2. The Shandong Site made the relevant calculations using the 2012 North China Regional Grid emission factors, while the GWP values for the Shandong Site were adopted from the IPCC AR6 emission factors.

Carbon Reduction Strategies



TSC drafted a carbon reduction roadmap in 2024. In view of the fact that all major production sites are expected to gradually complete their greenhouse gas inventories from 2024 onwards, we propose to roll out and implement carbon reduction through short-, medium-, and long-term strategies, with 2024 as the base year. Our targets include a 10% reduction in total Category 1 and 2 emissions by 2025, followed by a 20% reduction by 2030, and eventually achieving the net-zero target by 2050. Specifically, we primarily focus on reducing Category 1 emissions by optimizing the use of process gases and installing additional relevant gas treatment equipment, as well as reducing Category 2 emissions by conducting greenhouse gas inventories, enhancing energy efficiency, and developing renewable energy.

TSC's short-, medium-, and long-term carbon reduction strategies revolve around four approaches: 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 gradually moving towards energy transition.

Rolling out and implementing energy conservation programs

- Carry out carbon reduction with energy-consuming equipment and energy conservation with water chillers at all our production sites.
- Replace old equipment with new ones in order to enhance energy efficiency
- TSC completed a number of energy conservation programs in 2023, saving 2,567 GJ of energy in the process.
- Continue to enhance the effectiveness of our carbon reduction efforts through regular equipment inspections.

Developing renewable energy

- Draw up a solar panel assessment plan with the aim of generating electricity for our own use.
- Assess the option of purchasing green electricity.
- Our I-lan and Li-Je sites have completed on-site surveys and assessments for the construction of solar energy facilities at the end of 2023. Related construction works will gradually commence thereafter.
- Draw up renewable energy utilization program based on an energy conservation, energy creation, and energy storage mindset, which prioritizes the installation of solar panels on the rooftop of our operating sites, supplemented by the purchase of green electricity.

Stepping up the establishment of management systems

- ISO 50001 Energy Management System
- ISO 14064-1:2018 Greenhouse Gas Inventory (Categories 1 and 2, along with selected components under Categories 3 to 6).
- In 2023, our Li-Je and Shandong sites have been awarded the ISO 14064 certification, with the scope of inventory expanded to include Categories 3 to 6 emissions at the same time.
- In 2023, the Li-Je site was awarded the ISO 50001 Energy Management Systems certification.
- Continuously update the ISO management systems and pass third-party verification on a regular basis.

Introducing digital management systems

- Assess smart carbon management solutions, have the headquarters compile carbon emissions data at all production sites, replace manual input with digital technology to improve data quality.
- Expected to conduct supplier selection in 2024, and gradually set up a carbon management platform as each production site conducts its own inventory.
- Implement smart monitoring and management of energy resources and collect data in real time to facilitate analysis and forecasting.

5.2.2 Energy Management

GRI 302-1 GRI 302-3 GRI 302-4 TC-SC-130a.1

TSC is committed to improving energy efficiency and ensuring that electricity consumption and other energy consumption are reduced by at least 1% annually. At present, all our production sites have implemented environmental protection plans that are based on their energy consumption. They conduct inspections on equipment that consumes a significant amount of energy and continuously upgrade to new energy-saving equipment as replacements. In 2023, our Li-Je and Shandong sites gradually incorporated the ISO 50001 Energy Management Systems standards in hopes of identifying energy-consuming hotspots based on data analysis upon monitoring and measurement of energy consumption to prevent waste of resources.

Establishing management systems
Introduce the ISO 50001 Energy Management System.

Equipment upgrade
Roll out and implement energy conservation and carbon reduction programs while replacing old equipment with new ones.

Supporting government policies
Our production sites in Taiwan achieve a 1% reduction in electricity consumption each year, which is better than that required by law.

Energy Structure

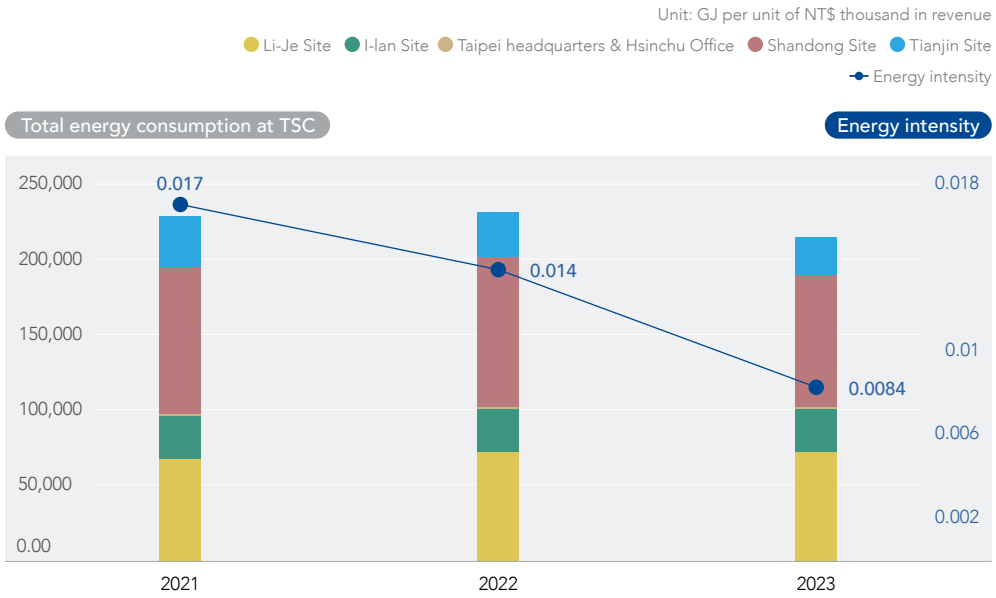
TSC's production sites use electricity, diesel, and gasoline as their energy sources. In 2023, the primary source of energy consumed by TSC was purchased electricity, which accounted for 99.8% of TSC's total energy consumption. The remaining energy sources, i.e., fuels, were primarily used in emergency generators, stackers, forklifts, and other equipment at the site. On the other hand, the Shandong Site has invested up to NT$640,000 to replace all diesel forklifts with electric forklifts, which is projected to reduce 1.5 tons in diesel consumption each year. As far as energy intensity is concerned, there has been a downward trend over the past three years, which suggests a significant increase in energy efficiency at our production sites.

Energy consumption at TSC's operating sites over the past few years

Energy source	Site	2021					2022					2023				
		Li-Je Site	I-lan Site	Shandong Site	Tianjin Site	Taipei head-quarters	Li-Je Site	I-lan Site	Shandong Site	Tianjin Site	Taipei head-quarters	Li-Je Site	I-lan Site	Shandong Site	Tianjin Site	Taipei head-quarters & Hsinchu Office
Non-renewable fuels	Gasoline	7.72	1.31	108.42	0	Note 5	6.39	1.31	85.57	0	44.45	10.20	1.31	173.48	0	51.05
	Diesel	65.34	2.81	119.82	0	0	108.89	2.46	101.86	0	0	86.96	2.81	53.98	0	0
	Liquefied Petroleum Gas	0	0	0.51	0	0	0	0	1.01	0	0	0	0	1.52	0	0
	Purchased electricity	68,873.76	27,850.90	97,652.13	33,521.76	1,353.12	73,144.80	28,160.78	99,912.81	29,738.23	1,114.84	73,631.52	28,317.31	87,627.76	19,002.10	1,180.72
Renewable fuels	Purchased electricity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total energy consumption		68,946.82	27,855.02	97,880.88	33,521.76	1,353.12	73,260.08	28,164.55	100,101.25	29,738.23	1,159.29	73,728.68	28,321.43	87,856.74	19,002.10	1,231.77
Total		229,557.60					232,423.40					210,140.72				

Note:
1. Gasoline is not distinguished by octane number.
2. Conversion coefficients were taken from published by the Heat Content of Energy Products published by the Bureau of Energy, Ministry of Economic Affairs, where Gasoline: 7,800 kcal per liter (1 liter of gasoline = 0.0327 GJ); Diesel: 8,400 kcal per liter (1 liter of diesel = 0.0352 GJ); Liquefied Petroleum Gas: 6,635kcal per liter (1liter of liquefied petroleum gas = 0.0505GJ);Electricity: 860 kcal per kWh (1 kWh of electricity = 0.0036 GJ).
3. The figures above are rounded to two decimal places.
4. The Hsinchu Office was officially opened in 2023, and its data was combined with that of the Taipei headquarters starting in 2023.
5. Only data for the Taipei headquarters between 2022 and 2023 was disclosed as the relevant source documents in 2021 were incomplete.
6. TSC did not sell any electricity, heating, cooling, or steam in 2023.
7. The total non-renewable energy consumption in 2023 was 210,140.72 GJ, and the total renewable energy consumption was 0 GJ.

Energy intensity



Continuous Improvement on Energy Conservation

Since electricity is the main source of energy consumed at TSC, the energy conservation programsrolled out at TSC are aimed at saving electricity. These programsinclude improving heat dissipation at cooling towers and optimizing the power rating of water chillers, upgrading lighting equipment, and replacing old air-conditioning equipment with new ones,with a view to achieving the goal of energy conservation and carbon reduction. In 2023, TSC successfully reduced 9,299.15 GJ in energy consumption.

In 2023, the Li-Je Site introduced the ISO 50001 Energy Management System, in hopes of enhancing energy efficiency to an optimal level by establishing a PDCA (Plan-Do-Check-Action) mechanism and formulating relevant management methods, so that TSC can attain our goals of sustainable operation and environmental friendliness through greenhouse gas reduction.

Considering that there is a risk of wasting energy resources during non-summer seasons when the air-conditioning system at the I-lan Site operates at full capacity regardless of the season, the I-lan Site implemented an improvement program for chilled water pumps and cooling water pumps in 2023, where three cooling water pumps (25HP) and three chilled water pumps (15HP) were retrofitted with frequency inverters. It was initially estimated that the program can lead to a 4% reduction in electricity consumption across the site, which is estimated to save 350,000 kWh of electricity each year. The program yielded greater results than expected after it was carried out, as evidenced by a 6% reduction in electricity consumption, which is estimated to save 480,000 kWh of electricity each year. Please refer to "Featured Story: The Energy Conservation Program for 2023 at the I-lan Site" for more details on the implementation of this program. As the aforesaid pumps have reached their replacement age after being put to use for over 20 years since 2001, the I-lan Site will upgrade the pipelines for chilled water pumps and cooling water pumps, replace these pumps with high-efficiency pumps, and also change some of the valves that are already old or faulty.

Energy conservation and carbon reduction programs and their results over the past few years

Li-Je Site Energy conservation item

- 2021
  - Boost the power of water chillers
  - Reduce equipment ventilation
  - Improve lighting in the repair area
- 2022
  - Implement power saving with air-conditioning systems
- 2023
  - Reduce the frequency of MAU fans.
  - Reduce the frequency of air-conditioning water supply pump to save electricity.
  - Improve power saving with lighting equipment at the site.

I-lan Site Energy conservation item

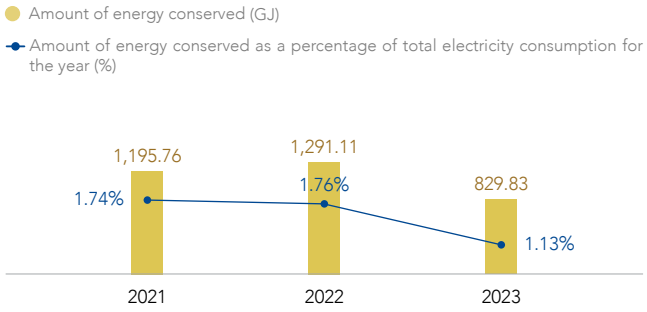
- 2021
  - Implement improvement measures for outside air handling unit and chiller
- 2022
  - Implement the light source replacement program for the TMTT station and molding press station on the front end
  - Replace mercury lamps in the utility apparatus room with LED lamps
  - Implement the on-site exhaust pipeline merger project
- 2023
  - Equip chilled water pumps or cooling water pumps with inverters for flow control

Shandong Site Energy conservation item

- 2023
  - Replace the old water-cooled air conditioners with inverter air conditioners with fluorine pumps at Production Workshop 1.
  - Replace old light fixtures with energy-saving LED ones.
  - Change all air conditioners at its dormitory to full DC invert air conditioners.
  - Install insulated industrial doors in the material turnover area at the site.

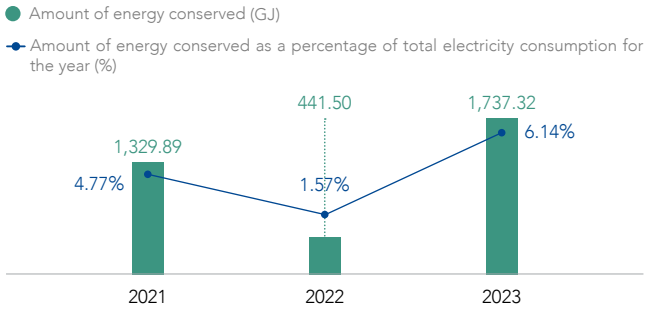
Li-Je Site

Amount of energy conserved as a percentage of total electricity consumption for the year



I-lan Site

Amount of energy conserved as a percentage of total electricity consumption for the year



Shandong Site

Amount of energy conserved as a percentage of total electricity consumption for the year

Amount of energy conserved	6,732 GJ
Amount of energy conserved as a percentage of total electricity consumption for the year	6.8%

Use of Renewable Energy

Following our effort to gradually seek alternative energy sources in line with international trends, TSC, despite not currently being named a large electricity consumer under the Renewable Energy Development Act, continues to keep a close eye on international regulations and policies, prices and costs, as well as market trends related to renewable electricity while gradually studying and drawing up long-term renewable energy development strategies. Aside from assessing the option of constructing solar energy facilities at our production site to generate electricity for our own use, we also assess the option of purchasing renewable energy.

Since 2021, the Tianjin Site has been working with external suppliers to explore the procurement of renewable energy. Our other operating sites will conduct ongoing assessments on renewable energy utilization programs, aimed at reducing greenhouse gas emissions with concrete actions, thereby minimizing the impact of our production activities on the environment.

Introducing the ISO 50001 Energy Management System at the Li-Je Site

Proactively echoing efforts to save energy and reduce carbon emissions, the Li-Je Site began introducing the ISO 50001 Energy Management System in 2023, in hopes of gradually enhancing energy efficiency by establishing a PDCA (Plan-Do-Check-Action) mechanism and formulating related management methods, along with systematic energy inventories, energy consumption analysis, as well as periodic inspections and continuous improvements, while achieving our goals of sustainable operation and environmental friendliness through greenhouse gas reduction.

Upon analysis and comparison, the Li-Je Site proposed a number of improvement plans for the first year of implementing the system, including reducing the frequency of MAU fans, improving the performance of the water chiller system, and improving power saving with lighting equipment at the site, which can save 230,508 kWh of electricity in total and reduce approximately 114,101 kg of CO_2e each year.

	Before improvement	Process	After improvement
Reducing the frequency of air-conditioning water supply pump to save electricity	The water supply pump uses 16.9 kW of electric power when its frequency is 49.3 Hz.	The water supply pump uses 31.02 kW of electric power when its frequency is 60 Hz.	After improvement: The water supply pump uses 12.6 kW of electric power when its frequency falls to 44.4 Hz.
Reducing the frequency of MAU fans	51（MZ）	-	3（MZ）
Improving power saving with lighting equipment at the site	Amount of electricity consumed by 22 mercury lamps: 11,880 kWh	-	8,316（kWh）


登錄證書

台灣半導體股份有限公司 (利澤廠)

ISO 50001:2018

Certificate of Registration

Taiwan Semiconductor Company Limited (LiJe Factory)

ISO 50001:2018

The Li-Je Site was awarded the ISO 50001:2018 Energy Management Systems certification in December 2023.

Improvement Plan for Chilled Water Pumps and Cooling Water Pumps at the I-lan Site

In an effort to realize energy conservation and carbon reduction, TSC not only enhances energy efficiency, but also reduces electricity load while increasing production capacity. In recent years, the I-lan Site has been actively rolling out and implementing initiatives to replace old equipment with new ones, including installing temperate difference monitoring systems on the main chilled water and cooling water pipelines, retrofitting chilled water pumps or cooling water pumps with inverters, adding an inverter control panel and related power distribution wiring, and adding an air-conditioning automation control system, aimed at enhancing the overall chilled water or cooling water efficiency. After implementing the improvement plan for chilled water pumps and cooling water pumps in 2023, the percentage of electricity saved, which was initially estimated to be 4.9%, rose to 6.6% as shown in the actual measurement results, suggesting that this plan has yielded relatively good energy conservation results as it can not only save at least 350,000 kWh of electricity and reduce 173,250 kg of carbon emissions each year.

	Before improvement	After improvement
Lowering the average operating frequency of motor	-	Fall to 50 Hz or below
Temperature difference of evaporator	1.5° C on average	Rise to 3° C or above
Temperature difference of condenser	2° C on average	Rise to 3° C or above

Looking ahead to 2024, the I-lan Site is expected to roll out plans to upgrade the pipelines for chilled water pumps and cooling water pumps, as well as replace these pumps with high-efficiency ones. As the site's assessments show that these pumps have already reached their replacement age and the conversion efficiency of existing pumps has dropped to a range between 55% to 60%, while some valves are already old, the I-lan Site is expected to upgrade the motors for the purpose of extending the service life of the system, and replace the old valves with high-efficiency pump heads. At the same time, the I-lan Site will also install cooling water circulation pumps to improve usage efficiency and reduce motor power, thus reducing energy consumption. This initiative is estimated to save 130,000 kWh of electricity each year, which equivalent of 1.8% of the total amount of electricity used at the site.

5.2.3 Water Resource Management

GRI 303-1 GRI 303-2 GRI 303-3 GRI 303-5 TC-SC-140a.1

Approaches and Targets

Following the significantly increased attention to water resource management at the international level, TSC, as a member of the semiconductor industry, recognizes the significant impact of climate change and water resources on operations. To ensure environmental sustainability and economic efficiency, TSC carries out proper management of water resources, which includes monitoring and recording water withdrawal and discharge, as well as implementing a grinder and cooling cycle water recycling mechanism to efficiently recycle water.

Both our I-lan and Li-Je sites are located in Yilan County. Despite not having any reservoirs, Yilan County benefits from abundant rainfall throughout the year and natural groundwater areas in the Lanyang Plain, which is why water shortages rarely occurs in Yilan County. Meanwhile, the Tianjin Site has not experienced water restrictions or outages as it does not use groundwater. On the other hand, the Shandong Site, despite being a water stress area based on evaluation conducted using the WRI Aqueduct Tool, has begun stepping up water conservation efforts since 2016 while adjusting its planning of water resources to reduce the amount of groundwater it uses. TSC has put in place a complete wastewater management process in order to minimize the impact of wastewater on the environment. Each production site runs its wastewater facilities based on the discharge permit, which is in compliance with the Effluent Standards and the Integrated Wastewater Discharge Standards, which includes conducting daily water quality analysis and engaging third-party verification units to test the quality of effluents on a regular basis, with the intention of stabilizing wastewater discharge while complying with regulatory standards.

Water Resource Structure

Our I-lan and Li-Je sites are situated in Yilan County, which is located in the northeastern part of Taiwan. According to the Central Weather Administration, Yilan County experiences a monsoon climate, with an average annual precipitation of over 2,700 mm. Hence, water shortages rarely occur in Yilan County. In 2023, groundwater constituted approximately 92.3% of the process water used at the I-lan Site, while tap water accounted for 7.7%. Due to the extended rainy seasons in Yilan County and the site's proximity to the mountainside, coupled with a daily withdrawal of less than 100 tons of groundwater, there has been no depletion of groundwater, and no water rationing measures have been necessary . On the other hand, the Li-Je Site relies on surface water as its water source. It utilizes Wulangkeng River as its primary source of pure water, accounting for approximately 90.7%, with tap water making up the remaining 9.3%. As the Wulangkeng River has consistently maintained its water flow over the years, the Li-Je Site currently does not require any water rationing measures.

The Shandong Site is situated in the North Shandong Plain, where it is located on the shore of the Yellow River, i.e., 130 km from the mouth of the Yellow River, and faces the Bohai Sea to the north as it is located 75 km from the Bohai Sea, with an annual rainfall of about 930 mm. Over the years, the Shandong Site has adopted groundwater as its primary source of water, which makes up 96% of its water consumption, with tap water accounting for the remaining 4%. Following the local government's proactive efforts to introduce and implement groundwater mining restrictions and management, implement control of total water volume in the Yellow River, and carry out strict monitoring of the use of water resources in recent years, the Shandong Site has rolled out various water resource management measures for many years, resulting in its unit water consumption to be far lower than the industry average and the water consumption quota. Furthermore, water withdrawal and consumption at the Shandong Site have not been affected by regulatory policies as the site is a key enterprise in the local area. Meanwhile, the Tianjin Site, which is located in the Binhai New District in the eastern suburbs of Tianjin and faces the Bohai Sea to the east, draws water from sources of surface water.

TSC's Taipei headquarters and Hsinchu Office adopt tap water as their primary source of water, which is used purely for domestic purposes.

Amount of water withdrawn and discharged at TSC's operating sites over the past few years

Unit: megaliters

	Li-Je Site			I-lan Site			Shandong Site			Tianjin Site			Taipei headquarters and Hsinchu Office			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Surface water	227.97	249.29	223.91	0	0	0	0	0	0	0.00	0.00	0.00	註 3	0.00	0.00	227.97	249.29	223.91
Groundwater	0	0	0	49.80	34.82	30.15	356.97	339.48	211.14	0.00	0.00	0.00	註 3	0.00	0.00	406.77	374.30	241.29
Third-party water	37.94	35.22	22.85	2.50	2.80	2.62	11.12	16.93	7.03	295.80	268.31	237.11	註 3	2.11	1.92	347.36	325.37	271.53
Total water withdrawal	265.91	284.51	246.76	52.30	37.62	32.77	368.09	356.41	218.17	295.80	268.31	237.11	註 3	2.11	1.92	982.10	948.96	736.73
Total water discharge	270.71	297.99	260.21	12.32	10.84	12.86	257.60	249.50	161.26	236.64	214.65	189.69	註 3	2.11	1.92	777.27	775.09	625.94
Total water consumption	-4.8	-13.48	-13.45	39.98	26.78	19.91	110.49	106.91	56.91	59.16	53.66	47.42	註 3	0	0	204.83	173.87	110.79

Note:
1. Third-party water refers to tap water. In 2023, TSC did not withdraw water from seawater or produced water sources.
2. Third party water and surface water withdrawal data is obtained from the water bill, whereas groundwater withdrawal data is collected from the water meter reading records of the operating sites.
3. Disclosure of related data for the Taipei headquarters began in 2022, which was calculated based on the proportion of water used on each floor indicated on the water bill of the office building. There were no separate water meters to measure water discharge at the Taipei headquarters and the Hsinchu Office. The Hsinchu office was officially opened in 2023, and its data has been consolidated with the Taipei headquarters for disclosure.
4. According to the WRI Aqueduct Tool, the formula for calculating water stress is as follows: Total annual water withdrawals divided by total available annual renewable supply. Areas with a water stress index ranging from 40% to 80% are classified as high water stress areas, while those exceeding 80% are categorized as extremely high water stress areas. TSC exclusively relies on freshwater sources with a total dissolved solid content of≤ 1,000 mg/L. The water stress index for Taiwan region and Tianjin Site is below 40%; only the Shandong Site is located in an area with extremely high water stress risk, accounting for about 30% and 51% of TSC's overall water withdrawal and water consumption, respectively.

Water Risk Management

The semiconductor industry is a significant consumer of water during wafer production, and any water shortage could have an immediate impact. Furthermore, the more advanced the process, the greater the water consumption. TSC inventoried our production sites in water stress zones using the WRI Aqueduct Tool developed by the World Resources Institute (WRI), and identified the Shandong Site to be in the water stress zone. In an effort to cope with water risks at the Shandong Site, TSC has begun rolling out and implementing the rainwater harvesting pond pump system in recent years in line with the government's water resource policy. Please refer to "Featured Story: Establishing the rainwater harvesting pond pump system at the Shandong Site and using recycled rainwater for greening and irrigation" for more details.

TSC will continue to keep a close eye on local governments' water-related laws and regulations and rollout of related policies while promoting water conservation measures on an ongoing basis.

Water Risk Identification Results

Production site	Water risk assessment	Explanation and management mechanism
Li-Je Site I-lan Site	Areas facing low water stress	TSC's two production sites are located in Yilan County, which is a high water stress area. However, water shortages are not likely to occur in this region over the short term, thanks to the abundance of water resources in the Lanyang River Basin.
Shandong Site	Area facing extremely high water stress	Despite the fact that the Yellow River crosses the border of Binzhou City, where the Shandong plant is located, the Chinese government has imposed controls on water withdrawal indicators that prohibit unlimited withdrawal of water from the Yellow River. At the same time, the Chinese government has also implemented stringent control over groundwater resources and imposed restrictions on groundwater mining. We do not rule out the possibility of the Chinese government raising related restrictions in the future. With environmentally friendly and long-term considerations in mind, the Shandong Site has been stepping up its water conservation efforts since 2016, including shutting down the "pickling station," which is the largest water user, as well as upgrading equipment and improving water recirculation in the electroplating process, which has successfully reduced water consumption in the production process to an industry-leading level, well below the industry's water consumption quota. In the future, the Shandong Site will adjust its plans concerning water resources while reducing its water consumption as it looks to increase tap water consumption and lowers groundwater consumption.
Tianjin Site	Area facing low-medium water stress	The Tianjin Site does not face water rationing or water outage as it sources water from the Tianjin Development Zone Tap Water Company and does not use groundwater.

Wastewater Monitoring Mechanism

TSC's production sites have implemented the Wastewater Management Operating Procedure to effectively control and process wastewater discharged during the production process. This procedure clearly regulates wastewater collection, monitoring, recording, testing, and reporting. By strengthening wastewater quality control, we can prevent abnormal effluent quality that negatively impacts the environment. Each production site diligently documents the discharge and dosage on a daily basis, ensuring compliance with the effluent quality standards promulgated by the local government. Additionally, they conduct 24-hour monitoring of the wastewater treatment system. The duty staff records the daily wastewater system operation data and water quality analysis values, which are then approved by the system engineer. The unit supervisor reviews these records, and the monthly reports are compiled into charts and submitted to the top supervisor of the site for review.

Part of TSC's production process results in wastewater discharge that contains small amounts of heavy metal nickel and fluorine ion pollutants. Our production sites in Taiwan discharge wastewater in compliance with the Effluent Standards established for the semiconductor manufacturing industry, whereas our production sites in China discharge wastewater in accordance with the Integrated Wastewater Discharge Standards promulgated by local governments across the country.

Historical Trend of Wastewater Discharge at TSC's Production Sites

The amount of wastewater discharged at each production site varies due to the slight differences in production activities and scale of production across all production sites. To address the specific needs and circumstances of each site, TSC has put in place appropriate project management methods and a water quality monitoring mechanism. In 2023, TSC discharged 625,94 megaliters of wastewater in total, exhibiting a downward trend over the past three years.

Water Quality Control Mechanism

I-lan Site

Wastewater from the I-lan Site is discharged into the I-lan River under the supervision of the Site Affairs Department. The department conducts daily pH value examinations, weekly observations of suspended solids, and prepares semi-annual water quality reports. Additionally, the department undergoes annual ISO 14001 inspections conducted by external third-party certification units. As wastewater at the I-lan Site primarily comes from the cutting process, an inspection conducted on wastewater discharge from the site revealed that the discharge contained only a small amount of suspended solids (<5mg / L) and the pH level was determined to be neutral without requiring any adjustments (pH 7 ± 1). Based on these findings, TSC concluded that all wastewater discharged from the I-lan Site in 2023 met the Effluent Standards and did not cause any water pollution.

Due to the high purity and low pollution levels of the wastewater at the I-lan Site, as well as its low volume, the environmental impact is minimal. In 2022, TSC applied for change to the wastewater simple discharge permit in accordance with legal requirements upon receiving the advise of the Environmental Protection Bureau under the Yilan County Government, and thus formulated the Wastewater Site Simplification Project. Review of the relevant documents has been completed in 2023, with the simplification project scheduled for completion by the end of 2024. The project includes relocating the groundwater treatment unit tanks to the ground floor, so that unprocessed wastewater does not spill and contaminate the soil.

Li-Je Site

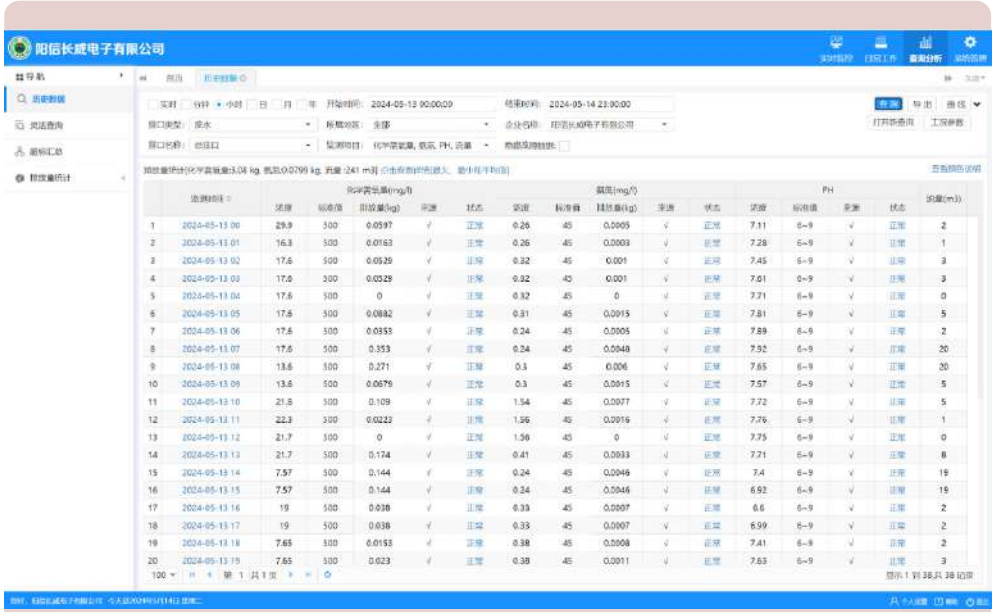
The Li-Je Site discharges wastewater into Xincheng River. The wastewater treatment system is continuously monitored 24 hours a day, and water quality is analyzed twice daily. Environmental safety and site affairs personnel collect the data, which is then submitted to the system engineer for approval. The unit supervisor verifies and analyzes the data, which is then compiled into monthly charts and reports for review by the highest-level supervisor at the site. The Li-Je Site closely monitors any changes in water quality and promptly initiates an analysis and improvement process if the plant's limits are exceeded. Any violations are documented, and improvement plans are proposed. In terms of external audits, the site's management performance is evaluated and certified by a third-party organization annually. This organization examines the operations and records of ISO 14001. Additionally, the quality of effluents at the Li-Je SIte is tested quarterly by a third-party inspection units, which reports the results to the Ministry of Environment using production data.

Shandong Site

The Shandong Site, which possesses a discharge permit issued by the Bureau of Ecology and Environment, has not only instituted a set of comprehensive wastewater management procedures, is also equipped with a wastewater treatment station to treat wastewater from the site. Industrial wastewater treated at the site is able to meet the standards and can be discharged steadily from the site as it meets the requirements of the four major indicators for discharge water quality detected through the online monitoring system, namely pH, ammonia nitrogen, chemical oxygen demand (COD), and flow rate. A third-party organization is also engaged to collect at least four water samples from the site each month to carry out testing on a total of 16 discharge indicators.

The results of online monitoring and periodic third-party testing at the site revealed that discharge water from the Shandong Site has been stable and complies the requirements of the GB 39731 2020 Discharge Standards of Water Pollutants for the Electronic Industry and other environmental protection-related laws and regulations. The primary indicators under regulation, such as the actual COD and ammonia nitrogen emissions, were significantly lower than the emission limits (e.g., the average COD emission limit was 500 mg/L, while the actual emissions at the Shandong Site was about 30 mg/L; on the other hand the actual ammonia nitrogen emission limit was 45mg/L, while the actual emissions at the Shandong Site is 0.2mg/L), so as to minimize the impacts on the environment with concrete actions, thereby fulfilling the environmental protection responsibilities.

The Shandong Site has established the Regulations on Industrial Wastewater Treatment and the Regulations on Operation, Maintenance and Repair of Wastewater Treatment Systems, which clearly set out the procedures for wastewater collection, monitoring, recording, testing, and reporting for the purpose of bolstering wastewater quality control to prevent negative impacts on the environment due to abnormal effluent quality. The Shandong Site conducts 24-hour monitoring of the quantity and quality of discharge water through the online water quality monitoring system, while the Management Department at the site sends dedicated personnel to inspect and supervise the operation of the system, with one round of inspection to be carried out every two hours, so as to ensure that the setting of each parameter is reasonable and the system is in good condition. At the same time, the Shandong Site is also equipped with an emergency accident pool to ensure that proper emergency response is in place should any water quality anomaly arise, and prevent discharge exceedances. No incident related to wastewater discharge was reported in 2023. On the other hand, the Shandong Site obtained a total of 11,000 water quality test results from the online water discharge test system, as well as 12 water quality test reports consisting of 576 items from third-party organizations, all of which were in compliance with the discharge standards.



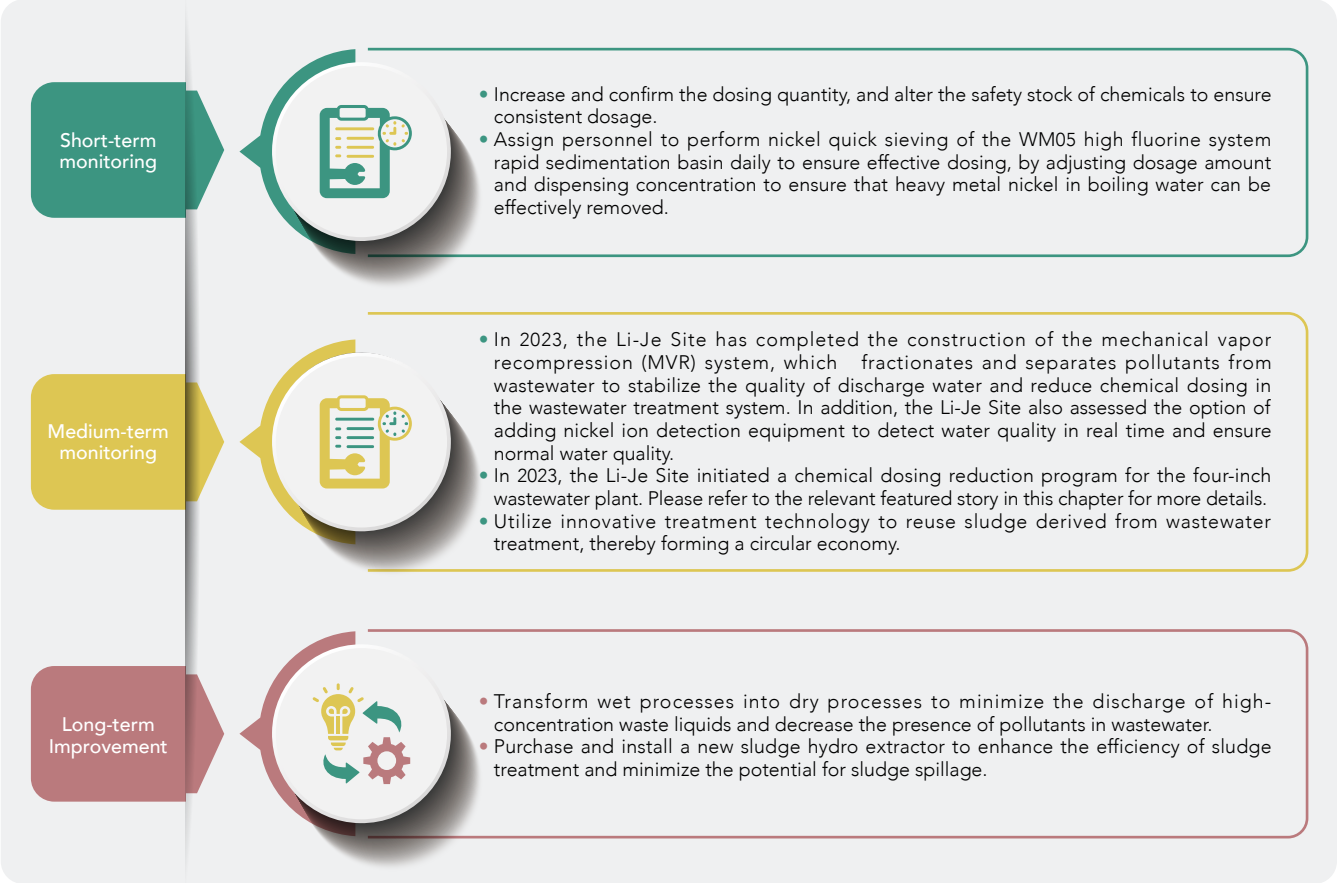
The online water discharge testing system at the Shandong Site

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 . Each year, the testing unit of the site's vendors collects water from the site to test the quality of discharge water, and files reports based on production data with the Environmental Protection Bureau. In addition, the Shandong Site engages external vendors to validate the content of its ISO 14001-related operations and records, carry out performance evaluation in the area of management, and issue the relevant certificates on an annual basis

Water Quality Improvement Program at the Li-Je Site

Owing to two violations of the Water Pollution Control Act committed in 2023, the Li-Je Site, aiming to improve water quality management, conducted an in-depth investigation into the case and drew up a water quality improvement program based on the problems involved to understand the reasons why the water quality samples failed to meet the standards. Thereafter, the site formulated improvement measures, which includes short-term monitoring and long-term improvement. Please refer to 1.3.2 Regulatory Compliance for more details on the relevant penalty cases.



Note:
The Li-Je Site utilizes heavy metal collecting reagents to conduct a rapid screening test for nickel. This test is performed on heavy metal wastewater in a quick sedimentation basin. The purpose of this test is to confirm the dosing status and ensure that the concentration of heavy metals in the water meets emission standards.

The Mechanical Vapor Recompression System

The Li-Je Site is situated in Yilan County. In order to address the expensive outsourcing costs associated with removing highly concentrated waste liquid produced at the site, it was decided to process it through the site's wastewater system. In light of the "Effluent Standards" regulation implemented in 2021, which imposes stricter controls on ammonia nitrogen and nitrate nitrogen management, the Company conducted an assessment of the potential risks to the effluent water quality at the site. In 2022, the Li-Je Site carried out water sample testing and developed plans to incorporate it into the wastewater treatment facilities. TSC has completed the construction of the mechanical vapor recompression (MVR) system in 2023, which is expected to result in a significant reduction in various chemical substances in wastewater and effectively minimize the production of sludge used in the wastewater systems.

1 | Discharge high-concentration waste liquids to the low-fluorine wastewater treatment system through the MVR system

2 | Implement wastewater management, with the wastewater plant at the Li-Je Site in charge of wastewater treatment

3 | Recycle and reuse wastewater Reduce water consumption

Highlight Story 03

Following the impact of climate change across the globe, efficient utilization and recycling of water resources has become an important topic. In an effort to effective recycle and reuse water resources, the Li-Je Site proposed a grinding machine cooling water recycling program in 2022. The program was officially launched in 2023, with the aim of reducing the amount of water treated, which was initially estimated to generate a recycling benefit of NT$540,000, but, in fact, generated a recycling benefit of NT$588,162.

As there are different types of wastewater from semiconductor manufacturing processes, the Li-Je Site recycles cooling water, collects it through piping to the reservoir, and then transfers it to the raw water tank using a power pump as a source of pure water. At present, the Li-Je Site drains the recycled water into the raw water tank for use in the plant. Upon implementation, the site managed to save 13.2 metric tons of water per day in 2023. Moving forward, TSC aims to continue maximizing the use of water resources. The Li-Je Site is expected to incorporate a cooling water recycling system in 2024 to recycle uncontaminated and low-pollution water resources, thereby achieving the goal of saving water.

Highlight Story 04

In an effort to refine wastewater management on an ongoing basis, the Environmental Engineering Department at the Li-Je Site inspected the existing wastewater treatment process and rolled out the chemical dosing reduction program for the four-inch wastewater treatment plant in 2023, in hopes of gradually reducing the amount of chemicals used in the wastewater treatment process, thereby realizing the benefit of reducing the amount of raw materials consumed. The site tests the concentration of water pollutants through daily water quality sampling and analyzes the dosage and hydraulic retention time at each treatment unit while comparing the operating parameters for wastewater at other production sites before conducting jar test simulations to confirm the optimal dosage and test whether the water quality meets the Effluents Standards at the final stage.

▶ Implementation results based on a benefit analysis of 500 CMD in treated water:

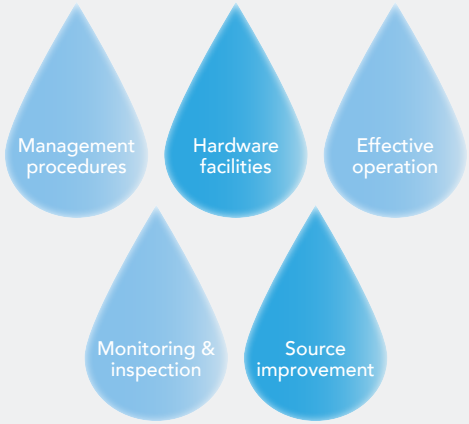
- 26% reduction in CaCl2 dosage
- 20% reduction in PAC dosage
- Adjustment of polymer foam concentration from 0.1%wt to 0.06%wt, and 47% reduction in polymer dosage

In the future, the Environmental Engineering Department at the Li-Je Site will continue to refine management processes, aimed at re-diverting process wastewater, including fluorine-containing QDR, non-fluorine-containing QDR, high-concentration acidic wastewater, ammonia-containing wastewater, and organic wastewater; re-testing the concentration of hydrofluoric acid in wastewater through clearer source treatment; and eventually studying and planning for treatment and recycling based on classification.

Highlight Story 05

Industrial wastewater at the Shandong Site primarily emanates from the metal surface treatment process, where the wastewater is acidic before treatment, and the main pollutants are copper ions and COD. The Shandong Site has been operating steadily for more than 10 years in five areas, namely management procedures, hardware facilities, effective operation, supervision and testing, and source improvement to ensure that its discharge water meets the standards while making continuous improvements at the same time. At present, the site has moved from the "wastewater management" stage to the "source treatment" stage, which has yielded remarkable results. For instance, the shutdown of the pickling station at the site in December 2016 has led to a reduction of 60,000 tons in industrial wastewater discharge per year. Following efforts to improve molds from 2022 to 2023, the site has removed the small holes in the shell of ITO series products, so that there is no need to clean residues in the small holes using isopropyl alcohol (IPA) during the metal surface treatment process. This completely removes IPA from the metal surface treatment process, which in turn prevents residual IPA liquid from being discharged into the water to produce COD, and eventually leads to a reduction of approximately 15 tons in IPA discharge per year. At the same time, a front-end sludge sedimentation tank was officially put to use in 2023, where sludge sediments are stripped off and removed from the water body before the wastewater enters the wastewater treatment system, thereby preventing the impact of these sediments on the flocculation and sedimentation process in wastewater treatment, and eventually stabilizing discharge water indicators.

Five areas in wastewater management at the Shandong Site



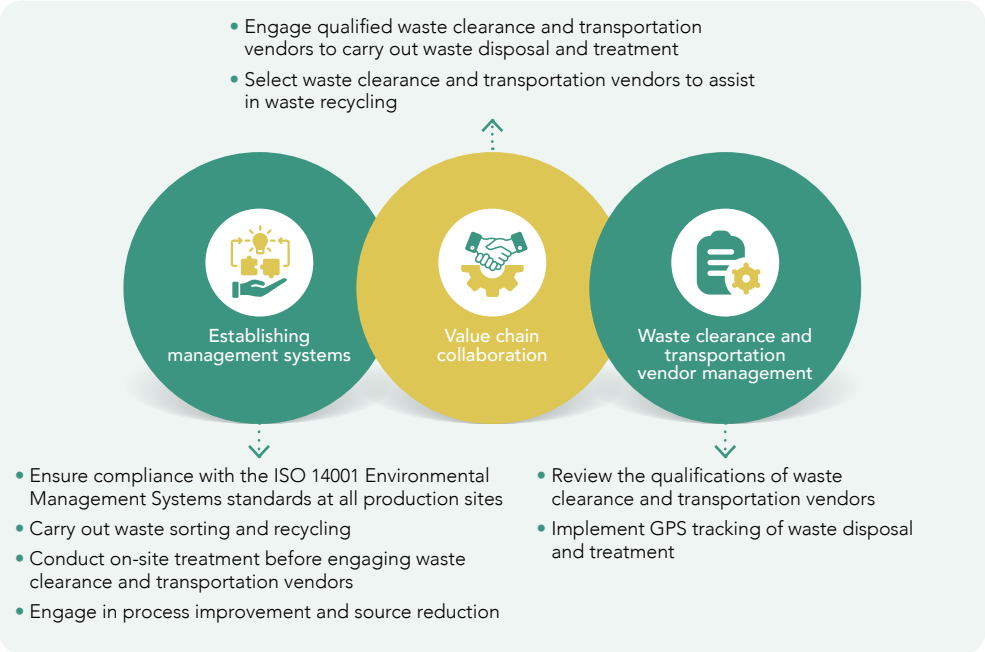
Highlight Story 06

With the intention of effectively recycling water resources to realize energy conservation, the Shandong Site has constructed a rainwater harvesting pond pump system in recent years, aimed at storing rainwater and reusing it for watering purposes in the greening process, thereby saving tap water. This system, which is already in operation, is expected to enable the actual quantification of recycled water utilization performance in the future after it is equipped with metering.

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

5.3.1 Waste Management

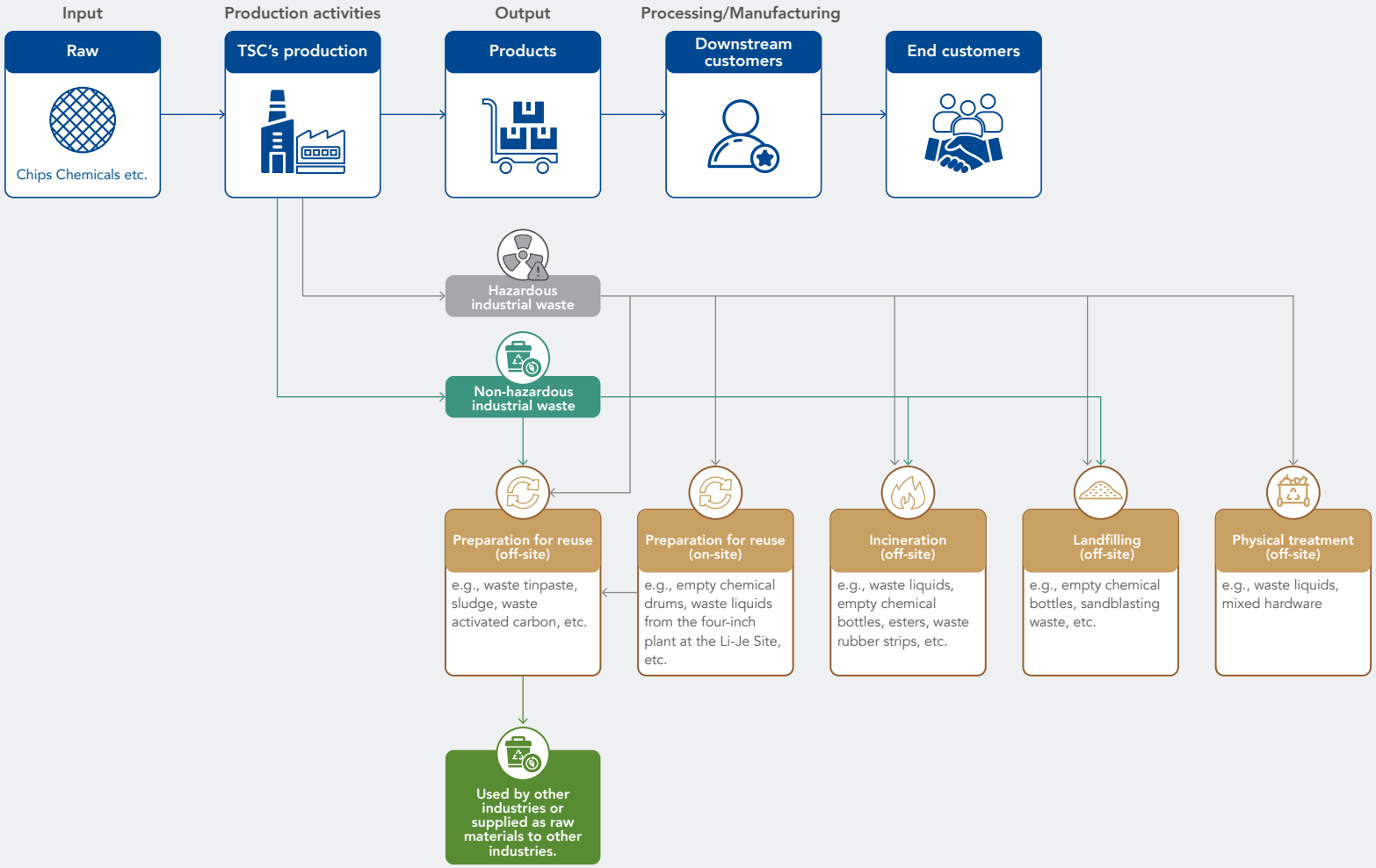
TSC is dedicated to reducing environmental impacts, specifically waste pollution, while cutting operating costs by refining waste management and improving resource utilization efficiency. Consequently, each production site has been awarded the ISO 14001 Environmental Management Systems certification and conducts regular internal audits based on the system. In an effort to implement waste reduction, declaration, and cleaning (removal, treatment and reuse), each production site collects the resource-type waste generated from the site and classifies it based on its nature, and entrusts it to the external clearance. Moreover, for special waste generated during the process, such as chemical solvents, are temporarily stored in specific areas after classification, and are handled by qualified waste clearance and transportation vendors approved by the government authorities. On the part of grasping the final flow of waste, we also formulated an audit plan for waste clearance and transportation vendors, including tracers, GPS tracking, etc., and established a complete contractor management mechanism to actively implement waste management.



TSC's Commitment to Waste Management

Waste Disposal Process

Hazardous waste and general industrial waste from TSC's production sites are primarily outsourced for off-site treatment by means of physical treatment, landfilling, incineration, and recycling. Empty chemical drums and waste liquids from some production sites first undergo simple treatment before being transported by waste clearance and transportation vendors to be used in other industries or supplied to other industries as raw materials. On the other hand, general industrial waste are mainly treated off-site by means of landfilling, incineration and recycling.



Waste Statistics

In 2023, TSC produced 4,831.10 metric tons of waste in total, including 3,550.28metric tons of hazardous industrial waste (73%) and 1,280.81 metric tons of non-hazardous industrial waste (27%). Each production site engages qualified waste clearance and transportation vendors to assist in waste disposal and treatment, whereas waste produced by the Tianjin Site is primarily disposed of and recycled collectively by the public sector. Waste statistics for each production site are compiled internally by the site affairs unit and reported on a regular basis, with supporting documents such as the waste weighing triplicate form to be retained for future reference, in accordance with the rules and regulations promulgated by local governments.

In an effort to bolster waste management, the Li-Je Site has not only formulated a calcium fluoride sludge reduction program, but also worked with specific vendors to recycle waste liquids from the four-inch plant, with 100% of these waste liquids to be recycled and reused as cement raw materials. Please refer to "Featured Story: Circular economy - Recycling of sludge at the Li-Je Site" for more details. On the other hand, our production sites in China has rolled out a number of source reduction programs, including the plastic mold optimization program and the digital manufacturing execution system (MES) program in 2023, aimed at reducing the use of raw materials at source, and eventually triggering a decline in the amount of waste produced.

Total waste in 2023

Unit: metric tons

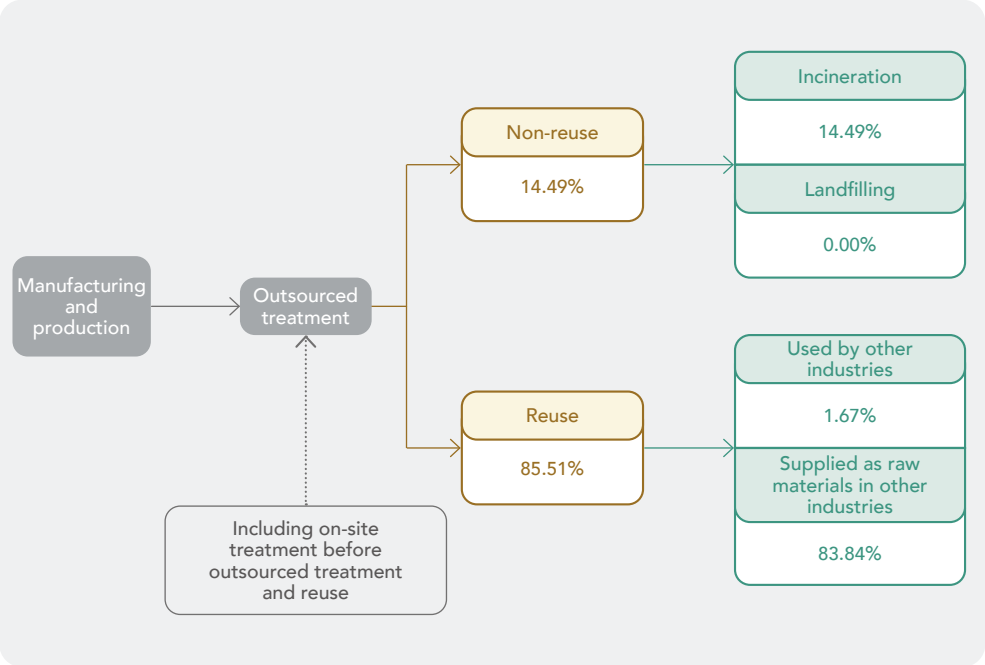
Category		Item	Off-site	On-site
Hazardous waste	Direct disposal	Incineration (including energy recycling)	0	0
		Incineration (excluding energy recycling)	194.17	0
		Landfilling	1.29	0
		Other disposal methods	1,822.66	1,336.00
	Reuse	Preparation for reuse	196.17	0
		Recycling and reuse	0	0
		Other recycling operations	0	0
Total amount of hazardous waste			2,214.29	1,336.00
Non-hazardous waste	Direct disposal	Incineration (including energy recycling)	0	0
		Incineration (excluding energy recycling)	7.61	0
		Landfilling	450.32	0
		Other disposal methods	0	0
	Reuse	Preparation for reuse	822.89	0
		Recycling and reuse	0	0
			0	0
Total amount of non-hazardous waste			1,280.82	0
Total amount of hazardous and non-hazardous waste			4,831.10	

Note:
1. Other disposal methods include physical treatment and on-site treatment.
2. The hazardous industrial waste reuse rate was 5.5% (including preparation for reuse, recycling and reuse, and other recycling operations). where the relevant data was calculated based on the amount of hazardous industrial waste reused as a percentage of the total amount of hazardous waste.
3. The non-hazardous industrial waste reuse rate is 64.2% (including preparation for reuse, recycling and reuse, and other recycling operations), where the relevant data is calculated based on the amount of non-hazardous industrial waste reused as a percentage of the total amount of non-hazardous waste.
4. The terms "hazardous" and "non-hazardous" are defined in accordance with the Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste in Taiwan.

Waste Reduction Actions

Li-Je Site

The Li-Je Site primarily outsources waste disposal to external vendors. However, the site actively promotes the utilization of off-site resources, effectively transforming waste from production processes into valuable resources. In 2023, the waste reuse rate at the Li-Je Site was 85.51%. The site has reaped the benefits of waste reduction, reduced energy consumption and waste treatment costs, and enhanced efficiency in resource recycling through value chain collaboration. For instance, the Li-Je Site collaborated with cement manufacturers to recycle calcium fluoride sludge as a raw material in cement production. In addition, the Li-Je Site implements physical treatment methods to crush and reuse waste glass, and conducts noble metal separation of waste electronic components. At the same time, we partner with recycling vendors to recycle waste liquids and convert them using physical treatment methods such as distillation into raw materials such as banana oil, which can be further utilized in various industries, including paint production.



I-lan Site

In the past, when our production site purchased new equipment and materials, we would often end up with a significant amount of waste packaging materials, such as wooden pallets and crates, which were typically incinerated. Following our proactive effort to promote waste reduction, the I-lan Site is actively selecting external waste clearance and transportation vendor partners in hopes of promoting resource recycling in collaboration with partners in other industries, thereby achieving the goal of waste reduction. In 2023, the site has selected partners to recycle waste plastics and wood, with the relevant recycling program scheduled to commence in 2024.

Waste plastics	Waste clearance and transportation vendors are engaged to collect, break down and reprocess waste plastics, which is expected to lower incineration cost by 75% while reducing 10 to 20 tons of waste plastics each year.
Waste wood	Waste clearance and transportation vendor partners are engaged to collect, break down, reuse, and reprocess waste wood into a new energy source, which is expected to lower incineration cost by 30%. This new energy source, which is an economical source of renewable energy, is regarded as one of the alternative energy sources in the future.

In the future, the I-lan Site will continue to select vendor partners to engage in various programs, including reprocessing waste plastic strips into eco-friendly bricks, with a view to exploring the possibility of reusing more waste materials.

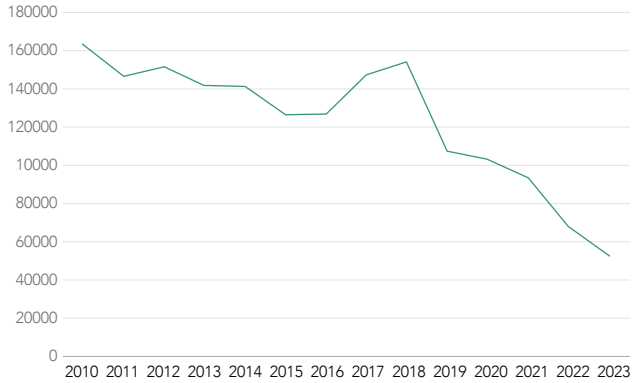
Shandong Site

In 2023, the Shandong Site invested over RMB2.48 million (equivalent to over NT$10 million) in a source reduction program, which includes improving mold rubber runner design, replacing disposal paper packaging materials, digitalizing the manufacturing execution system (MES), and implementing the chemical substances alternatives program, with a view to reducing overall waste output.

Waste reduction program in 2023	Description	Reduction benefits in 2023
Improving mold rubber runner design	Due to problems such as mold rubber runner design, waste rate was higher before the rubber seal mold was optimized since a large quantity of rubber seal material was not converted into the product shell, but rather became rubber runner and rubber rod waste, which were eventually disposed of as solid waste. Following the optimization of rubber seal mold design using various methods such as digital and stress analogies, four sets of mold systems were upgraded, which improved the shape and size of the rubber runner. Furthermore, small particles of rubber seal materials were selected and used for precise control to reduce rubber rod waste rate.	Reduced waste (waste rubber rod) generation rate from 44% to 36%.
Replacing disposal paper packaging with reusable rolls and other packaging materials	In the past, the majority of packaging materials for raw materials at the Shandong Site were disposable paper packaging materials, which turned into waste cartons after one use. In recent years, the Shandong Site has been continuously promoting the replacement of disposable packaging materials with reusable plastic packaging materials, which has successfully led to a replacement rate of over 50% and a reduction in waste paper box output to 33% of peak output in previous years.	Reduced 100 tons of waste cartons per year.
Introducing the manufacturing execution system (MES)	In the past, production data was recorded using paper forms. In 2023, paper forms were replaced with electronic forms following the introduction of the manufacturing execution system (MES) to minimize paper consumption.	Expected to reduce 500,000 pieces of waste paper forms per year upon completion.
Refining industrial process to reduce the use of chemical products	In March 2023, the site has completely stopped the use of acetone through efforts to improve industrial processes, while all methylene chloride was replaced with n-bromopropane.	Reduced the use of chemicals such as acetone each year to lower waste output at source.

Historical trend of paper packaging material reduction at the Shandong Site

Unit: Kg



Waste Clearance and Transportation Management

Due to the different nature of manufacturing processes, the types of waste generated at each production site vary to some extent. Consequently, TSC's production sites in Taiwan have developed their own waste clearance and transportation process to enhance waste management. This includes staying updated on Taiwan's laws and regulations, periodically assessing the implementation status, organizing meetings, and conducting regular reviews and corrections to ensure effective waste management. On the other hand, the Tianjin Site has signed a waste clearance and transportation contract with the public sector to centralize waste clearance and transportation in line with local government policies.

Waste Clearance and Transportation Methods

Waste generated from production activities at TSC is categorized into non-hazardous industrial waste and hazardous industrial waste. TSC's production sites in Taiwan outsource the clearance and transportation of all waste to external vendors. The outsourced process is carried out in accordance with the procedure of the external waste clearance and transportation vendor and is meticulously documented as follows.

General industrial waste

- On-site: Contact vendor for quotation ▶ Contact waste clearance and transportation vendor to arrange waste clearance and transportation ▶ Issue waste clearance and transportation document ▶ Proceed with waste clearance and transportation
- Off-site: Track vendor's vehicle until the vendor undergoes the weighing and photo-taking processes

Hazardous industrial waste

- On-site: Contact waste clearance and transportation vendor to arrange waste clearance and transportation ▶ Issue waste clearance and transportation document ▶ Proceed with waste clearance and transportation ▶ Issue waste clearance and transportation triplicate document
- Off-site: Modify the actual weight and verify the document ▶ Download and archive waste clearance and transportation vehicle's GPS track map ▶ Archive the triplicate form and other processed documents

Highlight Story 07

Circular economy - Recycling of sludge at the Li-Je Site

Sludge production at the Li-Je Site accounted for 69.27% of the total waste. As outsourcing the removal of high-concentration waste liquid incurred high costs, in the past, the sludge was processed through the site's own wastewater system. We have further reduced sludge output by minimizing the use of chemicals in the wastewater system. Following the rollout of the sludge reduction program, the amount of sludge produced in the chip production process has been reduced from 1.06 kg per piece to 0.66 kg per piece, resulting in a sludge reduction of over 60%.

The Li-Je Site collaborated with the cement factory to recycle 100% of the sludge produced by the site to form a circular economy. During wafer manufacturing process, TSC uses hydrofluoric acid for wafer cleaning and etching. After chemical condensation and precipitation, the resulting hydrofluoric acid waste can be converted into calcium fluoride sludge. This sludge is then ground, stirred, and high-temperature fired in a rotary kiln reaching about 1,450℃ . Afterwards, gypsum is added and ground to form cement. TSC then provides the recycled cement to the cement factory as raw material to fully enhance the reuse value of waste liquid.

The amount of sludge generated during chip production was reduced from 1.06 kg per piece to 0.66 kg per piece, resulting in a sludge reduction of more than 60%.

Waste Clearance and Transportation Vendor Management

For contractors' waste treatment, TSC strictly requires manufacturers to regularly update their license. This includes conducting an annual audit of waste clearance and waste handling business activities, as well as noting it in the contract terms and regularly updating the contract. Failure to comply with waste management laws and regulations may result in contract termination. To effectively monitor industrial waste clearance, We utilize the "Global Positioning System (GPS) Real-Time Tracking System" website. This allows us to track the driving routes of the waste clearance and transportation vendor's vehicles and promptly confirm their movements. We also check and save the GPS track map of the vehicles, and occasionally conduct inspections to strictly monitor the flow direction of the clearance.

TSC ensures proper handling of proof documents and produces scrap equipment treatment reports. The Li-Je Site conducts an annual audit of waste removal vendors, while the I-lan Site conducts audits on average once every two months. Vendors are scored based on the details provided in the table, with scores ranging from 0 to 5. A final score of 90 points is considered qualified according to the TSC waste clearance and transportation vendor standards. There have been no substandard contractor assessments for each site in 2023.

Contractor Waste Assessment Items

Waste clearance and transportation	Regular maintenance on clearance machines
	Pollution prevention and safety equipment for clearance machines
	Assessment on the fit of waste clearance and transportation equipment and their waste clearance and transportation capabilities
	Personnel driver's license management, and dangerous goods delivery personnel certificate
	Emergency response equipment, methods, and manuals
Storage	Whether storage capacity in the clearance site meets processing capacity
	Chemical compatibility/regional classification
	Groundwater/rainwater infiltration prevention facility
	Abnormal spills in storage area
	Preservation of hazardous and non-hazardous clearance documents
Industrial safety and fire protection	Safe protection apparatus documents
	Feasibility of wearing and operation of protective equipment
	Inspection of fire safety facilities, audit records
	Establish security measures and fire protection equipment
	Other industrial safety management systems
Others	Organizational structure/Professional competence
	Online reporting and proper handling of documents' accuracy and completeness
	Relevant performance and experience
	Accuracy of written information
	Establish the ISO 14001 system or operating standards

5.3.2 Air Pollution Prevention and Control GRI 305-6 GRI 305-7

TSC is committed to air pollution prevention and environmental protection. All of our production site 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 scrubber, ionization decomposition, fume filtration, and VOCs adsorption treatment system, while a third-party inspection organization is commissioned to conduct regular inspections to ensure that the emission standards are met.

The air pollutants generated by each production site vary slightly due to the different nature of chip manufacturing and packaging testing. There are no emissions of sulfur oxides (SOx), ozone layer depleting substances, persistent organic pollutants (POPs), suspended particulates (PM), and other gases. In 2023, the average VOC emissions at TSC's production sites in Taiwan were better than the emission standards set by the Ministry of Environment, whereas our Shandong and Tianjin sites recorded a VOC emission rate of 0.206 kg per hour and 0.039 kg per hour, respectively, which were better than the emission standards set by the local environmental protection agencies.

Air pollutant emissions at TSC's production sites over the past few years

Unit: metric tons

	Li-Je Site			I-lan Site			Shandong Site			Tianjin Site			Total		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
NOx	1.398	2.596	1.307	N.D	N.D	N.D	N.D	N.D	N.D	0.705	N.D	5.075	2.103	2.596	6.382
SOx	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
VOCs	3.523	3.865	0.692	0.811	1.773	0.605	3	3.53	1.63	1.881	0.496	0.276	9.215	9.664	3.203
Particulate pollutants	0.117	0.217	0.109	N.D	N.D	N.D	1.21	1.79	1.96	N.D	N.D	N.D	1.327	2.007	2.069
Others	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	2.754	1.651	0.556	2.754	1.651	0.556
Total hazardous gas emissions	5.038	6.678	2.108	0.811	1.773	0.605	4.210	5.320	3.590	5.34	2.147	5.907	15.399	15.918	12.21

Note:
1. The data above are measured using 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 Li-Je and I-lan 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.
2. Only the types of gases emitted were listed in the table above. There were no emissions of sulfur oxides (SOx), ozone-depleting substances, persistent organic pollutants (POPs), particulate matter (PM), or hazardous air pollutants (HAPs). N.D. represents not detected.
3. In conjunction with amendments to the Air Pollution Control and Emissions Standards for the Semiconductor Industry promulgated by the Ministry of Environment in 2023, 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.
4. "Others" in the table above refer to three types of gases, namely xylene, ethylbenzene and non-methane hydrocarbons, 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

Regular monitoring is carried out through air pollution prevention equipment in parallel with both internal and external audits at TSC's production sites in Taiwan according to the Air Pollution Control and Emissions Standards for the Semiconductor Industry, as well as TSC's production sites in China, namely the Shandong and Tianjin sites, according to the Regulation on the Administration of Permitting of Pollutant Discharges, the Atmospheric Pollutant Emission Standards, the Shandong Province Regional Atmospheric Pollutant Discharge Standards, and the Volatile Organic Compounds Emission Standards Part 7: Other Industries. 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

The main types of air pollutants at TSC are acidic and alkali waste gases and VOCs. TSC prevents pollution using 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.

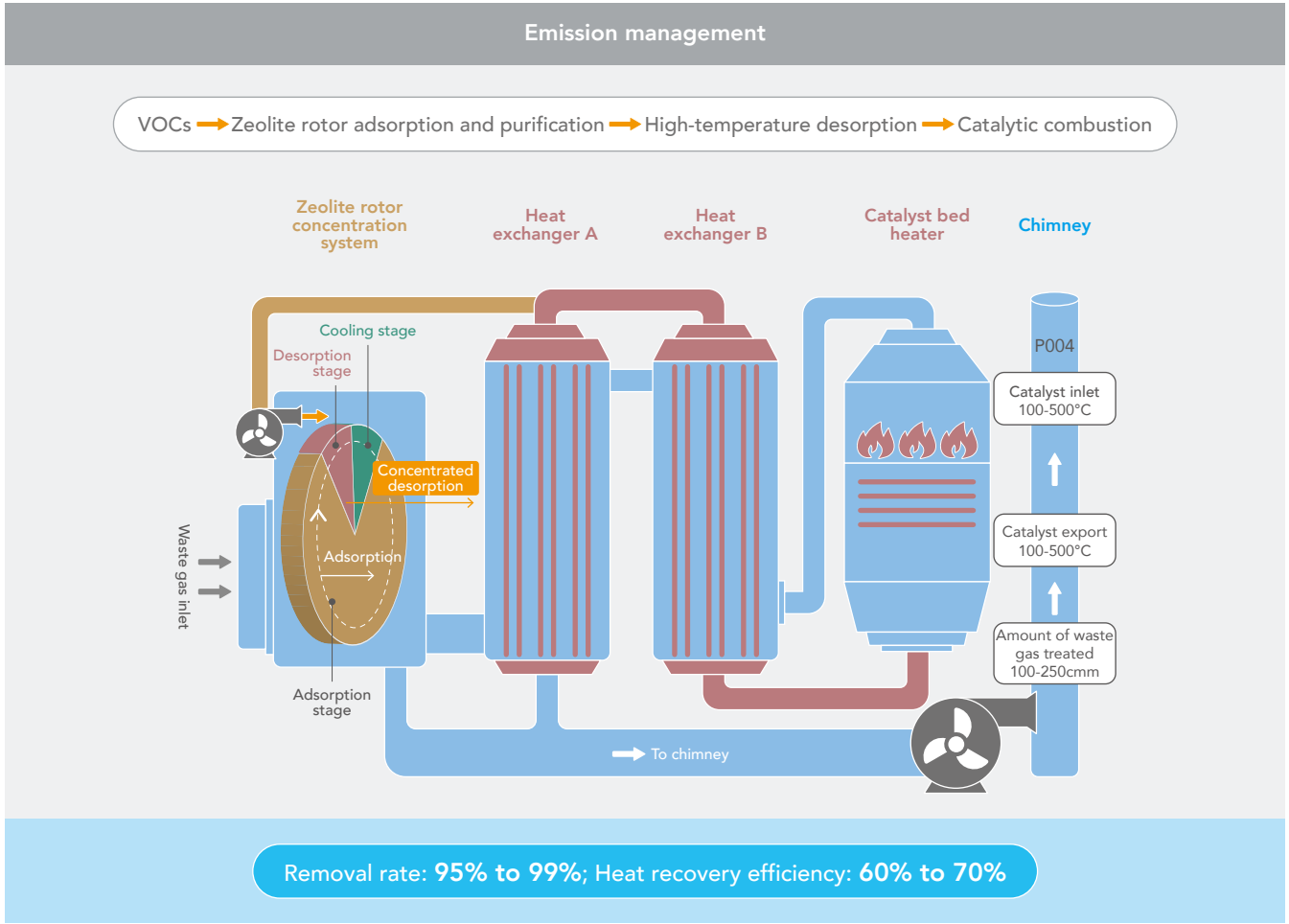
Treatment Methods for Different Types of Air Pollutants

Type of air pollutant	Treatment Method
Acidic or alkaline waste gas	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.
VOCs	**Li-Je Site** Volatile organic compounds (VOCs) are adsorbed and concentrated using a zeolite rotor. This is followed by a continuous high-temperature desorption process and catalytic incineration. As a result, the treated waste gas meets emission standards. The reduction of VOC control equipment (RCO) in 2023 was 94.67%. **I-lan Site** VOCs are treated using scrubbing towers to remove VOCs from the waste gas. The resulting waste liquid is then discharged into the wastewater system. Since the concentration of VOCs is lower at the I-lan Site compared to the Li-Je Site, scrubbing is the preferred treatment method. This eliminates the need for concentrated purification using zeolite rotor adsorption.

The scrubber tower at the Li-Je Site 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 the activated carbon tower in parallel 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 complete the upgrading of 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. Specifically, the filtration system, which uses filter cotton for primary filtration and filter bags for secondary filtration, demonstrates a 93% dust particle treatment rate, whereas the activated carbon adsorption system, which adopts molecular sieve technology, effectively adsorb and purify VOCs through 18m³ of activated carbon in the adsorption box to realize waste gas emissions that steadily meet the standards.

Waste Gas Treatment Flow Chart



6

Sharing Our Prosperity with Society

6.1 Social Influence

6.2 Youth Empowerment

Suggested priority for referring to the stakeholders in this chapter:
☐ Supplier ■ Customer ☐ Employee ■ Investor ■ Government ☐ Media
■ Others (such as the general public, academic institutions, etc.)

6.1 Social Influence

In line with the principle of "taking from society and giving back to society," TSC has set two key social welfare goals: "humanistic care" and "youth empowerment." Recognizing the challenges faced by charitable organizations in recent years, particularly due to the pandemic over the past years, our Li-Je and I-lan sites have taken proactive measures to address the decrease in donations and limited resources. They have organized charity sales, blood donation drives, and other public welfare activities, actively engaging with local communities and making valuable contributions. Regarding youth empowerment, we have initiated industry-academia collaborations and launched internship programs in local campuses, providing students with practical opportunities to apply their knowledge and fostering exchanges between academia and industry. Furthermore, we acknowledge the significant impact of climate change on our planet and, in addition to their focus on "humanistic care" and "youth empowerment," they have plans to launch an "environmental welfare initiative" in 2024, aiming to make a positive impact. The company endeavors to harness the collective power of the public to generate sustainable value and foster a prosperous society.

Two Major Visions and Goals

Vision	Goal	Target group	Corresponding UN SDGs
Humanistic care	Regularly contribute funds or resources to disadvantaged groups requiring assistance, and maintain investment in social engagement.	Various social welfare organizations and institutions	1 NO POVERTY, 11 SUSTAINABLE CITIES AND COMMUNITIES
Youth empowerment	Promoting industry-academia collaboration to nurture talents in the semiconductor industry.	University and college students	4 QUALITY EDUCATION

6.1.1 Humanistic Care

To implement social care and practice corporate social responsibility, TSC endeavors to create a favorable working environment and actively engages in public welfare initiatives. From the 2009 flood in the wake of Typhoon Morakot to the 2014 Kaohsiung gas explosion, and later to monetary donation for COVID-19 prevention in 2022, we have not only spared no efforts in making social welfare donations, but also organized various social welfare initiatives, with a view to practicing social engagement. Despite the ongoing pandemic over the years, we continue to make meaningful contributions through charity sales, material donations, and monetary support. These actions have positively impacted our employees, fostering a culture of social responsibility and encouraging their active involvement in social welfare activities.

Since 2009, we have donated over NT$15 million to disaster relief, medical facilities, education subsidies, and charitable organizations. Furthermore, 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 region). These initiatives exemplify our commitment to addressing the nutritional needs of children through tangible actions. In addition, 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 I-lan and Li-Je sites donated a total of 321 invoices to social welfare organizations in 2023. On the other hand, we have also been closely following charity donations at our operating locations abroad. Aside from disaster relief donations, our Shandong and Tianjin sites, due to the impact of the COVID-19 pandemic, have donated a cumulative total of NT$1,980,000 to COVID-19-related initiatives since 2020, while donations to the employment protection fund for the disabled from these two sites have so far exceeded NT$4,310,000.

Cumulative total of donations for social welfare initiatives

Operating site	Category	Amount (NT$)
Taiwan (I-lan and Li-Je sites)	Underprivileged schoolchildren	2,635,951
	Social care aid	3,190,000
	Social welfare gift vouchers*2	966,800
	Invoice donations*3	4,947
Mainland China (Shandong and Tianjin sites)	Donations to COVID-19-related initiatives between 2020 and 2022	1,980,000
	Wenchuan Earthquake and "Donate a Day's Salary" charity drive	Approximately 2,330,000
	Employment protection fund for the disabled	4,310,000

Note:
1. The cumulative total amount of donations to social welfare initiatives presented in the table above spans the period from 2009 to 2023.
2. This figure indicates the total amount of gift vouchers jointly raised by the Employee Welfare Committee of our I-lan and Li-Je sites in 2022.
3. The figure indicates the cumulative total amount of donations collected from the invoice donation box at our I-lan and Li-Je sites in 2023.

2019

- 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 region). These initiatives exemplify our commitment to addressing the nutritional needs of children through tangible actions.


宜蘭縣政府
感謝狀
台灣半導體股份有限公司
捐贈宜蘭縣學童營養午餐經費
新臺幣壹佰萬元整
熱心公益 嘉惠學子
特頒此狀 謹致感謝
縣長 林姿妙
中華民國 108 年 12 月 31 日

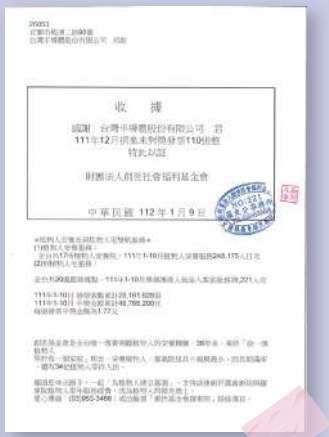
2021

- TSC's Li-Je and I-lan sites joined forces to organized the TSC Pandemic Blood Donation Drive in 2021, following a sharp drop in the number of blood donors at the end of the year, with the intention of contributing to social welfare with bags of blood. The event saw the participation of 100 people, who donated 118 bags of blood in the process.


感謝狀
台灣半導體股份有限公司
110 年 1 月 26 日
於本會台北捐血中心捐獻
血液 118 袋濟助病患善行
可敬特此致謝
主任 林敏昌
中華民國 110 年 2 月 1 日
台北捐血中心

2023

- Our I-lan and Li-Je sites donated a total of 321 invoices to social welfare organizations in 2023


收據

收據

- Receipts for the donations made by our I-lan and Li-Je sites in 2023


謝卡(收據)

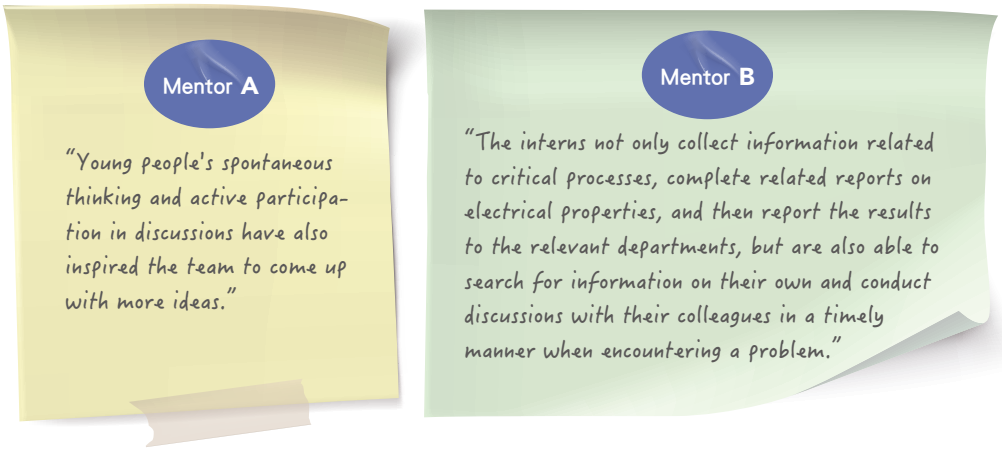
謝卡(收據)

6.2 Youth Empowerment

As we believe that talent is the cornerstone of industrial development, our focus in youth empowerment is to facilitate talent development and deepening such efforts on an ongoing basis. In an effort to connect students to practical developments, TSC has been actively rolling out and hosting internship programs in recent years, with a view to nurturing ready-to-work talents in collaboration with universities and colleges through suitable R&D or product improvement projects.

In 2023, TSC initiated the TSC Internship Program in collaboration with top-quality comprehensive universities, with the intention of providing students from related departments with internship opportunities and nurturing outstanding talents.

We offer full-semester internship opportunities, in which students are provided with professional guidance, advise, and support through project-based research, in line with what they have learned in universities and a dedicated mentoring system, to achieve the desired results of the project. Mentors assist students in setting specific and achievable phased goals, so that students gain experience and a deep understanding of the fundamental theories of manufacturing processes and applications in the field of semiconductor devices. As such, students gain practical working experience, which in turn enables them to understand in advance technologies in the industry and the competencies required in the workplace, thereby connecting academic learning with workplace practices.



Upon completion of the internship, interns are required to give a presentation to demonstrate excellent learning outcomes and, through their projects, showcase their achievements in the internship that can be used for improving follow-up engineering processes and analysis, parameters in new manufacturing processes, and so on. TSC has been able to witness interns' positive learning attitude and potential through internship programs, which not only stimulates more ideas within our team, but also allows us to establish a local talent pipeline, which is of great help to the sustainable development of TSC.

With a total of nearly 1,500 internship hours in 2023, the interns have excelled in their first attempt at the topics they were assigned to, and achieved outstanding results in the internship credit recognized by their respective universities. Such an internship opportunity not only provides interns with experience in the workplace, but also greatly stimulates and activates thinking at TSC, thus becoming a win-win strategy at the end of the day.

Future Industry- Academia Collaboration Projects

TSC is committed to enhancing the competitiveness of the youth generation and nurturing talents for the semiconductor industry. In the future, TSC will also continue to expand the scope of industry-academia collaboration and establish long-term partnerships with universities and colleges, which are expected to progress with different departments and schools across various universities and colleges, with a view to jointly development practical and innovative internship courses and projects, such as technical project research, corporate visits, cooperative education-based internship, and industry technology collaboration. These courses and projects will be designed based on the company's actual needs and market trends so as to provide students with more practical opportunities to connect with the industry and a platform for their career development.

To foster talent that meets the demands of the industry, establish a connection between academia and industry, and strengthen the competitiveness of the semiconductor industry, we partner with research universities to launch research projects. Working alongside professors specializing in relevant fields, we undertake practical research to tackle industry challenges. Additionally, TSC aims to facilitate open communication among students, companies, and professors through this collaboration, thereby expediting the advancement of semiconductor technology and internal knowledge enrichment.

Appendix 1: GRI Standards Content Index

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2-8	Workers who are not employees	4.1.1 Diversity and Inclusion	
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406-1	Incidents of discrimination and corrective actions taken	4.2.2 Labor Relations and Human Rights Management	92
GRI 407: Freedom of Association and Collective Bargaining 2016			
407-1	Operations and suppliers at significant risk for incidents of child labor	4.2.2 Labor Relations and Human Rights Management	92
GRI 408: Child Labor 2016			
408-1	Operations and suppliers at significant risk for incidents of child labor	4.2.2 Labor Relations and Human Rights Management	92
GRI 409: Forced or Compulsory Labor 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	4.2.2 Labor Relations and Human Rights Management	92
GRI 416: Customer Health and Safety 2016			
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	2.1.1 Products and Services	47
GRI 417: Marketing and Labeling 2016			
417-1	Requirements for product and service information and labeling	2.1.1 Products and Services	47
417-2	Incidents of non-compliance concerning product and service information and labeling	2.1.1 Products and Services	47
GRI 418: Customer Privacy 2016			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	1.4 Information Security Management	39

Appendix 2: Sustainability Accounting Standards Board (SASB) Content Index

SASB		Report Chapters and Descriptions	Page Number
Activity Metric			
TC-SC-000.A	Total production	2.1.1 Products and Services	42
TC-SC-000.B	Percentage of production from owned facilities	2.1.1 Products and Services	42
Greenhouse Gas Emissions			
TC-SC-110a.1	(1) Gross global Scope 1 emissions (2) Amount of total emissions from perfluorinated compounds	5.2.1 Carbon Emission Management	119-120
TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	5.2.1 Carbon Emission Management	121
Energy Management in Manufacturing			
TC-SC-130a.1	(1) Total energy consumed (2) Percentage grid electricity (purchased electricity) from total energy consumption (3) Percentage renewable from total energy consumption	5.2.2 Energy Management	123
Water Management			
TC-SC-140a.1	(1) Total Water Withdrawal (2) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	5.2.3 Water Stewardship	129
Waste Management			
TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	5.3.1 Waste Management	138
Employee Health & Safety			
TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	4.2.3 Workplace Safety Management	96-100
TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	4.2.3 Workplace Safety Management	98

SASB		Report Chapters and Descriptions	Page Number
Global Technical Talent Recruitment and Management			
TC-SC-330a.1	Proportion of Employees in the Following Categories: (1) Foreign Nationals and (2) Overseas Workers	4.1.1 Diversity and Inclusion	72
Product Lifecycle Management			
TC-SC-410a.1	Product Proportion Containing Substances Listed in the IEC 62474 Material Declaration	2.1.1 Products and Services Taiwan strictly complies with international regulations, directives and customer requirements regarding hazardous substances, such as the Restriction of Hazardous Substances Directive (RoHS) and the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) in the European Union. In addition, Taiwan complies with the International Electrotechnical Commission (IEC) 62474 standard format for material declarations in the electronics industry. There were no instances of non-compliance with these regulations or guidelines in 2023.	42
Materials Sourcing			
TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	3.1.3 Conflict Mineral Management We do not use conflict minerals in the manufacture of our products, and we conduct an annual review to ensure that our products do not contain minerals from conflict areas.	69
Intellectual Property Protection & Competitive Behavior			
TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	1.3.2 Compliance with Laws and Regulations	35

Appendix 3: Climate-Related Information of TPEx Listed Company

According to 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. Describe the Board of Directors' and management's oversight and governance of climate-related risks and opportunities.	Please refer to 5.1.1 Climate Governance and Strategies
2. Describe how the identified climate risks and opportunities affect the business, strategy, and finances of the business (short, medium, and long term).	
3. Describe the financial impact of extreme weather events and transformative actions.	
4. Describe how climate risk identification, assessment, and management processes are integrated into the overall risk management system	
5. If scenario analysis is used to assess resilience to climate change risks, the scenarios, parameters, assumptions, analysis factors and major financial impacts used should be described.	
6. If there is a transition plan for managing climate-related risks, describe the content of the plan, and the indicators and targets used to identify and manage physical risks and transition risks.	
7. If internal carbon pricing is used as a planning tool, the basis for setting the price should be stated.	There are currently no plans being considered, and the company is still in the discussion phase.
8. If climate-related targets have been set, the activities covered, the scope of greenhouse gas emissions, the planning horizon, and the progress achieved each year should be specified. If carbon credits or renewable energy certificates (RECs) are used to achieve relevant targets, the source and quantity of carbon credits or RECs to be offset should be specified.	Please refer to "5.1.1 Climate Governance and Strategies - Indicators and Goals."
9. Greenhouse gas inventory and assurance status	Please refer to section 5.2.1 "Carbon Emission Management" and Appendix Four.

Appendix 4: Greenhouse gas inventory and assurance status

Basic Company Information

- ☐ Companies in the steel and cement industries with a capital exceeding NT$10 billion.
- ☐ Companies with a capital between NT$5 billion and NT$10 billion
- ■ Companies with 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:

- ■ Individual Audit of the Parent Company
- ☐ Consolidated Financial Statements Subsidiary Audit
- ☐ Individual Assurance of the Parent Company
- ☐ Consolidated Financial Statements Subsidiary Assurance

2023 Annual Statistics of GHG Emissions in Taiwan

Scope 1	Total Water Discharge (Metric tons CO_2e)	Intensity (Metric Tons of CO_2e/ NT$million)	Assurance Institution	Assurance Explanation
Parent Company	7,897	0.54	TUV	As of the printing date of the annual report, it has not been confirmed yet; it is expected to be completed by the end of June, and full information will be disclosed in the sustainability report.
Subsidiary	38	0.003	TUV	The scope of subsidiary statistics includes Yangxin Everwell Electronic Co., Ltd. The remaining consolidated subsidiaries will disclose the consolidated corporate investigation information for the previous year (2026) before 2027 in accordance with the "Sustainable Development Roadmap for Listed Companies" issued by the Financial Supervisory Commission on March 3, 2022. In 2029, they will disclose the consolidated corporate investigation information and confirmation for the previous year (2028).
Total	7,935	0.54	-	-

Scope 2	Total Water Discharge (Metric tons CO_2e)	Intensity (Metric Tons of CO_2e/ NT$million)	Assurance Institution	Assurance Explanation
Parent Company	14,128	0.97	TUV	As of the printing date of the annual report, it has not been confirmed yet; it is expected to be completed by the end of June , and full information will be disclosed in the sustainability report.
Subsidiary	23,261	1.59	TUV	The scope of subsidiary statistics includes Yangxin Everwell Electronic Co., Ltd. The remaining consolidated subsidiaries will disclose the consolidated corporate investigation information for the previous year (2026) before 2027 in accordance with the "Sustainable Development Roadmap for Listed Companies" issued by the Financial Supervisory Commission on March 3, 2022. In 2029, they will disclose the consolidated corporate investigation information and confirmation for the previous year (2028).
Total	37,370	2.56	-	-

Note:
1. According to the "Sustainable Development Roadmap for Listed Companies," the Company is required to disclose the complete consolidated company investigation information for 2026 in 2027, and the consolidated company investigation information and confirmation situation for 2028 in 2029. This year, the Company is voluntarily disclosing the current operational situation.
2. As of the printing date of the annual report, it has not been confirmed yet; complete information will be disclosed in the sustainability report
3. Scope 1 (Direct emissions, i.e., emissions from sources owned or controlled by the Company) Scope 2 (Energy indirect emissions, i.e., emissions from the consumption of purchased electricity, heat, or steam)

Appendix 5: Sustainability Disclosure Indicators - Semiconductor Industry

No.	Indicator	Type of Indicator	Unit:	Chapter	Page Number
1	Total energy consumption, percentage of purchased electricity, and renewable energy utilization rate	Quantity	One billion gigajoules (GJ), percentage (%)	5.2.2 Energy Management	123
2	Total Water Withdrawal and Consumption	Quantity	Cubic meters (m^3)	5.2.3 Water Stewardship	129
3	The weight of hazardous waste generated and the percentage recycled	Quantity	Metric tons (t), Percentage (%)	5.3.1 Waste Management	138
4	Description of Occupational Accident Categories, Number of Incidents, and Rates	Quantity	Percentage (%), Quantity	4.2.3 Workplace Safety Management	97-98
5	Disclosure of Product Lifecycle Management: Weight of Scrap Products and Electronic Waste, and Percentage of Recycling	Quantity	Metric tons (t), Percentage (%)	5.3.1 Waste Management	138
6	Description of Risk Management Related to the Use of Key Materials	Qualitative Description	N/A	3.1.1 Supply Chain Overview 3.1.2 Sustainable Supply Chain Management 3.1.3 Conflict Mineral Management	62-69
7	Total Monetary Losses Resulting from Legal Disputes Related to Anti-competitive Practices	Quantity	Reporting currency	No legal proceedings related to anti-competitive behavior occurred in TSC in 2023.	-
8	According to the production category, the main product output	Quantity	The price varies depending on the type of product	2.1.1 Products and Services	42

Appendix 6: 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 2023 Sustainability Report of TSC ("the Report") for the year ended December 31, 2023.

Applicable Criteria of the Subject Matter Information

TSC shall prepare the Subject Matter Information in accordance with applicable criteria required by 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.

KPMG

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, 2023 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 Hsiao, Pei-Ju and Kuo, Yang-Lun.

KPMG

Taipei, Taiwan (Republic of China)
July 26, 2024

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.

Appendix I：Summary of the Subject Matter Information

No.	Corresponding Section	Subject Matter Information	Applicable Criteria
1	1.3.2 Regulatory Compliance	■ In 2023, there were no significant incidents of anti-corruption, anticompetitive behavior, money laundering, or insider trading. There were also no other major violations occurred (Note 1). However, there were two cases that violated Article 7, Paragraph 1 of the Water Pollution Control Act. Note 1: Major violations are in accordance with the provisions of the "Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities. In 2023, TSC did not encounter any major violations. ■ Violations in 2023 • Penalized Unit: TSC Li-Je Site – Fault: On January 10, 2023, the water sampling quality test results for the discharge port (D01) did not meet the effluent standards (suspended solids: 33.8 mg/L, maximum limit: 30 mg/L). – Fines: NT$221 thousand • Penalized Unit: TSC Li-Je Site – Fault: On July 24, 2023, the water sampling quality test results for the discharge port (D01) did not meet the effluent standards (suspended solids: 42.0 mg/L, maximum limit: 30 mg/L). – Fines: NT$179 thousand	GRI Standards 2-27 Compliance with laws and regulations
2	3.1.1 Supply Chain Overview	■ In 2023, local procurement accounted for 64.66% of the total amount of procurement at TSC. ■ Procurement from local suppliers at key operating locations • 2023 Percentage of procurement from local suppliers (%): 64.66% Note 1: TSC's primary operating sites comprise all production sites, including our Li-Je, I-lan, Shandong, and Tianjin sites. Note 2: Local suppliers are defined according to the geographical location of each plant, where our I-lan and Li-Je sites represent the entire Taiwan region, while our Shandong and Tianjin sites represent the China region. Note 3: The statistical scope includes categories of raw material and finished product suppliers (excluding triangular trade). ■ 2023 Distribution of local procurement at TSC • Operating sites in China: 61.00% • Operating sites in Taiwan: 71.89%	GRI Standards 204-1 Proportion of spending on local suppliers
3	5.2.2 Energy Management	■ TSC's production sites use electricity, diesel, and gasoline as their energy sources. In 2023, the primary source of energy consumed by TSC was purchased electricity, which accounted for 99.8% of TSC's total energy consumption. ■ 2023 Total energy consumption at TSC: 210,140.72 GJ ■ Energy consumption at TSC's operating sites	GRI Standards 302-1 Energy consumption within the organization

No.	Corresponding Section	Subject Matter Information	Applicable Criteria
3	5.2.2 Energy Management	• Taipei headquarters & Hsinchu Office: – Total energy consumption: 1,231.77 GJ – Non-renewable fuels _ Gasoline: 51.05 GJ – Non-renewable fuels _ Purchased electricity: 1,180.72 GJ • Li-Je Site: – Total energy consumption: 73,728.68 GJ – Non-renewable fuels _ Gasoline: 10.20 GJ – Non-renewable fuels _ Diesel: 86.96 GJ – Non-renewable fuels _ Purchased electricity: 73,631.52 GJ • I-lan Site: – Total energy consumption: 28,321.43 GJ – Non-renewable fuels _ Gasoline: 1.31 GJ – Non-renewable fuels _ Diesel: 2.81 GJ – Non-renewable fuels _ Purchased electricity: 28,317.31 GJ • Shandong Site: – Total energy consumption: 87,856.74 GJ – Non-renewable fuels _ Gasoline: 173.48 GJ – Non-renewable fuels _ Diesel: 53.98 GJ – Non-renewable fuels _ Liquefied Petroleum Gas: 1.52 GJ – Non-renewable fuels _ Purchased electricity: 87,627.76 GJ • Tianjin Site: – Total energy consumption: 19,002.10 GJ – Non-renewable fuels _ Purchased electricity: 19,002.10 GJ Note 1: Gasoline is not distinguished by octane number. Note 2: Conversion coefficients were taken from published by the Heat Content of Energy Products published by the Bureau of Energy, Ministry of Economic Affairs, where Gasoline: 7,800 kcal per liter (1 liter of gasoline = 0.0327 GJ); Diesel: 8,400 kcal per liter (1 liter of diesel = 0.0352 GJ); Liquefied Petroleum Gas: 6,635kcal per liter (1liter of liquefied petroleum gas = 0.0505GJ); Electricity: 860 kcal per kWh (1 kWh of electricity = 0.0036 GJ). Note 3: The figures above are rounded to two decimal places. Note 4: The Hsinchu Office was officially opened in 2023, and its data was combined with that of the Taipei headquarters starting in 2023. Note 5: TSC did not sell any electricity, heating, cooling, or steam in 2023. Note 6: The total non-renewable energy consumption in 2023 was 210,140.72 GJ, and the total renewable energy consumption was 0 GJ.	GRI Standards 302-1 Energy consumption within the organization
4	5.2.3 Water Resource Management	■ 2023 Total water withdrawal: 736.73 megaliters ■ 2023 Amount of water withdrawn at TSC's operating sites • Taipei headquarters and Hsinchu Office: – Total water withdrawal: 1.92 megaliters – Third-party water: 1.92 megaliters	GRI Standards 303-3 Water withdrawal

No.	Corresponding Section	Subject Matter Information	Applicable Criteria
4	5.2.3 Water Resource Management	• Li-Je Site: – Total water withdrawal: 246.76 megaliters – Surface water: 223.91 megaliters – Third-party water: 22.85 megaliters • I-lan Site: – Total water withdrawal: 32.77 Megaliters – Groundwater: 30.15 megaliters – Third-party water: 2.62 megaliters • Shandong Site: – Total water withdrawal: 218.17 Megaliters – Groundwater: 211.14 megaliters – Third-party water: 7.03 megaliters • Tianjin Site: – Total water withdrawal: 237.11 Megaliters – Third-party water: 237.11 megaliters Note 1: Third-party water refers to tap water. In 2023, TSC did not withdraw water from seawater or produced water sources. Note 2: Third party water and surface water withdrawal data is obtained from the water bill, whereas groundwater withdrawal data is collected from the water meter reading records of the operating sites. Note 3: Disclosure of related data for the Taipei headquarters began in 2022, which was calculated based on the proportion of water used on each floor indicated on the water bill of the office building. There were no separate water meters to measure water discharge at the Taipei headquarters and the Hsinchu Office. The Hsinchu office was officially opened in 2023, and its data has been consolidated with the Taipei headquarters for disclosure. Note 4: According to the WRI Aqueduct Tool, the formula for calculating water stress is as follows: Total annual water withdrawals divided by total available annual renewable supply. Areas with a water stress index ranging from 40% to 80% are classified as high water stress areas, while those exceeding 80% are categorized as extremely high water stress areas. TSC exclusively relies on freshwater sources with a total dissolved solid content of≦ 1,000 mg/L. The water stress index for Taiwan region and Tianjin Site is below 40%; only the Shandong Site is located in an area with extremely high water stress risk.	GRI Standards 303-3 Water withdrawal

No.	Corresponding Section	Subject Matter Information	Applicable Criteria
5	4.1.1 Diversity and Inclusion	■ New Employees 	New Employees		2023	
		Total	Percentage
Gender	Male	95	67%
	Female	47	33%
Age	Under 30 years old (inclusive)	56	39%
	31 to 49 years old	76	54%
	50 years old and above (inclusive)	10	7%
Region	Taiwan	119	84%
	Mainland China	23	16%
Total		142	100% | Note: Percentage is calculated by dividing the number of each category of employees by the total number of new employees in that year. ■ Employee Turnover | Employee turnover		2023	
		Total	Percentage
Gender	Male	113	52%
	Female	103	48%
Age	Under 30 years old (inclusive)	66	31%
	31 to 49 years old	126	58%
	50 years old and above (inclusive)	24	11%
Region	Taiwan	97	45%
	Mainland China	119	55%
Total		142	216	 Note 1: Percentage is calculated by dividing the number of each category of employees by the total number of turnovers in that year. Note 2: All employees are full-time and permanent.	GRI Standards 401-1 New employee hires and employee turnover
6	4.1.2 Human Resource Development	■ In 2023, the average number of training hours per employee was 62.12 hours.	GRI Standards 404-1 Average hours of training per year per employee

<table>
<tr><th>No.</th><th>Corresponding Section</th><th>Subject Matter Information</th><th>Applicable Criteria</th></tr>
<tr><td>6</td><td>4.1.2 Human Resource Development</td><td>■ Average Training Hours in 2023
<table>
<tr><td colspan="2">Average Training Hours in 2023</td><td>Taiwan</td><td>Mainland China</td></tr>
<tr><td rowspan="2">Gender</td><td>Male</td><td>63.74</td><td>58.59</td></tr>
<tr><td>Female</td><td>49.95</td><td>68.07</td></tr>
<tr><td rowspan="2">Position Level</td><td>Management Level</td><td>63.57</td><td>72.76</td></tr>
<tr><td>Non-management level</td><td>56.85</td><td>64.01</td></tr>
<tr><td colspan="2">Total Number Note</td><td>698</td><td>900</td></tr>
<tr><td colspan="2">Total Training Hours</td><td>40,601.40</td><td>58,665.57</td></tr>
<tr><td colspan="2">Average Training Hours</td><td>58.17</td><td>65.20</td></tr>
<tr><td colspan="2">Total average training hours (total training hours / total number of people)</td><td colspan="2">62.12</td></tr>
</table>
Note: Method of calculating total number: The total number of individuals who received training between January 1, 2023 and December 31, 2023.</td><td>GRI Standards 404-1 Average hours of training per year per employee</td></tr>
<tr><td>7</td><td>2.2.1 Customer Satisfaction Improvement</td><td>■ TSC annually conducts customer satisfaction surveys to understand customer needs and improve product quality, converting those needs into tangible actions to enhance the Company's long-term competitiveness. At the beginning of each year, TSC selects a list of customers for satisfaction surveys based on the previous year's revenue. After confirming customer contact information by regional sales, the system sends out satisfaction surveys covering product, delivery, and service content. The surveys are filled out over one month, and sales conduct statistical analysis on the collected surveys. They will proactively seek further feedback from customers who gave lower scores and propose specific improvement measures based on their opinions and evaluations. After implementing improvement measures for six months, sales will send satisfaction surveys again to customers who gave low scores in the middle of the year to confirm the effectiveness of the improvements.
■ 2023 Key Customer Satisfaction Survey Index (Max Score: 5/5): 4.6
Note: The above index cover the TSC Group's rectifier business unit and do not include data from re-sent satisfaction surveys.</td><td>Customer Satisfaction Survey</td></tr>
</table>

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