

2023 ESG Report



Taita Chemical Company, Limited

Table of Contents

About this Report	02
Message from the Chairman	03
Sustainable Key Performance	05
Corporate Sustainability Vision	06
Our Value Chain	09
Stakeholder Engagement	11
Material Topics Management	16
United Nations Sustainable Development Goals (SDGs)	21

1. Establish Robust Governance

23

1.1 Corporate Governance	24
1.2 Economic Performance ♦	34
1.3 Risk Management	37
1.4 Ethical Corporate Management	39

2. Build Innovative Supply Chains

42

2.1 Product Quality ♦	43
2.2 Technology R&D ♦	49
2.3 Supply Chain Management	51

♦ : Material Topics in 2023

3. Create Friendly Environments

56

3.1 Eco-friendly Management	57
3.2 Climate Change and Energy Management ♦	60
3.3 Water Management ♦	72
3.4 Air Pollution Control ♦	76
3.5 Waste Management ♦	81

4. Foster an Inclusive Society

86

4.1 Talent Attraction and Retention ♦	87
4.2 Talent Development	97
4.3 Occupational Safety and Health ♦	100
4.4 Social Engagement	109

Appendices

117

GRI Content Index	118
Chemical Industry SASB index	122
Sustainability Disclosure Indicators - Plastics Industry	123
Climate-related Financial Disclosures	123
UN Sustainable Development Goals (SDGs) Content Index	127
External Assurance Report	128

About this Report

Reference Guidelines

For all stakeholders to understand our performance in relation to corporate social responsibility, we, Taita Chemical Company, Limited (TTC), have prepared this report in accordance with the GRI Sustainability Reporting Standards 2021 (GRI Standards:2021) published by the Global Reporting Initiative (GRI), disclosed the contents of the related sustainable issues with respect to the Sustainability Accounting Standards-Chemicals published by the Sustainability Accounting Standards Board (SASB) and "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies," as well as recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) and United Nations Global Compact to establish the reporting framework, to be line with the objectives and action plans by the United Nations Sustainable Development Goals (SDGs).

Report Scope

 GRI 2-2, GRI 2-3

This report mainly covers Taita Chemical Company (TTC), including the Taipei head office, Qianzhen plant, Linyuan plant (including the Kaohsiung branch), Toufen plant, and overseas subsidiaries – TTC (Zhongshan plant, Tianjin plant and Zhangzhou plant^{Note}). In April 2019, the Tianjin plant temporarily halted production due to expected market shrinkage in the north, and staff were legally dismissed. Hence the Tianjin plant only discloses financial information, while environmental data pertains to the Qianzhen plant, the Linyuan plant, Toufen plant, and Zhongshan plant. The report disclosure period is from January 1, 2023, to December 31, 2023. The report contents demonstrate USI's environmental, social, and operational management and performance, and the financial information is consistent with the financial data certified by accountants. Some statistics are extracted from the USI annual report, government department, and the open information of related websites.

Note: The Zhangzhou plant has not yet engaged in operation and production, so there is no relevant information or data disclosure.

Internal Audit and Editing Management Procedure for Report



Report Data Collection

- 1 Discussion of report contents in the kickoff meeting
- 2 Preparation by three working teams
- 3 Review by the head of the data responsible departments
- 4 Summary by team leaders



Report Compilation and Review

- 1 Secretary compiles and edits the first draft
- 2 Discussions and reviews of team members
- 3 Proofreading and revision



Third-party External Assurance and Graphic Design

- 1 External assurance
- 2 Arts editing



Senior-level Approval and Publishing

- 1 Approval by members of the ESG Committee
- 2 Approval for publication by the Board of Directors

External Assurance

 GRI 2-5

This report complies with the GRI Standards: 2021 and has been verified by the independent third-party auditing firm "Deloitte Taiwan", which served as the assurance agency. The review focused on compliance with GRI standards and adherence to the Standard on Assurance Engagement 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation of the Republic of China, conducted on five ESG indicators and issued an assurance report accordingly.

Publication Schedule

This sustainability report is regularly published annually

- First publication: December 2015
- Previous publication: June 2023
- Current publication: August 2024
- Next publication: Scheduled for August 2025

You can download the report and other related documents through the "Sustainability" section of the TTC website at: <https://www.ttc.com.tw/zh-tw/dirCSRnew/frmReport.aspx>

Contact Information

 GRI 2-3

If you have any comments or suggestions about the content of this report, please feel free to contact Mr. Chung.

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Message from the Chairman

During this challenging period, we are proactively adjusting our strategy to effectively navigate the rapidly evolving environment. Continuously promote and implement the Environmental, Social, Governance (ESG) strategy based on the core philosophy of "create sustainable value for a sustainable society". Over the past year, significant progress has been achieved across various Sustainable Development Goals, further reinforcing our commitment to social and environmental responsibility.

Participate in the Global Enabling Sustainability Initiative

Constantly self-evaluation by following global trends in sustainable development continuously. In 2023, USI and China General Plastics Corporations participated in the CDP questionnaire for the first time. Through this engagement not only facilitated active involvement and response but also furthered connections with global initiatives. We introduced the concept of Double Materiality advocated by the European Union for conducting comprehensive sustainability analysis. In addition to enhance the governance effectiveness, the Board of Directors has included the ESG Committee in performance assessment for the first time.

Establish Carbon Reduction Goals and Green Energy Plan

We have been dedicated to the energy-saving and carbon reduction plan for several years, ultimately achieving the 27% carbon reduction target by 2030, and this year we have extended this goal to reach carbon neutrality by 2050, aligning with the global goal of Zero emission. The accumulative grid-connected solar PV installations reached 7.2MW, with an estimated to generate over 9 million GWh of green power. We plan to complete solar PV installations with the capacity of 15MW and 20MW in 2025 and 2027, respectively. Aim to reduce the overall impact on the environment through technological innovation and enhance energy efficiency.



Fostering a Culture of Diversity and Inclusion

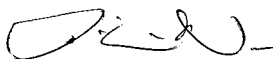
Creating a diversity, equity, and inclusion workplace environment. We actively promote diversity and inclusion through organizing employee hiking activities, collaborating with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University on afforestation projects, and advocating for on-site agricultural education at Satoyama base...etc. Asia Polymer, Taita Chemical, and China General Plastics Corporations have been honored by the Occupational Safety and Health Administration as "Outstanding Enterprise in the Proactive Evaluation of Occupational Health and Safety Indicators" for their achievements in workplace safety. Through the USI Education Foundation, we provide long-term support for vulnerable groups, remote townships, and ecological care projects, laying a solid foundation on social stability and development.

ESG Achievements in 2023

The Company participated in the 16th "Taiwan Corporate Sustainability Awards (TCSA)" in 2023. It was our first time entering the category of Comprehensive Performance of Enterprise Sustainability, where we won the "Taiwan Top 100 Corporate Sustainability Exemplary Awards". Moreover, we received the "Gold Award for Corporate Sustainability Report" for two consecutive years. In sales, we were honored with Awards for Excellent Trading Businesses from the Ministry of Economic Affairs' "Contributions to Expansion in Emerging Markets Award (Africa Market)" in 2023. In terms of net zero carbon reduction, we achieved the Net Zero Industrial Competitiveness Excellence Award from 21st Century Foundation and were recognized among the Business Weekly's "Carbon Competitiveness 100".

Lastly, we believe that these efforts will have a positive impact on the future development of the company. Through continuous innovation, collaboration, and strategy adjustments, we can achieve corporate sustainable development by coexisting and prospering with the environment. We are confident that through the joint efforts of all team members, we can overcome various challenges and achieve our common sustainable development goals.

Chairman of Taita Chemical Company,
Limited



President



2023 Sustainable Key Performance



Ranked among the
top 6% ~ 10%
of listed companies
in the 2023 Corporate
Governance Evaluation

Awards for Excellent Trading Businesses

International Trade Administration - Contributions to Expansion in Emerging Markets Award (Africa Market) - Awards for Excellent Trading Businesses

Taiwan Corporate Sustainability Awards

Honored with "Traditional Manufacturing Industries - Gold Award" of Corporate Sustainability Report Awards at the 16th Taiwan Corporate Sustainability Awards (TCSA) in 2023
Won the "Taiwan Top 100 Corporate Sustainability Exemplary Awards" in the categories of Comprehensive Performance of Enterprise Sustainability at the Taiwan Corporate Sustainability Awards (TCSA) in 2023

NT\$15.2 billion
in Revenue in 2023



Net Zero Industrial Competitiveness Excellence Award

21st Century Foundation - Net Zero Industrial Competitiveness Excellence Award

Carbon Competitiveness 100

Selected as one of the top 100 companies in the Business Weekly's "Carbon Competitiveness 100" in 2023

NT\$122.1 million
total environmental management
expenses in 2023

NT\$45.78 million
total expenditure on energy-saving
equipment in 2023

17.9 % greenhouse gas emissions in 2023
decrease compared to 2017

26.5 % water consumption per unit product
in 2023 decrease compared to
2017



Promote Net Zero Carbon Reduction

USIG has collaborated with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University on afforestation program, adopting 5 hectares of afforestation land

Air Purification Zone Adoption

Participated in Kaohsiung City Environmental Protection Bureau's program, selected as an excellent adoption enterprise and received a certificate of appreciation

7.96 million hours
total work hours without disabling injuries
accumulated across four plants in 2023

NT\$1.443 million
total expenditure of Good Neighborliness
Plan in 2023

Energy Conservation and Carbon Reduction Guidance and Cross-Departmental Greenhouse Gas Cooperation Reduction

Responded to the Kaohsiung City Environmental Protection Bureau's promotion of operations

Outstanding Enterprise in the Proactive Evaluation of Occupational Health and Safety

Ranked among the top 10% of the chemical industry for proactive evaluation of occupational health and safety indicators by the Occupational Safety and Health Administration

Corporate Sustainability Vision

1. Sustainable Vision and Business Strategy

GRI 2-16, GRI 2-22, GRI 2-23, GRI 2-24

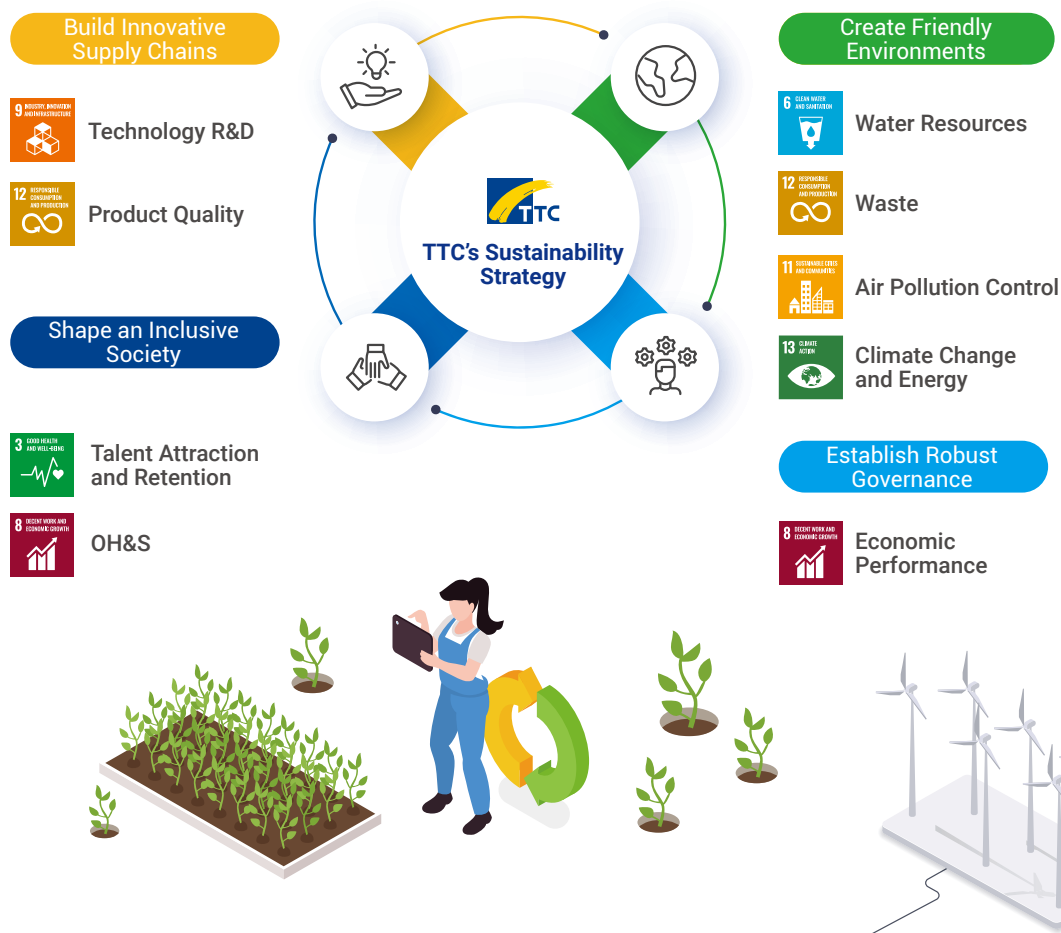
Based on the USIG vision to "create and cohere sustainable value for a sustainable society," we hope to constantly create and cohere sustainable value to contribute to social sustainability. Based on the sustainable vision, we have developed three core strategies: "R&D and innovation," "steady operations," and "social inclusion," hoping to create value with stakeholders together. We extend the contents of the core strategies into seven key topics as the foundation for TTC's Sustainability Strategy

USIG Sustainable Vision

Create sustainable value for a sustainable society



As a member of the USI Group (USIG), TTC will strive to uphold the group's vision and establish four main sustainability principles: establish robust governance, creating an innovative supply chain, fostering a friendly environment, and fostering an inclusive society. We will link issues, and each year we review the consistency between the results of analyzing major issues and sustainable principles, as well as reviewing the status of annual progress achievements. TTC's sustainability strategy and its plans to promote economic, environmental, and social aspects are as mentioned below:



Sustainability Strategy and Short/Medium to Long-term Plan

Short-term (2024)

Plan

Objective

Mid to Long-term (2025 ~ 2030)



- Conduct production and sales budgeting
- Continually plan for capacity expansion
- Ongoing planning for bottleneck elimination
- Retain strong and eliminate weak sales to enhance market competitiveness and maintain profitability
- Improve the basic performance of general-grade ABS products
- Obtain BIS certification for ABS products in India
- Improve particle size concentration of EPS products

- 85% total production and total sales of ABS/SAN, 100% of GPS, 100% of EPS, 85% of Zhongshan EPS, and 100% of GW
- ABS+12,000 tons, EPS+4,200 tons
- Maintain profitability annually
- Improve glossiness up to 99 GD
- Comply with Indian BIS standards
- Three-layer concentration > 90%

- Understand customer needs for the product, integrate USIG's functional technology, and develop products that meet customer requirements
- Retain strong and eliminate weak sales, adjust sales strategy, and strengthen sales of advantageous products
- Market development and expansion of product applications are jointly carried out by R&D personnel and business units
- Optimize EPS process
- Enhancement of general-grade ABS product quality (heat resistance and ABS graft polymer aggregation)
- Southeast Asian market demand - Enhancement of rapid prototyping grade EPS quality (processing and molding efficiency)
- Enhancement of general-grade ABS quality (impact strength, appearance/coloration)



- Environmental laws are becoming increasingly stringent, so work on industrial safety and environmental production can never be relaxed, with each Plant's head acting as the person in charge of the plant area
- The Taipei head office and mainland companies have introduced the ISO 14064-1 greenhouse gas inventory
- Reduce the environmental impact of energy consumption
- Set energy-saving and carbon-reducing targets
- Reduce the impact of air pollution emissions on the environment and the health of residents
- Reduce the harm of waste to the environment and human health

- Assign responsibilities for industrial safety and environmental production at different levels
- The greenhouse gas inventory of the Taipei head office and mainland companies will complete external verification and certification before 3Q 2024
- Reduce energy consumption per unit of product by 3%
- Electricity saving rate of 1%, the annual carbon reduction target achievement rate of 100%
- The number of fines for exceeding air pollutant emission limits is 0
- The proper waste handling rate is 100%

- Energy consumption per unit of product is reduced by 5% compared to the 2017 baseline year
- The number of fines for exceeding air pollutant emission limits is 0
- The proper waste handling rate is 100%



- Guidance and training for Process Safety Management (PSM)
- Create a happy workplace, providing employees with a safe and enjoyable work environment
- Provide employees with comprehensive education and training
- Reduce occupational accidents
- Equal pay regardless of gender
- Sponsorship of social welfare

- Scheduled to complete the PSM system by February 2024 for Linyuan and Qianzhen factories
- Reduce the turnover rate to below 7.5%
- Average training goal is 18.5 hours per person
- Zero industrial accidents, zero incidents of disabling injuries
- No violations of labor laws and human rights

- Linyuan and Qianzhen plants continue to promote PSM
- Reduce the turnover rate to below 7.5%
- Average training goal is 20 hours per person
- Strengthen industrial safety inspections, zero industrial accidents
- Care for vulnerable groups, fulfill social responsibilities
- For process optimization and product development, compliance with the goal of safety and environmental five zeros (zero pollution, zero emissions, zero occupational hazards, zero accidents, and zero failures)



2. Operating Philosophy and Strategic Goals:

As part of the USIG, TTC has inherited the group's operating philosophy of "prudence, professional management, pursuit of excellence, and service to society", and the corporate cultural characteristics of "pursuing rationalization, pragmatism, continuous improvement, honesty and fairness, harmony as the most precious, respect and care". By integrating efficient management methods of modern enterprises, TTC uses "knowledge", "innovation", "integration", and "development" as pillars to build its corporate territory, to achieve the goals of sustainable operation and continuous growth of the enterprise.



Operating goal: Provide customers with satisfactory operational quality

2023 Strategic Focus: Resilience + Flexibility

- 1 Production and Sales Budget: ABS/SAN all produced and sold 85%. GPS all produced and sold 100%. Qianzhen EPS all produced and sold 100%. Zhongshan EPS all produced and sold 85%. GW all produced and sold 100%.
- 2 ABS/GPS developing non-mainland market
- 3 Continually plan for capacity expansion
- 4 Continuous planning for bottlenecks: ABS + 12,000 tons; EPS +4,200 tons

Short-term Goals

- Develop dominant markets, adjust sales strategies, and enhance sales of dominant products
- Implement the management of raw materials/finished products and supply chain
- Improve operational efficiency
- Improve customer service quality

Medium & Long-term Goals

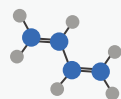
- Collect information from the market in-depth, provide technical services to customers, conduct market development and expand product application fields
- Understand the current situation of global bulk raw materials, optimize supply chain management and profit opportunities from product sales
- Set target markets and customers, leveraging the existing market advantages of TTC to enhance overall operational efficiency and profitability
- Research and develop new and niche products that are friendly to the environment and customers, meet market and customer needs, improve technical research and development capabilities, and enhance company profits

Our Value Chain

GRI 2-6

1. Main Products and Value Chain

The main products of TTC are ABS resin, AS resin, GPS, EPS, High Impact Polystyrene (referred to as IPS), and glass wool.



Butadiene



Propylene



Styrene



Window glass, silica sand, metal oxides

• Linyuan Plant
TAITALAC® ABS Resin

• Linyuan Plant
TAITALAC® SAN Resin

• Qianzhen Plant
TAITAREX® GPPS Resin

• Qianzhen Plant/Zhongshan Plant
TAITACELL® EPS foam

• Qianzhen Plant
TAITAREX® HIPS Resin

• Toufen Plant
High temperature melting/
spinning forming process

ABS

Battery cases, safety helmets, pipes, bathroom accessories, and applications requiring flame retardant, etc.



AS

Bathroom, packaging, fruit and vegetable boxes, and building materials, etc.



GPS

Home appliances, 3C accessories, light guide plates, food containers, and packaging boxes, etc.



EPS

Packaging, food containers, and building materials, etc.



IPS

Computer peripheral products, household appliances, pressing board products, wire reels, and floats, etc.



Glass wool

Rolls, boards, sheets, ceiling panels, insulation pipes, and covered glass wool, etc.



Industry Scale

ABS	ABS: Production volume 100,000 tons/year; SAN products: Production volume 20,000 tons/year, exploring export markets in Southeast Asia/South America
GPS	GPS: Production volume 100,000 tons/year, mainly exported to South Africa/Egypt/Southeast Asia
EPS	EPS (including mainland China): Production volume 240,000 tons/year, applied to the packaging material market and anti-static packaging market, mainly exported to Central and South America/Southeast Asia/Canada/Australia

2. Company History and Operational Site Distribution

 GRI 2-1

2010 - 2023

- In April 2022, the curved surface printing at Toufen plant was temporarily suspended due to market factors, and production was halted.
- In April 2019, the Tianjin plant in China temporarily ceased production because the expected contraction of the northern market made it impossible to continue making a profit. Staff were subsequently legally dismissed.
- In the first quarter of 2014, the Linyuan plant completed the ABS debottlenecking project, increasing its annual production capacity to 100,000 tons.
- In 2012, the Tianjin plant completed the EPS debottlenecking project, enhancing its annual production capacity to 134,000 tons.

2000 - 2009

- In the third quarter of 2008, the Qianzhen and Zhongshan factories completed production line debottlenecking, increasing their annual production capacities to 66,000 tons and 180,000 tons, respectively.
- In September 2005, the Tianjin plant in China was established, initiating two EPS production lines with an annual capacity of 100,000 tons.
- In October 2004, the Zhongshan plant in China completed the third EPS production line, expanding its annual capacity to 150,000 tons.
- In November 2003, Taita Chemical (Tianjin) Co., Ltd. was established.
- In May 2001, the Qianzhen plant successfully launched the GPS/IPS NOVA new process with an annual capacity of 100,000 tons.
- In May 2000, the Zhongshan plant in China completed its first EPS production line and successfully launched production of 50,000 tons. In the same year, in October, it completed its second production line, expanding its annual capacity to 100,000 tons.

1990 - 1999

- In March 1999, Taita Chemical (Zhongshan) Co., Ltd. was established.
- In March 1997, BTRN Asia transferred all of its 51% stake in our company to an overseas holding company jointly indirectly invested by USI Corporation and UPC Corporation
- In March 1991, a glass wool plant was established in Toufen.

1960 - 1989

- In June 1987, a curved surface printing plant was established in Toufen.
- In December 1983, the production of Formica and phenolic resin ceased.
- In August 1979, an ABS resin plant was constructed in the Linyuan Industrial Area in Kaohsiung.
- In March 1967, polystyrene and phenolic resin production equipment were added, both were firsts in the country.
- In April 1960, the company was established and set up a plant in Qianzhen, Kaohsiung, becoming the first plant in the country to produce Formica chemical raw materials.



Company Profile

Name of Company	TAITA CHEMICAL CO., LTD.
Industry	Plastic Industry/Glass Wool/Curved Surface Printing
Headquarters location	12F, No. 37, Jihu Road, Neihu District, Taipei City
Capital	NT\$3.976 billion
Net income	NT\$15.2 billion
Numbers of employees	496 people

Note: The above data is as of December 31, 2023.

3. Participation in External Organizations

 GRI 2-28

Communication is one of the proactive actions to promote professional growth. TTC participates in various professional groups, combining external forces to strengthen influence, and promoting technical and capability improvements in various fields through interactive sharing among public associations. We support public associations to compile publications and organizing activities, jointly dedicated to promoting industry development.

Stakeholder Engagement

 GRI 2-29

1. Stakeholder Communication and Participation

Stakeholders are those who affect or are affected by an organization's operations or whom the company is responsible and of which it is obliged to respond. Through pro-active and extensive communication with stakeholders, we can adequately understand and respond timely to the concerns and topics raised by them. These can help us sustain our improvement and growth. The trust and support of the stakeholders make TTC push even more for sustainable development.

2. Categories of Stakeholders



Employees

Current employees and contracted staff.



Partners

Corporate allies.



Community residents

Neighborhood communities, local groups, and local schools.



Non-profit organizations

Industry associations, local representatives, environmental groups, labor rights groups, and others.



Investors

General shareholders and corporate shareholders.



Academic institutions

Academic groups.



Government agencies

Local government authorities.



Suppliers/Contracts

Existing suppliers, existing contractors, potential suppliers, and potential contractor.



Customers

Existing customers and potential customers.



Peers

Industry peers.



Media

Newspapers, radio stations, and magazines.

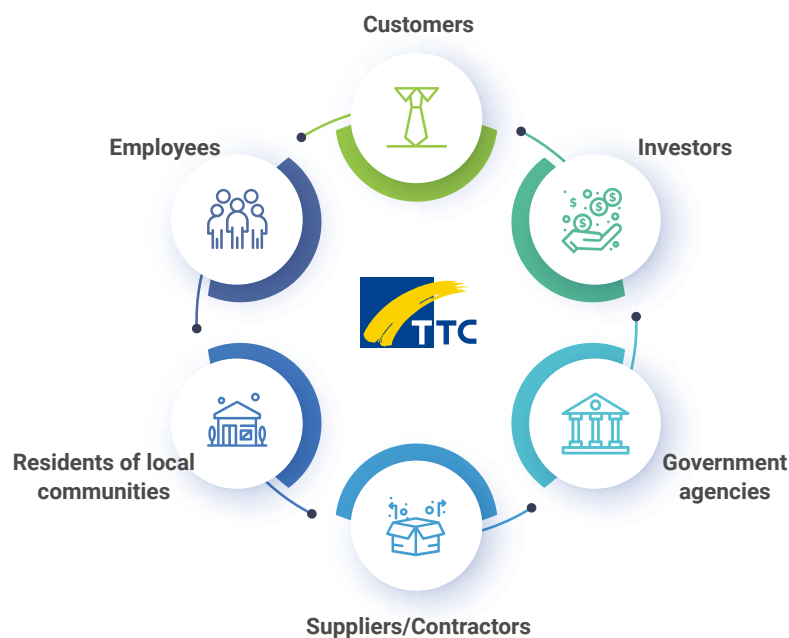


TTC Participation in Major External Organizations in 2023			
Name of Organization	Member	Committee member	Supervisor/Director
Petrochemical Industry Association of Taiwan	●	●	●
Taiwan Synthetic Resins Manufacturers Association	●		●
Taiwan Plastics Industry Association	●		
Taiwan Responsible Care Association (TRCA)	●	●	
Taiwan Fire Safety & Material Association	●		

Every two years, a survey is conducted with the ESG Committee's working groups, plant managers, and USIG's common service department managers. The survey assesses stakeholders that they interact with or influence, such as the aforementioned 11 types of group organizations, based on the principles of responsibility, influence, dependence, tension, and diversity outlined in the AA 1000 SES (2015) (Stakeholder Engagement Standards, abbreviated as SES).

3. Core Stakeholder Identification Assessment

In December 2022, 61 evaluation questionnaires were collected and discussed by the ESG Committee's Project Secretary and three group leaders. According to the assessment score, six types of stakeholders were identified as core: (1) Customers, (2) Employees, (3) Suppliers/Contractors, (4) Government Agencies, (5) Investors, and (6) Community Residents. These core stakeholders are the basis for prioritizing communication with stakeholders at our company.



4. Stakeholder Communication Channels



Core Stakeholders	Contact Stakeholders	Phone No.
Employees	Administrative Department, Mr. Tsai	07-7040988 ext. 1308
Customers	Sales Department, Ms. Wu	07-7040988 ext. 6214
Investors	Spokesperson, Director Huang	07-7040988 ext. 3278
Government agencies	Safety Office, Mr. Yeh	07-7040988 ext. 1328
Suppliers/Contractors	Procurement Division, Ms. Shih	07-7040988 ext. 6725
Residents of local communities	Manager's Office, Mr. Li	07-7040988 ext. 1322





5. Key Stakeholder Concerns, Communication Channels and Implementation Status

TTC uncovers the concerned topics raised by stakeholders through various communication channels and use these as major references for the content of our ESG reports and future ESG development. We also rely on the ESG reports to communicate with core stakeholders and promote exchange between the company and stakeholders to pursue mutual progress and growth.

The communication status with each key stakeholder will be reported annually at the ESG Committee meeting, and simultaneously reported to the Board of Directors.

Stakeholders	Significance	Concerned Topic	Communication Methods and Frequency	Our Company's Response	Communication Results
 Employees	<p>Employees are the most important assets of a company and are one of the key factors for successful operations. Our company employs people based on their talent and suitability, allowing employees to work with peace of mind, fully showcasing their expertise, and exerting their abilities to achieve the company's sustainability goals.</p>	<ul style="list-style-type: none"> Recruitment and Retention Occupational Health and Safety Labor-management Relations Employee Benefits 	<ul style="list-style-type: none"> HSE Management Committee meeting: Once every two months Process Safety Management (PSM) meeting: Once a month Union Board/ Occupational Safety and Health Committee/ Welfare Committee: Once per quarter Union Representative Conference: Once a year Employee Retirement Fund Committee: Once every half year Performance Review: Once a year Health Check-up Feedback Session and Group Insurance Information Session (including employees' families): Once a year Signing of Personal Data Protection/ Confidentiality: New employees sign upon arrival Educational Training (Specialized Training, Safety Training, and Job Instruction) Scheduled according to the needs Gender Equality Complaint Mailbox/ Employee Complaint Mailbox/ Suggestion System: Available anytime Club Activities: Irregularly 	<p>Response Department: Administrative Department, Safety Office</p> <ul style="list-style-type: none"> We aim to create a happy workplace by establishing comprehensive welfare measures to create a joyful and harmonious work environment. This allows employees to work peacefully, maintain employee stability, and reduces turnover. We continue to implement the ISO 45001 occupational health and safety management system and PSM system to reduce safety and health risks and prevent and reduce occupational accidents through systematic management. Every year, all our employees are entrusted to major qualified hospitals for health check-ups to protect their health. All factories in Taiwan have regular meetings of the Union Supervisory Board, and related company managers attend, communicating face-to-face with union leaders. There is also annual membership training, which union members enthusiastically participate in, to build mutual consensus and improve labor-management cooperation. The company allocates 0.15% of the monthly turnover as the activity fund for the Employee Welfare Committee, to reward the daily hard work of employees. We also periodically hold employee travel activities to relieve work pressure and enhance physical health, thereby increasing cohesion. 	<ul style="list-style-type: none"> Union board meetings: 4 times a year Union general meetings: Once a year Labor-Management Meeting: 4 times a year Employee Welfare Committee Meeting: 4 times a year Employee Retirement Fund Committee Meeting: 4 times a year Group Insurance Explanation Session: Once a year HSE Management Committee meeting: 6 times a year OHS Committee meeting: 4 times a year PSM meeting: 12 times a year Post-health check-up feedback session Once per year
 Customers	<p>Customers are crucial partners for the operation and development of our company. We aim to satisfy our customers through order fulfillment and product improvement. Customer quality requirements also impact our company's technological R&D and quality management.</p>	<ul style="list-style-type: none"> Product and Service Quality Technology R&D Business Performance 	<ul style="list-style-type: none"> Credit visit loan amount: On-demand Professional institution evaluation: When setting loan amount Legal regulation/ Quality Assurance meeting review: Once a month International exhibitions and product explanation sessions: At least once a year Technical service/ Customer factory visits/ Customer visits: As needed or irregularly Customer satisfaction survey: At least once a year Execution of joint development of customized products: As needed Company website: Updating domestic and foreign product certification information anytime 	<p>Response Department: Sales, Technical Service, and Quality Control Department</p> <ul style="list-style-type: none"> Our company values the opinions and suggestions of customers, which serve as a reference for internal operational improvement. We also conduct customer satisfaction surveys for our domestic and international customers at least once a year, carry out necessary corrective measures, and present review reports in management meetings to provide good customer service and gain customers' trust in our company. The Company collect information on market development and customer needs to develop environmentally friendly new products and niche products that satisfy the market and customer needs, enhancing our technological R&D capability and company profit Our company focuses on product functions and features, conducting quality improvement, performance enhancement, new product development and verification, and developing high value-added products. And we establish long-term strategic partnership with raw materials suppliers and determine the safety stock based on materials preparation lead-time to ensure supply chain fluency, to keep surplus profits every year 	<ul style="list-style-type: none"> Legal regulation/ Quality Assurance meeting review: 12 times Customer satisfaction survey: 1 time International exhibitions and product explanation sessions: 3 times

Stakeholders	Significance	Concerned Topic	Communication Methods and Frequency	Our Company's Response	Communication Results
 Investors	Investors are important supporters of a company's survival and development. By providing financial investments and participating in corporate governance supervision to ensure sustainable development and its operations growth	<ul style="list-style-type: none"> Business Performance Product and Service Quality Technology R&D 	<ul style="list-style-type: none"> Public Information Observing Station: Immediate/ regular/ disclosure updates as required Annual Shareholders' Meeting: Once a year Corporate governance evaluation: Once a year Company website "Investor Services"/ Group joint stock affairs website: Disclosure at any time Hold shareholders' interim meetings: Irregularly 	Response Department: Shareholder Affairs, President's Office <ul style="list-style-type: none"> Our company focuses on product functions and features, conducting quality improvement, performance enhancement, new product development and verification, and developing high value-added products. We establish long-term strategic partnership with raw materials suppliers and determine the safety stock based on materials preparation lead-time to ensure supply chain fluency, to keep surplus profits every year. The company values the opinions and suggestions of customers, using them as a reference for internal operation improvement. At least once a year, a customer satisfaction survey is conducted for both domestic and foreign customers, necessary corrective measures are implemented, and review reports are presented at management meetings to provide good customer service. The Company collects information on market development and customer needs to continue developing environmentally friendly new products and niche products that satisfy the market and customer needs, enhancing our technological R&D capability and company profit 	<ul style="list-style-type: none"> Hold Annual Shareholders' Meeting: 1 time on November 17, 2023 Convey the legal explanatory meeting: 1 time on May 16, 2023
 Suppliers/Contractors	Excellent suppliers can provide quality and stable raw materials, while engineering contractors can provide professional construction or supplement the lack of plant construction manpower. TTC hopes to assist each other with vendors, work together, pay attention to quality, schedule, and sustainable management, and jointly complete the entrusted tasks	<ul style="list-style-type: none"> Supply Chain Management Strategic Procurement Legal Compliance 	<ul style="list-style-type: none"> Quality abnormality (supply & construction quality) tracking review meetings: Raised at any time Visits and interviews, communication review meetings: As needed Agreement organization meeting/issue hazard notice: Before work starts Contractor communication record/ contractor/supplier evaluation: At least once a year Arrangement of safety training courses for workers entering the factory: Held regularly Occupational safety and health and environmental information collection/ communication handling record/supplier questionnaire survey/provision of product substance data: Recorded at all times 	Response Department: Procurement Division <ul style="list-style-type: none"> The primary selection of suppliers for TTC are those with credibility or a good reputation, certified and registered as qualified suppliers, or those with a good track record of supply quality or delivery. For sustainable development, the company carries out supplier and contractor evaluations every year to reduce and prevent potential risks. TTC's purchasing strategy prioritizes sourcing from local Taiwanese suppliers to promote stable economic development in Taiwan. The bulk raw materials, such as styrene, acrylonitrile, and butadiene, are under fixed contracts with local Taiwanese suppliers. According to market conditions, a portion is imported from abroad to maintain a steady supply of quality. TTC has drawn up a "Supplier Social Responsibility Commitment Letter" for long-term raw material suppliers and is gradually promoting the signing process. The execution mainly focuses on soliciting supplier's willingness to sign in four aspects: labor rights, worker health and safety, environmental and ethical norms, with the aim of growing together. 	<ul style="list-style-type: none"> Evaluated 250 suppliers, 60 contractor construction assessment and evaluation cases Conduct on-site audits for major raw material suppliers and special auxiliary material suppliers, and also require suppliers to complete Supplier Code of Conduct and Quality Requirements Self-Assessment Form.

Stakeholders	Significance	Concerned Topic	Communication Methods and Frequency	Our Company's Response	Communication Results
 Residents of local communities	<p>TTC adheres to the spirit of taking from society and giving back to the community, making every effort to care for community neighbors, local groups, and local schools, and provides job opportunities and continuous interaction with local community neighbors to maintain friendly relations, and to prosper the local economy</p>	<ul style="list-style-type: none"> Air Pollution Control Waste Management Environmental Impact Complaint Mechanism 	<ul style="list-style-type: none"> Company website: Always Disclosed Visiting local groups / moderately sponsoring local event expenses: Irregular Environmental pollution monitoring station of the service center: Available anytime for inquiries Friendly competition: Occasionally held or co-hosted Phone contact or visit: Irregular 	<p>Response Department: Safety Office, Environmental Protection Department, and Administrative Department</p> <ul style="list-style-type: none"> In compliance with governmental regulations and the Group's "Five Zeros" goal, a safe production environment is established to ensure the health and safety of both the workplace and the community residents Establish sound interactive relationships with community residents through participation in community activities and visits External entities can make environmental, health and safety-related complaints by phone (07-7040988), verbally, or in writing. 	<ul style="list-style-type: none"> In 2023, 69% of new hires at Taiwan's plant were local talents The company donated NT\$1.44 million to care for the local community in Linyuan District Assisted Linyuan District in promoting local customs and marketing agricultural and fishery specialties Assistance repairs to various public facilities in Linyuan District Participated in the Southern Public Welfare Softball Game of the group, sponsored the charity activity of ordering meals from the Children Are Us Foundation Conduct irregular visits to community leaders and participate in local neighborhood care events and social gatherings, including lectures with the Community Development Association and various association workshops Participate in the Group's afforestation activities in collaborated with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University, committing to a 20-year afforestation project to create 5 hectares of afforestation land
 Government agencies	<p>Government agencies are important indicators for business development and market expansion. Complying with and responding to the regulations of government agencies is a basic principle of business operations</p>	<ul style="list-style-type: none"> Legal Compliance Energy Consumption and Management Air Pollution Control Waste Management 	<ul style="list-style-type: none"> City/County Government Departments: Official document correspondence Inspection as needed, on-site inspection, announcement Government department briefings, public hearings, etc.: Participate irregularly Public Information Observation Station: Disclosure as required 	<p>Response Department: Environmental Protection Department</p> <ul style="list-style-type: none"> Regularly review the latest legal information and assess the compliance of the Company Act. If any non-compliance is identified, immediate review and improvement are carried out. Implement energy conservation and carbon reduction plans in accordance with the latest energy management policies of the government, and establish and plan the energy management system. Follow legal regulations, report and record in accordance with the law, implement inspection and patrol of air pollution control facilities and measures. Properly handle waste disposal. 	<ul style="list-style-type: none"> Participate in Kaohsiung City Environmental Protection Bureau's promote operations in "2023 Air Purification Zone Management Plan" and "Kaohsiung City Cross-Departmental Greenhouse Gas Cooperation Reduction Plan" Promote operations in ISO 14001 Environmental management systems, ISO 50001 Energy management systems, and ISO 14064 Verification and validation of greenhouse gas Participate in public hearings and regulatory briefing meetings organized by relevant government departments

Material Topics Management

1. Process Determining Material Topics

GRI 3-1, GRI 3-2



Step.1

Identification of key stakeholders

According to the five aspects of the AA1000SES Stakeholder Engagement Principle: **Responsibility, Influence, Dependency, Diverse Perspectives, and Tension**, the questionnaire for stakeholder identification is sent to the supervisor of the ESG Working Group. The results are validated by the project secretary of the ESG Committee and the group leaders, and based on the scoring, 6 types of core stakeholder groups are determined: employees, customers, investors, suppliers/contractors, government agencies, and community residents.

Step.2

Collection of ESG issues

Referencing international sustainability norms and standards (GRI Standards, SASB, SDGs, TCFD) as well as the company's operational goals and vision, the working group compiled 35 actual and potential sustainability issues with positive and negative impacts, including: actual negative impact issues (9), potential negative impact issues (9), actual positive impact issues (9), and potential positive impact issues (8).

Step.3

Survey of the positive/negative impacts of ESG issues

A questionnaire survey on 35 ESG issues is conducted among the 6 types of core stakeholders of the company, with scores based on the positive and negative impacts of the issues. A total of 61 valid responses were received.

Step.4

Survey of the positive/negative impacts and probabilities of ESG issues

A questionnaire survey on 35 ESG issues is conducted among the company's internal department heads and directors, with scores based on the positive and negative impacts of the issues and the likelihood of their occurrence. A total of 27 valid responses were received for statistical analysis.

Step.5

Determining major issues

The questionnaire results are graphed, and with the advice of the ESG Working Group, a significant threshold is set. ESG issues are identified as "Significant Issues", and classified these issues into environmental, social, and governance categories and are converted into six major issues. In continuation of the short, medium and long-term goal setting and management tracking of major issues in 2021- 2022, air pollution control, waste management and product quality are included in the major issues for 2023, making a total of nine issues. The results are submitted to the ESG Committee for approval and reported to the Board of Directors.

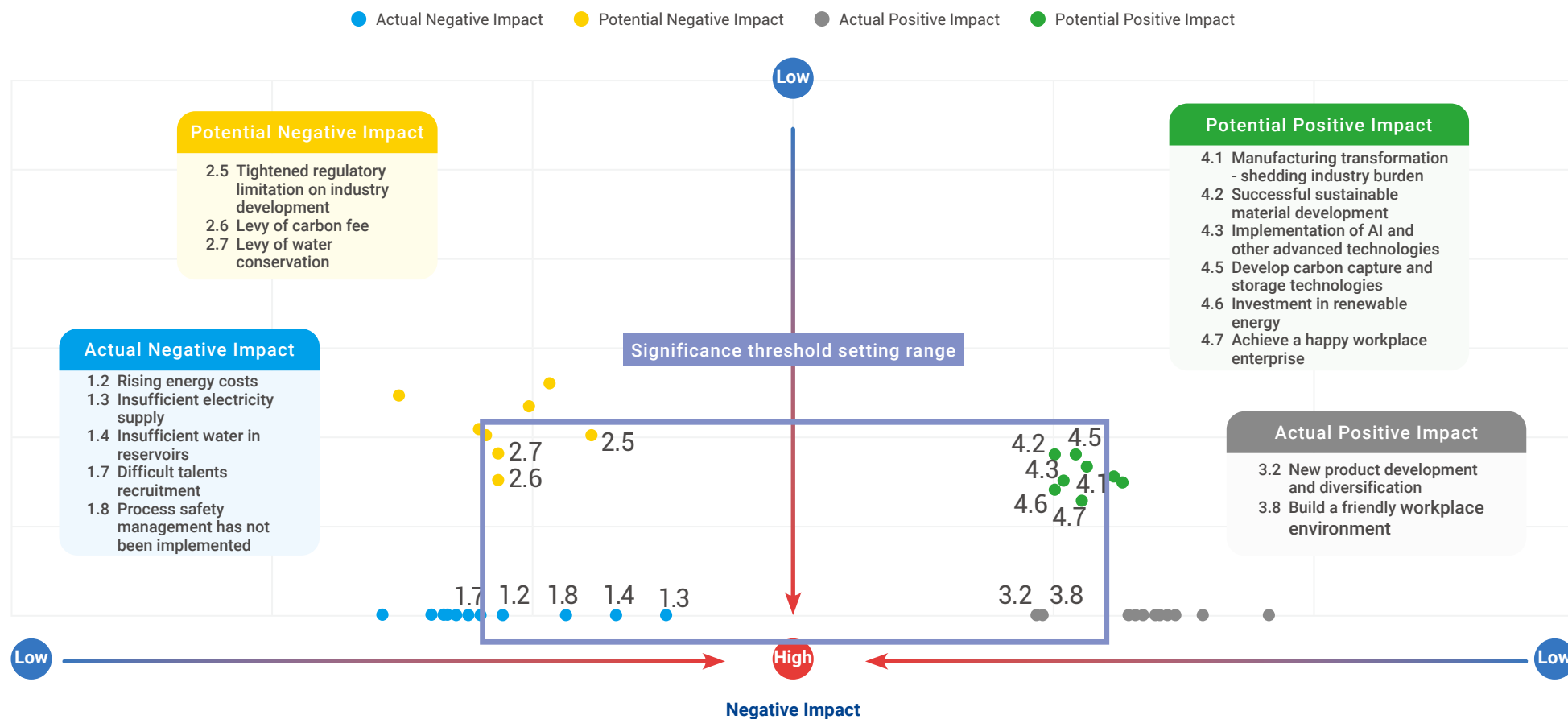
Step.6

Confirmation of the order of major issues and disclosure content

The ESG Working Group ranks the nine major issues based on the impact intensity and likelihood of relevant operating activities on the economy, environment, and population, and understands the impact boundaries and involvement levels of major issues in the value chain. The response strategy for major issues is explained according to the reporting requirements of each theme, and short, medium, and long-term performance goals and management policies are drafted. The nine major issues correspond to seven GRI-specific themes.

Materiality Analysis

To ensure the completeness of coverage on ESG issues, we reference the requirements of the GRI Universal Standards 2021, chemical industry indicators from SASB, SDGs, and trends in sustainability issues both domestically and internationally. In addition, we also use various communication channels to collect "Stakeholder Concerns", totaling 35 items. Based on the "Impact Level" and "Probability of Occurrence" to create consecutive diagram and with the advice of the ESG Working Group, stakeholders, and internal and external experts, a significance threshold (impact score above 3.7 and probability above 3.0) is set. Consequently, 16 ESG issues are designated as "Significant Issues."



Categorized the 16 significant issues based on the environmental, social, and governance aspects. We performed a dual materiality analysis based on the "level of impact on Company's Operational" and "level of impact on the economy, environment, and people (including human rights)", which led to convergence into 6 material topics. Additionally, to continue the management and tracking of material topics from 2021-2022, the Working Group has integrated "Air Pollution Control," "Waste Management," and "Product Quality" into the 2023 material topics, totaling nine items. The results will be submitted for approval to the ESG Committee and reported to the Board of Directors.



(E) Environmental

- 1 Insufficient electricity supply
- 2 Develop carbon capture and storage technologies
- 3 Investment in renewable energy
- 4 Insufficient water in reservoirs

(S) Social

- 5 Difficult talents recruitment
- 6 Achieve a happy workplace enterprise
- 7 Process safety management has not been implemented
- 8 Build a friendly workplace environment

(G) Governance

- 9 Rising energy costs
- 10 Levy of carbon fee
- 11 Tightened regulatory limitation on industry development
- 12 Levy of water conservation
- 13 New product development and diversification
- 14 Implementation of AI and other advanced technologies
- 15 Manufacturing transformation - shedding industry burden
- 16 Successful sustainable material development

2023 List of Material Topics

GRI 3-2

16 Significant Topics

9 Material Topics



Actual Negative

1

Insufficient electricity supply - Production disruption

Potential Positive

2

Development of carbon capture and storage technologies - Accomplished the carbon neutrality goal.

Potential Positive

3

Investment in renewables - Accomplished the green electricity goal.

Actual Negative

4

Insufficient water in reservoirs - Production disruption

Continuation of ongoing management tracking for material topics in 2021



Actual Negative

5

Difficult talents recruitment - Insufficient workforces

Potential Positive

6

Achievement of a happy workplace business - Enhanced the organizational commitment of employees.

Actual Negative

7

Inexact safety management of manufacturing process - Causing accidents

Actual Positive

8

Building a friendly workplace environment - Reduced employee turnover rate and the occurrence rate of work-related accidents.



Actual Negative

9

Rising energy costs - Increased electricity bills

Potential Negative

10

Levy of carbon fee - Increased production costs

Potential Negative

11

Tightened regulatory limitation on industry development - Plant shutdown

Potential Negative

12

Levy of water conservation charge - Increased production costs

Actual Positive

13

New product development and product diversity - Eco-friendly materials and entry into new industries.

Potential Positive

14

Implementation of AI and other advanced technologies - Enhanced efficiency and improved quality

Potential Positive

15

Manufacturing transformation - Ridded industry burdens towards the development of a high-quality, low-pollution industry.

Potential Positive

16

Success in the development of sustainable materials - Increased revenues.

Continuation of ongoing management tracking for material topics in 2021

Climate Change and Energy Management
(GRI 302 Energy) (GRIS 305 Emissions)

Water Resource Management (GRI 303 Water and Effluents)

Air Pollution Prevention (GRI 305 Emissions)

Waste Management (GRI 306 Waste)

Talent Attraction and Retention (GRI 401 Employment)
(GRI 404 Training and Education)Occupational Safety and Health
(GRI 403 Occupational Health and Safety)Economic Performance
(GRI 201 Economic Performance)



























Technology R&D

Product Quality

3. Material Topics and Value Chain

Direct Impact  Indirect Impact 

Through the evaluation of the ESG Committee, major issues highly impacting corporate governance, environment, and society, and highly concerning stakeholders were identified. The corresponding GRI specific standard topics were identified, with priority given for response and explanation in the report.

Sustainable Principles	Material Topics	Significance and Major Reasons	GRI Standards Topic	Value Chain				Response
				Supply Chain	Operational	Product	Social	
Establish Robust Governance	Economic Performance	The company's operational performance is a significant factor supporting sustainable business development	GRI 201 Economic Performance: 2016					1.2 Financial Performance
Build Innovative Supply Chains	Product Quality	Improve quality through efforts and innovative technologies to ensure that all product quality meets customer requirements and expectations	Self-defined Topics					2.1 Product Quality
	Technology R&D	The ability to develop new product technologies can grasp market trends and enhance market competitiveness, creating high value and sustainable operation for the company	Self-defined Topics					2.2 Technology R&D
Create Friendly Environments	Climate Change and Energy Management	The dramatic climate changes caused by climate change and the increasing probability of extreme weather have a significant impact on operations	GRI 302 Energy: 2016 GRI 305 Emissions: 2016					3.2 Climate Change and Energy Management
	Water Management	In recent years, due to global climate change, the risks of water shortage and flooding have increased. The use of water resources also involves the impact of production costs and wastewater emissions on the environment	GRI 303 Water and Effluents: 2018					3.3 Water Resources Management
	Air Pollution Control	1. Total air pollutant control has been implemented in the Kaohsiung and Pingtung areas, directly affecting Linyuan and Qianzhen factories 2. After the "Greenhouse Gas Reduction and Management Act" was implemented, it directly impacts each factory's energy-saving and carbon reduction planning and compliance with government regulations	GRI 305 Emissions: 2016					3.4 Air Pollution Control
	Waste Management	Existing waste landfill sites are becoming saturated, and it is not easy to find qualified waste treatment companies, impacting the treatment of industrial waste in various factories	GRI 306 Waste: 2020					3.3 Water Resource Management 3.5 Waste Management
	Talent Attraction and Retention	Quality human assets are one of the key success factors for a company. Utilizing talent appropriately and providing a reassuring work environment allows employees to fully demonstrate their expertise and achieve their potential	GRI 401 Employment: 2016					4.1 Talent Attraction and Retention
Foster an Inclusive Society	OH&S	A healthy and safe working environment is the primary labor condition requirement for workers	GRI 403 Occupational Health and Safety: 2018					4.3 Occupational Safety and Health

United Nations Sustainable Development Goals (SDGs)

TTC believes that as a member of the global community, sustainable development needs to start from core values and be combined with the United Nations Sustainable Development Goals. We have conducted SDGs relevance identification in three stages and have set related goals incorporated into our operational plan.


Stage 1

Understanding SDGs and Discussing Operation Development

- Implementing SDGs education and training and discussing their impacts on business operations
- Consider the priority of sustainable development goals

Stage 2

Identifying Impact and Opportunities

- Connecting SDGs with material topics
- Identifying key opportunities and allocating resources

Stage 3













Addressing SDG Targets and Actions

- Discussing target feasibility
- Setting short-term, mid-term, and long-term plans and discussing integration with the business plan



1. SDGs Identification Process

2. Linking Major Issues and SDGs

Aspects	Material Topics	SDG Targets	Detailed Indicators
 Governance	Economic Performance		8.1, 8.3
	Technology R&D		9.4
	Product Quality		12.2, 12.4
	Climate Change and Energy Management		13.2, 13.3
 Environmental	Water Management		6.3, 6.4
	Air Pollution Control		11.6
	Waste Management		12.4, 12.5
 Social	Talent Attraction and Retention		8.5
	OH&S		3.9, 3.d

3. Linking SDGs and Corporate Sustainability Goals:

SDGs	Detailed Indicators	2030 Goals	2023 Goals	2023 Goal Completion Status	Corresponding Section
	3.9	Number of disabling injuries: 0	Number of disabling injuries: 0	✓ In 2023, the total number of disabling injuries in Taipei and all factories was 0, achieving the goal	Chapter 4.3
	6.3, 6.4	1. Reduce water consumption per unit product by 10% 2. Discharge water quality meets the standard	1. Reduce water consumption per unit product by 3% 2. Discharge water quality meets the standard	✓ In 2023, the water consumption per unit product was reduced by 26.5% or less, achieving the goal 2. ✓ In 2023, no water quality exceedance events occurred in all factories, achieving the goal	Chapter 3.3
	8.5, 8.6	Maintain profitability annually	Maintain profitability annually	In 2023, a net operating loss of NT\$270 million was incurred, not achieving the goal	Chapter 1.2
		Reduce turnover rate, goal below 7.0%	Reduce turnover rate, goal below 7.5%	The actual turnover rate in 2023 was 8.46%, not achieving the goal. In 2023, with a total of 42 employees resigned or retired and actual retirement of these were 18 employees. Excluding retirees, the turnover rate was 4.83%, achieving the goal	Chapter 4.1
	9.4	1. Enhancement of general-grade ABS quality (impact strength, appearance/coloration) 2. For process optimization and product development, compliance with the goal of safety and environmental five zeros (zero pollution, zero emissions, zero occupational hazards, zero accidents, and zero failures)	1. Enhancement of basic properties of standard ABS products (Enhancement in glossiness to 99 GD) 2. Certification of Indian BIS ABS products (Goal: Compliance with Indian BIS standards) 3. Enhancement in concentration consistency of EPS products (Goal: Concentration in three-layer sieve >90%)	In 2023, all goals were achieved: ✓ Enhancement of basic properties of standard ABS products (Enhancement in glossiness) glossiness increased from 95 GD to 99 GD ✓ Achieve the certification for ABS products by the Bureau of Indian Standards (BIS): Obtained the Indian BIS certificate, allowing ABS products to be imported into the Indian market ✓ Enhancement in the concentration consistency of EPS products achieved, with the highest consistency in the three-layer sieve > 90%	Chapter 2.2
	11.6	The number of fines for exceeding air pollutant emission limits is 0	The number of fines for exceeding air pollutant emission limits is 0	In 2023, the number of fines for air pollution was 3, Linyuan plant had 3, and the goal was not achieved	Chapter 3.4
	12.5	The customer satisfaction of Linyuan plant and Qianzhen plant products is ≥93%, the customer satisfaction of Zhongshan plant EPS is ≥89%, and the customer satisfaction of Toufen Plant glass wool is ≥ 92%	The customer satisfaction of Linyuan plant and Qianzhen plant products is ≥96%, achieving the goal The customer satisfaction of Zhongshan plant EPS is ≥88%, achieving the goal The customer satisfaction of Toufen plant glass wool is ≥ 90%, achieving the goal	✓ In 2023, the product customer satisfaction of Linyuan plant and Qianzhen plant was 96%; Zhongshan Plant was 88%; Toufen Plant glass wool was 90%, all meeting the target	Chapter 2.1
		Implementing waste reduction	Strengthen the waste patrol inspection system; The proper treatment rate of waste is 100%	✓ In 2023, the waste patrol inspection system was strengthened, a total of 17 inspections were conducted, and the generation and proper treatment rate of waste counted by each plant was 100%, achieving the goal	Chapter 3.5
	13.3	1. Reduce energy consumption per unit of product by 5% 2. Reduce greenhouse gas emissions by 27%	1. Reduce energy consumption per unit product by 3% 2. Greenhouse gas emissions reduced by 7.16% compared to the base year	✓ In 2023, the energy consumption per unit product was reduced by 4.33%, achieving the goal ✓ In 2023, greenhouse gas emissions were reduced by 17.9% compared to the base year, achieving the goal	Chapter 3.2

1 Establish Robust Governance

1.1 Corporate Governance	24
1.2 Economic Performance	34
1.3 Risk Management	37
1.4 Ethical Corporate Management	39

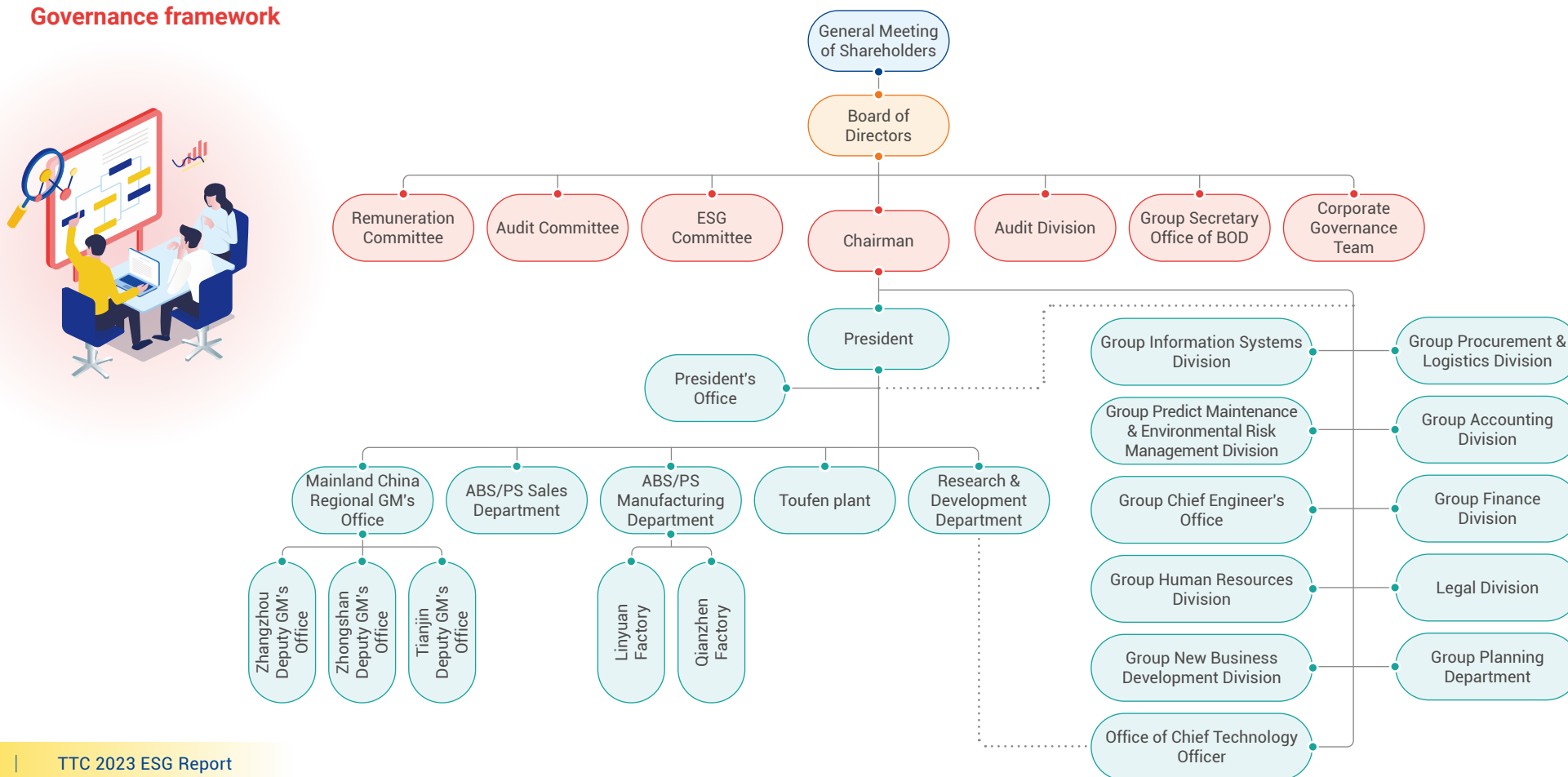


1.1 Corporate Governance

1.1.1 Governance framework

In the 10th annual 2023 corporate governance evaluation for listed companies, those with a market value of NT\$5 billion to NT\$10 billion are in the top 6% to 10%, while the evaluation results of overall listed companies are between the top 6% to 20%. TTC will continue to be committed to protecting shareholder rights, treating shareholders equitably, strengthening the structure and operation of the board of directors, enhancing information transparency, and implementing sustainable development. Additionally, the company will assist investors and businesses in understanding the effectiveness of the company's governance implementation.

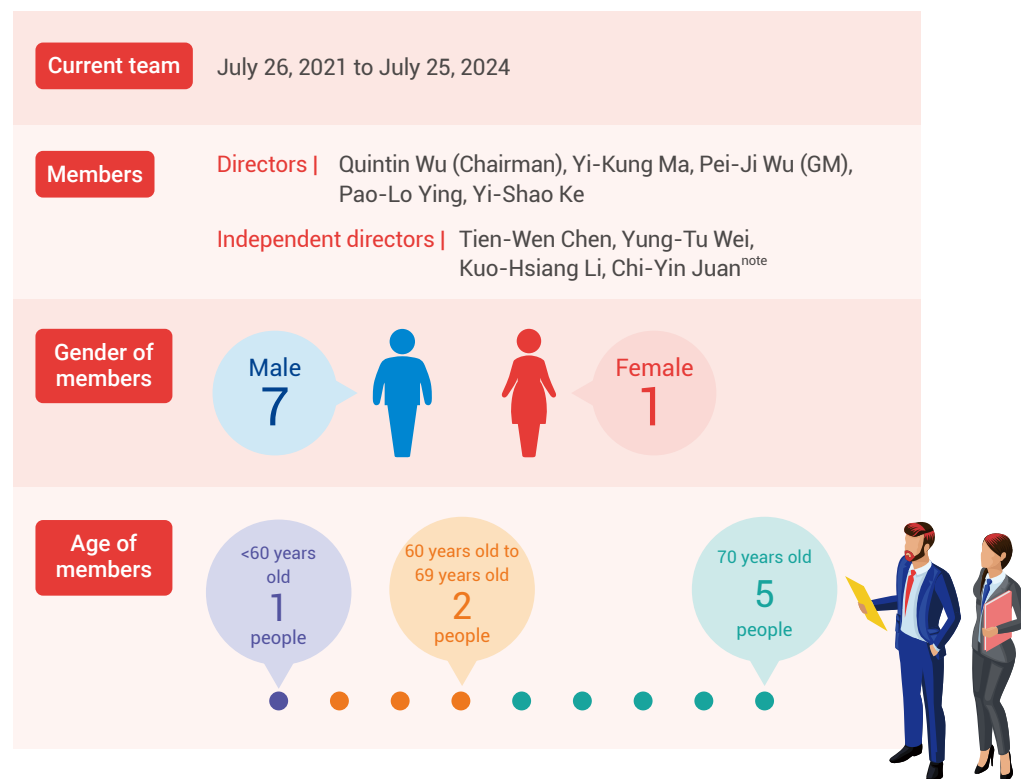
Governance framework



1.1.2 Board composition and operation

 GRI 2-9 ~ GRI 2-21

We adopt the candidate nomination system for the directorial (including independent directors) election. The Board along with shareholders holding over one percent of the total issued shares may propose the candidates to add to the List of Candidates for Directors and Independent Directors. After candidate qualification by the Board, the List of Candidates for Directors and Independent Directors is presented at the AGM for shareholders to vote on. The current board of directors was elected in 2021 and is composed of nine directors with rich experience in their respective professional fields. Among them, 11% of are female directors and four positions are assigned to independent directors, who make up 44% of the Board. The term of each director is three years, and each director is entitled to a second term. Please refer to the table below for information about the Board of Directors members.

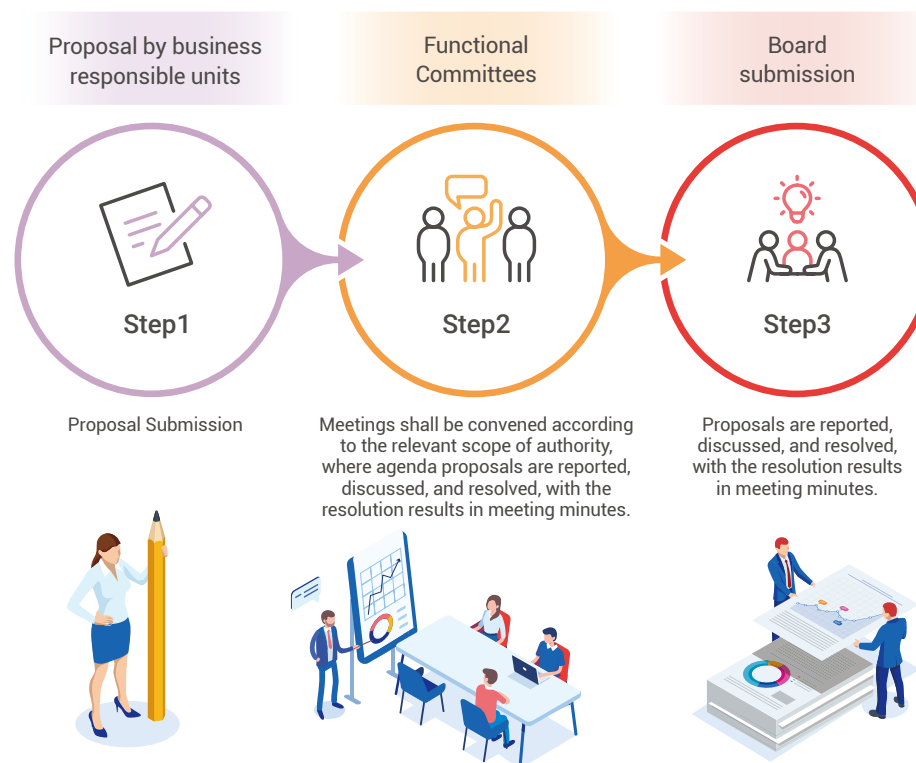


Note: Chi-Yin Juan, an independent director, passed away in June 2023. The above data is calculated based on 8 seats as a director

A total of four board meetings were held in 2023 by the Company, with a personal attendance rate (including independent directors) of 97.06% (100% including attendance by proxies). For more operational information of the Board led by the chairman (Please refer to page 29 of the Company Annual Report).

Process of proposal submission to the Board of Directors

 GRI 2-9, 2-10, 2-11, 2-12, 2-13, 2-16



► Important Board Resolutions of 2023 (Please refer to [Annual Report](#) or the [Company's website](#) for resolution from the Board of Directors.)

 GRI 2-16

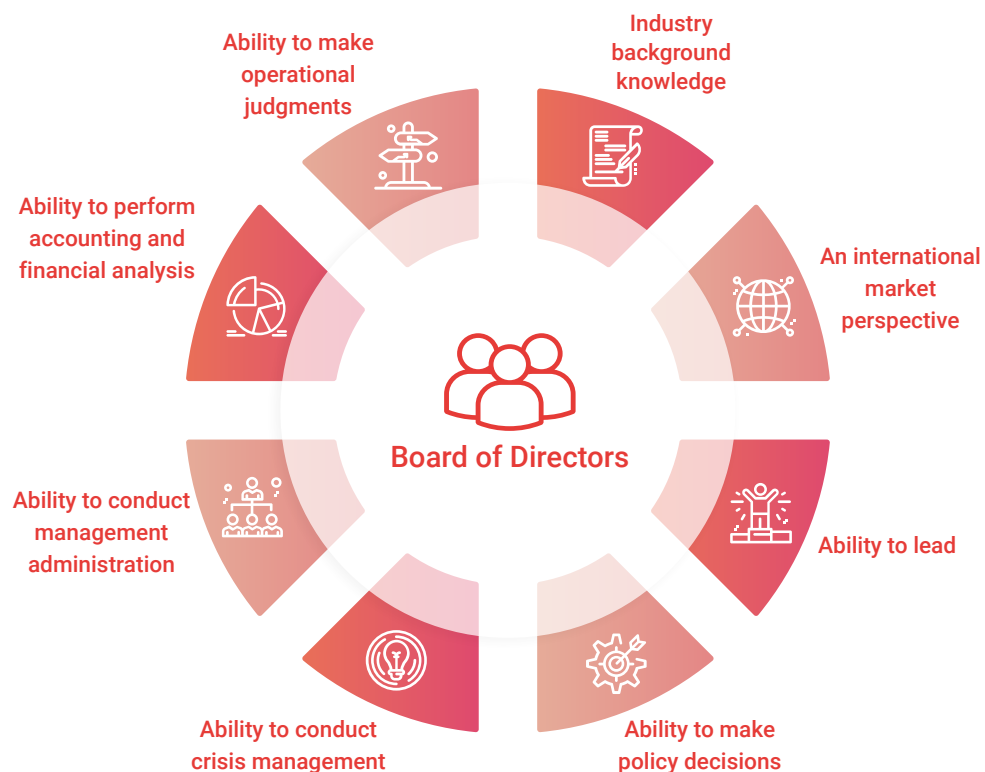
Additionally, we have established the Secretary's Office under the Board to plan and prepare matters relating to the Board meeting so as to enhance the efficiency of board meetings and help implement Board resolutions.

Performance of the Board member expertise diversification policy

GRI 2-10

I. Performance of the board diversity policy

According to Article 20 of the company's "[Corporate Governance Regulations](#)", the composition of the board of directors should be diversified. In addition to the knowledge, skills and experience required for performing their duties. To achieve the ideal goal of corporate governance, the board of directors shall possess the following abilities:



In addition to the aforementioned eight required abilities, considering the growing global emphasis on corporate governance and environmental protection issues, it is hoped that the board members will possess expertise in the fields of "Law" and "Environmental Protection" to enhance board diversity. In addition to the knowledge, skills and experience required for performing their duties, current board members are equipped with expertise in accounting and finance, international market, law, and environmental protection.


























































II. Targets for management of board diversity

The current board of directors was elected on July 26, 2021. Among the two newly appointed directors, Yung-Tu Wei, an independent director, holds a master's degree in business management from Georgetown University in the US. He previously served as the president of Deloitte and possesses professional qualifications in accounting or relevant financial management expertise. Kuo-Hsiang Li, an independent director, holds a master's degree in business management from the University of Chicago in the US. He currently serves as the chairman of Shiseido Taiwan. He possesses skills in business management, international markets, and leadership decision-making. Both new directors contribute to enhancing the quality of board review and meeting the objectives of implementing board member diversity. In the future, a director with professional experience in sustainability development will be the next target for board diversity. Such experience can help us realize the carbon reduction goal and implement the green power policy. A director specializing in law or operational risk control is another target to enhance our corporate competitiveness. With such an establishment, the Board functions will be more complete.



III. Performance of the board member expertise diversification policy GRI 2-17

For details on the diversity of board members, please refer to the table below. Among them, Director Yi-kung Ma is female:

Name of Directors	Gender	Diversity of Core Competence									
		Operational judgments	Accounting finance	Management administration	Crisis management	Industry background knowledge	International market	Ability to lead	Ability to make policy decisions	Law	Eco-friendly
Quintin Wu	Male ♂										
Yi-Kung Ma	Female ♀										
Pei-Ji Wu	Male ♂										
Pao-Lo Ying	Male ♂										
Yi-Shao Ke	Male ♂										
Tien-Wen Chen	Male ♂										
Yung-Tu Wei	Male ♂										
Kuo-Hsiang Li	Male ♂										

Note 1: Currently, 25% of directors are also employees, and 37.5% of them are independent directors.

Note 2: All three independent directors have not served more than three consecutive terms.



Professional competence enhancement of directors in 2023 GRI 2-17

To improve the professional competence of directors (including independent directors), we provided information of related further education courses for directors and assisted them with the registration. In addition, a total of six hours for an internal training course has been organized. On July 5, 2023, Professor Chu-Cheng Ming from the Department of Political Science at National Taiwan University delivered a three-hour lecture on "The Political Economy of the CCP, International Situations, and Cross-Strait Relations"; and on October 13, 2023, Patrick Hsu, an assurance partner at PricewaterhouseCoopers Taiwan, conducted a three-hour training session on "How Directors Can Oversight Corporate Risk and Crisis Management". In 2023 we arranged 70.6 hours of external continuing education courses for all directors. All directors completed the training hours as stipulated for the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies". Please refer to pages 33 - 35 of TTC's 2023 Annual Report for detailed information on the courses and their duration.

Avoidance of conflicts of interest of Directors GRI 2-11, GRI 2-15

The Board of Directors has established comprehensive regulations for avoiding conflicts of interest, adopted measures of avoidance in procedures, and recorded the process in the minutes of meetings, as described below:

- 1 In order to strengthen Corporate Governance, the Board of Directors has established a comprehensive system to avoid Conflicts of Interest among directors to safeguard the rights and interests of investors. (Please refer to Procedure for the [Board of Directors Meetings Regulations](#), [Code of Ethics Conduct for Directors and Managerial Officers](#), [Ethical Corporate Management Best Practice Principles](#), and [Procedures for Ethical Management and Guidelines for Conduct](#)).
- 2 Measures for avoidance of conflicts of interest: When discussing a proposal constituting a conflict of interest for one or more directors during the meeting, the chairman shall remind such directors to recuse themselves from the discussion. If there is a conflict of interest for the chairman, the chairman shall recuse and assign a director having no conflict of interest with the proposal to act as the chairman.
- 3 In accordance with the Rules of Procedure for the Board of Directors Meetings Regulations, the Board Secretary Office has detailed the reasons for avoidance and the implementation status in the board meeting minutes related to proposals that involve a conflict of interest with the directors.
- 4 The board of directors' execution of avoidance for conflicts of interest proposals in 2023 complied with the law (please refer to page 31 of TTC's 2023 annual report - details operation of the board of directors).
- 5 For the responses to the conflicts of interest between Board of Directors members and stakeholders, please refer to the "Member Information of the Board of Directors", "Shareholders Among the Top Ten in Shareholding Ratio", and "Related Party Transactions" in the 2023 financial statements.



Our performance in avoidance of conflicts of interest in proposals in 2023

Name of Directors	Proposal	Reasons for Avoidance	Participation in Voting	Term for the Board of Directors
Chi-Yin Juan Pei-Ji Wu	Proposal of abolition of non-compete restriction on directors.	Directors recusing themselves from the proposal were also the directors with non-compete restrictions.	Abstained from voting	First time in 2023 March 3, 2023
Pei-Ji Wu	Non-compete behavior of managerial officers.	A conflict of interest with directors.	Abstained from voting	Fourth time in 2023 November 3, 2023

Performance evaluation of the Board of Directors and Functional Committees GRI2-18

Set assessment methods and approaches for the performance of the Board of Directors, execute regular self-assessment of the performance of the Board as a whole, individual directors, and Functional Committees every year. The Board Secretary Office is responsible for conducting these assessments through self-evaluation, using the assessment results as a reference for the company's review and improvement.

■ The overall internal performance assessment results for the Board of Directors, individual directors, and Functional Committees in 2023 are as follows:

The board		Individual Directors Members		Audit Committee		Remuneration Committee		ESG Committee	
Aspect of Evaluation	Score	Aspect of Evaluation	Score	Aspect of Evaluation	Score	Aspect of Evaluation	Score	Aspect of Evaluation	Score
Participation in the company's operations.	4.75	Corporate targets and mission control	4.88	Participation in the company's operations.	4.92	Participation in the company's operations.	5	Participation in the company's operations.	5
Improvement of the decision quality of the board of directors.	5	Duty awareness of directors	5	Duty awareness of the Audit Committee	5	Duty awareness of the Remuneration Committee	5	Duty awareness of the ESG Committee	4.85
Composition and structure of the board of directors.	5	Participation in the company's operations.	4.88	Improvement of the decision-making quality of the Audit Committee	5	Improvement of the decision-making quality of the Remuneration Committee	5	Improvement of the decision-making quality of the ESG Committee	4.96
Selection and continuing education of directors.	4.60	Internal relationship development and communication	4.94	Composition and member selection of the Audit Committee	5	Composition and member selection of the Remuneration Committee	5	Composition and member selection of the ESG Committee	5
Internal control	5	Expertise and continuing education of directors.	4.96	Internal control	5				
		Internal control	4.92						
Results		Results		Results		Results		Results	
The results of the overall Board performance evaluation show that the average score of the five major aspects is 4.6, which means "good".		The results of director self-assessment show that the average score of all six major aspects is over 4.8, which means "good".		The results of Audit Committee self-assessment show that the average score of all five major aspects is over 4.9, which means the overall assessment result is good.		The results of performance evaluation of the Remuneration Committee show that the average score of all four major aspects is over 5, which means "Outstanding".		The results of ESG Committee self-assessment show that the average score of all four major aspects is over 4.8, which means the overall assessment result is good.	

Note: Score range 0-5, 5 is the highest. The performance evaluation for the period from January 1, 2023 to December 31, 2023.

The performance evaluation results of the overall Board of Directors, individual director members, and Functional Committees were reported to the Board of Directors in the first quarter of 2024.

Recommendation and implementation

In view of the increasing global attention to ESG issues, we have substantively implemented various measures in accordance with the Corporate Governance 3.0 Sustainability Roadmap published by the competent authorities. We have also reported those measures to the ESG Committee meeting and Board meeting to explain to the directors, who have also made valuable suggestions about those measures. Apart from continuously enhancing corporate governance, we have also planned carbon reduction targets and implemented carbon reduction and planned and implemented green power development strategies to meet the international standards so as to achieve the ultimate goal of corporate sustainable development.

Chief corporate governance officer (CCGO)

To protect the rights and interests of shareholders and improve the competence of the board of directors, the Board made a resolution on May 9, 2019 to assign Director of Legal Division, Erik Chen to be the Chief Corporate Governance Officer (CCGO) as the top officer of TTC's corporate governance. Director Erik Chen has over 20 years of experience as a practicing attorney and nearly 10 years of experience as the head of legal affairs in listed companies. His main responsibilities include handling affairs related to the meetings of the Board of Directors and shareholders according to the law, preparing minutes for the meetings of the Board of Directors and shareholders, assisting directors in taking office and continuing education, providing information needed by directors in conducting business, assisting directors in complying with laws and regulations, reporting to the Board of Directors on the results of reviewing whether the qualifications of Independent Directors are in compliance with relevant laws and regulations during their nomination, appointment, and tenure, and handling affairs related to changes in directors. In 2023, Director Erik Chen, who serves as the corporate governance officer, underwent 49 hours of the training. Please refer to page 34~35 of TTC's 2023 Annual Report.

Functional Committees

Under the Board, we have established three functional committees: Audit Committee, Remuneration Committee, as well as the ESG Committee to establish and review policies that relate to the responsibility and authority of each committee in an effort to strengthen corporate governance.

Title	Name	Audit Committee	Remuneration Committee	ESG Committee
Chairman	Quintin Wu	—	—	Member
Director	Pei-Ji Wu	—	—	Deputy Chief
Independent Director	Tien-Wen Chen	Convener	Member	Member
Independent Director	Yung-Tu Wei	Member	Convener	—
Independent Director	Kuo-Hsiang Li	Member	Member	Chief

Shareholder rights and interests and information transparency

As of April 2, 2024 (refer to the shareholder structure in the [Annual Report](#)), the shareholder structure of TTC is mainly composed of individuals and other legal entities. The names, shareholding amounts, and percentages of shareholders with a shareholding ratio of 5% or more, or those among the top ten in shareholding ratio, are disclosed in the company's publicly issued annual report.

TTC is committed to providing shareholders with transparent and real-time corporate information. Every year, we organize investor conferences and shareholders meetings regularly, publish annual reports and ESG reports, and list operating performance, financial statements, and significant news on the "Market Observation Post System" of Taiwan Stock Exchange. We also set up the "Investor Services" webpage in both Chinese and English, where disclose the Company's governance status, business announcements, financial statements, investor conferences, and updates on group dynamics. Moreover, we continuously collect shareholder opinions to provide feedback to the management team for decision-making references.

We value the rights and interests of foreign investors and the trend of enterprise internationalization. Therefore, since 2018, we began to enhance information disclosures in English in the annual report and on the MOPS and the Company website. By actively establishing various unfettered two-way communication channels with shareholders, we maintain the rights and interests of shareholders in real action.

TTC Shareholder Structure

Foreign institutions
and foreigners

1.46%

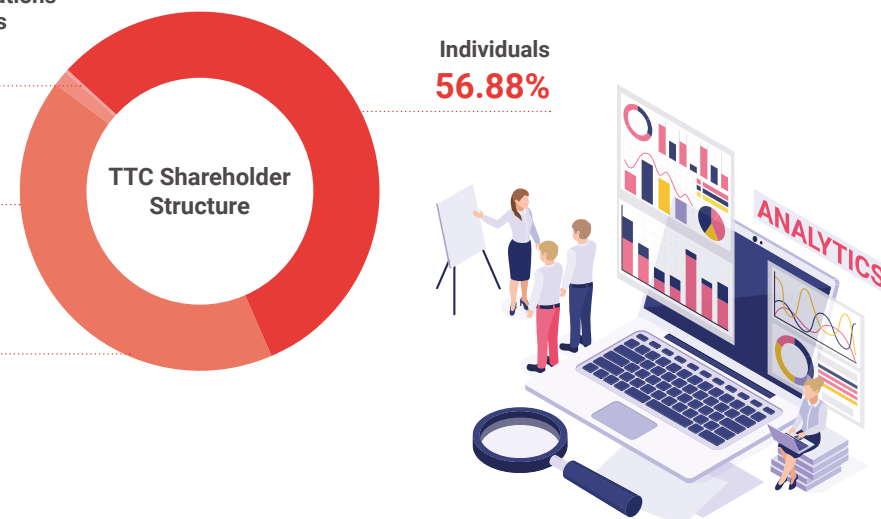
Government
agencies

0.09%

Other Legal
Entities

41.57%

Individuals
56.88%



ESG Committee

 GRI 2-13, GRI 2-14, GRI 2-16

To strengthen corporate governance, TTC, on December 22, 2017, with the approval of the board of directors, elevated the Corporate Social Responsibility Committee to a functional committee of the board of directors. The committee consisted of 4 members: the chairman, the general manager, and 2 independent directors, 1 of whom is a chief committee member. On March 9, 2022, the board of directors resolved to change the name of the "Corporate Social Responsibility Committee" to the "ESG Committee". The ESG Committee has set up three working groups for "Corporate Governance," "Environmental Protection," and "Social Relations," and has designated one project secretary.

TTC ESG Committee Organizational Chart



The ESG committee meets twice a year, with various units providing sustainability-related information (including stakeholder identification results, focal issues and responses, significant topics, ESG plans, and execution results, and other sustainability-related matters) to the ESG group leaders for consolidation. The project secretary then reports to the ESG Committee and submits it for approval to the board of directors. The Board of directors oversees and reviews the management, strategy and goal setting of the three aspects of governance, environment and society, and examines progress and performance and reviews and approves sustainability reports, and provides guidance on strategies and directions for key issues.

► Please refer to the link for the [Board's actions to supervise sustainable performance](#), [the Sustainability Committee's organizational charter](#), and [the Sustainability Committee's operations](#).

ESG Committee Working Group's Annual Execution Highlights and Plans for the Following Year



Sustainability development achievements reported to the board in 2023

- 1 Completed greenhouse gas inventory and verification operations for Linyuan, Qianzhen, Toufen, Zhongshan and Tianjin plants.
- 2 Promoted energy-saving and carbon reduction plans for the Linyuan, Qianzhen, and Toufen plants.
- 3 Awards: Selected as one of the top 100 companies in the 2023 Business Weekly "Carbon Competitiveness" rankings, received the Gold Award at the TCSA 2023 Taiwan Corporate Sustainability Report Awards and Taiwan Top 100 Corporate Sustainability Exemplary Awards, ranked among the top 10% of the proactive evaluation of occupational health and safety indicators in its sustainability report, won the 2023 Awards for Excellent Trading Businesses (contributions to Expansion in Emerging Markets Award - Africa Market), and TTC honored with the Net Zero Industrial Competitiveness Excellence Award by the 21st Century Foundation.
- 4 Published the 2022 Sustainability Report in June 2023.



Work plan for 2024

- 1 Expand carbon inventory to Zhongshan and Tianjin plants included in consolidated financial statements.
- 2 Continue promoting energy-saving and carbon reduction plans across all plants.
- 3 Continue participating in corporate sustainability evaluation activities.
- 4 Continue involvement in community welfare activities.
- 5 Continue to implement various ISO systems
- 6 The 2023 Sustainability Report is scheduled for release in August 2024





Remuneration Committee

 GRI 2-19, GRI 2-20, GRI 2-21


- 1 The term of the current committee commenced on August 4, 2021 and will end on July 25, 2024. All three seats of the committee are taken by independent directors.
- 2 The Remuneration Committee holds at least two committee meetings each year. Three committee meetings were held in 2023, and the personal attendance rate of members was 100%. Please visit our corporate website, refer to our annual report, or visit the Market Observation Post System (MOPS) for the details regarding the operations of this committee.
- 3 The Committee periodically reviews the
 - salary and remuneration policy, system, standard, and structure,
 - performance evaluation of directors and managers. The remuneration Committee also determines and assesses the salary and remuneration of directors and managers with references to factors such as the median earnings in the industry, individual's duration of engagement, responsibilities, achievement of personal goals, salary and remuneration for equivalent positions, accomplishment of the Company's short-term and long-term business goals, and the Company's financial condition, then submit the results to the Board of Directors for approval.

 GRI 2-20


Salary and remuneration

- The remuneration for directors covers remuneration, director profit sharing, and income for professional practice; and the compensation for managerial officers includes the monthly salary, fixed-amount bonuses, year-end bonus, employee profit sharing, annual special bonus, pension contribution and benefit payments by law. The profit sharing for directors and employees are subject to Article 25 of the articles of incorporation.  GRI 2-19
- The total compensation ratio and ratio of the percentage change in total compensation in 2023 were 8.45:1 and 717.70%, respectively.  GRI 2-21

Performance evaluation

- The performance evaluation of directors covers the alignment with the corporate goals and missions, awareness of the directorial responsibility, development and communication of internal relationships, expertise and continuing professional development, and internal controls; The performance evaluation of managers cover the finance aspect (operating revenue, operating profits, and net income before tax), customers aspect (customer satisfaction, service quality, and others), products aspect (branding, quality innovation, and others), talents aspect (talents development, potential development, and others), safety aspect (zero pollution, zero emissions, zero occupational hazards, zero accidents, zero breakdown, and others), and program aspect (digital transformation, energy saving and carbon reduction, circular economy, net zero emissions, and others). The weight of indicators related to sustainability should be at least 5%. The performance indicators in 2023 and sustainability-related aspects for the President, include 16% for safety (comprise the five-zero goals and process safety management), 6% for carbon reduction achievement rate, and 6% for talent development programs.

Note 1: Total compensation ratio: The ratio of the total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual).

Note 2: Ratio of the percentage change in total compensation: The ratio of the percentage change in the total compensation for the organization's highest-paid individual to the median percentage increase in the total compensation for all employees (excluding the highest-paid individual).

Audit Committee

- 1 The committee is composed of 4 independent directors, appointed by the resolution of the board of directors, with one of them serving as the convener. In 2023, a total of 4 meetings were convened, with an actual attendance rate of 100%.
- 2 Authorities:
 - (1) Establish or amend internal control systems in accordance with Article 14-1.
 - (2) Assess the effectiveness of the internal control system.
 - (3) Adoption or amendment, pursuant to Article 36-1, of handling procedures for financial or operational actions of material significance, such as acquisition or disposition of assets, derivatives trading, funding to others, and endorsements or guarantees for others.
 - (4) Matters involving the personal interests of directors.
 - (5) Major transactions of assets or derivative commodities.
 - (6) Significant lending of funds, endorsements, or guarantees.
 - (7) Offering, issuance, or private placement of any equity-type securities.
 - (8) Appointment, dismissal of and compensation for CPAs.
 - (9) Appointment or discharge of financial, accounting, or internal audit officers.
 - (10) Review annual financial reports signed or stamped by the chairman, managers, and chief accountants.
 - (11) Other significant matters prescribed by the company or the competent authority.
- 3 Main items discussed:
 - (1) Endorsements and guarantees.
 - (2) Annual financial statements and profit distribution.
 - (3) Distribution of dividends to shareholders as bonus shares or capital increase.
 - (4) Modification of the internal control system.
 - (5) Proposal of abolition of non-compete restriction on directors.
 - (6) Accountant remuneration.
 - (7) Assessment of the independence of the accountant and the appointment of an accountant.
 - (8) Evaluation of the effectiveness of the internal control system.
 - (9) Interim financial reports.
 - (10) Audit plans.
- 4 Please visit our corporate website, refer to our annual report, or visit the Market Observation Post System (MOPS) for the details regarding the operations of the committee in 2023.



TTC Shareholder
Structure



IP Management
Plan



Risk Management
Policy and Procedure



1.2 Economic Performance

GRI 3-3, GRI 201, 201-1, 201-4

Material Topic Economic Performance

Material Reason The company's operational performance is a significant factor supporting sustainable business development.

Impact Scope Directly affects the company and its employees, indirectly affects investors and suppliers.

Sustainability Principles and Corresponding SDGs Promote sound governance/SDGs 8 Employment and Economic Growth



Management Approaches	Policy Purpose	Enhance market competitiveness and achieve sustained profitability to ensure the sustainable development of the enterprise.
	Objective	Maintain profitability annually
	Management Plan	<ol style="list-style-type: none"> 1. We focus on product functions and features, conducting quality improvement, performance enhancement, new product development and verification, and developing high value-added products 2. We establish long-term strategic partnership with raw materials suppliers and determine the safety stock based on materials preparation lead-time to ensure supply chain fluency
	Evaluation of the Management	Consolidated Revenue Budget Achievement Rate
	Assessment Mechanism	<ol style="list-style-type: none"> 1. Management Meeting 2. Production and Sales Coordination Meeting 3. Quality Meeting
	Assessment Result	<ol style="list-style-type: none"> 1. Net operating loss of NT\$270 million was incurred in 2023 2. Disclose financial performance in the sustainability report, sharing the company's development results with stakeholders.
	Negative Impact Remedies and Preventive Measures	<ol style="list-style-type: none"> 1. Rising energy costs - Increase in electricity fees, Carbon tax imposition - Increase in production costs: Collaborate with the group's energy resource management department to review in-factory energy conservation and carbon reduction schemes. 2. Regulatory restrictions on industry development -- Factory shutdown: Ensure ongoing compliance and continuous improvement with relevant laws and regulations, periodically review new legal updates to verify compliance. 3. Water consumption fee imposition -- Increase in production costs: Collaborate with the group's energy resource management department to review in-factory water resource management schemes.
	Grievance Mechanism	<ol style="list-style-type: none"> 1. General Meeting of Shareholders 2. Company website "Investor Services/Contact Point"

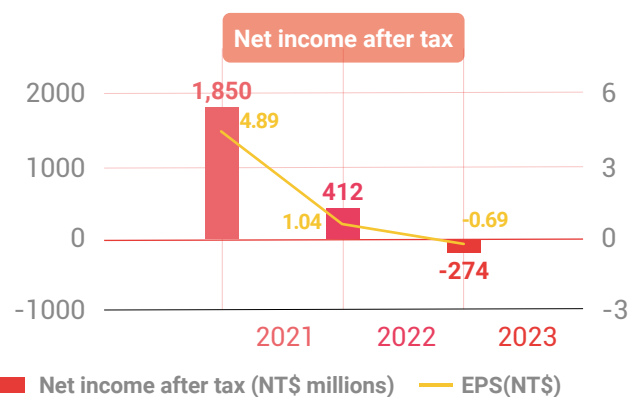
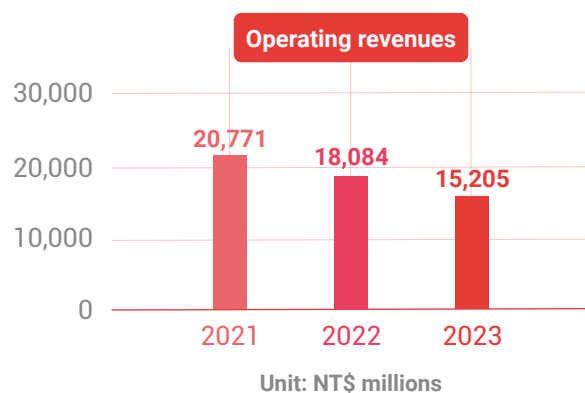
As of 2023, TTC had total assets of 8.9 billion, of which current assets were 5.5 billion, accounting for about 62% of total assets, and non-current assets were 3.4 billion, accounting for about 38% of total assets. The asset turnover rate for 2023 was 1.68 times.

TTC Consolidated Financial Information

Unit: NT\$ millions

Item	Basic Element	2021	2022	2023
Direct economic value	Sales revenue	20,771	18,084	15,205
	Financial investment income	4	0	1,115
	Asset sales revenue	0	0	0
	Subtotal	20,775	18,084	16,320
Distributed economic value	Operating costs	17,902	16,640	15,904
	Compensations and benefits for employees	696	580	541
	Payment to investors	947	199	119
	Payment to the government expense	320	445	147
	Investments in community	7	7	2
	Subtotal	19,872	17,871	16,713
Remained economic value		903	213	-393

TTC's revenue and net after tax over the past three years

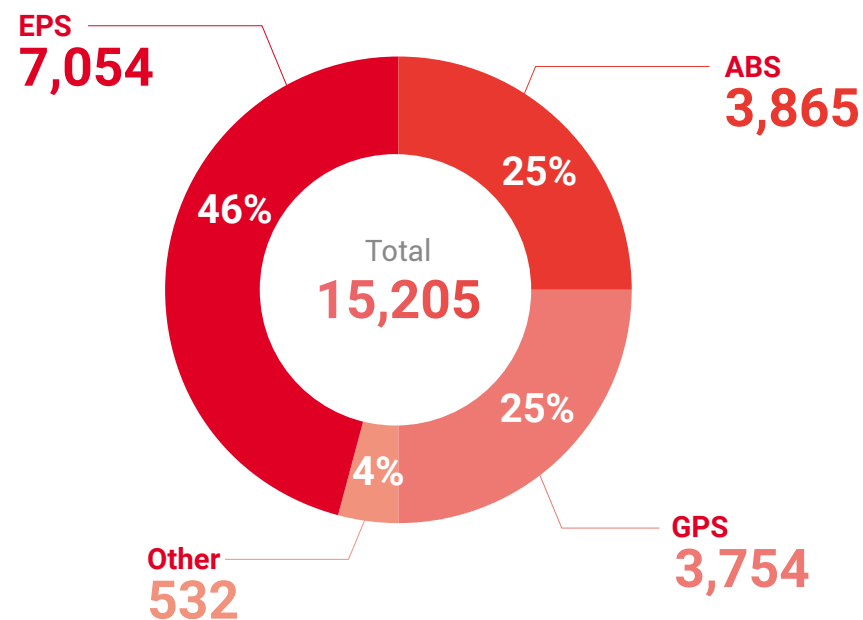


In 2023, the operating revenue was NT\$15.2 billion, of which revenue from the plastics sectors was NT\$14.7 billion (97%).

- The cost of goods sold in 2023 was NT\$14.8 billion, accounting for about 97% of operating revenue, with raw material costs accounting for about 90% of total manufacturing costs. TTC made payments to the government totaling approximately NT\$140 million, which were tax contributions made according to the law, accounting for 1% of the total individual business.
- Welfare expenses for 2023 (including post-retirement benefits, salaries, insurance, and other) were NT\$540 million, accounting for about 3% of the total cost and expenses.
- Financial subsidies received from the government in 2023: NT\$600,000.
- In 2023, the company's operational status continued to strengthen sales volume, committed to achieving full production and sales levels. However, due to market influences, the sales volume and price differences of subsidiaries were not as good as the previous year, resulting in an overall gross margin decrease compared to the previous year.



Distribution of operating revenue by product type for TTC in 2023



Unit: NT\$ millions



Annual Financial
Reports



Dividend
distribution over
the years

► Please refer to the Market Observation Post System and [TTC's website \(https://www.ttc.com.tw\)](https://www.ttc.com.tw) for the consolidated financial statement of 2023.

1.3 Risk Management

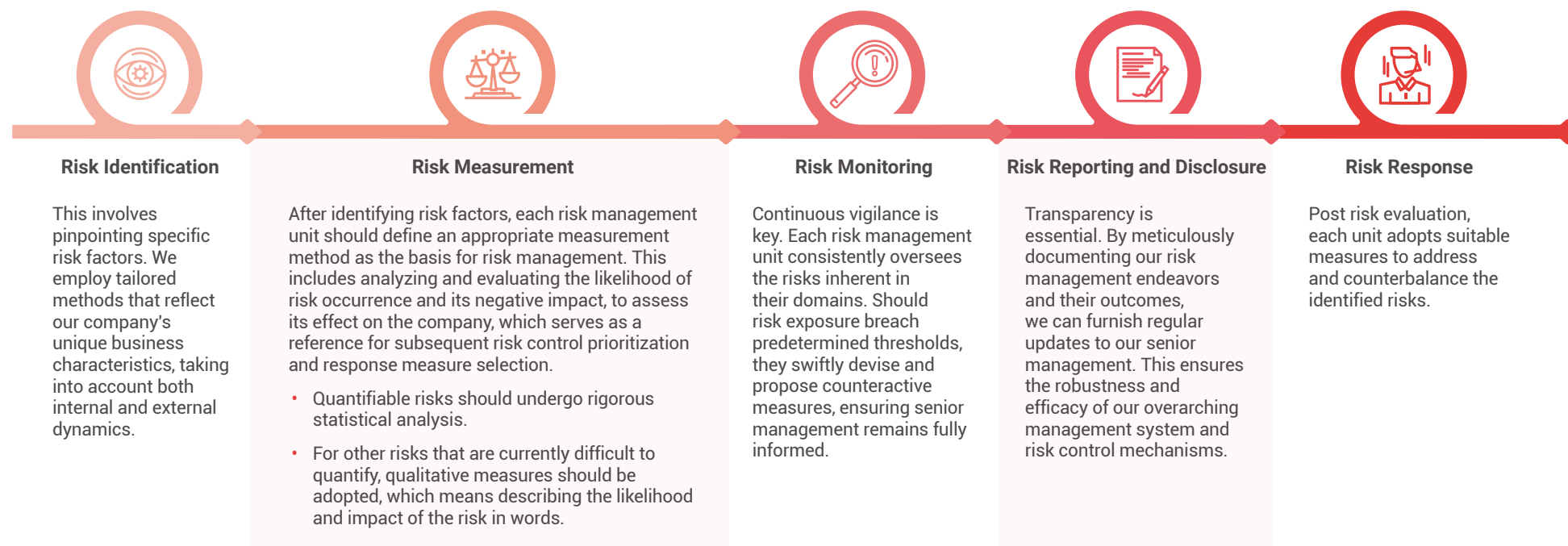
To fortify our corporate governance and mitigate potential operational risks, we're committed to ensuring the company's steadfast operation and ongoing growth. In line with this, the "[Risk Management Policy and Procedures](#)" were endorsed by the Audit Committee and the Board of Directors in December 2020. This comprehensive framework encompasses our risk management policy, organizational structure, processes, categories, and the mechanisms in place. This structure is designed to effectively navigate and control any risks emerging from our business activities. Furthermore, we present a detailed report on our risk management practices to the Audit Committee and the Board of Directors annually.

To streamline our risk management approach, we've integrated efforts from our Board of Directors, Audit Committee, senior executives responsible for routine operations, the audit department, specialized risk management teams, and our subsidiaries. Annually, we undertake systematic reviews of each risk management unit's operational scope. This ensures risks are consistently identified, evaluated, and managed.

The Audit Division audits risk management within the company, timely provides management with the information of inherent or potential risks under internal control to ensure compliance with existing regulations and control procedures.

1.3.1 Risk Management Process

Our structured risk management process encompasses risk identification, risk evaluation, ongoing monitoring, comprehensive reporting and disclosure, followed by appropriate responses to identified risks.



1.3.2 Units Responsible for Managing Specific Risks

Item	Risk	Risk Management Unit
1	Financial Risk	Group Finance Division
2	Strategic and Operational Risk	President's Office
3	Materials Price and Supply Chain Risk	Group Procurement & Logistics Division
4	Occupational Safety Risk	Occupation Safety Office/Facility and Environment Division
5	Information Security Risk	Group Information Systems Division
6	Legal Risk	Legal Division
7	Human Resources Risk	Group Human Resources Division
8	R&D Risk	Sales Division/R&D Department
9	Climate Change and Environmental Risks	Engineering Department/Facility and Environment Division
10	Disaster and Accident Risk	Occupation Safety Office/Management Department/General Manager's Office
11	Technology Risk	President's Office/Information Technology Division/Engineering Department
12	Other Risks	

1.3.3 Control Mechanisms and Detailed Operations of Various Risks in 2023

Our company's various departments manage risk assessments based on current operational conditions. We constantly monitor and control these risks to safeguard the interests of the company, its employees, shareholders, and stakeholders. Our goal aligns with our sustainable vision: "Creating Sustainable Value Together, Building a Sustainable Society."



The operations of
risk management units

► For a detailed account of the operations of our risk management units in 2023, please refer to:

1.3.4 Internal Control and Audit Mechanism

Our company has established an independent internal audit unit reporting directly to the Board of Directors. Its function is to assess the design and implementation of internal controls and to draft and execute annual audit plans. Our auditors, possessing international internal auditor certifications, adhere to principles of impartiality, independence, integrity, and honesty. They routinely attend meetings of the Board of Directors and the Audit Committee, presenting significant audit findings and monitoring subsequent improvements. The audit head is also responsible for the Audit Committee's dedicated mailbox and whistleblower hotline, handling reported matters.

In 2023, the internal audit unit completed its scheduled audits on time, issuing 49 audit reports and 6 follow-up reports, except for certain audit recommendations that are pending due to a lack of samples during the follow-up period and will be tracked in the following year, all other audit recommendations have been addressed, as summarized below:

Audit Name	Summary of Recommendations	Summary of Improvement Status
Industrial Safety and Environmental Protection Operation	During an inspection of the chemical warehouse in the Materials Finished Products Division at the Linyuan plant on April 17, it was discovered that items labeled as non-hazardous (lubricants) were stored in the area.	Non-compliant items were immediately removed after verification.
Subsidiary - TTC Zhongshan	Upon random inspection of the operational records for reaction tank 1# in one of the workshops, it was found that on September 13, the temperature of the sixth stage reactor was 121°C, deviating from the standard specification of maintaining a temperature of 105°C for an hour.	DCS records indicated a temperature of 104°C, leading to the conclusion that there was an error in manual transcription. Measures will be reinforced to ensure that personnel responsible for transcription pay closer attention to any data that exceeds the specified standards for anomalies. During the July follow-up inspection of operational records, no abnormalities or deficiencies were observed.
Procurement and Payment Cycle	A spot check of 8 maintenance contracting cases at the Linyuan plant revealed that the same contractor was engaged for three projects involving the replacement of the Tap C Valve Seat under consolidated negotiation, but each project was individually approved by the plant director. After consolidation, the approval for the total amount was at the level of the President.	The Engineering Department responded that the division of the contracting was due to considerations of cost sharing. Going forward, it will follow the recommendation to consolidate the cases for approval.

1.4 Ethical Corporate Management

1.4.1 Code of Conduct

Ethical Corporate Management Best Practice Principles

To instill in all our employees the company's culture of integrity and to enhance their professional ethics and conduct, we adopted the "Integrity Management Guidelines" and "Procedures and Behavior Guidelines for Integrity Management" based on the "Listed Company Integrity Management Guidelines" issued by the Taiwan Stock Exchange. These guidelines prohibit dishonest behaviors and apply to our directors, managers, employees, and those with significant control over the company. Unacceptable behaviors include offering, promising, demanding, or accepting any undue advantages and engaging in any dishonest or illegal actions or any actions that breach fiduciary duties for the purpose of obtaining or maintaining benefits. The Company's director and general manager issue a Statement of Compliance with the Ethical Management Policy, and request employees to comply with the company's Ethical Management Policy in the employment terms.



Ethical Corporate
Management Best
Practice Principles

Training for the Ethical Corporate Management Best Practice Principles

To ensure our colleagues understand our ethical standards, new employees must sign a pledge on their first day, which clearly outlines our integrity policies, and commit to adhering to them. Apart from making integrity-related regulations available on our website for employees, we also invite external scholars and experts to conduct annual integrity lectures and internal training, emphasizing our commitment, policy, preventive measures, and potential repercussions of breaches. In 2023, our company organized training related to integrity management. A total of 313 employees attended, clocking 611.5 training hours. Here are the details:

Overview of Integrity Management Related Educational Training Programs

Course name	Course Duration	Total Attendees	Total Training Hours
Integrity Talk: Stop, Look, and Listen to Cybersecurity Traps	2	137	274
Integrity Talk: Video Advocacy - Preventing Insider Trading	0.5	11	5.5
Integrity Talk: Legal Awareness and Response Required in the Intelligent Era	2	138	276
Integrity Talk: Legal Advocacy - Insider Trading and Gender Equality	2	17	34
Integrity Talk: Prevention of Workplace Violence (Bullying)	2	7	14
Integrity Talk: Practical Cases of Insider Trading and Associated Legal Responsibilities	3	1	3
Integrity Talk: Online Copyright and Legal Software Use	2	1	2
Integrity Talk: Introduction and Case Analysis of the Trade Secrets Act	3	1	3
Total	-	313	611.5

Code of Ethical Conduct for Directors and Managerial Personnel

The Code is established in order to encourage the Company's directors and managerial officers to act in line with ethical standards when engaging in business activities ex officio for the Company, in order to prevent any unethical conduct and activities from injuring the Company's and shareholders' interest. The Code is applicable to the following: the Company's directors and managerial officers (including presidents, vice presidents, executive vice presidents, chief financial and chief accounting officers, and other persons authorized to manage affairs and sign documents on behalf of the Company). The standards' provisions include: safeguarding trade secrets, engaging in fair trade, abiding by laws and regulations, and the protection and appropriate use of company assets.

Work Ethics and Professional Conduct Guidelines

To maintain the reputation of our company's integrity and ethical business practices, we have incorporated work ethics and professional conduct into our employee training program. Any breaches will be reflected in the individual's performance review, and severe violations will be addressed in accordance with company rules. In 2023, there were no illegal or unethical incidents, and no related reports were received.

Internal Review of Regulatory Compliance GRI 2-27

In addition to our commitment to ethical business practices, our company also emphasizes adherence to relevant regulations. We engage renowned scholars, experts, and lawyers to conduct training sessions on related regulations. Through routine departmental meetings, we disseminate the latest regulatory updates, ensuring employees are informed about any new amendments or changes to the law promptly. The corporate governance officer, in compliance with regulations, periodically (at least once a year) reports to the board of directors. The most recent report on ethical business operations was presented at the board meeting on November 3, 2023, which included:

- 1 Establish regulations to practically implement the ethical management policy according to the laws and regulations.
- 2 Periodically analyzing and assessing the risk of unethical behaviors within our scope of operations -- based on the "Unethical Behavior Risk Assessment Checklist". Upon assessment, there were no significant risks identified this year.
- 3 Planning internal organization framework and designating monitoring mechanisms for business activities with higher risks of unethical behavior.
- 4 Promoting and coordinating awareness and educational activities with respect to ethics policy.
- 5 We have put in place a whistleblowing system to ensure its effective execution - According to statistics, no reports of any illegal incidents were received this year.
- 6 Assisting the board of directors and management in auditing and assessing whether the preventive measures for ethical management are effectively implemented, and preparing reports on the regular assessment of compliance with ethical management in operating procedures.

Whistleblowing Channels GRI 2-26

TTC established the "[Procedure for Handling Reports on Illegal, Unethical, or Untrustworthy Behaviors](#)," which clearly defines both internal and external whistleblowing channels and handling systems. This is in line with our commitment to upholding the ethical behavior guidelines and business integrity standards we have set. Furthermore, it guarantees the legal rights and interests of the whistleblower and relevant parties. Whistleblowing Channels:

- Personal reporting: Face-to-face description.
- Phone reporting: 02-26503783.
- Correspondence reporting: Audit Division, 7F, No. 37, Jihu Road, Neihu District, Taipei City.

When receiving a personal or phone report, the case undertaker should take statements from the whistleblower and label the statement as "Confidential." We assure full protection of the confidentiality of informers, investigators and case contents to prevent them from unfair treatment or retaliation.



1.4.2 Violations, Fines Imposed, and Rectifications

Details of reasons for penalties, amounts, and corrective actions taken by the company in 2023 are as follows:

Factory Area	Competent Authority	Causes of Fine	Fine Amount (NT\$10K)	Improvement
Linyuan Factory	Kaohsiung City Environmental Protection Bureau	On September 8, 2023, inspectors from the Kaohsiung City Environmental Protection Bureau Auditing Section conducted an odor patrol inspection at the Plant. They discovered that the exhaust hood of the extruder at Line A in Area 26 was inefficient at capturing emissions, leading to odor dispersion. A fine of NT\$225,000 was imposed in accordance with Paragraph 1, Article 23 of the Air Pollution Control Act.	22.5	<ol style="list-style-type: none"> 1 The exhaust hood and collection duct of the extruder at Line A in Area 26 were immediately cleaned with steam, and the fan belts were replaced and inspected on the spot. 2 The belt driven pulley was replaced and the damper settings were adjusted. 3 Following the repairs to the exhaust hood, it is mandatory to take photos and record video before resuming operations, and to test for VOCs concentrations (recommended to be below 10 ppm) to confirm exhaust hood (effectiveness of the exhaust). 4 Officials from the Environmental Protection Bureau confirmed on September 12 that the improvements at Line A in Area 26 had been successfully completed.
Linyuan Factory	Kaohsiung City Environmental Protection Bureau	On September 8, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant. They found discrepancies between the actual emission paths of the neutralization tanks and screening machines in Area 26 and the emissions directions indicated on the Stationary Pollution Source Operation Permit (M02). A fine of NT\$130,000 was imposed in accordance with Paragraph 2, Article 24 of the Air Pollution Control Act.	13	<ol style="list-style-type: none"> 1 The sizes of the covers for the neutralization and coagulation tanks were re-verified. If any discrepancies were found, new covers were fabricated and fitted with rubber gaskets to enhance sealing effectiveness. 2 The exhaust hoods of the screening machines were redesigned and fabricated to channel emissions into the RTO for treatment. 3 Following the requirements of the Environmental Protection Bureau, an application for a change to the air pollution permit (M02) was submitted on October 17. Following, in accordance with the regulations for "Mandatory Improvements within a Specified Period under the Air Pollution Control Act", an improvement report will be submitted to the Environmental Protection Bureau within 90 days of receiving the notification.
Linyuan Factory	Kaohsiung City Environmental Protection Bureau	On September 12, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant to conduct inspection checks on equipment components. The inspection revealed that two points of equipment components had leak concentrations exceeding the "Kaohsiung City Equipment Component Volatile Organic Compounds Control and Emission Standards", set at 2000ppm. A fine of NT\$150,000 was imposed under Paragraph 1, Article 20 of the Air Pollution Control Act.	15	The leaking components located at Area 24 (P2423-2N03) and Area 25 (E2521-2F02) were immediately repaired by the mechanical repair section during the inspection. On September 13, an external inspection testing company was commissioned to reinspection these components, and the results were reported to the Environmental Protection Bureau, confirming that the improvements were satisfactory.

2 Build Innovative Supply Chains

- 2.1 Product Quality 43
- 2.2 Technology R&D 49
- 2.3 Supply Chain Management 51



2.1 Product Quality

GRI 3-3

Material Topic Product quality

Material Reason Under the foundation of pursuing sustainable business practices, we aim to provide our clients with satisfactory quality and service. We aim to grow alongside customers and suppliers, providing them with satisfactory quality and services. Through persistent efforts and the adoption of innovative technologies, we strive to enhance the quality of our offerings, ensuring that all products meet and exceed our customers' expectations.

Impact Scope Only by maintaining consistent product quality can we ensure our customers' continued patronage, thereby enhancing performance and achieving sustainable business operations.

Impact Boundary Employees/Customers/Suppliers

Sustainability Principles & Alignment with SDGs Building an Innovative Supply Chain/ SDGs Goal 12 Responsible Consumption and Production

Management Approaches	Policy Purpose	We collect information on market development and customer needs to develop environmentally friendly new products and niche products that satisfy the market and customer needs, enhancing our technological R&D capability and company profit.		
	Objective	2023 Goals <ol style="list-style-type: none"> Enhancement of basic properties of standard ABS products (Enhancement in glossiness to 99 GD) Certification of Indian BIS ABS products (Goal: Compliance with Indian BIS standards) Enhancement in concentration consistency of EPS products (Goal: Concentration in three-layer sieve >90%) 	Short-term Goals in 2024 <ol style="list-style-type: none"> Enhancement of general-grade ABS product quality (heat resistance and ABS graft polymer aggregation) Southeast Asian market demand - Enhancement of rapid prototyping grade EPS quality (processing and molding efficiency) 	Medium- & Long-term Goals in 2030 <ol style="list-style-type: none"> Enhancement of general-grade ABS quality (impact strength, appearance/coloration) For process optimization and product development, compliance with the goal of safety and environmental five zeros (zero pollution, zero emissions, zero occupational hazards, zero accidents, and zero failures)
	Management Plan	Provide stable product quality to enhance customer satisfaction.		
	Evaluation of the Management	<ol style="list-style-type: none"> Enhancement of ABS glossiness through the addition of auxiliary formulations Compliance with the Bureau of Indian Standards (BIS) officials audit, and sampling conducted at the Kaohsiung Linyuan plant, and lead the ABS products certification by BIS Improvement in the particle size concentration of EPS products was achieved by modifying the settings of the agitator blades used in suspension polymerization 		
	Assessment Mechanism	<ol style="list-style-type: none"> ABS glossiness (analyzed at a 60-degree angle) Indian officials obtained the certification based on sampling and analysis of product performance data EPS product particle size concentration achieved with a three-layer sieve showing particle concentration > 90% 		
	Assessment Result	Completion in 2023 <ul style="list-style-type: none"> ✓ ABS enhanced glossiness with elastomer copolymers increased from 95 GD to 99 GD ✓ ABS products obtained BIS certification license in India ✓ After adjusting the blade settings, the particle size concentration of the EPS through the three-layer sieve increased to 92% 		
	Grievance Mechanism	<ol style="list-style-type: none"> ABS accreditation BIS liaison in India If a customer is unsatisfied with ABS and EPS product quality, the customer complaint process will be initiated 		



Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Enhancement of basic properties of standard ABS products (Enhancement in glossiness)	Glossiness increased from 95 GD to 99 GD	By adding an elastomer copolymer formula to ABS, glossiness is enhanced while keeping the additive concentration below 5%, resulting in an increase in glossiness from 95 GD to 99 GD	✓ The goal has been achieved
Obtain BIS certification for ABS products in India	Obtained the BIS certification, allowing ABS products to be imported into the Indian market	<ul style="list-style-type: none"> In August 2022, TTC officially filed the application for BIS certification In July 2023, obtained BIS certificate and certification number Increased sales in the Indian market from an average of 589 tons per month in 2022 to an average of 1,569 tons per month in 2023 	✓ The goal has been achieved
Improve particle size concentration of EPS products	The highest concentration consistency in the three-layer sieve enhances > 90%	After adjusting the blade settings, the particle size concentration of the EPS increased from 89% to 92% (Area 23)	✓ The goal has been achieved

2.1.1 Sales Regions for Major Products

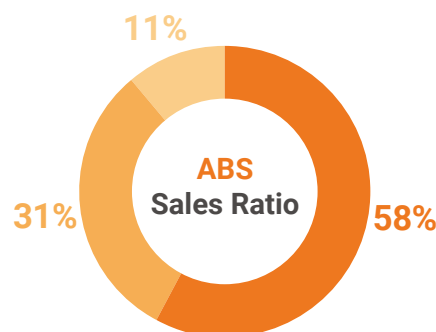
ABS/PS products manufactured at Linyuan and Qianzhen plants

Amidst the rapid expansion of new capacities in 2023, China gradually transitioned from an import country to an export. In response to market changes, TTC swiftly shifted its target markets, achieving favorable results throughout the year.

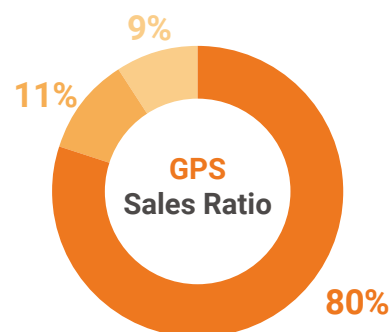
- ABS sales ratio in China and Hong Kong was reduced to 31%, with a major shift towards emerging markets in South Asia and Southeast Asia, and ongoing development in oceanic province.
- The GPS market continues to expand its reach into oceanic province, with the sales ratio in China and Hong Kong reduced to about 11%, while other sales regions are being further cultivated and developed.
- EPS sales remain steady as efforts continue to cultivate the Central and South American and Southeast Asian markets.

2023 Sales Distribution of Major Products by Region

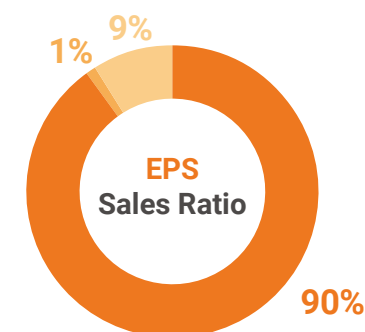
- Mainland China including Hong Kong
- Taiwan
- Other



Production volume of ABS products in 2023: 83,809 tons



Production volume of GPS products in 2023: 96,997 tons



Production volume of EPS products in 2023: 57,600 tons

EPS produced by the Zhongshan plant

All sales from the Zhongshan plant were directed towards China, targeting primary markets including electronic packaging, fruit and vegetable packaging, fish boxes, ceramics, pharmaceutical packaging, and exterior wall insulation boards. Given the plant's geographical location and to capitalize on shipping cost advantages, the primary sales markets are in the Guangdong and Yunnan provinces. To expand brand influence and coordinate with the Gulei plant establishment plan, sales in Fujian have been intensified, and there were minor sales in fringe markets.

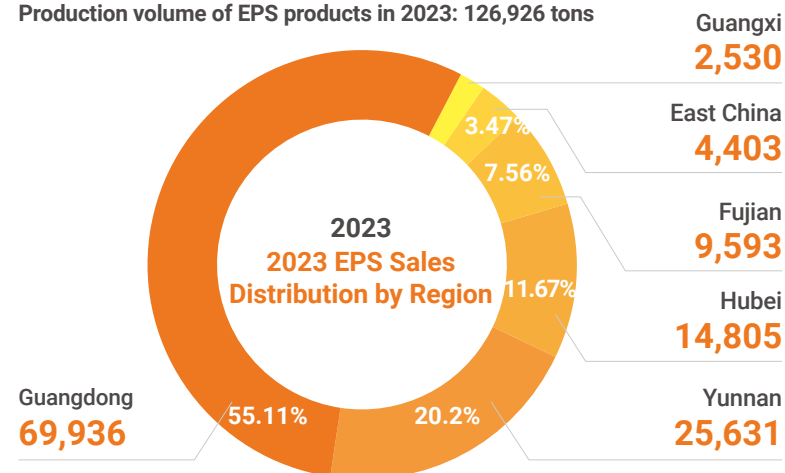
In early 2023, due to the global economic downturn coupled with a decline in domestic demand and export barriers, overall demand in the South China region decreased by approximately 40% for the year. Efforts were channeled into stabilizing the existing customer base and actively exploring markets in Zhudong and Gulei pre-sales areas. This strategy involves increasing the base of regular customers and stabilizing transaction volumes to mitigate the impact of shrinking demand. Meanwhile, remained product quality, with continuous improvements in particle size concentration, and enhanced service awareness to increasing competitiveness. Furthermore, in 2023, due to reduced market demand, competition intensified particularly in traditional industries. Customers in the package molding sector were taking orders at nearly cost price, while customers in the panel business faced severe order shortages, tried to minimize losses to maintain production. Despite clients had previous technological innovations and machinery upgrades that enhanced production efficiency and reduced energy consumption (the requirements for the quality of EPS raw materials continued to increase), making the lack of operational capacity even more pronounced. Additionally, because of cutthroat competition within the industry, the overall sales volume slightly decreased from 129,292 tons in 2022 to 126,898 tons in 2023.

Glass wool from the Toufen plant

In 2023, domestic sales of glass wool products accounted for approximately 62%, while the remaining 38% were exported to New Zealand, Australia, the USA, South Africa, and various Southeast Asian countries. The domestic market for glass wool decline by 8% in 2023, with imports accounting for approximately 3% of the overall market, predominantly from India. It's projected that the domestic market will contract by about 2% in 2024 compared to 2023. In addition, due to intense competition with low prices in the Southeast Asian market, the focus of export sales will shift towards markets with higher prices, such as New Zealand and Australia. As a sluggish housing market in 2023, sales in the New Zealand and Australian markets remained stable compared to 2022. Plans are underway to continuously explore other market opportunities and actively enhance the breadth and depth of the export market. It's anticipated that the domestic to export sales ratio in 2024 will be 60% and 40%, respectively.



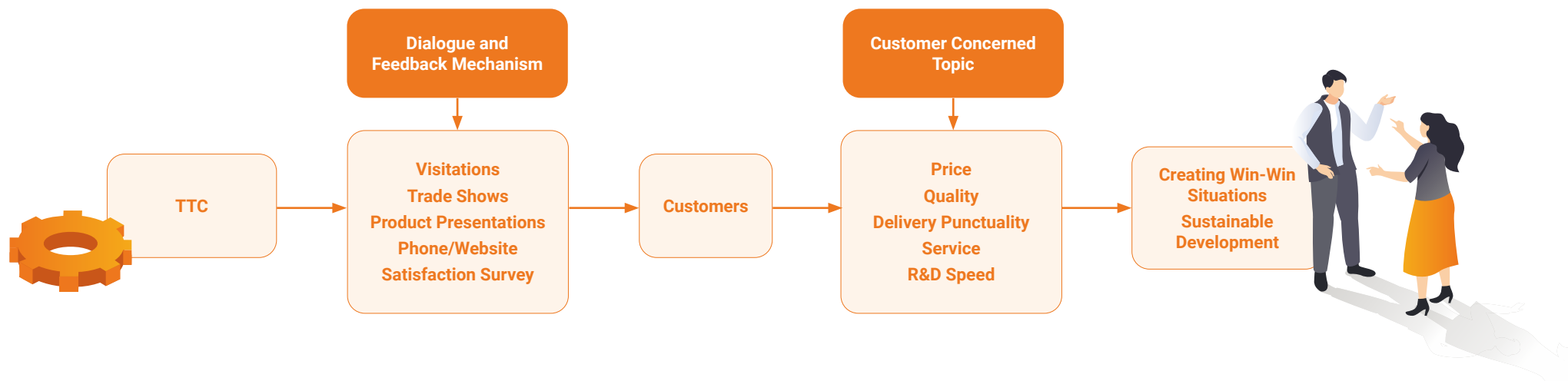
Production volume of EPS products in 2023: 126,926 tons



Production volume of glass wool products in 2023: 8,972 tons



2.1.2 Customer Services



1 Products comply with local government regulations for customer sales

- For ABS/GPS/EPS/AS in accordance with EU regulations, we fully use materials that comply with the Restriction of Hazardous Substances (RoHS) Directive and the Registration, Evaluation, and Authorization of Chemicals (REACH).
- EPS, in line with EU and Japanese regulations, switched to using non-hexabromocyclododecane (non-HBCD) (321N) as a flame retardant for producing fire-resistant EPS.
- Curved printing and fiberglass insulation comply with RoHS, and formaldehyde-free products ensure indoor air quality.
- ABS/PS/EPS products' PSM process safety management, hardware equipment rectification, and process design are in line with ISO 50001 energy management and ISO 14064-1 greenhouse gas inventory standards.
- ABS products obtained import permit from the Bureau of Indian Standards (BIS).

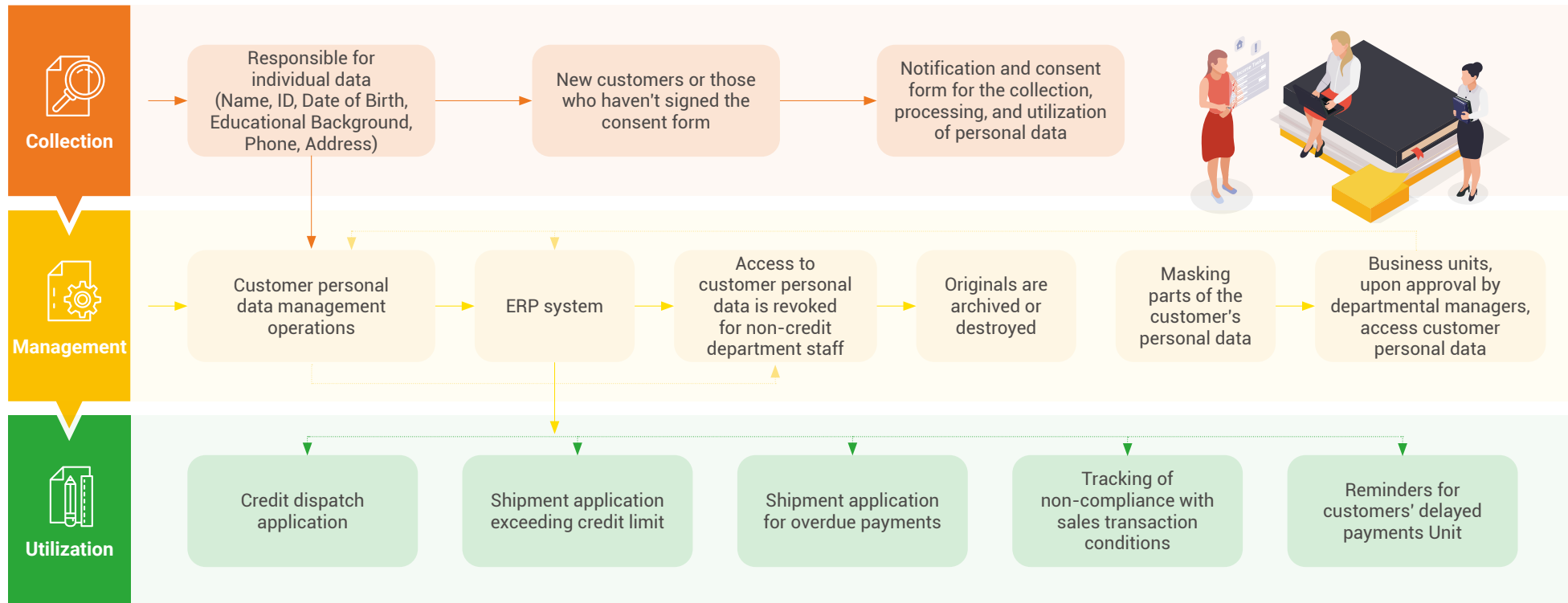
2 Improving product performance and customer satisfaction

TTC, under the foundation of pursuing sustainable development, continuously strives to enhance product quality and performance. We have implemented the ISO 9001 quality management system and establish a quality policy. Our aim is: QP (Continuous improvement of product quality) + QS (Enhanced service quality) = Q (Operational quality satisfying the customer). Monthly quality assurance meetings are held to discuss product line quality, maintain stable product quality, track process capability and stability. Our objective is to provide superior and functional products, enhancing the customer's processing and production efficiency.

3 Achievements in 2023 for Product Performance Improvement and Quality

- High-gloss ABS, glossiness increased from 95 GD to 99 GD, promoted through a rolling sales strategy.
- ABS products obtained import permit from the Bureau of Indian Standards (BIS) for entry into its market, increased sales in the Indian market from an average of 500 tons per month in 2022 to 1700 tons per month in 2023.
- EPS particle size concentration was improved by modifying the agitator blade settings in the suspension polymerization reaction, increasing the concentration from 88% to 90-92%.

4 Customer Data Management and Protection



2.1.3 Customer Satisfaction

TTC values customer feedback, collecting opinions and suggestions on various products and services for internal operational improvement. Aligning with ISO 9001's commitment to customer quality and emphasizing customer satisfaction, an annual customer satisfaction survey is conducted. In 2023, one survey was conducted, and corrective actions were taken for any customer dissatisfaction. These were reported in internal management meetings (e.g., production and sales meetings, business management meetings, management review meetings). Our goal is to provide excellent customer service, enhance product satisfaction, and gain trust from our customers.



ABS/PS Production at Lin Yuan and Qianzhen Plants

The customer satisfaction survey for ABS and Polystyrene (known as PS) products covers six areas: service quality of sales representatives, product quality, supply capability, technical service, transportation service, and the quality of packaging upon arrival. Each category holds a weight of 16.67% in the evaluation.

The target audience for the customer satisfaction survey is determined by selecting clients who account for 70% of the total sales volume across both domestic and international sales divisions, which totals 159 companies.

In 2023, the average customer satisfaction rate was 96%. Due to the disruptions caused by the COVID-19 pandemic, shipping schedules became unstable.

EPS produced by the Zhongshan plant

The EPS product customer satisfaction survey covers: Product quality (30%), supply capability (30%), technical service (20%), transportation (10%), packaging upon arrival (5%), and overall service compared to other EPS manufacturers (5%). The survey audience is selected from customers representing 85% of total sales (155 companies in total). The average satisfaction in 2023 was 88%, achieving the set target. While product quality satisfaction remained stable, the primary reason was the minimal real improvement in particle size concentration, with occasional occurrences of uneven particle sizes being reported. Technical service satisfaction was consistent with the previous year. Satisfaction with packaging upon arrival remained stable, but there's room for improvement due to occasional mishandling during shipping leading to damaged packages and subsequent customer complaints. Transportation service satisfaction slightly increased thanks to enhanced billing efficiency and coordination. In the future, we aim to consistently improve grain size concentration, stabilize product quality, increase our competitive edge in the industry, and continually enhance transportation services to uplift the overall service quality.

Glass wool and curve printing products from the Toufen plant

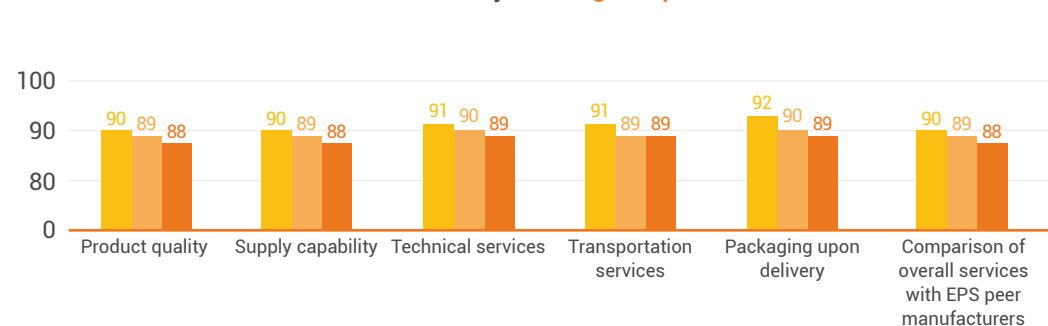
In 2023, the customer satisfaction survey for fiberglass insulation reached 95%, achieving the set goal of 90%. The customer satisfaction survey covers areas such as service attitude, delivery scheduling cooperation, speed of dispute resolution, quality status, and shipment cooperation. We conduct the customer satisfaction survey once a year, targeting the main customers who contributed to the highest 70% of the previous year's revenue (with 30 companies surveyed in 2023). After collating customer feedback, we draft a customer satisfaction report that proposes improvement plans and their outcomes. In 2023, 1 improvement plan was proposed, all of which achieved a 100% completion rate. By providing excellent customer service, we aim to enhance customer satisfaction and win their trust in our company.

2021~2023 EPS Customer satisfaction survey for Zhongshan Plant



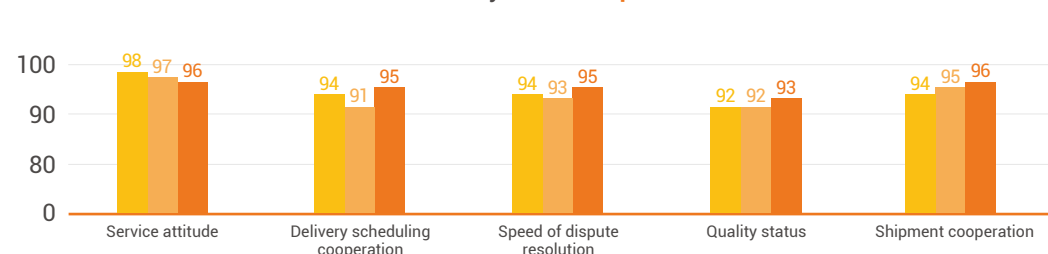
Unit: Percentage

2021~2023 EPS Customer Satisfaction Survey of Zhongshan plant



Unit: Percentage

2021~2023 EPS Customer satisfaction survey for Toufen plant



*Key customers are defined as those who account for 70% of total sales, both domestically and internationally

Unit: Percentage

2.2 Technology R&D

GRI 3-3

Material Topic Technical R&D

Material Reason The ability to research and develop new product technologies enables us to grasp market trends and enhance our competitiveness. It's vital for business growth and continuity. With technical development capability, we can consistently generate high profitability and sustain the business in the long run.

Impact Scope The technical R&D capability affects product competitiveness, directly impacting company operations/profit growth and customer development requirements.

Impact Boundary Employees, customers, investors

Sustainability Principles and SDGs Alignment Building an innovative supply chain/ correlating with SDG 9 - Industry, Innovation, and Infrastructure

Management Approaches	Policy Purpose	We collect information on market development and customer needs to develop environmentally friendly new products and niche products that satisfy the market and customer needs, enhancing our technological R&D capability and company profit.		
	Objective	2023 Goals <ol style="list-style-type: none"> Continuous promotion and development visits to construction companies for the Wood Flooring Fiberglass Insulation Soundproofing System. Visit 18 potential clients per month to promote the system Development of heat-resistant ABS with client quality validation Enhancement of Extrusion Dewatering Machine: This is aimed at increasing the production capacity and improving the evaporation efficiency of VOCs in ABS products. Goal: Increase ABS production capacity and reduce VOC content Development of high molecular weight, high fluidity GPPS 	Short-term Goals in 2024 <ol style="list-style-type: none"> Continuous promotion and development visits to construction companies for the Wood Flooring Fiberglass Insulation Soundproofing System. Goal: Visit potential clients to promote the Wood Flooring Fiberglass Insulation Soundproofing System Control of particle size and concentration in the emulsion polymerization of general-grade ABS Enhancement of the shelf life and optimization of the molding cycle for EPS products 	Medium- & Long-term Goals in 2030 <ol style="list-style-type: none"> The wooden floor glass wool sound insulation system is applied to new collective residential buildings by construction companies Control of particle size in the rubber and graft emulsion polymerization of ABS, aimed at developing specialized-grade ABS products Development of specialized-grade EPS foam materials (high impact resistance and high thermal conductivity)
	Management Plan	Monitor product development progress according to the "Raw Material/Formulation Amendment and On-site Test Operation Standard." Report and review R&D progress in monthly development meetings.		
	Evaluation of the Management	<ol style="list-style-type: none"> Monthly development meeting reports and review of R&D progress New product development progress is included in key performance indicator evaluations 		
	Assessment Mechanism	<ol style="list-style-type: none"> Promotion and Development of Wood Flooring Fiberglass Insulation Soundproofing System for Construction Companies Development of heat-resistant ABS to meet client quality requirements or equivalent industry standards Installed an extrusion dewatering machine to control the moisture content of rubber powder < 15% Melt flow index of high molecular weight, high fluidity GPPS 		
	Assessment Result	Completion in 2023 <ul style="list-style-type: none"> ✓ Visit 18 potential clients per month to promote the Wood Flooring Fiberglass Insulation Soundproofing System. Potter Pavilion - Taichung's National Taiwan Museum of Fine Arts and customer plant machine rooms in Kaohsiung. Wood Flooring - collaborate with a guest house in Miaoli and a design company in Kaohsiung and conduct residential implementations at a shop in Hualien Beibin ✓ The quality of ABS heat-resistant complies with a heat deflection temperature of >100°C ✓ High-rubber powder extrusion dewatering machine reduces the moisture content of the rubber powder to <15%, with an estimated capacity increase of about 40% ✓ The melt flow index (MFI) of high molecular weight, high fluidity GPPS meets the target (3.5g/10min) 		
	Policy Adjustment	Gather comprehensive market information and leverage group/industry-academia R&D resources to shorten market promotion timelines and enhance market competitiveness.		

Status and Description for Goal Achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Technical R&D Progress Tracking	Visited 18 potential clients per month to promote the Wood Flooring Fiberglass Insulation Soundproofing System.	Provided wood flooring fiberglass to a Kaohsiung engineering company and a guest house operator in Miaoli's Zaozhuang, applied in their office spaces and guest houses as a demonstration system for the wood flooring fiberglass insulation soundproofing, facilitating introduction and promotion	✓ The goal has been achieved
	Heat-resistant ABS development	Development of traditional PMI (phenyl maleimide) copolymer formulations and cost-effective ABS alloys, both capable of meeting a heat deflection temperature of 100°C	✓ The goal has been achieved
	Equipment of high-rubber powder extrusion dewatering machine	ABS coagulation and dewatering process line batch testing results in a reduction of the rubber powder moisture content to 15%, which is expected to increase the extruder's production capacity by 40%	✓ The goal has been achieved
	High molecular weight, high fluidity polystyrene	Development of high-speed injection grade, high molecular weight, high fluidity GPPS with MFI >3.0g/10min	✓ The goal has been achieved

2.2.1 Technology R&D

For the R&D team at TTC, continuous development of new and niche products, and leveraging the collective R&D resources of the group, are essential to create high profitability and ensure sustainable operations.

Since its early market growth, TTC has been actively focusing on product functionality and features, undergoing a series of performance enhancements and new product developments to accelerate customer R&D progress. When customers face manufacturing issues or bottlenecks in process capability for their new products, the company provides superior technical services to speed up the mass production timeline for the client, enhance their production yield, and ultimately ensure that the newly launched products are competitive in the market.

Over the years, TTC has dedicated itself to technical R&D and has effectively developed environmentally friendly and customer-centric new and niche products, meeting market and customer needs, enhancing technical R&D capabilities, and increasing revenue. Their achievements are notable. In addition to improving manufacturing processes across all factories, they focus on establishing proprietary key technologies and enhancing differentiated innovation. The R&D expenditures for TTC in 2021, 2022, and 2023 were NT\$18.54 million, NT\$15.31 million, and NT\$15.83 million, respectively. The decreasing expenses were mainly due to the impact of the pandemic, resulting in fewer business trips for product testing and a significant reduction in testing of new raw material samples.

2.2.2 Successfully Developed Technologies or Products

- 1 Passed the test for the Wooden Floor Fiberglass Insulation Soundproofing System and continued its promotion and development in the market
- 2 Developed heat-resistant ABS products
- 3 Trial of the extrusion dewatering machine led to a reduction of the adhesive powder moisture content from 30% to 15%
- 4 High molecular weight, high fluidity injection grade GPPS

2.2.3 Ongoing R&D Projects

- 1 Continuous promotion and development visits to construction companies for the Wood Flooring Fiberglass Insulation Soundproofing System. Goal: Visit potential clients to promote the Wood Flooring Fiberglass Insulation Soundproofing System
- 2 Control of particle size and concentration in the emulsion polymerization of general-grade ABS
- 3 Enhancement of the shelf life and optimization of the molding cycle for EPS products
- 4 Process optimization and product development, compliance with the goal of safety and environmental five zeros (zero pollution, zero emissions, zero occupational hazards, zero accidents, and zero failures)

2.3 Supply Chain Management

2.3.1 Supply Chain Sustainable Development

With the goal of long-term sustainable management, TTC is committed to establishing good communication channels with long-term suppliers and prioritizing the safety of operations at manufacturing sites. As a result, they've fostered stable, mutually trusting, and sustainable supply chain relationships, all aimed at growing together with respect for human rights, a focus on workplace safety, and an emphasis on environmental conservation.

Objectives and strategies for sustainable supply chain development



Implementation and planning for sustainable development of supply chain

TTC is committed to promoting sustainable operational development. Since 2018, they've introduced the "Supplier Social Responsibility Commitment Letter" for long-term raw material suppliers, requiring commitments on human rights, workplace safety, hygiene, environmental protection, and conflict minerals. The signing rate for these commitments reached 100% in 2023. Starting in 2023, TTC also implemented audit evaluation form for plant visits and began searches on environmental protection administration, local environmental bureaus, and public information websites to check whether suppliers had violated local environmental laws. Based on the search results, these will be used for subsequent risk assessments, the related execution and future plans are as follows:

Short-term plan (one year/2024)

Both existing and new suppliers with the past two years transaction records have all signed the Supplier Social Responsibility Commitment Letter by 2023, achieving a 100% signing rate.

Medium-term plan (three years/2025-2026)

Starting in 2023, TTC initially conducted on-site audits for major raw material suppliers and special auxiliary material suppliers, and require suppliers to complete Supplier Code of Conduct and Quality Requirements Self-Assessment Form. Starting in 2024, the scope of supplier plant audits will be expanded, and the content of these audits will be gradually adjusted to ensure that all suppliers working with TTC meet social and environmental assessment standards.

Long-term plan (five years/2027)

Based on the results of the plant audits, if deficiencies are identified with suppliers, relevant professionals from the Company will be appointed to provide recommendations and assist with improvements. It is expected that all suppliers will comply with the social and environmental assessment standards set by TTC.

Labor and Human Rights	No forced labor; no child labor; provision of due wages and benefits; guarantee for working hours and breaks; elimination of workplace sexual harassment, bully, and discrimination; and no conflict minerals.
Health and Safety	Measures required for occupational safety, emergency response, occupational health, protection against machinery injuries, public health, food and accommodation, and health and safety information.
Environment	Operation permit; pollution prevention and resource conservation; hazardous substances; effluents; non-toxic solid waste; noise; exhaust emissions; product and service limitation; energy/resource consumption; and GHG emissions.
Ethics and Integrity	Ethical corporate management; respect for intellectual property rights; abidance by non-disclosure agreements; privacy protection; and avoidance of the conflict of interest.



Supply Chain Risk Management

TTC has established a comprehensive electronic procurement process. Guided by the principles of fairness, impartiality, and transparency, the company staunchly prevents any procurement malpractices or favoritism. In addition, the company ensures smooth communication channels with its suppliers, aiming to reduce supply risks. As part of the sustainable supply chain risk assessment, prevention, and response measures, TTC collaborates with suppliers through the following action plans:



Risk Prevention

- Establish long-term, favorable cooperation with suppliers, with most items being supplied by two or more suppliers to reduce the risk of sole-source procurement.
- Increase the flexibility of internal safety stock mechanisms to adapt to significant market fluctuations.
- Purchasers implement education/training for the sustainable supply chain.
- HSE education/training for contractors.
- Implement the "Supplier Code of Conduct and Quality Requirements Self-Assessment Form" to investigate potential environmental and social negative impacts.



Impact Response

- Adjust the supply proportion of suppliers, timely supplement or dispatch from other suppliers. Increase local procurement to mitigate risks arising from international transportation delays.
- For construction projects, the ESH unit immediately investigates personnel safety, equipment damage, and environmental impact. After consolidation, the ESH unit will hand over the results to related units to address and understand the situations.



Future Planning

- An assessment mechanism will be established based on the purchasing amount, project outsourcing amount, or project importance, and the onsite audit results of the abovementioned sustainable development strategy.

2.3.2. Supply Management Mechanism

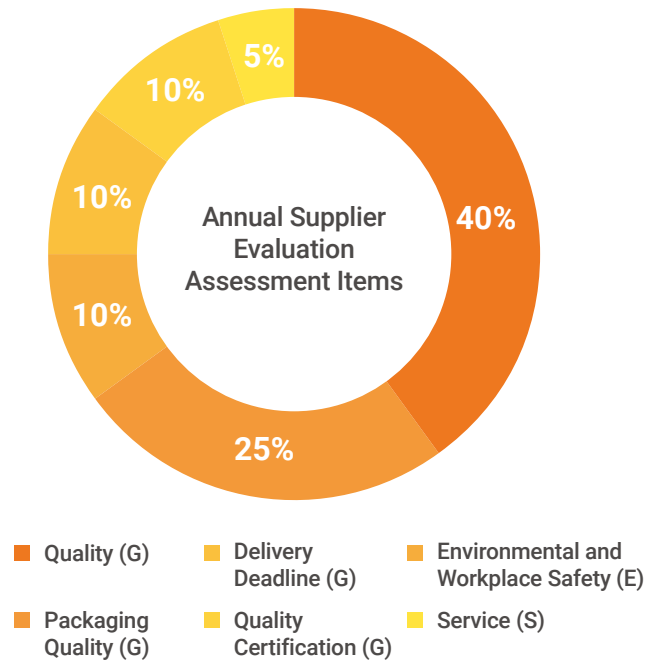
To maintain sustainable business practices, TTC conducts regular supplier evaluations every year. We have established evaluation management mechanisms specifically for raw material suppliers and engineering contractors. This is designed to reduce and prevent potential risks. The management mechanism is divided into evaluations for raw material suppliers and engineering contractors.

(1) Evaluation and Management of Raw Materials Supplier Evaluation

TTC (Taiwan and Zhongshan) establish long-term strategic partnership with raw materials suppliers and determine the safety stock based on materials preparation lead-time to ensure supply chain fluency. In order to motivate suppliers to continually optimize and ensure that our company receives high-quality raw materials and services in a timely, appropriate quantity and at a reasonable price, we regularly conduct evaluations in line with our production, operational, and environmental policies each year. Evaluations are based on criteria like quality, delivery time, environmental and workplace safety, packaging, quality certification, and service. These evaluations are uniformly conducted by the Materials Planning Department of USIG. The detailed evaluation mechanism and process are outlined below:

- We select qualified suppliers of raw materials and OEM products based on one of or a combination of the following:
 - Suppliers with credibility or a good reputation at home and abroad.
 - Registered certify suppliers with accreditation bodies, such as ISO certifications (ISO 9001, ISO 14001, and ISO 45001), or compliance with the European Union's Restriction of Hazardous Substances Directive (RoHS).
 - Suppliers with a good quality or delivery record.
 - Suppliers designated by technology suppliers.
 - Exclusive suppliers of materials.
- For new suppliers of raw materials/outsourced products, provided samples undergo inspection and testing by the R&D department and other relevant units. After evaluation and trial, if the report meets requirements, it's confirmed in a product improvement meeting. The procurement unit will then add the supplier to the list of qualified suppliers. After approval by the respective plant director and the president, this list is used as a reference for procurement.
- Documentation: Information related to qualified raw material/outsourced product suppliers is recorded in the Supplier Directory. A comprehensive record is maintained and reviewed periodically for updates.

The qualifying threshold for the annual evaluation of raw material suppliers is set at 75 or above. Apart from the suppliers with scores above 85 for three consecutive years may be exempt from evaluation. In 2023, the qualification rate for raw material supplier evaluations at all plants exceeded 100%, with the evaluated suppliers representing 100% of the year's transactional suppliers.



Note 1: The primary reference points for assessing environmental and occupational safety are ISO 14001 and ISO 45001.

Note 2: (E), (S), (G) represent respectively environmental, social, and governance aspects.



Results of Raw Materials Supplier Evaluation 2021-2023

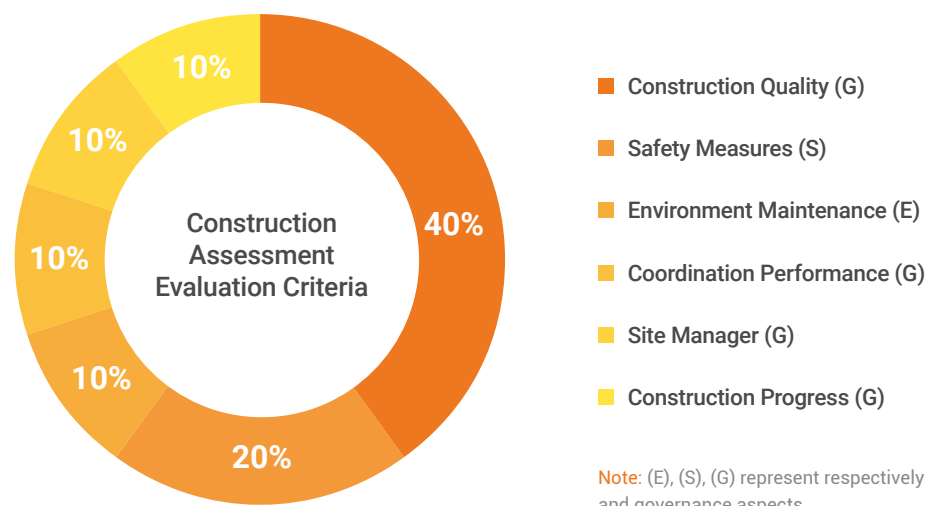
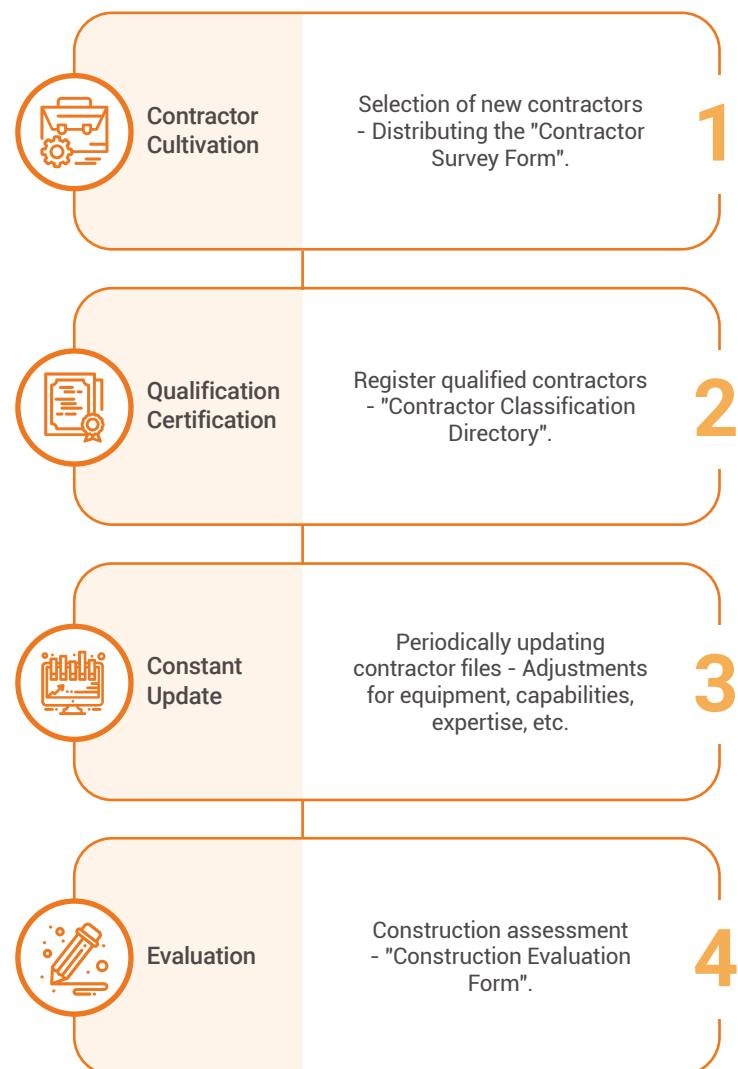
Year	2021	2022	2023
Number of Evaluations (Including Zhongshan plant)	233	256	250
Pass Rate	100%	100%	100%

Note: Supplier scores below 59 in the evaluation, the transactions with this supplier will be suspended or terminated as per regulations.



(2) Contractor Evaluation Management

Subcontracting policy primarily focuses on local contractors. Register qualified contractors' information and classified after being evaluated based on their capability and quality. This classification serves as a recommendation and reference for soliciting project bids. During the construction process, the quality of the work relies on the supervision and management of factory onsite personnel. Management areas include environmental safety, occupational safety, human rights, and labor practices, with regular reports submitted to headquarters for updates.



Construction Assessment Results from 2021 to 2023

Year	2021	2022	2023
Projects Evaluated	137	63	60
Pass Rate	100%	100%	100%



2.3.3. Strategic Procurement

Under the framework of sustainable business management, TTC is steadfast in promoting oversight in quality, capability, service, and environmental and occupational safety. The company places high importance on ensuring the safety and health of its employees with the ultimate goal of establishing a stable, trust-based, and enduring relationship within the supply chain. TTC collaborates with esteemed suppliers, aiming for mutual growth.

Support for Local Procurement

TTC has bases in Taiwan and Zhongshan, China, with Taiwan serving as the primary headquarters for overall operations. Upholding the spirit of uplifting local industries in Taiwan, the company prioritizes purchasing from Taiwanese suppliers when product quality and procurement terms are comparable. By fostering strong cooperative relationships, TTC aims to bolster the stable development of Taiwan's economy. In 2023, the proportion of local procurement from the Taiwan factory was 91% of the total procurement amount, while the Zhongshan factory in China maintained a 99% local procurement rate. The bulk raw materials, such as styrene, acrylonitrile, and butadiene required by TTC production, are under fixed contracts with local Taiwanese suppliers. According to market conditions, a portion is imported from abroad to maintain a steady supply. In 2023, the procurement of these bulk raw materials accounted for 92% of TTC's annual procurement total. There were 9 suppliers for these raw materials, of which 7 were Taiwanese.

Breakdown of 2023 Procurement for Key Raw Materials in Taiwan

Locations/Materials	Styrene	Acrylonitrile	Butadiene
Taiwan	50%	100%	100%
Foreign	50%	0%	0%
Source	2 Local Suppliers	2 Local Suppliers	3 Local Suppliers
	2 Foreign Suppliers	0 Foreign Suppliers	0 Foreign Suppliers

Breakdown of 2023 Procurement for Key Raw Materials in Zhongshan Plant

Locations/Materials	Styrene (Zhongshan)
China	100%
Non-China	0%
Source	8 Local Suppliers
	0 Foreign Suppliers



Supply Chain Growth Together

In its commitment to sustainable development, TTC not only strengthens its existing supplier evaluation system but also emphasizes enhancing the stability of its supply chain. From 2023 onward, the company plans to establish a procurement personnel factory visit and assessment system for raw material suppliers. Through this comprehensive assessment mechanism, the company aims to nurture and consolidate partnerships with outstanding suppliers, while also reviewing and assisting those who don't meet standards. The threshold for a passing score on the supplier visits assessment audit is 70 points or higher, with the related procedures as follows:

- Suppliers scoring below 70 points: These suppliers will receive guidance on non-compliant items and be provided with ways to improve. There will be regular follow-ups to monitor their improvement status.
- Suppliers scoring 70 points or higher: Both parties will organize exchange meetings to discuss and share best practices.

3. Create Friendly Environments

3.1 Eco-friendly Management	57
3.2 Climate Change and Energy Management	60
3.3 Water Resources Management	72
3.4 Air Pollution Control	76
3.5 Waste Management	81



3.1 Eco-friendly Management

Environmental protection and pollution prevention form an integral part of our corporate management strategy. Since June 1998, TTC has implemented the ISO 14001 Environmental Management System, providing a robust framework for environmental protection across all our plants. This approach not only controls and minimizes our environmental impact but also prevents accidents that might harm the environment, ensuring compliance with relevant regulations.

We have integrated the environmental management system with our occupational health and safety system, establishing a comprehensive environmental, health, and safety (EHS) policy. Regular EHS training sessions are conducted to cultivate a safe and healthy working environment.

TTC's Environmental, Health, and Safety Policy: Corporate Promise

**Firm commitment
to compliance with
governmental regulations**

**Fulfill Corporate Social
Responsibility**

**Effective implementation of
management cycles**

**Preventative measures
to mitigate hazards and
reduce risks**

**Emphasis on the concept
of responsible care**

**Prioritizing the needs of
employees and the public**

**Continuous improvement
to enhance performance**

**Ensuring sustainable
business operations**

Depending on the importance of our products, TTC evaluates its production processes in terms of hazardous substance management, pollution prevention, energy conservation, water saving, and carbon reduction. The objective is to achieve high safety standards and low pollution in production. Moreover, we set our environmental goals and targets, and devise management plans or other improvement measures. These initiatives are continually implemented, reviewed, and monitored to ensure best practices are consistently followed.

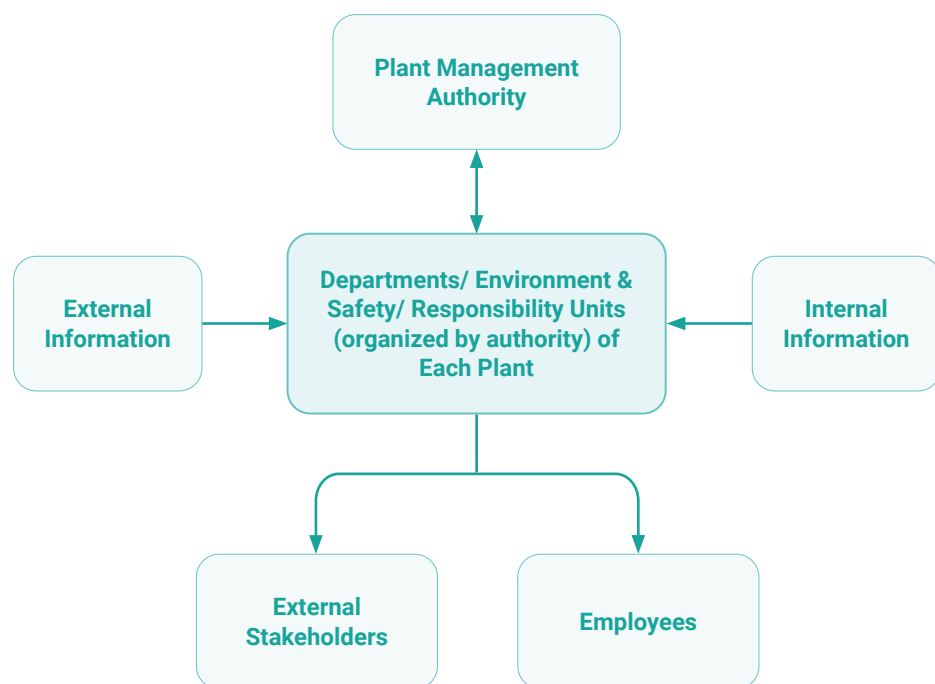


3.1.1. Environmental Management Organization

To effectively implement the environmental, health, and safety (EHS) management system and promote EHS awareness among employees, we have established the EHS Management Committee. The CEO serves as the chairman of this committee, and under its umbrella, there are EHS management sub-committees established at each plant. The EHS Management Committee convenes a management review meeting at least once a year. Meanwhile, the management sub-committees in each plant hold an occupational safety and health committee meeting at least once every three months and an EHS execution team meeting every two months. These meetings are dedicated to regular discussions and reviews of topics related to environmental, health, and safety issues.

3.1.2. ESH Grievance Channels GRI 2-25

The TTC has established, implemented, and maintained the "Operation Regulations for Occupational Safety, Health and Environment Information Collection and Communication" as channels and procedures for the communication, engagement, and consultation of environment-related topics for internal stakeholders (employees, employee welfare committee, labor/ management meetings, occupational safety and health committee meetings) as well as external stakeholders (customers, suppliers, ESH competent authorities, community residents, and environmental groups).



Internal Complaint and Communication Procedures

- 1 Internal Complaint and Communication Procedures * Employees can consult and communicate on occupational safety, health, and environmental matters through channels such as the Occupational Safety and Health Committee meetings, Environmental and Safety meetings, and the employee complaint mailbox.
- 2 When employees have suggestions related to occupational safety, health, or environmental issues, they can also follow the proposal improvement system procedure.
- 3 If employees have complaints about occupational safety, health, or environmental concerns, they can address them through the administrative system or directly approach the Environment & Safety unit.



External Complaint and Communication Procedures

- 1 After receiving an HSE grievance from outside the organization over the phone (07-7040988), orally or in writing, TTC will refer the case to the responsible unit to verify the contents of the grievance and register it in the "Occupational Safety, Health and Environment Information Collection and Communication Form." After a case has been confirmed, a proper response will be made.
- 2 Information related to the EHS policy is available on the company's website for public access and consultation.



3.1.3. Environmental Investment

In 2023, the environmental expenditure of TTC totaled NT\$122.1 million, a 39.1% decrease from 2022. The primary reason for this reduction is due to most of the environmental improvement projects being concentrated in 2022. Additionally, there are two ongoing environmental improvement projects at the Zhongshan plant, a wastewater treatment plant for water reuse and the construction of a safety risk intelligent control platform that have not yet been completed. The finalization of associated costs, approximately NT\$35.21 million, for these projects will be deferred to the end of 2024. The expenditure categories associated with TTC's environmental management are as follows:

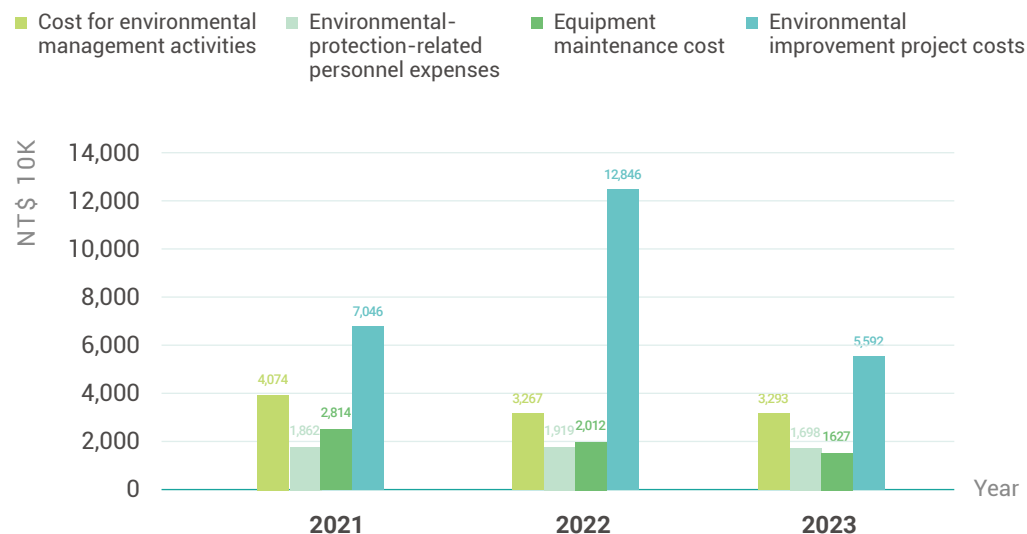
Environmental Management Expenditure Overview Table for the Last Three Years

Unit: NT\$ 10K

Category	2021	2022	2023
Cost for environmental management activities	4,074	3,267	3,293
Environmental-protection-related personnel expenses	1,862	1,919	1,698
Equipment maintenance cost	2,814	2,012	1,627
Environmental improvement project costs	7,046	12,846	5,592
Total	15,796	20,043	12,210

- Note 1:** Environmental Management Activity Costs: Includes costs related to air pollution control, water pollution control, waste disposal, noise control, and others (e.g., air pollution control expenses, soil and groundwater pollution control expenses, maintenance costs for setting up air quality monitoring facilities in the Linyuan Industrial Zone, etc.).
- Note 2:** Environmental-protection-related personnel expenses include personnel expenses and environmental protection-related training fees.
- Note 3:** Equipment Operation & Maintenance Costs: Encompasses expenses associated with the operation, maintenance, and upkeep of equipment for environmental protection and control.
- Note 4:** Environmental Improvement Project Costs: Covers the expenditure for projects related to environmental enhancements.

Environmental Management Expenditure Distribution for the Last Three Years



3.2 Climate Change and Energy Management

□ GRI 201 (201-2), GRI 3-3, GRI 302 (302-1, 302-3, 302-4), GRI 305 (305-1, 305-2, 305-3, 305-4, 305-5)

Material Topic Climate Change and Energy Management

Impact Scope Government agencies, partners, community, and employees

Material Reason The global average temperature is on the rise due to climate change. This is closely linked to energy consumption. As TTC operates within an energy-intensive industry, the energy efficiency of our production processes is a primary focus. In addition to proactive management within our facilities, we continue to implement energy-saving and carbon-reducing measures. This is especially crucial as government agencies are stepping up their oversight of carbon emissions, preparing us to handle potential future impacts.

Alignment with Sustainability Principles and SDGs Create a Friendly Environment/ SDGs 13 Climate Action

Management approaches	Policy Purpose	Reduce the environmental impact of energy and greenhouse gas emissions, meeting both national regulatory requirements for reductions and the group's energy-saving and carbon reduction targets. With 2017 as the benchmark year, we have set short-, medium-, and long-term reduction goals. Benchmark Year: The year 2017 is chosen as the reference because it reflects a period where most of our plants operated at optimal capacity utilization.			
	Objective	2023 Goals <ol style="list-style-type: none"> 1. Reduce energy consumption per unit product by 3% 2. Greenhouse gas emissions reduced by 7.16% compared to the base year 	Short-term Goals in 2024 <ol style="list-style-type: none"> 1. Reduce energy consumption per unit product by 3% 2. Greenhouse gas emissions reduced by 9% compared to the base year 	Medium-term Goals in 2030 <ol style="list-style-type: none"> 1. Reduce energy consumption per unit product by 5% 2. Greenhouse gas emissions reduced by 27% compared to the base year 	Long-term Goals <p>Carbon neutrality by 2050</p>
	Management Plan	<ol style="list-style-type: none"> 1. Introduce or update equipment to decrease energy consumption. 2. Strictly monitor energy consumption in the plant. If anomalies arise, carry out maintenance or update equipment accordingly. 			
	Evaluation of the Management	"Energy consumption per unit product" and "annual reduction rate of greenhouse gas emissions" are set as key performance indicators. An evaluation report is presented to the management, and a review meeting is held annually to assess the performance of the previous year. This helps in proposing improvement measures and verifying their effectiveness.			
	Assessment Mechanism	<ol style="list-style-type: none"> 1. Conduct monthly statistical analysis on energy consumption to systematically understand the reasons for any increases or decreases. 2. Establish monitoring, testing equipment, and forecasting methods to observe plant energy consumption and control and eliminate anomalies in real-time. 3. Continuously implement the ISO 14064-1 greenhouse gas verification system to systematically survey greenhouse gas emission situations and periodically review various energy-saving and carbon-reducing plans. 4. Persistently carry out the ISO 50001 energy management system to manage energy wastage systematically. 			
	Assessment Result	<ol style="list-style-type: none"> 1. Energy consumption per unit product 2. GHG emissions 			
	Negative Impact Remedies and Preventive Measures	In case of power shortages leading to production interruptions: Plans have been made to install generators to ensure backup power is available during power outages.			
	Policy Adjustment	Proposals for improvements concerning unmet targets are presented and reviewed during management review meetings.			
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.			

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Review and Follow-up of Energy-saving and Carbon Reduction Management Plan	Reduce energy consumption by 3%	Reduce energy consumption by 4.33%	✓ The goal has been achieved
	Greenhouse gas emissions reduced by 7.16% compared to the base year	In 2023, greenhouse gas emissions amounted to 65,432 tons, which is a 17.9% reduction compared to the benchmark year	✓ The goal has been achieved

3.2.1. Climate Change

Climate Change Risk management

Climate change is a common challenge around the world. To keep up with the world and match the demand for sustainable development, Taiwan announced that the "Greenhouse Gas Reduction and Management Act" has been amended to the "Climate Change Response Act" on February 15, 2023.

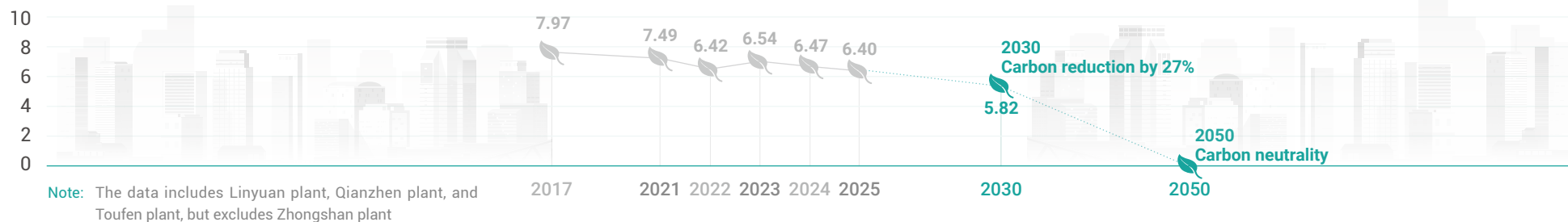
Facing the impact of climate change, carbon reduction has become a global goal. To enhance carbon reduction, USIG set the 2030 carbon reduction target which is "carbon reduction by 27% over 2017 by 2030" in early 2022 and set "Carbon neutrality by 2050" in 2023 as the Long-term Goals of the Corporation.

In order to achieve the corporate sustainability vision, USIG has actively implemented corresponding response strategies and management mechanisms with practical actions. The group's domestic plants continue to implement ISO 14064-1 GHG Inventory and Verification, and plan and implement carbon reduction programs. The group also actively develops external renewable energy sites. By the end of 2023, the accumulative on-grid capacity of solar PV sites has reached 7.2MW.

TTC plans its carbon reduction pathway according to the group's 2050 carbon reduction goals. As of 2023, GHG emissions amounted to 65,432MtCO₂e, which have reduced by 17.9% compared to the base year (2017). However, due to an increase in production capacity at the Qianzhen plant by approximately 2,200 tons, the GHG emissions were 2% higher than in 2022. We will implement the energy-saving and carbon reducing schemes more actively in the future. The medium-term carbon reduction strategy will proceed towards the transition to low-carbon energy, enhancement of energy efficiency, intelligent monitoring, and the setup and use of renewable energy. The long-term carbon reduction strategy will continuously focus on low-carbon fuels, carbon capture, reuse technology, and negative carbon emissions technology, to implement the carbon neutrality goals and promote sustainable development.


TTC's Taiwan Plant Carbon Reduction Pathway Targets Graph

Actual emissions Target emissions Unit: 10K MtCO₂e



At TTC, the ESG Committee is the highest governance body of climate management under the Board of Directors. Chaired by independent directors, the committee reviews the Company's climate change strategies and targets every year, manages the actions and reviews the performance in climate change risks and opportunities, and reports to the Board. TTC based on the framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD), we identify climate-related risks and opportunities, assess risks and opportunities from different departments, assess financial impacts and set responsive plans, plan overall assessment every three years, and review updates every year.

Climate Change Management Framework

Type	Management Strategy and Action
 Governance	<ul style="list-style-type: none"> ESG Committee: As the highest governance body of climate change management chaired by independent directors, it reports climate change planning, implementation and performance to the Board every year. Operations Management Meeting: Chaired by the Board chairman, it plans and implements material policies for energy conservation and carbon reduction and reports the results from time to time. Division of Equipment Preventive Maintenance and Environmental Risk Control Quarterly Meeting: As the highest governance body of the Group's energy management, it reports the planning and progress to the Group's chairman each quarter and makes decisions on energy management. Group Green Power Team: As the Group's responsible unit for green power promotion, it reports the status of and future plans for green power development of the chairperson.
 Strategy	<ul style="list-style-type: none"> Identification of risks and opportunities: Identify material risks and opportunities based on their likelihood and impact. Assessment of risks and opportunities: Assess the potential financial impacts of identified material risks and opportunities. Scenario analysis: Set plans to achieve net zero emissions in different scenarios.
 Risk Management	<ul style="list-style-type: none"> Implementation of TCFD: Identify risks and opportunities based on the TCFD recommended framework, communicate with all responsible units, and confirm by senior management. Report of identification results: Include them in the annual risk assessment. The president reports the control measures and management performance to the Audit Committee and Board every year.
 Indicators and Targets	<ul style="list-style-type: none"> Set energy management targets within the group's carbon reduction initiative, with 2017 as the base year, aiming for a 27% reduction goal by 2030, and achieving carbon neutrality by 2050 Climate-Related Response Strategy: Equipment replacement, construction of renewables facilities, optimization of production scheduling, planning building aircon, energy management system, extreme weather events contingency plans GHG emissions disclosure: Disclose the data of Scopes 1, 2, and 3 GHG emissions in the ESG report yearly

Identification of Climate Risks and Opportunities

In response to intensifying global climate change, TTC continues to adopt TCFD framework to deepen the understanding of potential risk items that may be faced under extreme climate conditions, and capture new business opportunities. Referencing the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP) and the National Science and Technology Center for Disaster Reduction, analyze the projected changes in temperature, rainfall, flooding, and drought from 2016 to 2035 under the RCP 8.5 scenario and identify three physical risk issues. Also, identified nine transition risks and 12 opportunity issues, totaling 24 potential risk and opportunity issues, based on the group's strategy, industry characteristics, Intended Nationally Determined Contribution (INDC), and TCFD indicators.

In 2023, we conducted a survey for the ESG Committee and senior unit managers to assess the relevance of each risk to the Company's operations and the duration of potential impacts, as well as the development and viability of each opportunity. We collected 10 responses in total. After statistical analysis by the group, we identified 11 materiality climate issues (1 items of physical risk, 5 items of transition risk, and 5 items of opportunity).

TTC evaluates potential financial impacts from 11 materiality risk and opportunity items, devises corresponding strategies, and establishes management mechanisms. The aim is to understand the potential effects of climate change across various aspects, reduce operational disruptions caused by extreme weather events and foster a resilient climate change culture.



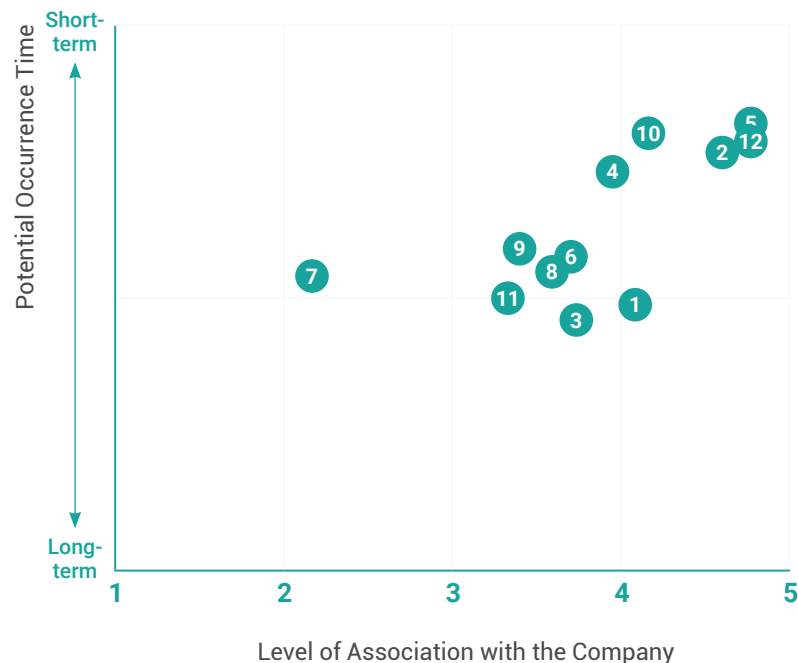
The climate change risks and opportunities by the identified duration are tabulated below:

Type	Item	Duration
Physical Risk	<ul style="list-style-type: none"> Drought 	Short-term (<3 years)
Transition Risk	<ul style="list-style-type: none"> Government regulation or supervision - Levy of water conservation Carbon fee Renewable energy regulations - risk of energy-heavy industries clause Transition of low-carbon technology Increased raw materials price 	Short-term (<3 years)

Type	Item	Developmental	Technical Feasibility
Opportunity	High-efficiency production	Progressive and aligned with the existing policies of the company	Expanding development
	Recycling and reuse - Circular Economy	Progressive and aligned with the existing policies of the company	Expanding development
	Reduce water use and water consumption	Progressive and aligned with the existing policies of the company	Matured
	Use low-carbon energy	Progressive and aligned with the existing policies of the company	Matured
	R&D and innovation of new products and services - research and development of low-carbon and energy-saving products	Progressive and aligned with the existing policies of the company	Expanding development

Overview Table of Short, Medium, and Long-term Climate Change Risks and Opportunities Type

Climate Change Opportunity Matrix



Opportunity

Item	Opportunity Topics	Developmental Impact on Company Operations	Feasibility of Executing Company Operations
1	Adoption of Higher Efficient Transportation Methods	3.23	3.14
2	Use of Higher Efficient Production and Distribution Processes	4.98	3.95
3	Recycling and Reuse	4.77	3.94
4	Transition to Higher Efficient Buildings	3.73	3.85
5	Reduce Water Use and Water Consumption	4.88	4.26
6	Use Low-carbon Energy	4.89	4.27
7	Use New Technology	2.80	2.60
8	Participation in Carbon Trade	3.43	3.12
9	Develop and/or Increase Low-carbon Products and Services	3.85	3.86
10	R&D and Innovation of New Products and Services	4.57	4.06
11	Enter New Markets	4.47	3.85
12	Utilize Public Sector Incentives Regulations	4.57	3.94

Climate Change Risk Matrix



Risk

Item	Risk Topics	Level of Association with the Company	Potential Occurrence Time
1	Flood Inundation	4.06	1.99
2	Drought	4.59	2.62
3	High Temperature	3.75	1.87
4	Government Regulation or Supervision	3.97	2.52
5	Carbon Tax/Fee	4.70	2.82
6	Product Efficiency Regulations and Standards	3.76	2.28
7	Renewable Energy Regulations	4.70	2.72
8	Changes in Customer Preferences	3.65	2.19
9	Credit Risk	3.46	2.31
10	Transition of Low-carbon Technology	4.17	2.72
11	Uncertainty of Market Information	3.35	1.99
12	Changes in Raw Materials Price	4.69	2.72



Promote Group Internal Carbon Pricing

In February 2023, Taiwan announced the implementation of the "Climate Change Response Act", which introduced a mechanism for collecting carbon fees. Details concerning the fee collection methods and specific rates would be stipulated by the Ministry of Environment through related regulations. Targets would be subject to charges based on hierarchy, beginning with major ones followed by minor targets in different stages. The rates will be reviewed regularly and gradually increased. In order to respond to government policies in advance and effectively cope with climate change and reducing carbon risk, USIG will introduce an internal carbon pricing system in 2024. The price will be based on the domestic carbon fee pricing basis. We plan to integrate this system into the Company's decision-making and investment evaluation processes, assessing the impact of carbon emissions on business operations, and accelerating the implementation of carbon reduction measures. The Group will also hold two educational training sessions to help relevant unit employees understand the concept and application of internal carbon pricing, assist each plant in prompt implementation, and also plan for a general course on carbon-related topics. Invite all group employees to participate in order to enhance everyone's carbon reduction awareness and achieve our Sustainable Development Goals.

Overview Table of Potential Financial Impact of Risks and Opportunities and Countermeasures

Type	Climate Related Risk	Potential Financial Risk	Company Description	Countermeasures
Physical Risk	Drought	Increase in operating costs	<ul style="list-style-type: none"> If there is a water shortage, it is necessary to outsource water trucks. In severe cases, production lines will be reduced or completely halted, with an estimated increase in the cost of purified water by NT\$24,000 per day. 	<ul style="list-style-type: none"> Monitor water conditions and establish emergency response procedures Stop non-essential water use, and strengthen inspections of pipelines and switches Implement water improvement measures to reduce total water withdrawal annually
	Levy of water conservation	Increase in operating costs	<ul style="list-style-type: none"> Based on TTC's actual water usage and water recycling rate from November 2022 to April 2023 during the dry spell, the estimated water conservation charge is NT\$150,000 per year 	<ul style="list-style-type: none"> Set targets for water consumption per unit product and achieve reduction goals annually. Improve the wastewater recycling system and strengthen operational management to increase the volume of recycled water and reduce water consumption
Transition Risk	Carbon fee	Upfront costs were high, while later carbon emissions were low and operating costs were reduced	<ul style="list-style-type: none"> Based on TTC's estimated carbon emissions for 2023, assuming a carbon fee of NT\$300 per metric ton, the projected carbon fee would be NT\$2.83 million per year. 	<ul style="list-style-type: none"> Incorporate carbon costs into investment assessments to increase the execution opportunities of carbon reduction items Upgrade and replace outdated equipment within the plant to improve energy efficiency
	Risk of energy-heavy industries clause	Increase in operating costs	<ul style="list-style-type: none"> TTC has installed solar PV equipment on the rooftop and plans to purchase green electricity with USI Green Energy Corporation to meet regulatory requirements. 	<ul style="list-style-type: none"> USI Green Energy Corporation, a subsidiary of USIG, actively seeks suitable sites for green electricity development. The cumulative capacity of installed solar photovoltaic reached 7.2MW in 2023, with an annual electricity generation of up to 9.15 million kWh. TTC estimates to purchase 825,000 kWh of green electricity from USI Green Energy Corporation Due to the electricity price increase by Taiwan Power Company in April 2024, the estimated electricity expenditure is expected to increase by NT\$23.97 million per year. TTC will actively invest in low-carbon technologies to mitigate the impact of electricity price hike.
	Transition of low-carbon technology	Increased capital expenditure and decreased in operating costs	<ul style="list-style-type: none"> In 2023, TTC invested NT\$45.78 million in updating energy-saving equipment, which is estimated to saved 3.79 million kWh of power and reduced carbon emissions by 1,874tCO₂e 	<ul style="list-style-type: none"> Implemented 32 energy-saving and carbon reduction measures in 2023, with an estimated power saving of 3.79 million kWh
	Increased raw materials price	Increase in operating costs	<ul style="list-style-type: none"> Under the consideration of future carbon tax levies, the raw material will include the cost of carbon emissions, leading to a rise in prices. 	<ul style="list-style-type: none"> Continue to promote the recycling and reuse of secondary materials Evaluate the feasibility of implement AI intelligence scheduling systems within the plant
	High-efficiency production	Increased capital expenditure and decreased in operating costs	<ul style="list-style-type: none"> Increase production through proper equipment maintenance and operational optimization to improve the energy efficiency per unit product and reduce greenhouse gas emissions 	<ul style="list-style-type: none"> TTC invested NT\$20.61 million in 2023 to enhance overall production efficiency, and have reduced carbon of 520tCO₂e in result.
Opportunity	Recycling and reuse - Circular Economy	Increase in revenue	<ul style="list-style-type: none"> Glass wool raw materials are procured by recycling waste glass for use in production processes 	<ul style="list-style-type: none"> Research and development focused on sustainable products, transforming waste glass into fire-resistant, thermal-insulating, and soundproofing fiberglass. These products have obtained the Green Building Material Label. Recover product powder from the wastewater in the processing area for reuse
	Reduce water use and water consumption	Operating cost down	<ul style="list-style-type: none"> Save water and recycle wastewater through process improvements Include water usage in monthly key performance indicators monitoring. Statistical analysis and comparisons on water consumption are performed. If any anomalies in water usage are detected, an immediate cause investigation is conducted, followed by improvement measures 	<ul style="list-style-type: none"> Invest in wastewater reclamation equipment Improve process equipment and operation to reduce steam use Constantly develop water conservation programs
	Use low-carbon energy	Increase in operating costs, reduction in carbon fees	<ul style="list-style-type: none"> TTC implemented 32 energy-saving and carbon reduction measures in 2023, total investing NT\$45.78 million, which is estimated to saved 3.79 million kWh of power and reduced carbon emissions by 1,874tCO₂e 	<ul style="list-style-type: none"> Installation of solar PV power plant on rooftops The priority for the source of purchased steam supply is natural gas. Monitor and participate in the renewable energy market
	R&D of low-carbon and energy-efficient products	Increase in revenue	<ul style="list-style-type: none"> The insulating properties of glass wool can reduce indoor air conditioning temperatures by 2 to 3 degrees Celsius, help save on air conditioning usage. 	<ul style="list-style-type: none"> TTC's product - glass wool made from recycled waste glass, possess fire-resistant, thermal-insulating, insulating, and soundproofing properties. It has passed various CNS standards tests, meeting the requirements for flame resistance and high sound absorption, and obtained Healthy Building Material Label.

3.2.2. Energy Usage and Management

USIG Energy Management Targets

USIG voluntarily set energy management targets in 2016 and began to make dynamic target reviews in accordance with the country's energy development policies and by keeping track on the internal trends and domestic laws and regulations. After measuring the internal and external factors, we set the 2030 carbon reduction target in early 2022 and set Carbon neutrality by 2050 in 2023. The 9 USIG core businesses began to implement the ISO 50001 energy management system and obtained the certificate on after another in 2018 to effectively manage energy performance and continuously improve energy conservation and carbon reduction, hoping to demonstrate USIG's influence and so to lower environmental impact.

Group Technical Exchange Meeting

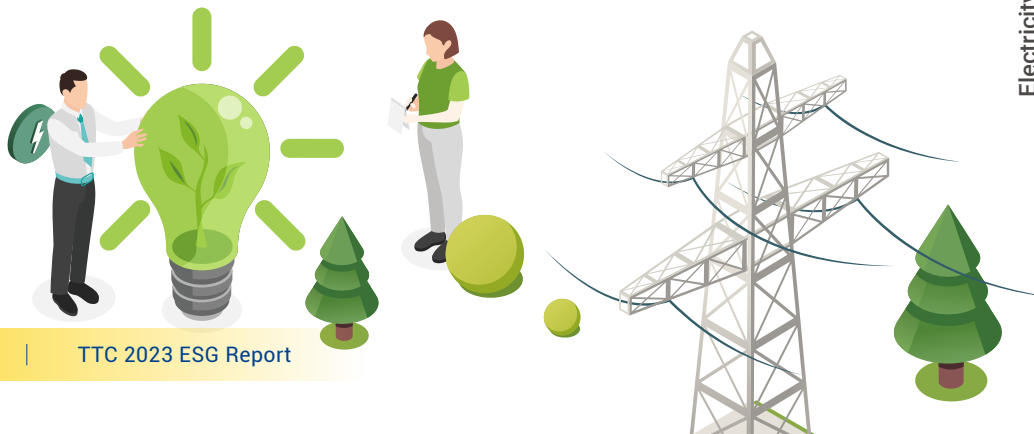
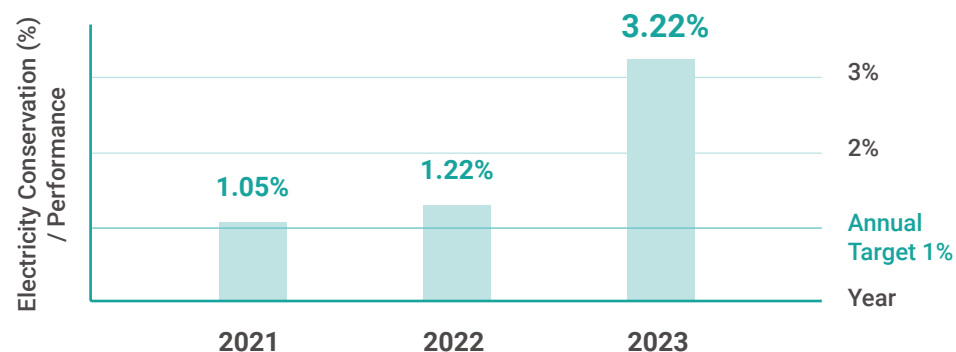
Every year USIG holds the "plant technology exchange meeting" and several "northern/Kaohsiung plants resource integration meetings" for plants to share resources and exchange technologies to improve performance in energy conservation and carbon reduction. In 2023 the "plant technology exchange meeting" was held in October. Case presentations with themes including "industrial safety and environmental protection", "equipment preventive maintenance", and "energy conservation and carbon reduction" were conducted through competitions. Through plan technology case submission and documentary review, a total of 7 cases entered the final. Senior USIG officers and plant representatives elected the three best cases. The USIG chairperson presented the certificates and bonuses to the winners. Through ratings and encouragement, sharing, and mutual learning, we aim to advance technology in the group.



TTC's Commitment to the Group's Energy Management Goals

TTC has actively invested in energy-saving and carbon reduction programs. The electricity savings rate over the past three years is listed in the table below. These achievements exceed the legal requirement, which mandates an average annual savings rate of 1% or more. In 2023, TTC continued its dedication to promoting energy-saving projects. Initiatives, such as replacing old motors with high-efficiency energy-saving motors and renew outdated cooling water towers, are underway across all plants. These initiatives undergo periodic reviews, with the hope of further achieving the group's carbon reduction goals.

Electricity Savings Rate Achievement Overview Table for the Last Three Years



Energy Usage Details

In 2023, the energy consumption calculation of TTC covered Lin Yuan Plant, Qianzhen Plant, Toufen Plant, and Zhongshan Plant, achieving a coverage rate of 100%. There was a slight increase of 4.8% in energy usage in 2023 compared to 2022, mainly because the Qianzhen plant produced GPS products with higher energy-consuming specifications, which led to an increase in natural gas consumption. Furthermore, regarding the energy consumption per unit product, although the energy intensity increased at the Lin Yuan Plant and Zhongshan Plant due to decreased production capacity, Delta Chemical Company's overall average energy intensity decreased by 4.33% compared to 2017, achieving the goal of reducing energy consumption per unit product by 3%.

Energy Usage Overview Table for the Last Three Years

Energy Type	Unit	2021	2022	2023
Natural gas	GJ	242,997	222,644	260,733
Diesel	GJ	5,611	5,541	6,892
Steam	GJ	218,460	187,394	180,612
Electricity	GJ	402,607	356,458	360,574
Gasoline	GJ	-	-	184
Liquefied Petroleum Gas	GJ	-	-	48
Total consumption amount	GJ	869,676	772,036	809,083

Note 1: Referring to the conversion factors for electricity, diesel, gasoline, and liquefied petroleum gas announced by the Energy Administration, Ministry of Economic Affairs, they are 860Kcal/KWh, 8,400Kcal/L, 7,800Kcal/L, and 6,635Kcal/L respectively, where 1Kcal equals 4.187KJ.

Note 2: Referencing the steam calorific value tables from THERMOPEDIA, the calorific value of steam usage at an average furnace pressure of about 12.5 atmospheric pressures is calculated as 665,345Kcal/m³.

Note 3: The reference calorific value for natural gas used by electricity generation customers from CPC Corporation is 9,700Kcal/m³.

Note 4: The table above lists energy consumption and production data sources - statistics from the on-site unit consumption reports.

Note 5: Electricity accounts for 44.57% of the total energy used by the Company, all of which is purchased electricity (100%), with no use of renewable energy (0%) or self-generated energy (0%).

Note 6: Gasoline and liquefied petroleum gas have been included in the statistics starting from 2023.

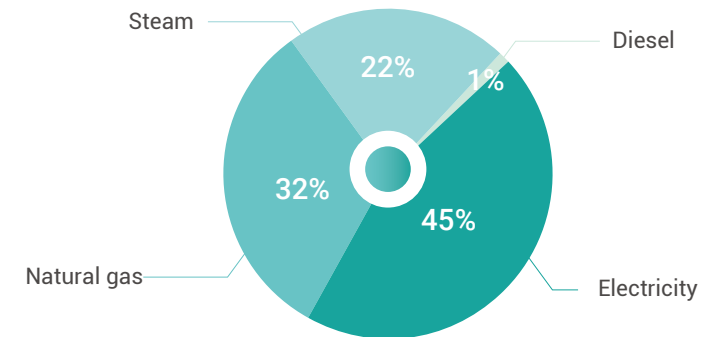
Overview Table of Energy Consumption Per Unit Product by Plant for the Last Three Years

Plant	Product	Unit	2017 (Base year)	2021	2022	2023	Reduction Rate compared to Base Year	Achievement Status
Linyuan Plant	ABS + AS Resin	GJ/Ton of product	2.06	1.912	2.222	2.151	+4.28%	Not achieved
Qianzhen Plant	EPS + GPS Polystyrene	GJ/Ton of product	1.21	1.032	0.869	1.071	-11.38%	✓ Achieved
Toufen Plant	Glass Wool + Curved Surface Printing	GJ/Ton of product	17.32	15.916	15.867	16.339	-5.65%	✓ Achieved
Zhongshan Plant	EPS Polystyrene	GJ/Ton of product	1.09	1.147	1.232	1.221	+11.80%	Not achieved

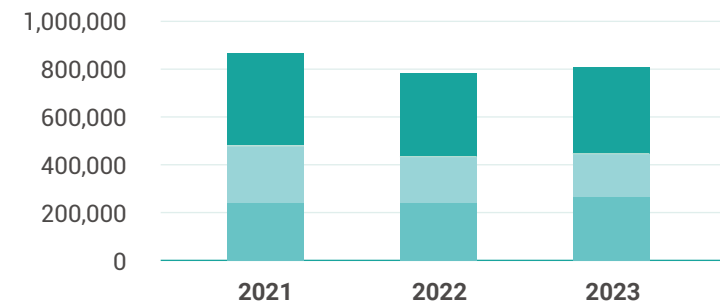
Note 1: 2017 is set as the base year.

Note 2: Due to decreased production capacity, the Linyuan and Zhongshan plants experienced an increase in energy intensity.

Energy Consumption Category Distribution Graph for 2023



Energy Consumption by Type for the Last Three Years



■ Electricity ■ Natural gas ■ Steam
■ Diesel ■ Gasoline ■ Liquefied Petroleum Gas

3.2.3. GHG Management

TTC follows the 2030 carbon reduction goals set by the USIG in early 2022 that GHG emissions should 27% less than 2017 base year by 2030, and further set carbon neutrality by 2050 goal in 2023. This is reviewed regularly to ensure we meet annual emission targets. This goal is realized through the execution of various energy-saving initiatives and plans to reduce greenhouse gas emissions. Each plant has proposed measures like reducing process energy consumption, waste heat recovery and reuse, improving equipment efficiency, and energy management. There's also an integrated plan for energy and resource sharing across different plants to utilize waste heat steam efficiently and maximize resource use, further aiming to reduce greenhouse gas emissions.

TTC began promoting the adoption of ISO 14064-1:2018 greenhouse gas inventory operations in 2021 (Zhongshan and Tianjin subsidiaries in the TTC consolidated report will complete their verification in 2024). Third-party guidance and verification are sought to ensure the accuracy and reasonableness of greenhouse gas emission data. In 2023, the overall emissions (Scope 1 + Scope 2) of the Taiwan plants decreased by 17.9%, and carbon emissions per-unit product across all plants showed decrease compared to the base year.

Regarding Scope 3, which includes other indirect emissions, these include the organization's outsourced upstream and downstream supply chain, raw materials and the transportation and distribution of goods, as well as emissions related to the use and disposal of products, business travel, and employee commuting. In 2023, the Scope 3 emissions for the Taiwan plants were 45,313tCO₂e per year, which decrease of 12.14% compared to 2022, mainly due to a decline in product sales, which has led to lower emissions.

Overview Table of Achievement Rate of Carbon Reduction Pathway Emission Target

Unit: in ten thousand tons CO₂e/year

Plant	2023 Target Emissions	2023 Verified Actual Emissions	Achievement Rate %	2024 Target Emissions
Taiwan Plants	7.249	6.543	111%	6.468

Note: The verification of greenhouse gas emissions in 2023 has been completed, but the third-party verification statement has not been obtained before the report is issued.

Overview Table of Scope 1 and Scope 2 Emissions for the Last Three Years

Unit: in ten thousand tons CO₂e/year

Item	2017 (Base Year)	2021	2022	2023
Scope 1	18,551	15,153	14,869	15,788
Scope 2	61,149	59,745	49,282	49,644
Total Emissions	79,700	74,898	64,151	65,432

Overview Table of Scope 3 Emissions for the Last Three Years

Unit: in ten thousand tons CO₂e/year

Item	2021	2022	2023
Scope 3	29,456	51,574	45,313

Note 1: The coefficients are adopted from the Ministry of Environment's Greenhouse Gas Emission Coefficient Management Table version 6.0.4 and the Intergovernmental Panel on Climate Change (IPCC) 2014 Fifth Assessment Report's Global Warming Potential (GWP) value.

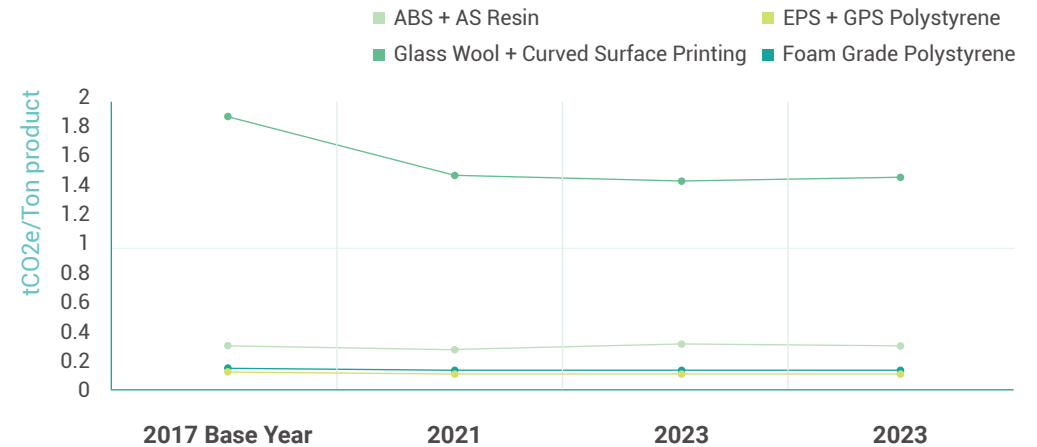
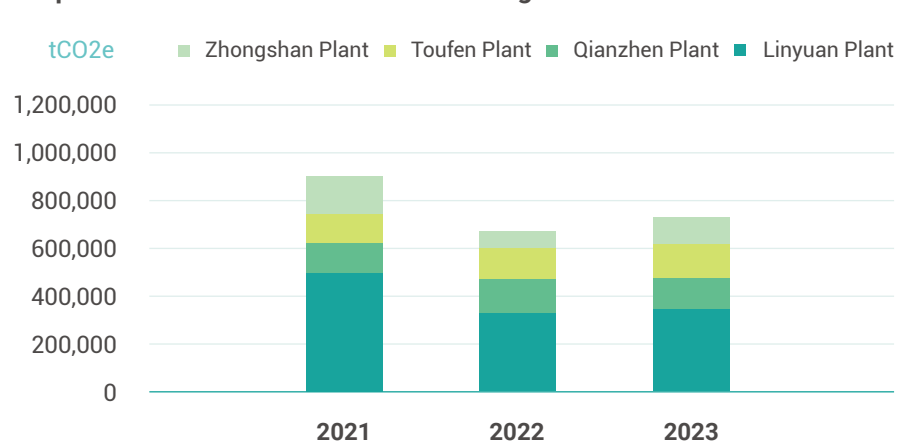
Note 2: Carbon emissions in 2017 were recalculated using external verification methods but were not audited by a third party.

Note 3: The types of greenhouse gases include CO₂, CH₄, N₂O, and HFCS.

Note 4: In response to regulations from the Taiwan Ministry of Environment and the Financial Supervisory Commission, the emissions data only includes Linyuan, Qianzhen, and Toufen plants. The mainland plants (Zhongshan and Tianjin) are excluded from this count.

Note 5: TTC's Taipei office's 2023 greenhouse gas emissions are 0tCO₂e for Scope 1, 32.734tCO₂e for Scope 2, and 40.517tCO₂e for Scope 3.

Graph of Greenhouse Gas Emissions Changes for the Last Three Years



Trend Chart of Greenhouse Gas Emissions Per Unit Product for the Last Three Years Compared to the Base Year

Plant	Product	Unit	2017 (Base Year)	2021	2022	2023	Percentage Change Compared to Base Year
Linyuan Plant	ABS + AS Resin	tCO2e/Ton product	0.270	0.242	0.258	0.242	-10.28%
Qianzhen Plant	EPS + GPS Polystyrene	tCO2e/Ton product	0.125	0.082	0.082	0.091	-27.36%
Toufen Plant	Glass Wool + Curved Surface Printing	tCO2e/Ton product	1.857	1.496	1.414	1.440	-22.45%

Note: The unit carbon emission values disclosed in this report are self-estimated and have not been verified by a third party.

Promotion of Energy-Saving and Carbon Reduction Initiatives

- TTC has established energy-saving and carbon-reduction committees in all its Taiwan-based plants. They convene regular Energy Resource Integration Meetings to share experiences and collaboratively drive effective and pragmatic energy-saving and carbon-reduction initiatives. The plants set energy-saving and carbon-reduction strategies, as well as plant-wide reduction targets, and review the performance on a quarterly basis.
- Every two months, each plant's Environmental, Health, and Safety (EHS) team convenes an EHS implementation meeting. This meeting tracks the progress of energy-saving and carbon-reduction initiatives, evaluates compliance with applicable regulations, and actively urges each plant to fulfill its energy-saving and carbon-reduction responsibilities.
- In mainland China, the Zhongshan plant holds annual energy-saving and carbon-reduction meetings, aligning with the government's carbon-reduction policies. They establish strategies and targets for each unit, which are reported to the Zhongshan Development Zone government every year.

2023 Energy-Saving and Carbon-reducing Measures

⚙️ All plants executed **32** energy-saving and carbon-reducing measures

⚙️ Collectively conserving about **3.79** million kWh of electricity

⚙️ Reducing approximately **1,874** tCO₂e emissions

2023 Performance Overview Table of Energy-Saving and Carbon-Reduction Measures

Plant Area	Measures	2023 Performance	
		Power Saved (kWh)	Carbon Reduction (tCO ₂ e)
Linyuan Plant	<ol style="list-style-type: none"> 1 Replaced cooling tower E6208C-1/2 in the public area with E6208E-3 (including the cooling tower) and E6208-1 2 Replaced mercury lamps in Zones 11, 12, 13, 21, 22, and 25 (explosion-proof areas) with LEDs (12 hours of lighting) 3 Upgraded the 3.3kV/460V 1000KVA transformer in the public area with a high-efficiency model 4 Upgraded B3473, B2644C-2, and B8266-3 to air-float blowers 5 Replaced sleeve for the extruder on Line B with the far-infrared heater 	1,175,477	581
Qianzhen Plant	<ol style="list-style-type: none"> 1 Installed an EPS 100HP and a public area 150HP variable frequency air compressor to enhance energy-saving and carbon reduction efficiency by replacing older air compressors 2 Replaced NOVA 8 SILO Blower motors B8764 (100HP), B8101 (100HP), and B8704-2 (150HP) with high-efficiency IE3 motors 3 Upgraded old cooling towers with new ones that offer enhanced energy-saving and carbon reduction efficiency 4 Replaced five old energy-saving motors with IE3 motors 5 Optimized variable-frequency settings of air compressor C7210-2 and the RTO blower to reduce power consumption during idling 6 Replaced P7010, the traditional motor in dryer M2125, and CA-672 with high-efficiency IE3 motors 	2,180,093	1,077
Toufen Plant	<ol style="list-style-type: none"> 1 Upgraded tempering stove combustion blower #3 motor (2009) and the east side gas combustion blower motor (1996) 50HP to IE3 motors 2 Replaced agitated tank motor in the batching area A6 (1993) 20HP and the side cutter dust collection motor (1997) 10HP with IE3 motors 3 Upgraded the water wash pool blower motors (1995) north side A and south side B 7.5HP to IE3 motors 4 Replaced the dust collector fan for the packaging machine (1997) 5HP and the west side (upper) blower motor (2003) 100HP with IE3 motors 5 Upgraded the west side gas combustion blower motor (1996) 40HP to the IE3 motor 6 Replaced a total of 13 motors for equipment including screw conveyor, spinning machine, process cooling, and inclined vibrating screen, etc. 7 Replaced a total of seven motors for equipment including large heated rollers speed reducer motor, exhaust blower, bucket elevator, and spinning machine to IE3 motors 8 Replaced furnace base cooling blowers for furnaces 103 and 104 with two 40HP motors 9 The average temperature before refractory brick lining in the main furnace (August 2022) was 493.1°C, and after the brick lining (August 16, 2022), it decreased to 386.1°C, a reduction of 107°C, achieving a 21.7% reduction in insulation and cooling temperatures 	437,730	216
Total	-	3,793,300	1,874

Note 1: Unit conversion factor: 1 kWh=0.494 kgCO₂e

Note 2: The Zhongshan plant has not yet drafted plans, so it is not presented in this table

2024 Energy-Saving and Carbon-reducing Measures



We plan to implement **9** energy-saving and carbon-reducing measures



We anticipate power savings of approximately **1.43** million kWh



A targeted carbon reduction of around **752** tCO₂e

Overview Table of Planned Energy-Saving and Carbon-Reduction Measures for 2024

Plant Area	Measures	2024 Goals	
		Power Saved (kWh)	Carbon Reduction (tCO ₂ e)
Linyuan Plant	<ol style="list-style-type: none"> 1 Replaced B2790 Roots blower in area 27 (TOYO SAN process area) with energy-saving air-float blowers 2 Replaced P2572-2 in area 25 (SUKA SAN process area) with a high-efficiency pump 3 Upgraded B3403-3, 4, 5, and 7 to air-float blowers 	654,183	323
Qianzhen Plant	<ol style="list-style-type: none"> 1 Replaced the air dryer to an energy-saving dryer 2 Replaced C2910-4 air compressor to an energy-saving air compressor 3 Upgraded old cooling towers (replaced with higher-efficiency cooling towers) to enhance energy savings and reduce carbon emissions 4 Upgraded traditional motors (40HP) to a total of five high-efficiency, energy-saving IE3 motors 5 Replaced the steam boiler burner to an environmentally friendly burner 	404,632	241
Toufen Plant	<ol style="list-style-type: none"> 1 Replaced air compressor #1 	380,296	188
Total	—	1,439,111	752



3.3 Water Resources Management

📄 GRI 3-3, GRI 303 (303-1, 303-2, 303-3, 303-4, 303-5)

3.3.1. Water Resources Management

Material Topic Water Resources Management

Impact Scope Government agencies, local communities, employees

Material Reason Water resources are essential for operational development. As the risks of water scarcity and water-related disasters increase, ensuring a stable water supply has become a crucial issue for our company. Wastewater discharge has exceeded the natural purification capacity of water bodies in recent years, leading to water pollution issues and affecting the use of water resources.

Sustainability Principles & SDGs Alignment Friendly Environment Creation / SDG 6: Clean Water and Sanitation

Management Approaches	Policy Purpose	Reduce water consumption to lessen production costs and the environmental impact of wastewater discharge. Objectives are set with 2017 as the base year for short, medium, and long-term reduction.		
	Objective	2023 Goals <ol style="list-style-type: none"> 1. Reduce water consumption per unit of product by 3% compared to the baseline year 2. Discharge water quality meets the standard 	Short-term Goals in 2024 <ol style="list-style-type: none"> 1. Reduce water consumption per unit of product by 3% compared to the baseline year 2. Discharge water quality meets the standard 	Medium- & Long-term Goal in 2030 <ol style="list-style-type: none"> 1. Reduce water consumption per unit of product by 10% compared to the base year 2. Discharge water quality meets the standard
	Management Plan	<ol style="list-style-type: none"> 1. Introduce or upgrade equipment, and reuse wastewater to reduce water consumption. 2. Strictly regulate water usage in the plant to prevent water wastage and increased wastewater discharge. 		
	Evaluation of the Management	Monitor "water consumption per unit of product" and "rate of exceeding water discharge quality standards" as key performance indicators. Present reports to management and conduct an annual review to assess the previous year's performance and suggest improvements.		
	Assessment Mechanism	Continuously implement the ISO 14001 Environmental Management System for systematic management of water resource usage.		
	Assessment Result	<ol style="list-style-type: none"> 1. Water Consumption per Unit of Product over the Last Three Years: In 2023, water consumption per unit decreased by 26.5% compared to 2017, the goal has been achieved. 2. Water Quality and Discharge over the Past Three Years: In 2023, all plants of TTC met the regulatory standards for wastewater discharge. 		
	Negative Impact Remedies and Preventive Measures:	Water reservoir shortage leading to production interruption: Participate in public sector water-saving plans and explore alternative water sourcing methods, such as water trucks.		
	Policy Adjustment	Proposals for improvements concerning unmet targets are presented and reviewed during management review meetings.		
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.		

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Water-saving and Wastewater Improvement Plan Tracking	Consumption per unit compared to the baseline year decreased by 3%	Consumption per product unit decreased by 26.5%	✓ The goal has been achieved
	Discharge water quality meets the standard	Discharge water quality of all plants meets the standard	✓ The goal has been achieved

TTC leverages its existing technologies and expertise, adhering to principles of source management, waste reduction in processes, and end-point controls, to minimize water demand and reinforce water resource reuse and accelerated recovery processes. In 2023, the total water intake was 928 million liters, the total wastewater discharge was 612 million liters, and the total water consumption amounted to 316 million liters.

The scope of water resource management encompasses the Linyuan Plant, Qianzhen Plant, Toufen Plant, and Zhongshan Plant, achieving a coverage rate of 100%.

TTC employs the water risk assessment tool developed by the World Resources Institute (WRI). In conjunction with the water source distribution of each plant site, the company uses the Aqueduct Tool as its method for water risk assessment, pinpointing the water stress situation of each plant's water intake location. The analysis indicates that the Linyuan Plant and Qianzhen Plant are regions with relatively higher risk for TTC. Apart from utilizing the TCFD framework to assess the impact of climate change on water resources, the company continually enhances its in-plant water recovery rate, thereby bolstering its adaptive capacity in the face of risks.

Plant	Linyuan Plant	Qianzhen Plant	Toufen Plant	Zhongshan Plant
Primary Water Sources	Fengshan Reservoir	Fengshan Reservoir	Yonghe Mountain Reservoir	Hengmen Canal
Water Stress Situation	Moderate to High (20 - 40%)	Moderate to High (20 - 40%)	Low to Moderate (10 - 20%)	Low (<10%)

Note: The WRI (Water Resource Institute) Aqueduct Tool is used for water risk assessment.
<http://www.wri.org/our-work/project/aqueduct/aqueduct-atlas>

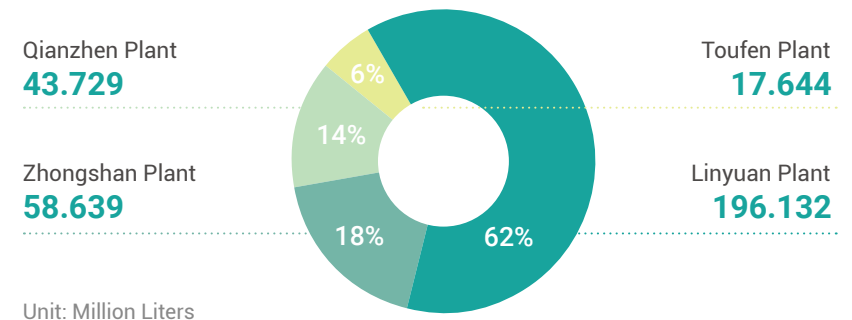
All Taiwanese plants source their water from municipal water plants. The Zhongshan Plant, however, procures its supply from neighboring plants. In 2023, the water consumption amounted to 316 million liters, a decrease of approximately 19.29% compared to the base year of 2017. The water consumption per unit product has reduced by 26.34%.

Water Consumption and Per Unit Product Water Consumption Overview Table for the Last Three Years

Item	2017 Base Year	2021	2022	2023
Total Water Intake (Million Liters)	1,064	1,110	935	928
Total Water Consumption (Million Liters)	392	471	328	316
Water Consumption Per Unit Product (Ton/ Ton Product)	1.339	1.181	1.024	0.9867

For the water consumption of products in each plant, the Linyuan plant's ABS+AS resin has the highest proportion, accounting for approximately 62%. Following this, the Zhongshan plant's foam-grade EPS resin accounts for about 18.6% of the water consumption.

2023 Percentage Distribution of Water Consumption by Plant



■ Toufen Plant ■ Qianzhen Plant ■ Zhongshan Plant ■ Linyuan Plant

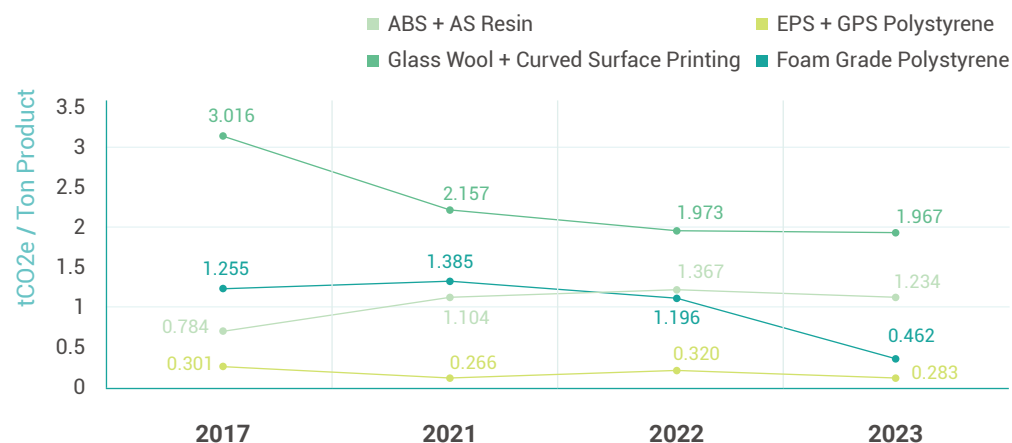
Water Consumption Per Unit Product for Various Products Overview Table for the Last Three Years

Plant	Product	Unit	2017 (Base year)	2021	2022	2023	Increase/Decrease Rate Compared to Base Year 2022%
Linyuan Plant	ABS + AS Resin	Ton/Ton Product	0.784	1.104	1.367	1.234	+ 57.38%
Qianzhen Plant	EPS + GPS Polystyrene	Ton/Ton Product	0.301	0.266	0.320	0.283	- 5.94%
Toufen Plant	Glass Wool + Curved Surface Printing	Ton/Ton Product	3.016	2.157	1.973	1.967	- 34.81%
Zhongshan Plant	Foam Grade Polystyrene	Ton/Ton Product	1.255	1.385	1.196	0.462	- 63.19%

Note 1: 2017 is set as the base year.

Note 2: After 2017, due to the Linyuan plant has seen a continuous increase in production capacity, resulting in a consumption rate higher than the set baseline year.

Comparison Graph of Water Consumption per Unit Product for the Last Three Years and the Base Year



Water-saving Measures

TTC actively manages water resources by achieving water-saving results through measures such as conserving water in processes, wastewater recycling and reuse, and rainwater collection and reuse.

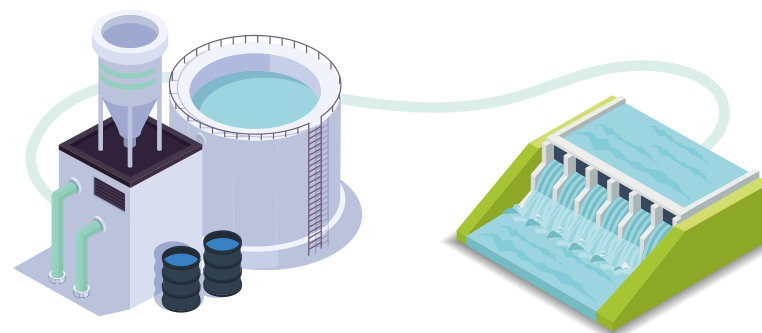
Through improvements in water-saving processes and multiple schemes like wastewater recycling and reuse, there's a significant increase in the wastewater reuse rate. Beyond implementing water-saving plans, water usage has further been included in the monthly key performance indicator monitoring. Statistics and analysis are performed on water usage. If any anomalies in water consumption are detected, an immediate investigation into the cause is initiated, followed by necessary improvements.

TTC's Water Recycling and Reuse Percentage for 2023

Total Amount of Water Resource Recycling and Reuse **448.425 tons**

Percentage of Water Resource Recycling and Reuse **142 %**

Note: Percentage of Water Resource Recycling and Reuse = (Annual Amount of Water Resource Recycling and Reuse) / (Annual Water Consumption) x 100%

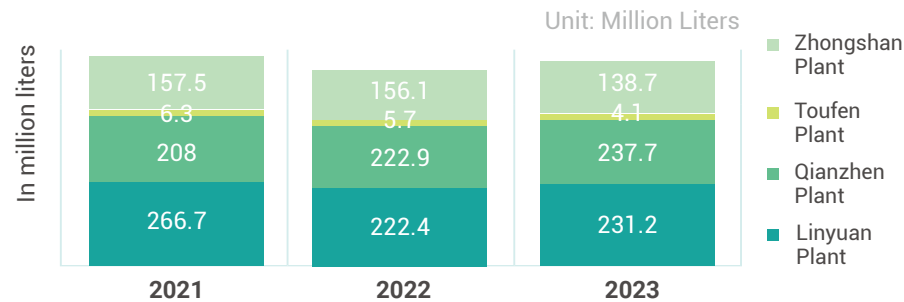


All the plants under TTC properly handle process wastewater and other wastewater. For wastewater discharge, each plant operates at standards that surpass regulatory requirements. The wastewater from Toufen Plant is treated by CGPC. In 2023, all the plants complied with regulatory discharge standards.

Plant Area	Wastewater Discharge Standard	Discharge Destination
Linyuan Plant	<ul style="list-style-type: none"> Secondary biological treatment up to the industrial area's joint wastewater treatment plant standard 	<ul style="list-style-type: none"> Discharged via underground pipelines to the joint wastewater treatment plant and subsequently discharged into the ocean after treatment.
Qianzhen Plant	<ul style="list-style-type: none"> Secondary biological treatment up to the standard for water discharge. 	<ul style="list-style-type: none"> Discharged to an external open drain and then discharged into the Kaohsiung port.
Toufen Plant	<ul style="list-style-type: none"> The fiberglass production process is an environmentally friendly process with no wastewater. Water used in the process is filtered and recycled. Rainwater is also filtered and used in the fiberglass production process. Wastewater generated from the curved printing process is treated by CGPC up to the water discharge standard. 	<ul style="list-style-type: none"> Discharged jointly with CGPC into the Zhonggang River.
Zhongshan Plant	<ul style="list-style-type: none"> Treated in accordance with the national standard GB31572-2015 "Pollutant Discharge Standard for the Synthetic Resin Industry". 	<ul style="list-style-type: none"> Discharged into the Hengmen Canal.

In 2023, TTC's total water discharge slightly increased by 0.76% compared to 2022. All the plants treated wastewater to standards higher than regulations. In addition to periodic reviews, improvement measures are set annually. In the last three years, all primary water quality tests met legal discharge standards.

Graph of Water Discharge by Each Plant Over the Past Three Years



Wastewater Improvement Plans for 2023~2024

Plant Area	Improvement Measures
Linyuan Plant	A fine screening machine has been added to reduce the quantity of suspended solids (SS) in the wastewater in Zone 82.
Toufen Plant	Renovation of Domestic Wastewater Pipeline
Zhongshan Plant	Wastewater Treatment Plant Water Reuse (approximately 46%) Technology Improvement Project

Self-tested Results on Main Water Quality Parameters by Each Plant Overview Table for the Last Three Years

Plant Area	Water Quality	2021	2022	2023	Emission Standard
Linyuan Plant	pH value	7.2	7.2	7.1	6~9
	COD (mg/L)	75.6	45.55	38.6	100
	SS (mg/L)	13.0	11.4	9.1	30
Qianzhen Plant	pH value	7.3	7.2	7.3	6~9
	COD (mg/L)	21.9	26.2	24.3	100
	SS (mg/L)	9.8	12.6	5.65	30
Zhongshan Plant	pH value	7.4	7.32	7.2	6~9
	COD (mg/L)	25.0	19.19	29.4	60
	SS (mg/L)	10.5	9.2	9	30

Note: The water quality test values are averaged from two tests conducted per year.

3.4 Air Pollution Control

 GRI 3-3, GRI 305 (305-7)

Material Topic Air pollution control

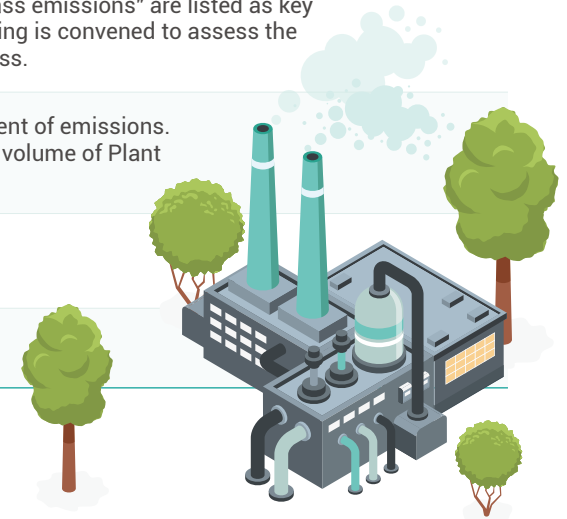
Material Reason During their production processes, the plants of TTC emit key air pollutants, including particulate matter (referred to as Par), sulfur oxides (abbreviated as SOx), nitrogen oxides (referred to as NOx), and VOCs. Due to deteriorating air quality, government agencies at all levels emphasize monitoring emissions of air pollutants. The Kaohsiung-Pingtung area has also implemented total control on air pollutants, directly impacting the Linyuan and Qianzhen plants.

Impact Boundaries Government agencies, local communities, and employees

Impact Scope The air pollutants emitted during the production processes have significant impacts on the environment and human health. In recent years, fine particulate matter has been identified to have a profound effect on human health. Nitrogen oxides appear reddish-brown in the air, contribute to acid rain, and can potentially lead to respiratory diseases in humans.

Sustainability Principle & Correspondence to SDGs Create a Friendly Environment/SDGs 11 Sustainable Cities and Communities

Management Approaches	Policy Purpose	To mitigate the environmental impact of air pollution emissions and, during operations, minimize the factors endangering the health of employees and residents living near the plant areas.		
	Objective	2023 Goals	Short-term Goals in 2024	Medium- & Long-term Goal in 2030
		The number of fines for exceeding the limit of air pollutant emissions is 0	The number of fines for exceeding the limit of air pollutant emissions is 0	The number of fines for exceeding the limit of air pollutant emissions is 0
	Management Plan	1. Add or update equipment to reduce pollutant emissions. 2. Strictly control the emission quality of flue gases from plants and strengthen autonomous management of VOCs emissions.		
	Evaluation of the Management	The "number of fines for exceeding air pollutant emission limits" and the "number of cases of abnormal mass emissions" are listed as key performance indicators. A review report will be presented to the management level. An annual review meeting is convened to assess the performance of the previous year, aiming to propose improvement measures and evaluate their effectiveness.		
	Assessment Mechanism	1. Continuously implement the ISO 14001 environmental management system for a systematic management of emissions. 2. Establish monitoring and testing equipment and forecasting methods to observe the concentration and volume of Plant emissions, allowing for real-time control of emission scenarios and eliminating abnormalities.		
	Assessment Result	1. Annual emissions of various pollutants over the last three years 2. Environmental-related fines		
	Grievance Mechanism	As explained in the "Environment, Safety, and Health Appeal Channels" section 3.1.2.		



Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Review and Monitoring of Air Pollution Control Management	The number of fines for exceeding the limit of air pollutant emissions is 0	Air pollution fines: 3 cases	Target not achieved

In 2023, the Linyuan Plant of TTC had three incidents exceeding the air pollution limit. However, there were no over-limit incidents at the Qianzhen, Toufen, and Zhongshan plants, all of which complied with national emission standards.

TTC's's main air pollutants include TSP, SO_x, NO_x, and VOCs. The table below describes their primary sources. The changes in emissions of air pollutants at Taiwan plants from 2021 to 2023 were minimal. However, from 2021 onwards, the VOCs emissions from the Zhongshan Plant were higher due to a change in the calculation method mandated by the environmental authority in the mainland area, which differs from the method used in Taiwan.

Overview Table of Main Air Pollutants and Their Sources in Each Plant

Plant Area	Main Air Pollutants	Primary Sources
Linyuan Plant, Qianzhen Plant	Particulates, Sulfur Oxides, Nitrogen Oxides	Emissions from thermal media boilers, incinerators, and exhaust combustion towers.
	Volatile organic compounds (VOCs)	Emissions from exhaust combustion towers, storage tanks, equipment components, process exhaust ducts, wastewater treatment plants, and regenerative incinerators.
Toufen Plant	Sulfur Oxides, Nitrogen Oxides	Emissions from fiberglass formation and drying ovens.
Zhongshan Plant	Volatile organic compounds (VOCs)	Styrene emissions from the production process, which are annually tested by third-party contractors. The emission results comply with the "Pollutant Emission Standards for the Synthetic Resin Industry" (GB 31572-2015).



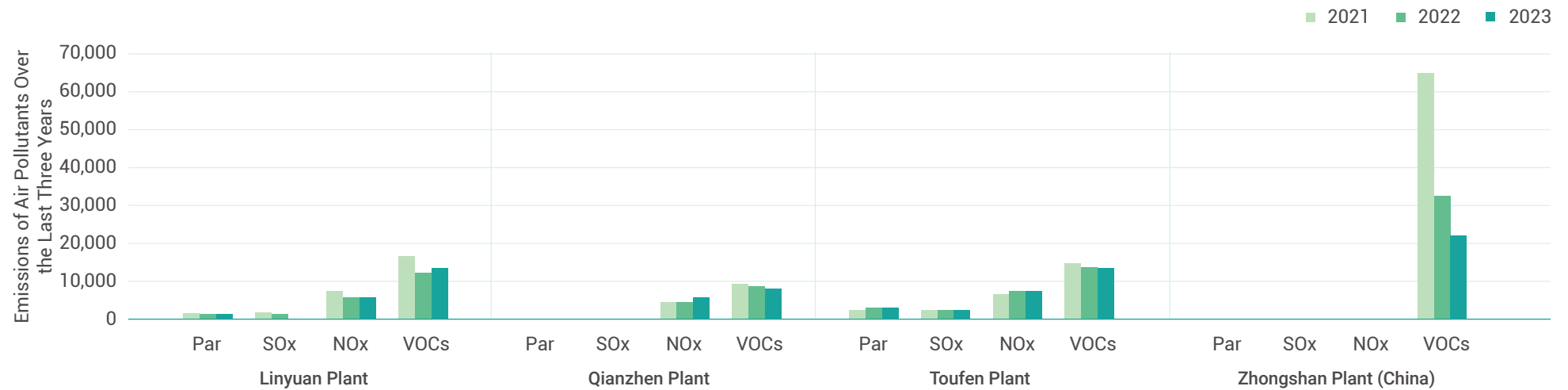
Emissions of Main Air Pollutants by Plant Overview Table for the Last Three Years

Plant	Type	Unit	2021	2022	2023
Linyuan Plant	Particulates (Par)	Kg	838	577	579
	SOx	Kg	755	557	261
	NOx	Kg	7,116	6,050	5,999
	VOCs	Kg	15,437	12,148	12,522
Qianzhen Plant	Particulates (Par)	Kg	125	136	175
	Sulfur Oxides (SOx) Note 1.	Kg	0	0	0
	NOx	Kg	3,271	3,357	4,555
	VOCs	Kg	9,365	8,738	8,150
Toufen Plant	Particulates (Par)	Kg	2,903	3,056	3,057
	SOx	Kg	2,498	2,552	2,576
	NOx	Kg	6,606	6,868	7,048
	VOCs	Kg	14,472	13,567	13,394
Zhongshan Plant	Particulates (Par)	Kg	-	-	-
	SOx	Kg	-	-	-
	NOx	Kg	-	-	-
	Volatile Organic Compounds (VOCs) Note 2.	Kg	64,849	33,134	23,037

Note 1: The SOx emissions of the Qianzhen plant decreased to 0 due to changes in the estimation emission coefficient.

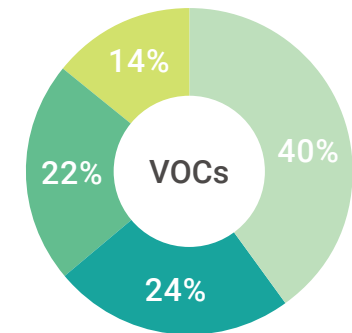
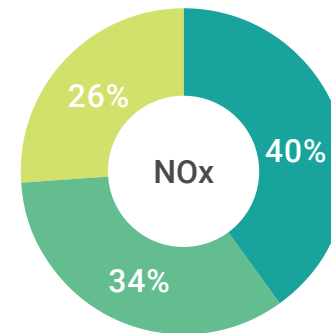
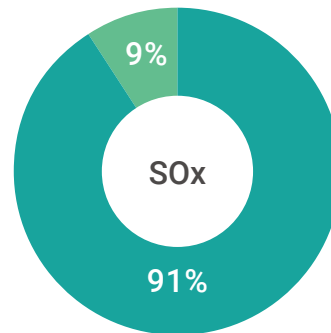
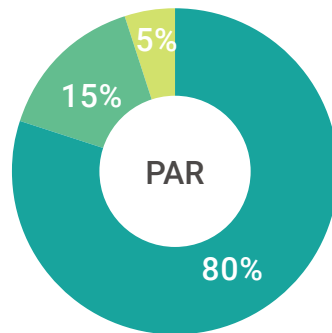
Note 2: In 2021, as per the requirements of the local environmental authorities, the raw material data and pollution control equipment data were input into the system. The VOCs emission figures were then automatically generated by the government environmental agency's system. The method used for estimating these emissions differs from the one used in Taiwan.

Emissions of Air Pollutants Over the Last Three Years:



Graph of Distribution of Various Air Pollutant Emissions in 2023

Legend: Zhongshan Plant (light green), Qianzhen Plant (yellow-green), Linyuan Plant (medium green), Toufen Plant (dark green)



Note: Zhongshan Plant sources its heat from a neighboring plant by purchasing steam, thus it doesn't have its own boilers or incinerators. Consequently, it does not emit particulates, sulfur oxides, or nitrogen oxides. As for VOCs emissions, they are estimated according to local mainland regulations, which only consider emission channels. Emissions from other sources, such as equipment components, currently have no available data for estimation.

Air Pollutant Emission Improvement Plan for 2023

Plant Area	Situation in 2023	Explanation (including reasons for non-achievement)	Improvement Plan for 2023
Linyuan Plant	3 Exceedance Cases	On September 8, 2023, inspectors from the Kaohsiung City Environmental Protection Bureau Auditing Section conducted an odor patrol inspection at the Plant. They discovered that the exhaust hood of the extruder at Line A in Area 26 was inefficient at capturing emissions, leading to odor dispersion. A fine of NT\$225,000 was imposed in accordance with Paragraph 1, Article 23 of the Air Pollution Control Act.	<ol style="list-style-type: none"> 1 The exhaust hood and collection duct of the extruder at Line A in Area 26 were immediately cleaned with steam, and the fan belts were replaced and inspected on the spot. 2 The belt driven pulley was replaced and the damper settings were adjusted. 3 Following the repairs to the exhaust hood, it is mandatory to take photos and record video before resuming operations, and to test for VOCs concentrations (recommended to be below 10 ppm) to confirm exhaust hood (effectiveness of the exhaust). 4 Officials from the Environmental Protection Bureau confirmed on September 12 that the improvements at Line A in Area 26 had been successfully completed.
		On September 8, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant. They found discrepancies between the actual emission paths of the neutralization tanks and screening machines in Area 26 and the emissions directions indicated on the Stationary Pollution Source Operation Permit (M02). A fine of NT\$130,000 was imposed in accordance with Paragraph 2, Article 24 of the Air Pollution Control Act.	<ol style="list-style-type: none"> 1 The sizes of the covers for the neutralization and coagulation tanks were re-verified. If any discrepancies were found, new covers were fabricated and fitted with rubber gaskets to enhance sealing effectiveness. 2 The exhaust hoods of the screening machines were redesigned and fabricated to channel emissions into the RTO for treatment. 3 Following the requirements of the Environmental Protection Bureau, an application for a change to the air pollution permit (M02) was submitted on October 17. Following, in accordance with the regulations for "Mandatory Improvements within a Specified Period under the Air Pollution Control Act", an improvement report will be submitted to the Environmental Protection Bureau within 90 days of receiving the notification.
		On September 12, 2023, the Air pollution and Noise control Division of the Kaohsiung City Environmental Protection Bureau dispatched inspectors to the Plant to conduct inspection checks on equipment components. The inspection revealed that two points of equipment components had leak concentrations exceeding the "Kaohsiung City Equipment Component Volatile Organic Compounds Control and Emission Standards", set at 2000ppm. A fine of NT\$150,000 was imposed under Paragraph 1, Article 20 of the Air Pollution Control Act.	The leaking components located at Area 24 (P2423-2N03) and Area 25 (E2521-2F02) were immediately repaired by the mechanical repair section during the inspection. On September 13, an external inspection testing company was commissioned to reinspection these components, and the results were reported to the Environmental Protection Bureau, confirming that the improvements were satisfactory.

Air Pollutant Emission Improvement Plan for 2024

Plant Area	Air Pollutant Emission Improvement Plan
Linyuan Plant	<ul style="list-style-type: none"> • Continue to add flue gas denitration control equipment (selective catalyst) to boilers to reduce the emission concentration of nitrogen oxides. • The baghouse dust collector in the waste incineration furnace has been updated to enhance the efficiency of air pollutant control equipment. • Modification of the collecting hood in the processing area to improve its efficiency.
Qianzhen Plant	<ul style="list-style-type: none"> • Regenerative Thermal Oxidizer (RTO) is expected to have its metal Pall rings replaced to prevent an increase in pressure differential and ensure that there are no gas leaks.
Toufen Plant	<ul style="list-style-type: none"> • Energy methods in the ceiling line dryers are being improved to comply with air pollution emission standards • Updated the post-furnace cooling blower



3.5 Waste management

📄 GRI 3-3, GRI 306 (306-1, 306-2, 306-3, 306-4, 306-5)

Material Topic Waste Management

Material Reason The government enforces strict requirements for the industry to ensure proper waste disposal and traceability. With the existing waste landfill sites nearing capacity, the prices for processing facilities are increasing. Qualified waste disposal companies are hard to find, which affects waste processing for various plants.

Impact Boundaries Government agencies, local communities, and employees

Impact Scope If waste produced during the manufacturing process isn't properly handled, it will impact the environment.

Sustainability Principle & Correspondence to SDGs Create a Friendly Environment/SDGs 12 Responsible Consumption and Production

Management Approaches	Policy Purpose	Comply with waste-related regulations, fulfill our duties with due diligence, and minimize waste generated during the production process.		
	Objective	2023 Goals Strengthen the waste patrol inspection system; The proper treatment rate of waste is 100%	Short-term Goals in 2024 Strengthen the waste patrol inspection system; The proper treatment rate of waste is 100%	Medium- & Long-term Goal in 2030 Implementing waste reduction
	Management Plan	1. Establish a waste audit management system 2. Strictly control waste treatment in the plant and commission legitimate vendors for disposal 3. With the addition or update of equipment, promote waste reduction plans to decrease the amount of waste		
	Evaluation of the Management	Measure the "Proper Waste Handling Rate" and present an assessment report to the management during the annual management review meeting. This allows for a review of the past year's performance and the formulation of improvement measures, as well as an evaluation of the effectiveness of those measures.		
	Assessment Mechanism	Continuously implement the ISO 14001 Environmental Management System to systematically manage waste treatment.		
	Assessment Result	Annual waste generation and proper handling ratio.		
	Policy Adjustment	For unmet targets or proposed improvement plans, reviews and adjustments will be presented during the management review meeting.		
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel.		



Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Waste Management System Review and Monitoring	Strengthen the waste inspection system	Number of inspections: 17 times	✓ The goal has been achieved
	The proper waste handling rate is 100%	The proper handling rate is 100%	✓ The goal has been achieved

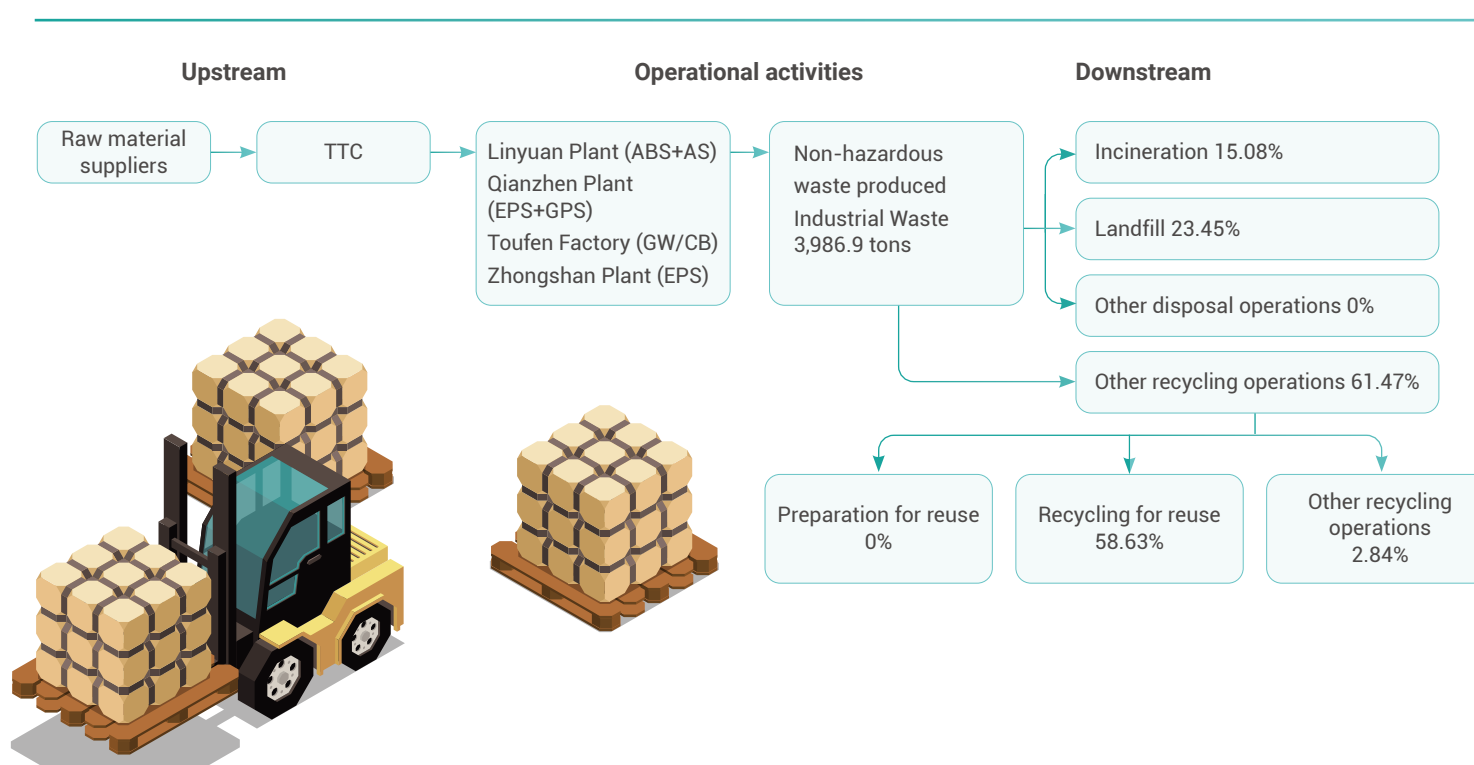
TTC produces waste during production and processing stages of product manufacturing. In recent years, in response to increasingly strict standards imposed on waste disposal contractors, each facility, besides intensifying the advocacy of proper waste classification, storage, and labeling, also endeavors to reduce waste production. This ensures that waste disposal aligns with legal regulations.

TTC adheres to waste management regulations, commissioning certified disposal organizations for waste treatment. We require these operators to provide proper handling documents, periodically check on the commissioned waste management status, and report on disposal volumes. Using the Global Positioning System (GPS) installed on waste disposal vehicles, we verify if the transportation routes align with the designated waste treatment facilities, conducting random vehicle inspections and establishing an autonomous waste inspection system to diligently fulfill our responsibilities. In 2023, a total of 17 inspections were conducted. The results complied with relevant legal stipulations, and each facility's waste generation and proper handling rate was 100% (Note: The proper waste handling rate indicates that all factory waste is properly treated by certified disposal contractors as per regulations). This aligns with our annual target.

Waste Generation and Disposal Process

In 2023, the total waste generated by TTC was 3,986.9 tons, an 8.61% increase compared to 2017. Due to the previously reported are bulk waste produced by each plant primarily. Starting in 2023, to effectively track the flow of waste, all amounts reported on the waste export website were fully included in the statistics. The waste generated by each plant was predominantly non-hazardous, with the disposal methods for general industrial waste being primarily incineration (excluding energy recovery) at 15.08%, landfill at 23.45%, and other disposal operations at 0%. In terms of recycling operations, preparation for reuse accounted for 0%, recycling for reuse for 58.63%, and other recycling operations for 2.84%. The generation, transfer, and disposal volumes of general industrial waste from each plant over the last three years are shown in the table below.

Flowchart of Waste Generation for TTC



TTC's Waste Production, Transfer, and Disposal in the Last 3 Years

Unit: Tons

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Linyuan Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	690.8	542.9	316.0
			Landfill	0.0	0.0	10.0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		690.8	542.9	326.1
		Recycling operations	Preparation for reuse	0.0	0.0	0.0
			Recycling for reuse	938.3	914.6	907.0
			Other recycling operations	52.8	26.5	20.2
		Total weight of non-hazardous waste		1,681.9	1,484.0	1,253.3
Qianzhen Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	92.6	72.1	83.6
			Landfill	0.0	0.0	0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		92.6	72.1	83.6
		Recycling operations	Preparation for reuse	0.0	0.0	0.0
			Recycling for reuse	324.2	292.8	324.0
			Other recycling operations	73.9	68.8	82.5
		Total weight of non-hazardous waste		490.7	433.7	490.1
Toufen Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	30.1	50.6	39.3
			Landfill	0.0	0.0	0
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		30.1	50.6	39.3
		Recycling operations	Preparation for reuse	0.0	0.0	0
			Recycling for reuse	606.0	664.4	1,106.5
			Other recycling operations	0.0	2.1	10.6
		Total weight of non-hazardous waste		636.1	717.1	1,156.4

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Zhongshan Plant	Non-hazardous waste	Direct treatment of general industrial waste	Incineration (excluding energy recovery)	203.0	157.9	162.3
			Landfill	575.4	702.0	924.8
			Other disposal operations	0.0	0.0	0
		Total weight of non-hazardous waste		778.4	859.9	1,087.1
		Recycling operations	Preparation for reuse	0.0	0.0	0
			Recycling for reuse	0.0	0.0	0
			Other recycling operations	0.0	0.0	0
		Total weight of non-hazardous waste		778.4	859.9	1,087.1

Note: The "Other Recycling Operations" refers to the resource recovery of sludge. This is carried out by qualified processing plants using a thermal treatment method, after which it is used as a supplementary material for cement (not a product of TTC).

Plant	Hazardous/Non-hazardous	Type of Disposal	Method of Disposal	2021	2022	2023
Toufen Plant	Hazardous waste	Direct treatment of toxic industrial waste	Other disposal operations	0	2.1	0
		Total weight of hazardous waste		0	2.1	0

Note: After washing and processing by qualified contractors, the hazardous industrial waste from the Toufen Plant are crushed and sliced for recycling.



Waste Management Operations

Linyuan Plant

Since 2018, wastewater sludge has been dehydrated using a plate-and-frame type dehydrator, with the addition of a dryer to further reduce moisture, achieving sludge reduction. Some secondary materials (coagulants) from the process are sold to manufacturers as raw materials, reducing waste coagulant production. ABS powder in the process wastewater is also recycled for reuse, reducing sludge waste. Plans are in place to further reuse and recycle waste plastic within the plant to improve the waste reuse rate.

Toufen Plant

In 2015, they successfully developed a method to reuse waste glass wool, significantly reducing the need for waste landfilling. From 2016, through process waste reduction and repackaging of defective products, quality-inspected cotton that can be reused is sent back to the production line for packaging, reducing the handling of waste cotton. This has led to a continuous decrease in waste disposal. In 2022, the curved printing process was discontinued, reducing waste output.

Qianzhen Plant

Starting in 2018, wastewater sludge has been dehydrated using a plate-frame sludge dehydrator, reducing sludge weight. The sludge machine cleaning process was further optimized to improve efficiency. The plant plans to reuse its own waste to reduce waste generation.

Zhongshan Plant

Waste wood generated is sold for incineration by a management unit. Regular household waste is collectively recycled and incinerated by government sanitation units. Sludge is landfilled by a third-party company, while hazardous waste, with the consent of the Zhongshan City Environmental Protection Bureau, is processed by qualified companies.

Each plant's waste management and reduction plans are as follows: Improvement Plans for Waste Management in 2023 and 2024

Plant Area	2023 Improvement Initiatives	2024 Planned Initiatives
Linyuan Plant	<ul style="list-style-type: none"> Enhance the recycling and reprocessing of in-plant waste (plastic waste) to increase the volume of materials being reused. 	<ul style="list-style-type: none"> Continuous promotion of the 2023 improvement plan.
Qianzhen Plant	<ul style="list-style-type: none"> Opt for high-durability plastic pallets to reduce plastic waste by reusing multiple times. 	<ul style="list-style-type: none"> Recycling for reuse in-plant raw materials of flexible intermediate bulk container, repurposed for packaging products 751C and 331X.
Toufen Plant	<ul style="list-style-type: none"> Reduce process waste, repackaging defective products, and after quality control inspection, the usable cotton is returned to the production line, reducing waste cotton handling and continuously decreasing waste disposal. 	<ul style="list-style-type: none"> Continuous promotion of the 2023 improvement plan.
Zhongshan Plant	<ul style="list-style-type: none"> Strengthen process management to reduce end-of-pipe treatment. Reuse EPS with non-standard particle sizes and periodically sell scrap to downstream manufacturers. 	<ul style="list-style-type: none"> Continuous promotion of the 2023 improvement plan.

4. Foster an Inclusive Society

4.1 Talent Attraction and Retention	87
4.2 Talent Development	97
4.3 Occupational Safety and Health	100
4.4 Social Engagement	109



4.1 Talent Attraction and Retention

📄 GRI 3-3, GRI 401 (401-1, 401-2, 401-3)

Material Topic Talent attraction and retention

Impact Scope Employees, investors, and partners.

Sustainability Principles & SDGs Alignment Fostering an Inclusive Society/SDGs 8: Decent Work and Economic Growth

Material Reason Quality human assets are one of the key success factors for a company. Utilizing talent appropriately and providing a reassuring work environment allows employees to fully demonstrate their expertise and achieve their potential are the company's sustainability goals. Therefore, TTC is dedicated to creating a harmonious and stable work environment by offering various benefits, ensuring that employees can thrive without worries and grow alongside the company. If employees cannot work with peace of mind, not only will the company's performance suffer, but it also leads to a high employee turnover rate, adversely affecting the overall operational efficiency.

The Management Approach and Components	Policy Purpose	By offering various benefits, we ensure employees enjoy their workplace and can work with peace of mind.		
	Policy	A Great Place to Work		
	Commitment	Establish comprehensive welfare measures to create a joyful and harmonious work environment. This promotes employee stability and reduces turnover.		
	Objective	2023 Goal (including temporary contract and retired employees) Turnover rate ≤7.5%	Short-term Goal for 2026 Turnover rate ≤7.5%	Mid/Long-term Goal for 2031 Turnover rate ≤7.0%
	Management Plan	Employee benefits include bonuses, leaves, insurance, meals, transportation, and entertainment.		
	Negative Impact Remedies and Preventive Measures	A shortage of manpower due to difficulty in employee recruitment: To stabilize the workforce and retain outstanding talents, apart from adjusting the pay for employees according to the consumer price index and personal performance of the employees every year, we participate in a compensation survey of the petrochemical industry to estimate pay standards in the market to make appropriate adjustments and planning. We also consider giving a special promotion to employees with outstanding performance to ensure that our pay is competitive with the market.		
	Grievance Mechanism	Corporate Union Communication Channel, Employee Complaint Hotline, Employee Suggestion Box		

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Descriptions
Turnover Rate (including fixed-term contract employees and retired employees)	≤7.5%	8.46% (42/496)	In 2023, 42 employees resigned from the Company, with 18 of actual retirement. Excluding retirees, the turnover rate was 4.83% (24/496).

Workforce Structure GRI 2-7

In 2023, the total number of employees at TTC was 496, of which 429 were male (accounting for 86.5%) and 67 were female (accounting for 13.5%). Due to the characteristics of the petrochemical industry, the proportion of male employees is higher than that of female employees. Furthermore, senior management at TTC is primarily recruited locally from Taiwan.

In 2023, the number of local employees hired in Taiwan was 346 (69.7% of the total), spread across the Taipei headquarters, Toufen plant, Linyuan plant, and Qianzhen plant. Of these, 344 were on indefinite contracts (99.4% of total), 2 on fixed-term contracts (0.6% of total), and 20 were foreign migrant workers (4.0% of total). All the foreign workers, who were male, were employed on fixed-term contracts at the Toufen plant. In China, the company employed 130 local staff. 129 of these employees were on full-time indefinite contracts and worked at the Zhongshan plant. Only 1 was on a fixed-term contract, based in the Tianjin plant.

Employee Type Overview Table for the Last Three Years

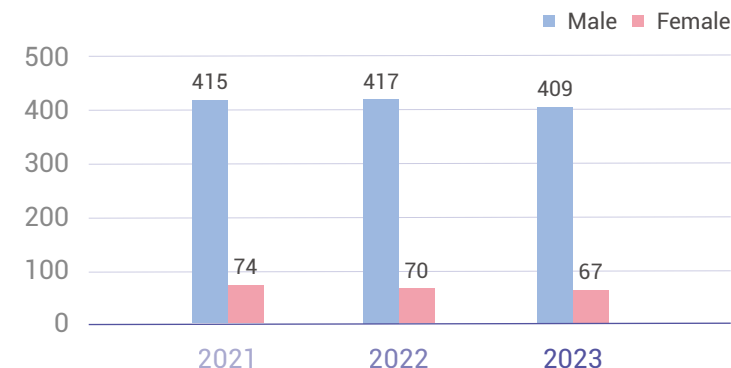
Year		2021		2022		2023	
Type		Numbers of person	Percentage	Numbers of person	Percentage	Numbers of person	Percentage
Non-fixed-term contract employees	Male	414	81.7%	416	82.9%	407	82.1%
	Female	72	14.2%	67	13.3%	66	13.3%
Fixed-term contract employees	Male	19	3.7%	16	3.2%	22	4.4%
	Female	2	0.4%	3	0.6%	1	0.2%
Total (No. of Employees)		507		502		496	

Note: The employee statistics period ends on December 31st.

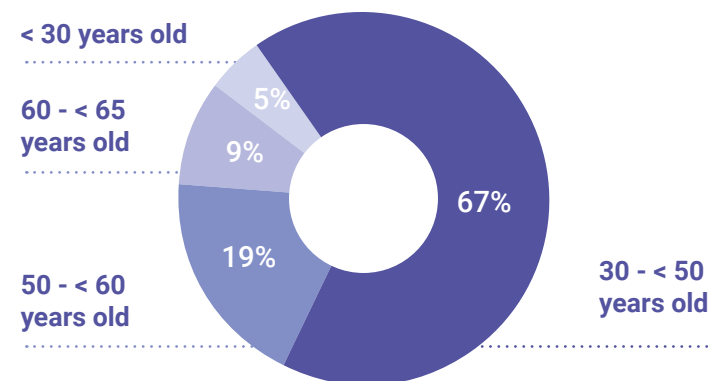
Employees under 30 years of age constitute 5%. The age group of 30 to just under 50 years represents 67%. Employees from 50 years to just under 60 years constitute 19%. Notably, the proportion of employees who retired in the past five years (from 60 to under 65 years of age) is 9%. TTC has consistently maintained stability in its workforce structure over the years, focusing on recruiting and retaining outstanding talents, while also implementing talent development programs. Conduct pre-employment training and internal job training for new employment in accordance with employee training regulations, to provide them with the skills required for their jobs, and we recruit excellent talents with a fair, open, and transparent recruitment system. In addition to maintaining diversity and equal opportunities, we do not engage in discrimination based on race, color, age, gender, sexual orientation, gender identity and expression, ethnicity or national origin, disability, pregnancy, religion, political affiliation, union membership or marital status in hiring.

Employee Gender Distribution Over the Past Three Years

Unit: Persons /in number; excluding foreign migrant workers



Age Distribution of Employees in 2023



- **Non-Employee Workers:** This mainly focuses on the count of contracted workers who impact production, operations, environment, and engineering maintenance. In Taiwan: 82 individuals. In China: 25 individuals.

Statistics on Non-Employee Workers (Contractual) in 2023

Nature of work involved:	Linyuan Factory	Qianzhen Factory	Toufen Factory	Zhongshan Factory	Total
	Numbers of person	Numbers of person	Numbers of person	Numbers of person	
Container Transport	5	5	12		22
Finished Product Storage/ Container Loading for Shipment	14	9	2	8	33
Finished Product Packaging	6	11		10	27
Material Preparation/Mixing	2	7		3	12
Factory Cleaning	2	1		2	5
Construction and Maintenance					0
Environment maintenance				2	2
Equipment Inspection/ Dismantling and Assembly					0
Processing of Residual Materials	3				3
Assisting in Wastewater Treatment Operations		1			1
Incinerator	2				2
Civil/Insulation Engineering					0
Total	34	34	14	25	107
	Taiwan			China	
	82			25	

New Talent Intake

TTC's recruitment channels include newspapers, job websites, human resource management companies, educational institutions, and employment service centers. For vacancies within the factory premises, local community talents are given priority consideration, offering local employment opportunities as a way of giving back to the community. In 2023, about 69% of new hires at Taiwan plant were local talents.

In 2023, TTC hired 29 new employees, representing 5.85% of the total workforce.

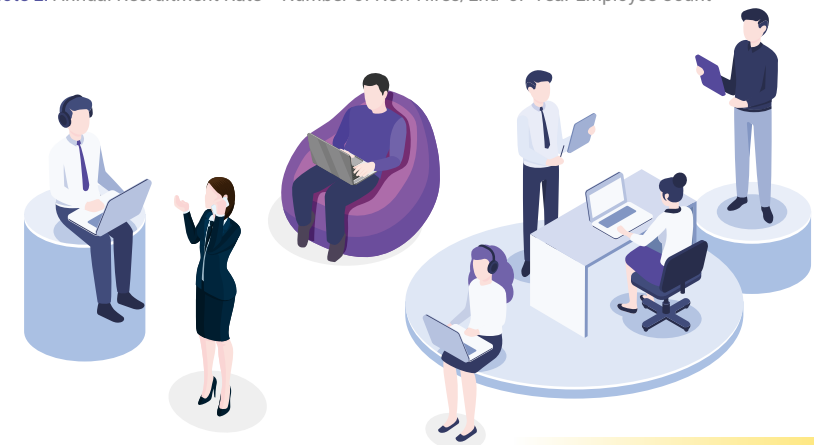
Gender Distribution Among New Employees Overview Table for the Last Three Years

Unit: Persons

Type	2021	2022	2023
Male	24	45	28
Female	3	4	1
Numbers of New Hires	27	49	29
End-of-Year Employee Count	507	502	496
Annual Recruitment Rate	5.32%	9.76%	5.85%

Note 1: Includes both irregular contract employees and regular contract employees

Note 2: Annual Recruitment Rate = Number of New Hires/End-of-Year Employee Count



2023 Overview Table of New Hire Distribution by Region and Age

Unit: Persons

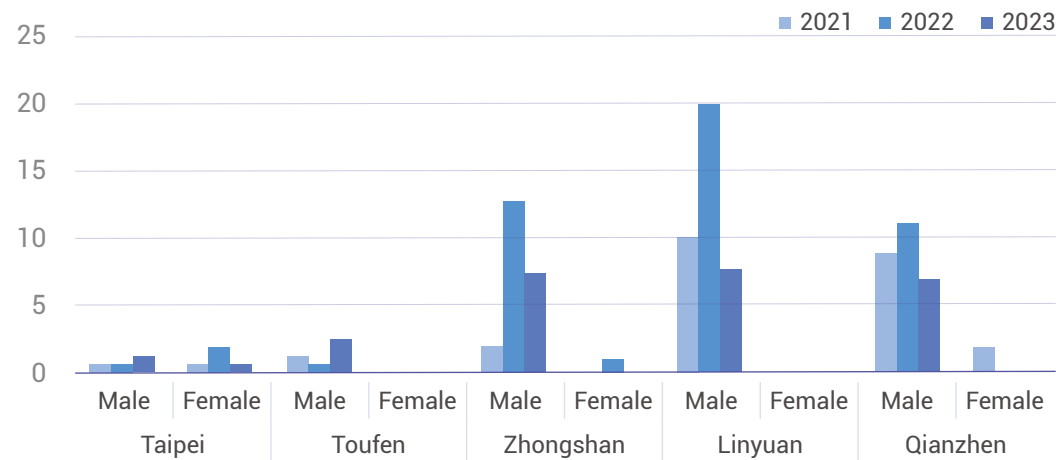
Regions		Taiwan		China	
Age Group	Gender	Male	Female	Male	Female
	<30 years old	5	1	1	0
	30 - <50 years old	16	0	6	0
	≥50 years old	0	0	0	0
Year-end Total Number of Employees		366		130	
Annual Recruitment Rate		6.01%		5.38%	

Note 1: Includes both irregular contract employees and regular contract employees

Note 2: Annual Recruitment Rate = Number of New Hires/End-of-Year Employee Count

Age Distribution of New Employees Over the Past Three Years

Unit: Persons



2023 Overview Table of Local Hiring for New Employees

Locations	Taipei		Toufen Factory		Qianzhen Factory		Linyuan Factory		Zhongshan Factory		Subtotal		
Gender	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Numbers of new hires	2	1	4	0	7	0	8	0	7	0	28	1	29
Number of employees hired locally	2	1	4	0	5	0	6	0	2	0	19	1	20
Percentage of new employees hired locally	100%	100%	100%	...	71%	...	75%	...	29%	0%	68%	100%	69%

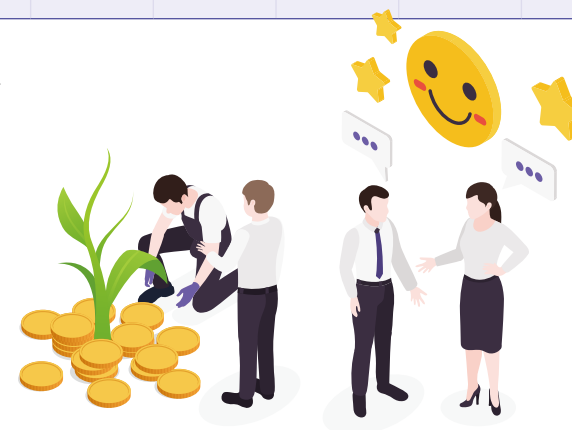
Note 1: Calculated based on the number of employees with indefinite contracts in the county or city where the factory is located.

Note 2: Due to the vast geographical expanse of China and the diverse origin of talents from various provinces, the percentage of local hires is relatively low.

Talent Turnover

All TTC's employees are entitled to voluntary termination of employment by law. Their labor conditions are subject to local laws and regulations, including the minimum wage, working hours, overtime pay, Labor Insurance, National Health Insurance, and pensions. We also provide employees with group insurance and various employee benefits.

In 2023, the number of employees who left TTC totaled 42, representing a turnover rate of 8.46%.



Turnover Rate Overview Table

Unit: Persons

Type	2021	2022	2023
Male	41	45	38
Female	8	9	4
Number of Departures	49	54	42
End-of-Year Employee Count	507	502	496
Annual Turnover Rate	9.66%	10.75%	8.46%

Note 1: Annual Turnover Rate = Number of Departures / Total Year-End Employee Count

Note 2: Includes employees with indefinite contracts, definite contracts, and retired employees.

2023 Overview Table of Departures by Region and Age

Unit: Persons

Regions		Taiwan		China	
Age Group	Gender	Male	Female	Male	Female
	<30 years old	3	1	2	0
	30 - <50 years old	12	2	6	0
	≥50 years old	15	1	0	0
Total		34		8	
Year-end Total Number of Employees		366		130	
Annual Turnover Rate		9.28%		6.15%	

Note: Annual Turnover Rate = Number of Departures / Total Year-End Employee Count



Employee Compensation Plan

Upholding the belief to share profits with employees, TTC attracts, retains, cultivates, and encourages all kinds of outstanding talents and have established a comprehensive and competitive employee remuneration plan. All new employees are paid better than the statutory minimum wage. Allowances vary according to the position and educational attainment of employees. The monthly performance bonuses and year-end bonus is distributed according to the employees' performance. Most importantly, the base salary is equal regardless of gender.

To stabilize the workforce and retain outstanding talents, apart from adjusting the pay for employees according to the consumer price index and personal performance of the employees every year, we participate in a compensation survey of the petrochemical industry to estimate pay standards in the market to make appropriate adjustments and planning. We also consider giving a special promotion to employees with outstanding performance to ensure that our pay is competitive with the market.

Salary of Non-management Full-time Employees

The term "Full-time Employees Not Holding Managerial Positions" refers to the total number of all company employees (or regular employees) after subtracting those in managerial roles, employees of overseas branches, part-time employees, and those who qualify for exclusion from the statistics. This count includes both domestic and foreign employees.

Salary Statistics Table for Non-managerial Employees Over the Last Three Years

Item	2021	2022	2023	Differences Between 2023 and the Previous Year
Number of non-management full-time employees	373	354	351	-3
Average salary of non-officer full-time employees (NTD thousands)	1,366	1,100	1,031	-69
Median wage of non-management full-time employees (NTD thousands)	1,280	1,039	968	-71

Employee Benefits GRI 201-3

TTC places a strong emphasis on the safety and well-being of its employees. In addition to legally mandated labor insurance, the company offers a group insurance plan for its employees. The company also covers the additional premium for the group life insurance. All insurance premiums are borne by the company.

Foreign workers at our Toufen plant are provided with dormitory accommodations that are managed by dedicated personnel. These accommodations include facilities such as a basketball court and an entertainment room. Regarding meals, a catering company supplies three meals a day, ensuring that our workers can focus on their jobs with peace of mind. We are committed to respecting the individual differences of each employee. Consequently, there have been no incidents of discrimination at TTC.

TTC greatly values employee benefits. Employees of TTC are entitled to the following benefits as outlined in the table below:

TTC Employee Benefits Overview

Item	Contents
Bonus	Year-end bonus, regular bonus and performance bonus
Leave	Maternity leaves, pregnancy checkup leaves, parental, menstrual, family care, pregnancy checkup accompaniment, and paternity leaves.
Insurance	Labor insurance, health insurance, accident insurance, life insurance, group insurance for employees/families, employee condolences, business travel group injury insurance for employees, pension contributions
Food	Employee canteens and meal allowances.
Transport	Employee parking spaces and travel allowances
Entertainment	Employee Trip
Allowances	Subsidies for on-the-job training, domestic/overseas further education
Other benefits	Wedding/childbirth/funeral subsidies, employee maternity subsidies, employee tour subsidy, citation for senior employees, bonuses for three major folk festivals, children education allowance, periodic health checkups and healthcare plan.

2023 Statistics Table for Parental Leave Usage and Return-to-Work

Parental Leave Usage Statistics	Total Number of Employees Entitled to Parental Leave	Total Number of Employees Who Actually Took Parental Leave	Total Number of Employees Who Returned to Work After the End of Their Leave	Total Number of Employees Who Remained Employed 12 Months After Returning from Leave	Percentage of Employees Who Returned to Work and Remained Employed
Male	5	0	0	-	-
Female	3	0	0	-	-

Human Rights Policy and Management Plan

Human Rights Policy

To fulfill CSR obligations and protect human rights, we establish the human rights policy applicable to the Company and USIG affiliates with respect to internationally accepted human rights standards in March 2018, such as the International Bill of Rights and the Declaration on Fundamental Principles and Rights at Work, in order to eliminate behavior prejudicing and violating human rights. Apart from providing employees with a reasonable and safe workplace environment, we ensure employees enjoy reasonable and dignified treatment.

Human Rights Management Achievements in 2023

After conducting risk identification in accordance with the Company's Human Rights Policy Implementation Guidelines, a total of 14 human rights issues were included this year, including 8 human rights management items of major concern; mitigation measures and impact compensation measures were implemented as follows: There were no major violations this year, and human rights-related education and training will continue. For more information about the human rights policy, please refer to the Company's [website](#)

Issues	Mitigation measures	Compensation measures
Long working hours	<ol style="list-style-type: none"> Overtime work must be agreed upon by employees, and after working overtime, employees can choose to receive overtime pay or compensatory leave. The system asks employees to check every day whether the reason for leaving the workplace late is due to personal reasons or official business. The Human Resources Department regularly reviews the overtime situation of each company and tracks the reasons why it occurs. 	<ol style="list-style-type: none"> If employees work overtime, they will be paid overtime pay in accordance with the law. Understand colleagues' workload and reasons for overtime, and actively improve processes and optimize operations to help improve work efficiency. Those who work excessive hours will be included in the abnormal workload identification and risk investigation list, and regular employee health checks will be conducted, and relevant operations and manpower conditions will be adjusted as appropriate.

Concerns of Human Rights and Practice

Providing a Safe and Healthy Workplace Environment

To ensure workplace safety for our employees, the Company has not only installed various pollution control and fire safety equipment but also passed the audits and certification for ISO 14001 (Environmental Management System) and ISO 45001 (Occupational Health and Safety Management System), actively promoting energy saving and carbon reduction, disaster prevention, and pollution prevention improvements to ensure a safe working environment.

In addition to providing a safe and healthy working environment as regulated by the law, the Company has established a dedicated Occupational health and safety unit and committee, employed professional medical doctors and nursing personnel, and regularly conducts safety and health, fire prevention, and other related educational training. We take necessary precautions to prevent occupational accidents from occurring, thereby reducing the risk factors in the work environment.

Friendly Workplace

Diversity, Equity, Inclusion (DEI)

The Company respects different genders, ages, and cultures to build a friendly workplace environment where everyone can leverage their talents.

Creating a diverse environment that embraces people of different backgrounds, races, genders, sexual orientations, abilities, and perspectives in the workplace; offering equal opportunities and treatment to all employees in a fair and inclusive manner to bridge the gap between different groups, ensuring that each employee is respected and accepted, and able to fully participate and contribute.

Continually promoting gender equality policies and preventing workplace assaults through educational training and publicity, and committed to providing employees with a dignified and friendly working environment.

Assist Employees Maintain Physical and Mental Health and Work-Life Balance

- The Company provides venues or sponsorship funds, encourages employees to participate in healthy activities, employees form their own clubs, which help to foster camaraderie among colleagues through club activities.
- Besides organizing end-of-year feasts, Mid-Autumn festivals, and other events to alleviate employees' mental and physical stress and consolidate their organizational commitment, the Company also provides sports and fitness equipment for employees to use in their spare time.
- To encourage employees to take part in exercise and health management, sports competitions are held irregularly. In the Taipei area, employees were sponsored and encouraged to participate in the "2023 Taipei Tech Cup Charity Road Run" in April 2023, and the beneficial activities for physical and mental health like "Walking Together" were held from October to December 2023.

Eliminate Illegal Discrimination to Reasonably Ensure Equal Job Opportunities

The Company has incorporated human rights policies into its internal control procedures. We practice fairness in labor rights such as recruitment, remuneration welfare, training opportunities, promotions, dismissals or retirement. We do not discriminate against employees or job applicants based on factors such as race, social status, language, thought, religion, political party, native place, place of birth, gender, sexual orientation, age, marital status, pregnancy, appearance, facial features, physical/mental disabilities, horoscope, and blood type.

Ban Child Labor

To ensure compliance with corporate social responsibility and ethics and integrity, the Company has stipulated no child labor from the start of recruitment. By the end of December 2023, we have a total of 366 employees in Taiwan, none of who are child laborers.

Prohibition of Forced Labor

The Company does not force or threaten any personnel who has no intention to perform labor services. Regulations governing employees' daily and weekly normal working hours, extended working hours, holidays, special leaves, and other types of leaves all comply with legal norms.

A reminder function is set in the attendance system for employees to apply for overtime work. Overtime compensation or time-off is provided after overtime work, and dedicated personnel conduct monthly reviews and control of working hours in the plant.

Training and Practice of Human Rights Protection

- New employee training - On their arrival, new employees are requested to receive related compliance training, with topics including sexual harassment prevention, no discrimination, no harassment, working hours management, protection of humane treatment, and so on.
- Preventing workplace violence - Through publicity and notices, we let employees understand their responsibility to assist in ensuring that no unlawful infringements occur in the workplace and disclose the grievance hotline, working together to create a friendly work environment.
- Training for occupational safety - Contents include OHS educational training, fire safety training, emergency response, and first aid personnel training.
- Publicizing integrity and ethics - Arrange education and publicity on integrity and ethics in routine work and behavior to build a healthy and positive workplace culture.

We continuously concern ourselves with human rights protection and implement relevant training to raise the awareness of human rights protection and lower the likelihood of the relevant risks. In 2023, we held training related to the promotion of human rights protection, with a total of 3,518 people participating and the total hours were 11,811 hours. The detailed list of participants and training is as follows:

Course Name	Total Attendees	Total Training Hours
Integrity Talk: Stop, Look, and Listen to Cybersecurity Traps	137	274
Integrity Talk: Legal Awareness and Response Required in the Intelligent Era	137	274
Integrity Talk: Legal Advocacy - Insider Trading and Gender Equality	18	36
Integrity Talk: Prevention of Workplace Violence (Bullying)	8	16
Integrity Talk: Practical Cases of Insider Trading and Associated Legal Responsibilities (2023)	1	3
Integrity Talk: Introduction and Case Analysis of the Trade Secrets Act (2023)	1	3
Integrity Talk: 2023 Code of Conduct	239	239
Process Safety Training	1,049	3,801
Industrial Safety Training/Publicity	797	3,468
Environment Protection Training	19	311
OHS On-the-Job Educational Training (including training and retraining for operation supervisors)	380	1,842
Emergency Response Drill	179	359
Self-Defense Firefighting Team Training	165	478
Firefighting Training/Publicity	192	505
Special Operations and Cancer Screening Themed Seminar	10	10
Promotion of Worker Health Lecture	52	52
First Aid Personnel and Relevant Educational Training in Professional Nursing	14	20
Friendly Workplace - Advocacy for Maintaining a Work Environment Free of Violence, Harassment, and Intimidation	120	120
Total	3,518	11,811

Grievance System

We have established unfettered grievance channels for employees to report all internal problems to supervisors at all levels or the Human Resources Division. To maintain gender equality at work and provide employees and job applicants with a workplace environment free from sexual harassment and illegal infringements, we have established a dedicated mailbox and email for sexual harassment prevention and illegal infringement prevention. All information will be kept confidential during the investigation. Neither the name nor the data valid for identifying the complainant will be disclosed to ensure complainant protection.

Minimum Notice Periods for Operational Changes

Implemented in accordance with legal requirements, the company will provide notice in the event of the following operational changes:

- 1 Closure or transfer of operations;
- 2 Financial losses or business contraction;
- 3 Work suspension due to force majeure for more than one month;
- 4 Changes in business nature necessitating workforce reduction and no suitable alternative roles available;
- 5 Employees demonstrably not competent for their roles.

Notices will be issued based duration of employment:

- 1 For those employed for more than 3 months but less than 1 year, a 10-day advance notice will be provided.
- 2 For those employed for over 1 year but less than 3 years, a 20-day advance notice will be given.
- 3 For those employed for more than 3 years, a 30-day advance notice will be served.

Pension Contributions GRI 201-3

TTC has established a set of retirement regulations for all full-time employees and contribute every month the employee pension reserves to the personal pension account at the Labor Insurance Bureau for each employee in accordance with the Labor Standards Act.

Item	Proportion of Contribution	Employee Participation in the Retirement Plan
Pension under the Labor Standards Act (old system)	Employer contribution: 12% of the employee's monthly wage, all of which have been regularly allocated in full.	100%
Pension under the Labor Pension Act	Employer: 6% of the monthly salary; Employee: 0-6% of the monthly salary. Currently, contributions are made as stipulated.	100%

Labor Union and Organization

📄 GRI 2-30

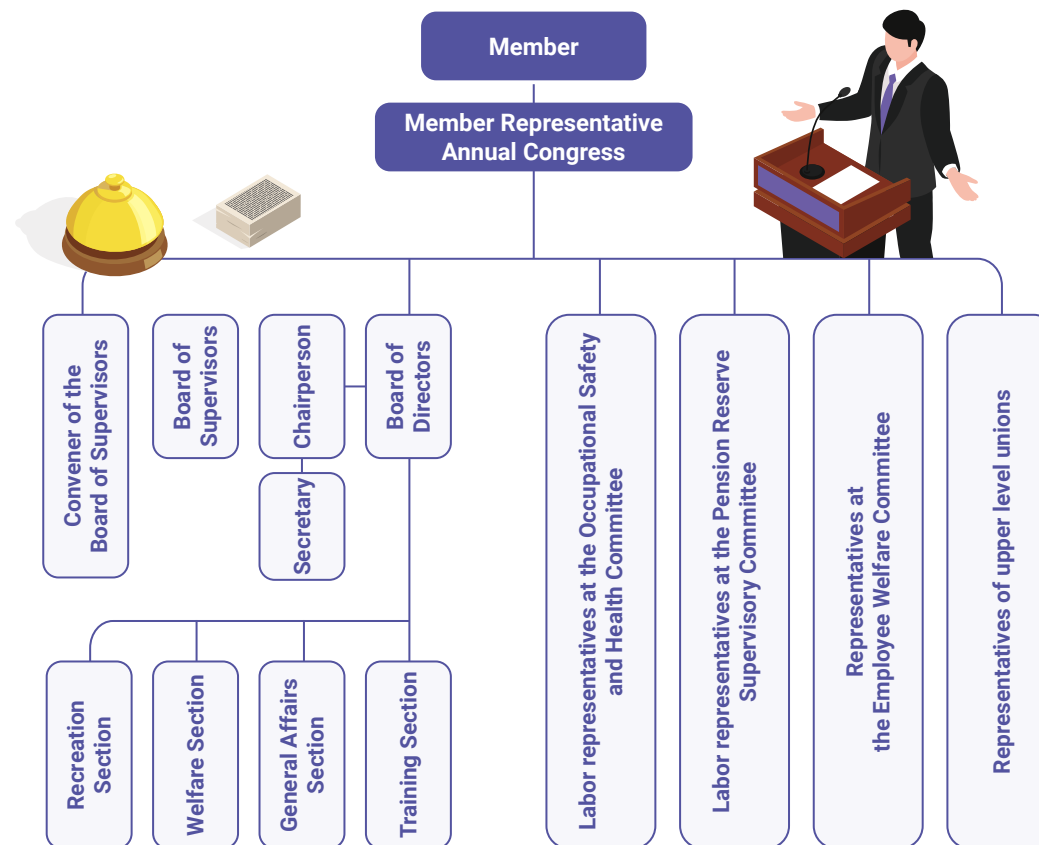
TTC has established union organizations in its plants located in Toufen, Qianzhen, and Linyuan. However, there's no union in the Taipei headquarter or in the Zhongshan plant in China. Owing to the Company's consistent and good communication with employees through the union and associated-management meetings, no specific collective agreement has been made between the two sides.

Plant	Union Membership			Total Employees	Percentage of Union Members to Total Employees
	Male	Female	Total		
Linyuan Factory	145	7	152	170	89%
Qianzhen Factory	74	6	80	90	89%
Toufen Factory	52	10	62	82	76%

During the regular board meetings of the unions at various factories in Taiwan, relevant company executives attend and communicate directly with union leaders. Every year, member education training is held with enthusiastic participation from union members, aiming to foster mutual understanding and promote collaboration between management and labor. Furthermore, representatives elected by both management and labor constitute various committees such as the "Pension Supervisory Committee," the "Employee Welfare Committee," and the "Occupational Safety and Health Committee." Regular meetings are convened to provide Channels of communication between management and labor are maintained to safeguard workers' rights.

Employee Welfare Committee

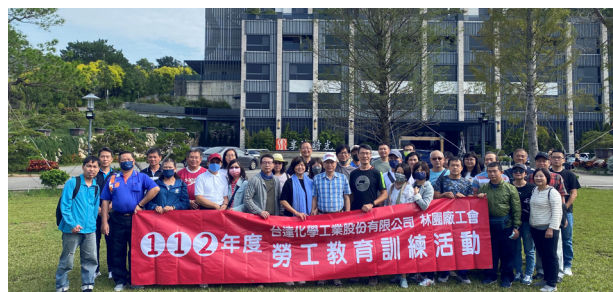
TTC allocates 0.15% of its monthly sales revenue for the "Employee Welfare Committee" activity fund. This fund encompasses benefits such as employee trips, birthday, childbirth, marriage, and funeral subsidies, scholarships for employees' children, and annual festival bonuses. These welfare initiatives serve as a token of appreciation for the employees' daily hard work. Periodic travel events are organized, allowing employees to relieve work stress, promote physical health, and foster mutual exchanges, thereby boosting team cohesion.



Every year, the union holds an annual member representative assembly. The image captures moments from the 2023 union member representative assembly.

Employee Feedback Survey Report

TTC conducts an Employee Opinion Survey in August 2023, which covered Supervisor, Salary, Colleagues, Work, Development, Corporate Culture, Sustainability, and Organizational Commitment eight aspects. The survey response rate was up to 86% and the aspects of "Sustainability", "Colleagues", and "Supervisor" had the most impressive satisfaction scores. TTC expects to discover the key indicators for talent retention and identify the significant elements for talent cultivation through the employee opinion survey, grasp the future workforce trends.



To foster collaboration between management and labor and enhance communication, the company collaborates with the union to conduct labor education activities each year. Above are the visual records of the related activities for 2023.

Item	TTC
Target	Survey of All Staff Members
Categories	Eight main aspects evaluated across 28 dimensions: leadership, compensation, colleagues, job responsibilities, development, corporate culture, organizational commitment and new added dimension of sustainable management
Number of Respondents	126 people
Recovery	86%
Overall Satisfaction Score	4.55 out of 6 (lowest 0, highest 6)
Survey Results	TTC's overall employee satisfaction is PR64, which is commendable within the industry. However, satisfaction in the areas of compensation and development was found to be lower. It is proposed to consider the compensation levels of peers in the petrochemical industry for timely adjustments and plan to initiating courses to enhance team collaboration, delegating team tasks, establishing a fair and effective performance management system, and providing appropriate training opportunities. A percentile ranking of 65 indicates that the Company's performance is above the industry average.
Improvement Initiatives	TTC has not identified any high-risk areas currently. The company will continue to listen to employee feedback and promote measures for continual improvement.

The ongoing improvement initiatives and projects for 2023 include:

- To invigorate the organization, stimulate creativity, and encourage a mindset of continuous improvement, we aim to cultivate a high-performance organizational culture. This will enhance the group's competitiveness. New proposal improvement methods have been introduced. For suggestions related to production, quality, R&D, maintenance, energy conservation, water conservation, and environmental protection that result in material, time, or labor savings, and pass review and implementation, rewards and a maximum bonus of NT\$3,000 are granted.
- To fairly evaluate employee commitment to the organization, job competence, performance, and contribution, we have established a performance appraisal system. This will serve as the foundation for holistic performance management and talent development. The results will guide employee promotions, salary adjustments, year-end bonuses, and other HR activities.
- To enhance the HR management benefits of cross-company/department project collaboration within the group and improve organizational agility and competitiveness, relevant audit and performance evaluation procedures have been set up. Matrix management methods have been established, detailing the rights and responsibilities of members of the matrix organization.
- We have launched the USIG EMBA, collaborating with prestigious institutions like National Taiwan University to provide senior executives with specialized courses.
- The introduction of PSM training aims to equip factory engineers and senior staff with management skills and safety operation awareness, ensuring a safe working environment for all employees.

4.2 Talent Development

To enhance the overall competitiveness of our colleagues and facilitate employees in acquiring the knowledge, skills, and certifications required for their positions, TTC offers a diverse educational and training system. We systematically and comprehensively design training courses essential for career development, further extending into the realm of lifelong personal learning. We have set a goal of an average training duration of 25 hours per person by 2026 and 30 hours by 2031.

Item	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Average Training Duration Goal	18.5 Hours	42.4 Hours	✓ The goal has been achieved

Performance Evaluation

TTC conducts employee performance evaluations annually in January. The evaluation covers non-regular contract employees who have been employed for at least three months. Evaluation criteria are based on 50% work performance and 50% individual competitiveness and efficiency. This performance evaluation is an essential reference for employee promotions, salary adjustments, and other HR operations. It assists managers and employees in career development planning, strengthening areas of inadequacy for employees, and offering incentives for those who exceed expectations. In 2023, 100% of TTC's employees at all operating locations participated in the evaluation, while regular contract employees were not included in the annual evaluation scope.

Career Development

In continuing education and training for employees, we survey the employee training needs, draw up the education and training plans based on the needs of respective units, and plan related budgets for each plant at Q4 each year. We also establish the e-learning platform to provide a channel for self-learning, organize regular employee competency training, management training, keynote speeches, health talks, and various seminars to improve professional or management skills. TTC's employees can also enjoy the independent learning channels via the training and learning platform provided by the Group's, to balance the work, life, as well as mental and spiritual development of employees.

To enhance the overall competitiveness of employees, we provide a comprehensive education and training system according to the company's development strategy and the performance goals of respective departments, which is based on four parts: in-service (on-the-job) training, competency training, and self-growth learning. Training courses are planned and designed comprehensively and systematically according to the development needs of employees and connect with the lifelong perspective of employees.

Diverse Training Programs and Achievements

In 2023, total employee training hours reached 21,048 hours, with an average of 42.4 hours per person, achieving the set target of 18.5 hours per individual. We sponsor employees with higher learning motivation and greater development potential to receive further education in universities at home and abroad and arrange duty adjustment to give them complete training and cultivate outstanding talents for the company.



Talent Development

TTC is a subsidiary of USIG. To align with the group's organizational development needs, enhance workforce quality, and cultivate company management talents, the group has established a program for elite personnel cultivation. Outstanding talents who meet the criteria are first arranged for interviews by the group's HR department. After being informed of the training process and assessing their willingness, the HR unit notifies the employee to prepare for registration to participate in designated local universities' MBA or EMBA programs. If accepted, upon presentation of the admission notice, the company offers course fee subsidies and grants leave for study.

The digital wave arose following the technological innovation in recent years. Pushed by the pandemic, digital transformation has become a heat in all industries, and there is no exception to USIG. Besides engaging in industry-academia collaboration with academic units, we all invited professional instructors to give instructions to constantly transform toward smart manufacturing.

Besides the application of technology, we understand that digital transformation needs a new way of thinking in employees and a change in the organizational culture. Hence, we have actively implemented data-driven and process improvement in the organization through talents cultivation. All employees can access the group's training and learning platform and participate in digital lectures to enhance their cognitive thinking. In 2023, there were a total of 189 participants, accumulating 411 training hours. We also held workshops and AI training courses for seed members to practice digital transformation in real work to enhance promotion.

Digital transformation courses conducted in 2023 are as follows

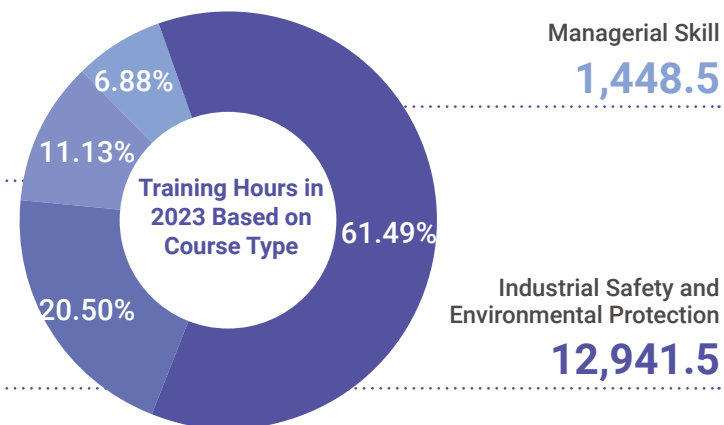
April 27	Intelligent Petrochemical Seminar
May 11	Simplifying Complex Problems with Data Mindset Course
August 8	Build Your Influence with Data Analysis
September 19	Legal Awareness and Response Required in the Intelligent Era (Although it is not a digital transformation course, but it covers the legal concepts necessary for the digital era)



Unit: Hours

Other
2,342.5

Technical Expertise
4,315.5



2023 Overview Table of Training Hours by Location

Participation in Educational Training		Male	Female	Total
Supervisor	Average (hours/persons)	67.44	35.58	60.76
Direct Personnel	Average (hours/persons)	29.12	24.10	28.96
Indirect Personnel	Average (hours/persons)	80.04	38.58	65.79
Company-wide	Person	5,984.0	828.0	6,812.0
	Hours	18,647.0	2,401.0	21,048.0
	Number of Employees	429.0	67.0	496.0
	Average (hours/persons)	43.47	35.84	42.44

Note 1: Direct personnel refers to workers, while indirect personnel pertain to staff members who are not in supervisory roles.

Note 2: Due to varying departmental functional requirements, there might be disparities in training hours across genders.

Note 3: A supervisor is defined as an individual of section chief level or above.

2023 Statistical Table of Supervisor Ratios at Each Operational Location

Supervisor	Male		Female	
	Taiwan	China	Taiwan	China
Numbers of person	36	9	4	7
Total	45		11	
Total	56			
Percentage	80.36%		19.64%	

Note 1: A supervisor is defined as an individual of section chief level or above.

Note 2: Ratio Calculation: Male (Female) Each Total/ Total



4.3 Occupational Safety and Health

📄 GRI 3-3, GRI 403 (403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10)

4.3.1. Occupational Safety and Health

Material Topic Occupational safety and health

Impact Scope Government agencies, local communities, and employees

Sustainability Principle aligned with SDGs

Shaping an Inclusive Society/SDGs 3: Health and Well-being

Material Reason A safe and healthy working environment is the primary labor requirement for workers. Thus, continuous efforts should be made to reduce safety and health risks, prevent and minimize occupational accidents, and consistently improve safety and health performance, underscoring our commitment to safety and health.

Management Approaches	Policy Purpose	Continuously reduce safety and health risks, prevent and minimize occupational accidents, and promote employee health.		
	Objective	2023 Goals Zero disability injuries	Short-term Goals in 2024 Zero disability injuries	Medium- & Long-term Goal in 2030 Zero disability injuries
	Management Plan	Add or update equipment to reduce pollutant emissions to reduce the OSH-related risks		
	Evaluation of the Management	Measure the "Number of injuries resulted in disability" every year and present an assessment report to the management during the annual management review meeting. This allows for a review of the past year's performance and the formulation of improvement measures, as well as an evaluation of the effectiveness of those measures.		
	Assessment Mechanism	Continuously implement the ISO 45001 OSH management system for a systematic management.		
	Assessment Result	Number of disabling injuries in the last three years		
	Negative Impact Remedies and Preventive Measures:	Inadequate implementation of Process Safety Management (PSM) leading to accidents: Our company has integrated the PSM system, employing a systematic approach to prevent unforeseen incidents.		
	Grievance Mechanism	Details can be found in Section 3.1.2 under the Environmental, Safety, and Health Complaint Channel		

Status and description for goal achievement

Management Plan	2023 Goals	2023 Achievements	Explanation (including reasons for non-achievement)
Review and Tracking of Disability Injury Case Management:	Number of disabling injuries 0	Number of disabling injuries 0	✔ The goal has been achieved.

TTC will adopt the following approaches to continually reduce occupational health and safety risks, aiming to achieve the set objectives:

Aligning with global trends, the company integrates the environmental management system with the occupational health and safety system. We have established a policy for occupational health, safety, and environment, detailed in Chapter 3 under Environmental Protection. The strategies for executing this policy include:

- Implementing PSM and the ISO 45001 standards. Through the institutionalized PDCA (Plan-Do-Check-Act) management cycle, we are committed to risk management, continuous improvements in safety, health, and environmental protection, disaster prevention, and giving priority to the mental and physical wellbeing of our employees.
- TTC's factories in Linyuan, Qianzhen, and Toufen have passed the ISO 45001 standard verification. While the Zhongshan factory has not been verified, it operates based on company regulations and policy mandates. Both internal and external audits involve all employees and contractors. In 2023, 496 employees and +107 contractors were covered by the Occupational Health and Safety Management System, representing 100% coverage.
- By adopting the best available techniques and management practices, we are committed to organization, waste reduction in processes, pollution prevention, and ensuring the health and safety of our employees, contractors, and neighboring communities.
- We emphasize continuous training, communication, and consultation with employees, encouraging everyone's participation. We also enhance communication with contractors and clients, ensuring they are fully informed of our occupational safety, health, and environmental policies.

Occupational Safety and Health Risk and Opportunity Assessment and Control Procedures

To prevent hazards from operations, activities, services, or facilities that might compromise the safety and health of personnel or result in financial losses to the company, early actions are taken to address opportunities for improving occupational health and safety performance. Post-risk assessment, the chosen control methods include (a) elimination, (b) substitution, (c) engineering controls and job reorganization, (d) managerial controls including training/signs/warnings/management controls, and (e) personal protective equipment. Controls are chosen based on a priority sequence from (a) to (e), identifying the most optimal method, and reducing risks to acceptable levels.

TTC has established a comprehensive occupational safety risk assessment process. All evaluators undergo risk assessment training, ensuring their competency and understanding. Assessment methods involve internal staff (including contractors) or external stakeholders. They can submit their findings to their respective supervisors. The executive team collates, reviews, and tracks the proposed improvements. Furthermore, by establishing internal and external communication procedures, employees are involved in incident investigations, hazard risk assessments, and decision-making on control measures. This ensures all relevant employees, contractors, suppliers, and stakeholders are timely informed about the company's occupational health, safety, environmental policies, and system requirements.

Performance Statistics for Hazard Identification and Risk Assessment

In 2023, a total of 11 measures were derived from the identification of unacceptable occupational health and safety risks.

Risk Level	Risks and Opportunities	Planned Actions
Risk Level 1	Unacceptable Risk	Plan for Improvement
Risk Level 2		
Risk Level 3		
Risk Level 4		
Risk Level 5-12	Tolerable risks, consider opportunities for improvement	Choose to improve

Performance Statistics Table for Occupational Health and Safety Over the Last Three Years

Item		2021	2022	2023
TTC	F.R.	0	0	0
	S.R.	0	0	0
	F.S.I.	0	0	0
	TRIR	0	0	0
Contractors	F.R.	0	0	0
	S.R.	0	0	0
	F.S.I.	0	0	0
	TRIR	0	0	1.04

Note 1: Disabling injury frequency rate (F.R.) = Injury frequency x 10⁶ /total hours worked

Note 2: Disabling injury severity rate (S.R.) = Injury days lost x 10⁶/total hours worked

Note 3: Frequency severity index (F.S.I.) = √[(F.R.xS.R.)/1000]

Note 4: Total Recordable Incident Rate (TRIR) = Number of injuries x 200,000/Total work hours

Note 5: According to the statistics from the Occupational Safety and Health Administration of the Ministry of Labor, the plastic and synthetic rubber manufacturing industry has had the following rates over the last three years: F.R. of 1.04; S.R. of 299; F.S.I. of 0.55

Note 6: Details on the number of contractor injuries and improvement measures can be found in the Contractor Safety Management description

Employee Occupational Safety Performance Statistics

Given that "zero industrial accident" is TTC's objective for occupational accident management, disability injury is one key indicator for evaluating occupational safety and health within an organization. As a result, each plant assigns personnel to regularly conduct various safety inspections and establishes an evaluation method for the performance of inspection personnel. Any inspection deficiencies are incorporated into the environmental and safety management platform for tracking and management, ensuring improvements are made and preventing recurrence.

In 2023, TTC had no safety incidents, achieving the goal of zero recordable injuries.

The annual experienced working hours for employees and contractors in 2021 to 2023 are as follows:

	Plant	Total
2021	Employee Annual Experienced Working Hours	1,049,261
	Contractor Annual Experienced Working Hours	235,268
2022	Employee Annual Experienced Working Hours	1,027,139
	Contractor Annual Experienced Working Hours	199,903
2023	Employee Annual Experienced Working Hours	1,020,232
	Contractor Annual Experienced Working Hours	192,880

As of December 31, 2023, the accumulated total work hours without recordable injuries for each plant are as follows:

Plant	Linyuan	Qianzhen	Toufen	Zhongshan
Total Accumulated Work Hours Without Recordable Injuries for Employees	1,754,073	2,502,800	1,216,474	2,391,681

Note 1: Work hours lost due to commuting accidents are not included in the recordable injury statistics.

Note 2: For contractors, the accumulated total work hours without recordable injuries in 2023 were 204,776 hours.

TTC's absentee rate in 2023 was **0.603%**.

Note: Absentee Rate = (Total Absent Days) / (Total Work Days) x 100%. The total number of absent days is based on the actual count by the Human Resources Department in 2023 (e.g., sick leaves and public injury leaves are used as the basis for counting absent days). The total work days refer to the actual working days in 2023.

Process Safety Management Performance

Process Safety Management Performance 2023

Total Count of Process Safety Incidents (PSIC): 0

Process Safety Total Incident Rate (PSTIR): 0

Process Safety Incident Severity Rate (PSISR): 0

Note 1: Employees are only permanent employees. The total hours worked in 2023 was 1,020,232 hours.

Note 2: PSTIR = The cumulative (annual) count of incidents x 200,000/total hours worked by workers

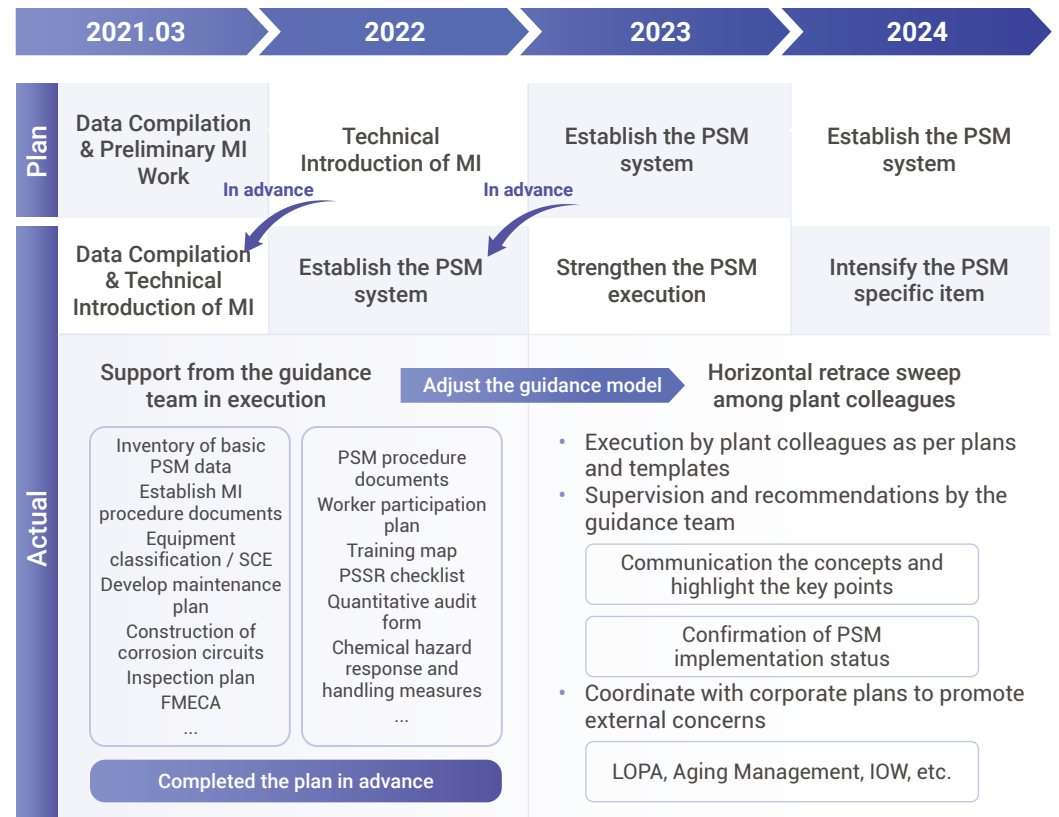
Note 3: PSISR = The total severity score of process safety incidents x 200,000/total hours worked by workers



Implementing the Process Safety Management (PSM) System

TTC's Linyuan, Qianzhen, and Toufen plants began implementing the PSM (Process Safety Management) system in 2021. Through planning, execution, inspection, and improvement, they have progressively promoted the PSM system to strengthen process operational safety. The goal is to establish and implement a safety culture and system at the factory, spanning from top management to employees and from equipment to personnel.

The overall plan is led by TTC's General Manager, who takes the lead and collaborates with all colleagues in introducing and executing PSM. External consultants and their teams have been hired to assist in the PSM guidance in a manner that combines academia and industry. This assistance covers the establishment of systems, technical methods, etc., managed through a project-based approach and completed in 2023. After actual implementation, it reviews through conformity audit system periodically to ensure proper execution.



Care for Employee Health

Before entering the factory, new recruits are required to undergo health check-ups at medical institutions recognized and approved by government agencies. Every year, regular employees undergo health check-ups conducted by accredited major hospitals to ensure their well-being. Results, when necessary, are reported to the competent authorities for record. As of 2023, the health check-up participation rate across all factories reached 100%.

Upon completion of the health check-ups, employees receive a health report detailing their medical data over the past three years. This allows them to understand the fluctuations in various test results during this period. Additionally, we maintain an archive of each employee's annual health reports, which they can access for personal review. Employees engaged in tasks that pose particular health risks are required to undergo specialized health examinations. We have established a health management database and conduct tiered health management based on regulations. Depending on the examination results, health level, and physician's recommendations, employees with abnormal findings receive health education, follow-up examinations, treatments, or are managed by adjusting their job assignments to safer environments.

While the rate of unsatisfactory health examination results can be directly or indirectly related to factors such as age progression and individual lifestyle habits, we still place an emphasis on the promotion of employee health, especially for those with higher unsatisfactory rates. To this end, we draft an annual health promotion plan and implement various health promotion initiatives as follows:

- After each health examination, we invite hospital physicians to host an examination result briefing. This allows employees to understand their current health status, communicate face-to-face with the doctor, and receive suggestions regarding their post-examination health condition.
- For general health examination anomalies, individual employees receive health education. In 2023, our occupational health and medical staff provided health education sessions a total of 162 times.
- To ensure employees have the opportunity for physical and mental relaxation, factory welfare committees and unions organize tiered recreational trips annually. This ensures that all employees have a chance to participate, promoting overall well-being.



Overview Table of Job Types Requiring Special Health Check-ups Across Factories

Factory Area	Types of Jobs Requiring Special Health Examinations
Linyuan Factory	Operations involving noise, dimethylformamide, and laboratory work with potassium dichromate
Qianzhen Factory	Operations involving noise, ionizing radiation, and laboratory work with benzene
Toufen Factory	Operations involving noise and dust exposure
Zhongshan Factory	Noise operation

Prevention Management of Work-related Ill Health

Type	Hazard Factors	Potential Occupational Illness	Preventive and Management Measures
Physical	Noise	Occupational hearing loss	Establish a hearing protection plan, provide education and training, and supply protective equipment
	Work under sunshine	Heatstroke, heat exhaustion	Install indoor cooling systems, air conditioning, fans, provide water dispensers, schedule work and rest periods
Chemical	Organic solvents	Live and key damage, dermatitis	Limit exposure time, set up local exhaust ventilation systems, supply protective equipment
	Dust	Respiratory irritation, occupational asthma	
Ergonomic	Heavy objects	HIVD	Develop a human-centered hazard prevention plan, limit duration of use, use machinery to replace manual work where possible, advocate for the correct working posture
	Poor posture	Neck and shoulder pain	
Social, physiological	Overwork	Cardiovascular diseases	Establish a plan to prevent illnesses caused by abnormal workloads, control working hours, advocate for the improvement of bad habits, promote correct posture
	Psychological stress	Occupational psychiatric disorders	Implement a prevention and management plan against unlawful infringements in the workplace, station doctors and nurses in the factory for consultation and counseling

Analysis of Work-related Ill Health

TTC is dedicated to occupational safety and health. Based on the Occupational Safety and Health Act, the company has taken preventive measures for operations with health hazards.

Yearly Activities/Measures	Employees		Contractors	
	Male	Female	Male	Female
Number of cases of recordable work-related ill health	0	0	0	0
Number of fatalities as a result of work-related ill health	0	0	0	0

Health Promotion

Beyond its commitment to business management, TTC places significant emphasis on the physical and mental well-being of its employees. Regular events, such as group travel and participation in charitable activities, are organized across all plants. Employees are encouraged to participate actively. Additionally, stationed doctors and nurses offer free medical consultations and health guidance on-site, helping employees understand potential physical or psychological health issues and promoting health management awareness and initiative.

OHS Organization and Operations

TTC's The Linyuan, Qianzhen and Toufen Plant have established labor unions and the "Occupational Safety and Health Committee (OSHC)" have also established in accordance with the "Regulations for Occupational Safety and Health Management," with labor representatives elected or appointed by the union. The committee meets with management every quarter to discuss ESH topics on behalf of employees.

The Zhongshan plant has a dedicated Health and Safety Department responsible for the daily management of occupational health and safety. They hold monthly environmental safety meetings to review issues related to occupational safety management.

In terms of occupational safety committee representation, labor representatives account for 35% in the Qianzhen plant, while other plants have a representation of 33%. A total of 74 OHS proposals were completed in 2023.

Workplace Safety and Health Operations

TTC's Linyuan and Qianzhen plants obtained OHSAS 18001 Occupational Health and Safety Management System certification in July 2001. By August 16, 2020, these plants, including the Toufen plant, successfully transitioned to the ISO 45001 standard. Each plant regularly designates personnel to conduct safety inspections and checks on a weekly basis. Additionally, the company has implemented the "Group Safety and Health Partner Regional Joint Defense" system. This system encourages affiliated enterprises within the group to supervise each other, share experiences, and conduct cross-audits. This approach further solidifies the implementation of safety and health management. In 2023, Qianzhen, Linyuan, and Toufen plants underwent a total of 16 ISO and Group audits.

The Zhongshan plant has not yet adopted the ISO 45001 Environmental Health and Safety Management System. However, it still operates in accordance with relevant occupational safety regulations and the environmental and safety policies of TTC.

In response to the possibility of emergency procedures for raw materials (chemical) leakage, fire, explosions, and earthquakes. In addition, TTC has classified incidents into three levels and has planned different response stages. When the level of an incident rises, the stage of response also rises. The three stages of response are as follows. Each factory, in addition to participating in annual fire drills, also has a yearly emergency response drill plan. The goal is to continuously train staff to become familiar with the emergency handling procedures through regular drills.



The Three-stage Emergency Response Flowchart

Stage 1

- Situation** • Minor leakage or hazardous substances and a minor fire occur within the plant
- Response** • The foreman will be the site commander to instruct personnel within the unit to stop the leakage or fire

Stage 2

- Situation** • Major leakage or hazardous substances and a major fire occur within the plant, the emergency response team of the incident occurring unit cannot effectively control the situation, and it must mobilize the plant's emergency response organization to support the control
- Response** • The foreman on-duty officer mobilizes the emergency response organization according to the alert and reporting procedure based on the request for support of the incident occurring unit.
- Based on the emergency situation, request for support outside of the plant and notify relevant agencies as necessary.
 - Determine the need to immediately shut down plant operations and isolate the incident affected areas.
 - The site commander can be the head of the incident occurring unit or department, until the plant manager or his/her agent takes over the command.
 - Set up a response command center to gather information regarding the latest situation for the chief commander to make decisions and notify the response organization.

Stage 3

- Situation** • An incident may spread outside of the plant and its impact reaches outside the plant.
- Response** • The plant manager or his/her agent becomes the chief commander to command the emergency plan within the plant and report the situation to local competent authorities.
- If the situation runs out of control and may threaten the life of employees, the plant is evacuated.

In addition, plants across Taiwan collaborate with the Taiwan Responsible Care Association (TRCA), the Industrial Safety and Health Promotion Association, and the Pollution Prevention Coordination Group. Through mutual observation and learning in areas such as industrial safety, health, and environmental protection, they aim to enhance the safety and health protections of operational staff. They also annually hold regular emergency response, firefighting drills, and safety education training. In the fiscal year 2023, a total of 113 emergency response and fire drills, and education training sessions were conducted, benefiting 2,565 participants. This training nurtures employees' ability to respond to emergencies and self-manage their safety.

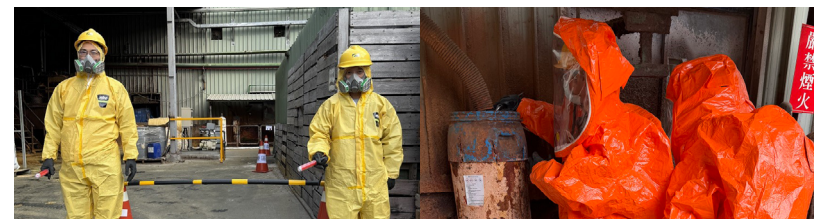
Photos Related to the Emergency Response Drills



Linyuan Plant 2023 Emergency Response Exercise -
Fire Emergency Response Drill for Large-scale Leakage of
Toxic Substances from AN monomer storage tank in Area 11B



Qianzhen Plant 2023 Emergency Response Exercise -
Peroxide Warehouse Fire Emergency Response Drill



Toufen Plant 2023 Emergency Response Exercise -
Ammonia Gas Leak Training



Zhongshan Plant 2023 Emergency Response Exercise -
SM Pipeline Leak Incident Drill

HSE Education

Education, training, and publicity are the fundamentals for promoting HSE awareness to employees and contractors. By establishing relevant management regulations for each plant, TTC provides knowledge and skill training for different categories of employees and contractor personnel based on actual needs. For the fiscal year 2023, the total number of trainees reached 7,151, with a combined training duration of 23,074 hours.

Statistics Table for Environmental, Safety, and Health Training Hours and Number of Different Personnel in 2023

Plant	Linyuan		Zhongshan		Toufen		Qianzhen	
Type	Person	Total hours	Person	Total hours	Person	Total hours	Person	Total hours
New Employee Training	8.0	579.0	6.0	380.0	17.0	51.0	7.0	168.0
On-the-Job Training	2,457.0	8,663.0	1,169.0	4,356.5	589.0	1,821.0	1,768.0	5,258.5
Contractor Personnel	890.0	1,335.0	158.0	237.0	61.0	183.0	21.0	42.0
Total	3,355.0	10,577.0	1,333.0	4,973.5	667.0	2,055.0	1,796.0	5,468.5

Note: Employee on-the-job training courses include: management skills, professional techniques, industrial safety and environmental protection, and others.

Statistics Table for Hours of On-the-Job Employee Training Programs in 2023

Training Programs/ Total Duration	Linyuan Factory	Qianzhen Factory	Toufen Factory	Zhongshan Factory
Managerial Skill	3,357	555	307	1,150
Technical Expertise	222	1,167	219	2,515.5
Industrial Safety and Environmental Protection	1,014	1,921	1,189	965
Other	4,070	713.5	106	628
Subtotal	8,663.0	4,356.5	1,821.0	5,258.5

Photos Related to Safety and Environmental Training



PSM information and MI educational training



Practice educational training on fire-fighting coat, SCBA, and Class A protective suit



Common overload in the workplace -
The Propaganda of Cerebrovascular and Cardiovascular
Diseases Prevention and CPR



Fire safety educational training conducted by National
Fire Agency

Contractor Safety Management

TTC has set regulations for contractor management. These clearly stipulate that contractors must undergo safety education before entering the plant. They are informed about potential hazards to ensure a comprehensive understanding of the safety of the construction environment and safety measures. Only after this training are contractors allowed to work within the facility. Before commencing work, a safety check is implemented to guarantee the security of the work site, fulfilling the responsibility of occupational safety and health management. Random safety checks are conducted during operations. In case of any violation, the contractor is immediately asked to cease construction. They can only resume after necessary improvements are made. Additionally, meetings are held concerning contracted projects, emphasizing clear safety guidelines, precautions, and emergency response measures within the plant area. Through these meetings, bidirectional communication is facilitated to ensure the safety of all contracted operations, thereby reducing the occurrence of accidents.

TTC reported a single contractor incident in 2023 at the Linyuan plant warehouse, where a finished goods collapse resulted in injuries to contractor personnel. The improvement measures are as outlined below:

Accident	Improvement Strategy	Strategy for Tracking Improvement
The Incident of warehouse finished goods collapse resulted in injuries to contractor personnel	Require packaging personnel to ensure the quality of pallet stacking, preventing any leaning occurrences (includes training on finished goods stacking methods, with training assessment records kept). Supply division schedule irregular inspections for warehouse management and division personnel to monitor the placement of finished goods in the warehouse, with immediate correction of any deficiencies observed. For future instances of similar leaning conditions of finished goods, evaluate the use of hydraulic aerial cage to remove goods from above, avoiding operations beneath inclined stacks.	Completed educational training
	Reposition the mechanical arm to reduce the incidence of finished goods leaning forward.	Reposition on the day discover immediately, with further adjustments as needed based on user department circumstances.
	Limit the PUSH PULL (stacking up to 9 layers of finished goods) to a maximum of three layers to reduce the risk of collapse (set up regulatory signs on-site)	Post limit stacking height signs around the warehouse and ensure complete educational training and signature records.

4.3.2. Transportation Safety and Management

Transportation Safety Management for Raw Materials

(1) Tanker Truck Management

Each plant utilizes tanker trucks for the transportation of raw materials. Considering the safety of vehicle transportation, raw material storage, and unloading operations, each plant has established regulations as per their requirements. These regulations cover the transportation of chemical tankers and finished products, raw material storage management, unloading-related operations, and guidelines for operating procedures related to the unloading and storage of tanker or drummed raw materials.

The transportation tankers are qualified tankers for transporting chemical substances; each contractor has good emergency response ability, and well-established emergency response plans. Transportation is implemented according to the relevant control regulations and management measures. Furthermore, due to the classification of acrylonitrile and butadiene as toxic and concerned chemical substances announced by the Ministry of Environment, specific preventative and response plans for transporting these hazardous substances have been established. Additionally, the plants have joined a national cooperative organization that responds to disasters involving toxic and concerned chemical substances, specifically focusing on acrylonitrile and butadiene. In the past three years, there have been no accidents related to tanker transportation at the Linyuan, Qianzhen, Toufen, and Zhongshan plants.

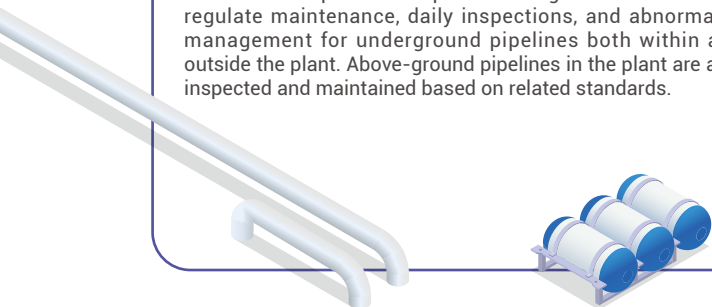


(2) Pipeline Management

Over the past three years, there have been no incidents related to pipeline transportation at the Linyuan, Qianzhen, Toufen, and Zhongshan plants. Safety Management Measures for Above ground and Underground Pipelines at Each Plant:

Linyuan Plant

The underground pipelines transporting butadiene and styrene are located within the Linyuan Industrial Zone, bypassing the Kaohsiung city area. The plant has established a "Raw Material Transportation Pipeline Management Standard" to regulate maintenance, daily inspections, and abnormality management for underground pipelines both within and outside the plant. Above-ground pipelines in the plant are also inspected and maintained based on related standards.



Qianzhen Plant

Styrene is transported directly from CTGDC's tanks to the Qianzhen plant processing area through above-ground pipelines. The entire transportation route is within the boundaries of both plants. A "Maintenance and Management Procedure for SM Transparent Pipes from CTGDC to TTC Process" has been established. Staff from each shift use Personal Digital Assistants (PDAs) for inspections, checking for pipeline leaks. Pipeline thickness is measured annually to evaluate any thinning of the pipe walls. If any irregularities in the styrene transportation process are detected during production, both the Qianzhen plant control room and CTGDC control room have monitoring screens and alarms. Immediate action is taken during abnormalities, and CTGDC personnel will also provide on-site support.

Zhongshan Plant

Above-ground pipelines are inspected by tank area operators for any leaks. There is an underground pipeline between the storage tank area and the processing area that can transport styrene and pentane. According to the "Special Equipment Safety Inspection Regulations", this underground pipeline is classified as a pressure pipeline. The Zhongshan Special Equipment Testing Institute conducts annual online tests on these pressure pipelines. Once thoroughly inspected and approved, a "Special Equipment Use Registration Certificate" is issued by the quality technical supervision department for legal use.



(3) Product Transportation Safety Management

Linyuan Plant

Product transportation safety on roads is entrusted to contracted transporters. Similar to Linyuan, vehicles entering the plant must adhere to related management regulations, and trucks coming in for loading are managed for safety during loading and unloading. Vehicles entering the plant must adhere to related management regulations. Trucks entering the plant for loading are subjected to loading and unloading operations and safety management. Transport contractors must ensure their diesel vehicles have joined the Kaohsiung diesel vehicle self-management system and have obtained the smoke inspection qualification mark before they can operate within the plant.

Qianzhen Plant

The product is granular in appearance. Domestic transportation of bagged products uses standard trucks, while bulk transportation uses specialized tanker trucks. For overseas clients, containerized products are transported to the docks by trailers and then by sea shipping. There's an established "Finished Product Transportation Management Procedure Manual". Annually, audits are conducted on contracted transportation companies. Just like Linyuan, diesel vehicles must be part of the Kaohsiung diesel vehicle self-management system and possess a smoke inspection qualification mark to operate in the plant.

Toufen Plant

Product transportation safety on roads is entrusted to contracted transporters. Similar to Linyuan, vehicles entering the plant must adhere to related management regulations, and trucks coming in for loading are managed for safety during loading and unloading.



Zhongshan Plant

Finished product transportation primarily uses trucks. Detailed regulations and corresponding penalties ensure transportation safety. All vehicles entering the plant must follow entrance-related management regulations, register upon entry, undergo checks, and adhere to safety management for loading and unloading, ensuring safety within the plant premises.

4.4 Social Engagement

TTC adheres to the spirit of "taking from society and giving back to the community," making every effort to care for community neighbors, local groups, and local schools, and continuous interaction with local community neighbors to maintain friendly relations. TTC, with its core capabilities in plastic manufacturing, focuses on three main pillars of social investment: "Neighborhood Care," "Community Organizations," and "Donations and Others." It continues to cooperate with the local elementary schools in Linyuan, implementing air quality improvement, reduce carbon emissions plans, collaborate with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University, committing to a 20-year afforestation project to create 5 hectares of afforestation land project, and host tennis and participating in softball sports events to enhance neighborhood interaction. Additionally, TTC actively participates in joint defense organizations and blood donation drives, etc. The local community care sponsorship for the year 2023 amounts to approximately NT\$1,443 thousand.

Community support

Community development associations, education and culture, environmental protection bureau, community groups, local folk festivities, emergency relief, and air quality purification zone.

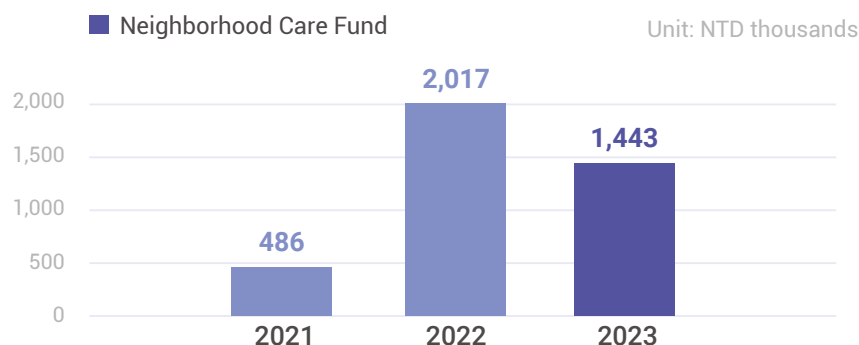
Providing job opportunities

Where appropriate, we hire local residents for job openings and encourage contractors to hire local residents.

Community involvement




Community activities, group representatives, environmental protection groups, religious activities

Care for the Local Community in Linyuan District Summary Table of Local Contributions Over the Past Three Years



Expenditure on local contributions: Starting from 2022, the special fund for the Neighbor Fund is used uniformly by the Linyuan District Office from the annual payment, and the total amount of TTC's Neighbor Fund in 2023 is NT\$1,443 thousand

Overview Table of Specific Activities and Implementation Results of Community Participation and Community Care in 2023

Type	Effect / Implementation Results
 Neighborhood Care	<ul style="list-style-type: none"> Linyuan District neighborhood care celebrations or activities and fraternity training feedback Linyuan District community organization development association and various association study activities feedback TTC Linyuan plant upholding the corporate spirit of ESG sustainability, continues its involvement in Kaohsiung City Environmental Protection Bureau's promote operations in "2023 Air Purification Zone Management Plan" and "Kaohsiung City Cross-Departmental Greenhouse Gas Cooperation Reduction Plan", adopted the Zhongyun Elementary School in Linyuan District, Kaohsiung City and sponsored energy-saving equipment upgrades at Linyuan Senior High School. Repairs to various public facilities in Linyuan District Promoting local customs and marketing agricultural and fishery specialties in Linyuan District
 Communities and Social Groups	<ul style="list-style-type: none"> Jointly hosted the USI Cup Tennis Championship held on December 16, 2023, with 7 employees from the Linyuan plant participating Linyuan plant participated in the Group's Southern Charity Softball Game in July 2023, sponsoring charity meals from the Xihaier Catering Kitchen, with the USI Education Foundation sponsoring NT\$26,400, and various factories donating NT\$3,500 each (totaling NT\$14,000 from four southern factories), using this activity to enhance USIG corporate responsibility towards society and allow employees to participate in charity In 2023, actively participated in regional Enterprise Union and Petrochemical Industry Trade Union slow-pitch softball tournaments, allowing employees to demonstrate their vitality and passion for sports Participation in USIG's Basketball Charity Game, sponsor funds for Kaohsiung Municipal Renwu Senior High School Scholarships and grants for schools at all levels in Linyuan District Received Excellence Award from the Kaohsiung City Environmental Protection Bureau for significant contributions to the adoption of air quality purification zones Received a certificate of honor from the Taiwan Responsible Care Association (TRCA) Assistance to school facilities at all levels in Linyuan District
 Donations and Others	<ul style="list-style-type: none"> Collaborated with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University, committing to a 20-year afforestation project to create 5 hectares of afforestation land TTC was honored with the Taiwan Corporate Sustainability Awards Received a certificate of honor from the Taiwan Responsible Care Association (TRCA) Participated in USI Educational Foundation related activities Temple festival activities and other sponsorships TTC Linyuan plant participated in the blood donation activity

Sponsored the USI Cup Tennis Tournament

Every year, the three factories in the Group's Linyuan area (TTC/Asia Polymer/Taiwan Chlorine) have been continuously commissioned by the Linyuan Tennis Association to host the USI Group Cup Tennis Championship, with each company contributing NT\$100,000 each year to sponsor the Kaohsiung City Linyuan Tennis Association to organize the USI Group Cup Tennis Championship. As of 2023, there have been 21 sessions, promoting sports and fitness, and enhancing interaction with local neighbors and group colleagues. The 21st session was held at the tennis court in Linyuan11hao Park on December 16, 2023, with a total of 7 employees participating from Linyuan plant.



Oration by the Director of the Kaohsiung City Transportation Bureau



Oration by Su-Chien Li, the General Plant Director on behalf of USIG

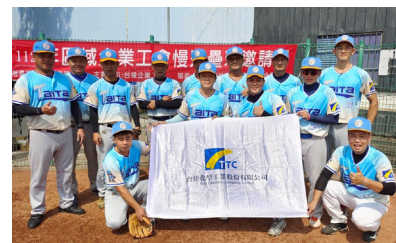
Participation in USI Group's Slow Pitch Softball Charity Game

In November 2023, TTC's Linyuan Factory participated in the Group's Southern Charity Softball Game, sponsoring a charity meal ordering event from Xihaner Catering Kitchen, sponsored by the USI Education Foundation for NT\$26,400, and each factory donated NT\$3,500 (a total of NT\$14,000 from four factories), through this activity to enhance USI Group's corporate responsibility towards society and let employees participate in public welfare activities.



Softball Competition

In 2023, TTC Linyuan plant actively participated in the Industrial Relations Slow-Pitch Softball Invitational, hosted by TSRC's regional enterprise unions and the Kaohsiung City Petrochemical Industry Trade Union. Linyuan plant's softball team enthusiastically participated in various joint softball competitions, demonstrating their vitality and passion for sports.



Participation in USI Group's Basketball Charity Game

On July 1, 2023, the USIG charity basketball game was held at the Kaohsiung Municipal Renwu Senior High School indoor basketball court. This event aimed to enhance the Group's corporate social responsibility and engage employees in charitable activities, raising awareness of grassroots initiatives, and the donation of NT\$2,000 was made to Kaohsiung Municipal Renwu Senior High School.



Participated in a 20-year, 5-hectare new afforestation project in collaboration with the Experimental Forest of the College of Bio-Resources and Agriculture at National Taiwan University, contributing a vibrant green effort to the planet



About 120 colleagues from the USIG (TTC, USI, and APC) participated in an afforestation activity on May 20, 2023

TTC was honored with the Taiwan Corporate Sustainability Awards

On November 15, 2023, the Taiwan Institute for Sustainable Energy Foundation (TAISE) held the "2023 16th Annual TCSA Taiwan Corporate Sustainability Awards" ceremony at the Grand Hotel in Taipei. Over 16 years, a cumulative total of 731 companies have participated in this award. TTC received recognition for its comprehensive performance of enterprise sustainability and was honored with the "Taiwan Top 100 Corporate Sustainability Exemplary Awards". In the category of corporate sustainability report, TTC achieved a Gold Award for "Corporate Sustainability Report Awards".



TTC along with group associated companies USI and APC, received the Taiwan Top 100 Corporate Sustainability Exemplary Awards and the Corporate Sustainability Report Awards. The awards were presented by Ambassador-at-large Eugene Chien, with President Pei-Ji Wu representing the companies to accept the awards.

Participation in Kaohsiung City's Air Quality Purification Zone Adoption

TTC Linyuan plant upholding the corporate spirit of ESG sustainability, continues its involvement in Kaohsiung City Environmental Protection Bureau's promote operations in "2023 Air Purification Zone Management Plan" and "Kaohsiung City Cross-Departmental Greenhouse Gas Cooperation Reduction Plan", sponsored the beautification of the adoption air quality purification zone at Zhongyun Elementary School in Linyuan District of Kaohsiung City.



中華民國112年06月13日

Received Excellence Award from the Kaohsiung City Environmental Protection Bureau for significant contributions to the adoption of air quality purification zones



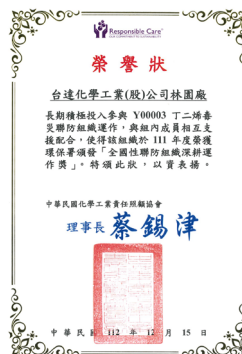
TTC Linyuan plant participated in the blood donation activity-2023.11.27

TTC Linyuan plant participated in a blood donation activity organized by the Linyuan Industrial Park Service Center of Ministry of Economic Affairs and the Kaohsiung Blood Center. Led by the Plant Director, Mr. Tsai and encouraged employees to join the blood donation, demonstrating their love to the community welfare.



Received a certificate of honor from the Taiwan Responsible Care Association (TRCA)

Actively involved in the operation of the Butadiene Toxic Disaster Joint Defense Organization, collaborate and support fellow members.






USI Educational Foundation

USI Educational Foundation was established on December 30, 2011 funded with donations from USI and APC. The foundation officially started operations in 2012 to promote educational charitable affairs, with a focus on the care for the education of the disadvantaged, education in remote areas, and environmental protection. The foundation advances its goals by establishing scholarships and grants, donating to charities, and sponsoring educational and charitable activities.

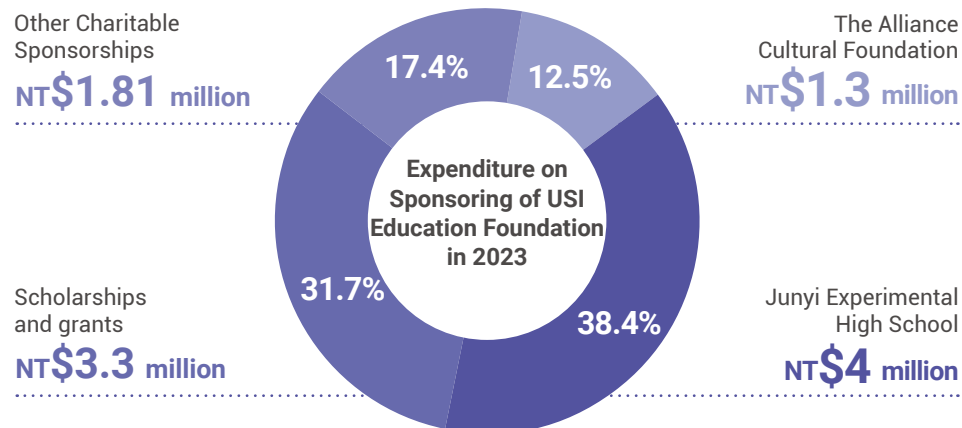
To further expand the scale of charity, CGPC and TVCM joined the foundation in 2017. In 2018, TTC also joined the foundation to enable investments of more resources in rural education and environmental sustainability in order to give back to society.

Major Sponsorships in 2023

 <h3>Scholarships and Grants</h3> <p>Excellence Scholarships Artificial Intelligence Field Scholarships</p>	 <h3>Donation to Non-profit Organizations</h3> <p>The Alliance Cultural Foundation Junyi Experimental High School Teach for Taiwan Foundation BOYO Social Welfare Foundation</p>	 <h3>Sponsoring Educational and Philanthropic Activities</h3> <p>Toufen Junior High School Music Program Beach Cleanup Activity at Longfong Fishing Port Non-Profit Events of Medical and Health Education Epidemic Prevention Equipment for Medical Teaching Venues</p>
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Expenditure on Sponsoring of USI Education Foundation in 2023

In 2023, the total amount of sponsorships and donations from the USI Education Foundation came to NT\$10.41 million, which included NT\$3.3 million for scholarships and grants; NT\$1.3 million for The Alliance Cultural Foundation, NT\$4 million for Junyi Experimental High School in Taitung; and NT\$1.81 million for various other charity events.



Excellence Scholarships

We offer scholarships to students from low-income families with outstanding performance and specializing in disciplines relating to chemical engineering, materials science, chemistry, and applied chemistry of 15 public and private universities to promote education and talent cultivation in related fields, encourage university students of related disciplines to study hard and cultivate outstanding industrial talents for society. This year marked the 12th anniversary of USI scholarship. Over the years, we have accumulatively granted scholarships amounting to NT\$20 million to over 300 students.

In 2023, we offered over NT\$3 million in total to 30 students from 17 departments of 11 public and private universities, including 9 from doctoral programs, 10 from master's programs, and 11 undergraduates - 23 of them were from low-income families. To encourage scholarship-winning students, the presentation and commendation ceremony was held at Taipei Marriott Hotel on December 8, 2023. USI officers attended the event to exchange opinions and experience with students, wishing them to keep studying in order to demonstrate positive influence and contribute to society. Finally, Chairman Chang-Shou Yan of the Alliance Cultural Foundation shared his life experience and wisdom, encouraging the awardees to "learn to be a person, learn to live, learn to work", to be "ordinary but not mediocre", and to have the power to enrich their own lives.



Scholarship Presentation and
Commendation Ceremony 2023



Scholarship Presentation and
Commendation Ceremony 2023



Chairman Chang-Shou Yan of
the Alliance Cultural Foundation
encouraged the awardees

Artificial Intelligence Field Scholarships

To encourage outstanding domestic graduate students to participate in research and development applications in the field of artificial intelligence (AI), bridge the gap between academia and industry, and to cultivate chemical industry talents specializing in AI. The foundation has specifically set up this plan to reward masters and doctoral students whose research topics focus on intelligent production systems, process control, and AI applications aimed at saving energy and costs. The pilot program started in 2022 with a duration of five years. Each awarded student receives a scholarship of NT\$50,000 per semester and can receive continuous support for up to four semesters through regular reviews. So far, a total of 4 students have been awarded.



AI Scholarship Presentation Ceremony

The Alliance Cultural Foundation

To invest more resources in rural education and the sustainable development of Hualien and Taitung, the foundation sponsors the Alliance Cultural Foundation and Junyi Experimental High School on a long-term basis. After overcoming the challenges of the pandemic, the Alliance Cultural Foundation in 2023 not only gradually resumed various projects, but also actively moved towards the "Sustainable Blueprint of Hualien and Taitung" based on past achievements.

The "Sustainable Blueprint of Hualien and Taitung" is tightly connected among the Alliance Cultural Foundation, Taitung Junyi Experimental High School, and the Paul Chiang Art Center. They fully integrate talents and resources to maximize effectiveness. The mission of the Alliance Cultural Foundation is to support the inheritance of indigenous cultures, encourage young people to return to their hometowns, establish local talent, provide resources for skill cultivation, and establish an "ecosystem for a slow pace life between mountains and oceans". On the other hand, Junyi School attempts to improve teachers' professionalism and let students interact with the world by integrating local advantages and sharing the philosophy and practices of the Junyi experimental education. They aim to establish an "educational ecosystem for innovative teaching" and provide a structural approach for establishing innovative models in remote educational areas. The "Paul Chiang Art Center" actively assisted by the Alliance Cultural Foundation in its preparation, is expected to open next autumn. It is hoped that it will become an art landmark connecting the local area with the international community and attract international travelers who have a passion for art and nature to appreciate the uniqueness and diversity of Taitung.



Promotion of Paul Chiang Art - Into Paul Chiang

Taitung Junyi Experimental High School

One of the missions of the Junyi School is to become a base for experimental education in remote townships. The experimental education curriculum is designed with an overall consideration of global educational trends and the uniqueness of the local environment in Hualien and Taitung. The elementary department starts from the Waldorf educational concept, allowing children to learn the ability to perceive art and aesthetics, as well as the ability to live in harmony with nature, from extensive hands-on practice. The senior high school department emphasizes interdisciplinary courses, cultivating students' innovative thinking and problem-solving abilities through experimental courses like "Life Exploration", "Art and Humanities", and "Creativity Module" (including International Hospitality, Contemporary Art, and Green Energy Architecture).



Junyi School's 2023 Middle School
Graduation Performance



Junyi 2023 Art Festival and Thanksgiving
Dinner

Toufen Junior High School Music Program

By integrating with the Harvest 365 Music Program of the Harvest 365 Foundation (Harvest 365), The Alliance Cultural Foundation collaborated with Toufen Junior High School to introduce the Toufen Junior High School Music Education Program in September 2021. The professional choir instructors of Harvest 365 collaborated with the music teachers of Toufen Junior High School to form the Harmony Choir with 7th and 8th graders. The choir has nearly 30 members. Apart from the routine school club time, they also practice after class. It is hoped that vocal art can keep students in company through their growth and motivate students to perform on stage at the annual Harvest 365 music festival so as to develop self-confidence in students.



Harmony Choir of Toufen Elementary High School Music Camp



Summer Camp - 2023 Huatung Youth Choral Music Camp

In order to enable Junyi School to serve more students from remote townships, Junyi connects resources and utilizes its campus to host various residential summer camps. This initiative offers children in Hualien and Taitung easy access to diverse learning styles beyond their usual routines. It also allows collegiate volunteers and instructors from all over Taiwan to learn reciprocally with their students as they build connections with Taitung through life experiences. In 2023, there were five camps, including "Huatung Youth Choral Music Camp", "Fruit Art Creation Camp", "Huatung English Art Life Camp", "A Cappella Youth Camp", and "VAFex Vocal Art Camp". Including students, volunteers, and instructors, there were about 800 people in total.



Beach Cleanup Activity at Longfong Fishing Port

In support for the marine environmental protection policy of the Miaoli Environmental Protection Bureau, China General Plastics Corporation (CGPC), a USIG subsidiary, adopted 500m coast of Long Fong Fishing Port in Zhunan Town in 2017. The employees have raised environmental awareness and the topic of ecological impact from marine debris through beach cleanup activities, reflecting on ways to reduce marine debris in daily life and contributing to environmental conservation.

In response to World Cleanup Day, this year CGPC joined forces with TTC Toufen plant to conduct the "Today I shield the planet, initiating with a beach cleanup for net zero plan" environmental protection activities on September 16, 2023, to maintain the cleanliness of marine environments. This year is marked as the sixth beach cleanup activities organized by CGPC, under the leadership of Vice Chairman and General Manager Han-Fu Lin of CGPC, with over 200 employees enthusiastically participated in the cleanup.



Pictures from the "Today I shield the planet, initiating with a beach cleanup for net zero plan" beach cleanup activity



BOYO Social Welfare Foundation

Founded in 2002, BOYO Social Welfare Foundation provides free "remedial instruction" after-school club services for junior high school and elementary school students from low-income families. Additionally, the foundation also provides "care guidance" to remedy learning instability for each child from vulnerable groups to receive an appropriate education environment. The goal of these initiatives is to help these children develop their basic capabilities and social competitiveness, providing them with the opportunity to escape poverty in the future. Since BOYO Social Welfare Foundation was established more than 20 years ago, each year it invests a large amount of labor and resources in curriculum design, develops remedial teaching materials, and trains parents in the community. Currently, there are 17 locations to provide after-school club service for over 2,000 students.

Teach for Taiwan Foundation

Founded in 2013, Teach for Taiwan (TFT) is a non-profit organization caring for "education inequity", hoping to create equal opportunities in education for every child. Through training competent youth to teach at elementary schools in rural communities for at least two years resolves the long teacher shortage and high turnover rate problems in the rural area. To date, 355 quality talents have been dispatched to remote townships, touching down in Taitung, Tainan, Pingtung, Yunlin, Hualien, Nantou, and more. They have positively impacted over 6,700 disadvantaged students.

Non-profit Events of Medical and Health Education

Due to the pandemic, university and college clubs have struggled to organize camp activities over the past two years. However, as the epidemic has eased, club activities have begun to resume. To encourage medical universities to hold camps, reaching out to remote townships with lack of medical resources, promoting medical care, health education and other charitable services, the foundation sponsored part of the activities' expenses for six medical missions to provide voluntary medical check-ups and health education services in remote townships. The participation count for the six camps has exceeded 300, serving more than 2,400 people.

School	Club	Location	Number of Participants	Number of Service
Taipei Medical University	Maple Forest Happiness Service Group	Kinmen	34	170
	Green Cross Medical Service Team	Shuilin Township, Yuanchang Township, Yunlin County	116	217
	114 Medical Service Team	Beigan Township, Nangan Township, Dongyin Township, Juguang Township	35	311
	Hsing Ching Recreational Guidance / Social Medical Art Service Team	Jinfeng Township, Taitung County	41	225
	Mountain Social Medical Service Group	Ren'ai Township, Nantou County	70	1,000+
China Medical University	Medical Services Team	Fengbin Township, Hualien County	26	500+

Non-profit Events of Medical and Health Education



Taipei Medical University Green Cross Medical Service Team - Clinical team members interpreting ECGs at the volunteer clinic



Taipei Medical University Green Cross Medical Service Team - 2023 Summer Volunteer Medical Services in Sihui, Yunlin



Taipei Medical University 114 Medical Service Team - Beigan Volunteer Clinic

Epidemic Prevention Equipment for Medical Teaching Venues

To strengthen epidemic prevention and public health in medical education settings and to protect doctors, nurses, medical interns, and patients from exposure to high-infection-risk environments, the Foundation donated "UVC Ultraviolet Central Air Conditioning Sterilizers", which can effectively control the amount of airborne bacteria, to Taipei Medical University. These devices have been installed in the examination rooms, waiting areas, and restrooms of the Orthopedic Outpatient Area on the first floor of the First Medical Building of Taipei Medical University Hospital. The UVC sterilizer is installed in the air conditioning duct, not irradiating towards the human body, but directly disinfecting the air. Through continuous circulation of air in the air conditioning duct, it effectively kills bacteria in the air, which can effectively enhance the safety of medical and teaching environments.



UVC is installed in the central AC ductwork



Orthopedic Waiting Area of the Taipei Medical University Hospital (UVC light for central air conditioner)



Appendices

GRI Content Index	118
Chemical Industry SASB Index	122
Sustainability Disclosure Indicators - Plastics Industry	123
Climate-related Financial Disclosures	123
UN Sustainable Development Goals (SDGs) Content Index	127
External Assurance Report	128



GRI Content Index

Usage Statement	[TTC] has followed the GRI standards to report the content for the period [January 1, 2023, to December 31, 2023].
Used GRI	GRI 1: Base 2021

GRI 2: General Disclosures 2021					
GRI Standards		Disclosure Item	Chapter	Page	Annotations
The Organization and its Reporting Practices	2-1	Organizational details	Our Value Chain	9	
	2-2	Entities included in the organization's sustainability reporting	About this Report	2	
	2-3	Reporting period, frequency and contact point	About this Report	2	
	2-4	Restatements of information		-	No restatements of information for the year
	2-5	External assurance	About this Report Appendix - External Assurance Report	2 128	
Activities and Workers	2-6	Activities, value chain and other business relationships	Our Value Chain	9	
	2-7	Employees	4.1 Talent Attraction and Retention	88	
	2-8	Workers who are not employees	4.1 Talent Attraction and Retention	89	
Governance	2-9	Governance structure and composition	1.1.2 Board Composition and Operation	25	
	2-10	Nomination and selection of the highest governance body	1.1.2 Board Composition and Operation	25	
	2-11	Chair of the highest governance body	1.1.2 Board Composition and Operation	25	
	2-12	Role of the highest governance body in overseeing the management of impacts	1.1.2 Board Composition and Operation	25	
	2-13	Delegation of responsibility for managing impacts	1.1.2 Board Composition and Operation	25	
	2-14	Role of the highest governance body in sustainability reporting	1.1.2 Board Composition and Operation	25	
	2-15	Conflicts of interest	1.1.2 Board Composition and Operation	28	
	2-16	Communication of critical concerns	Sustainable Vision and Business Strategy	6	
			1.1.2 Board Composition and Operation	31	
	2-17	Collective knowledge of the highest governance body	III. Performance of The Board Member Expertise Diversification Policy	26	
	2-18	Evaluation of the performance of the highest governance body	1.1.2 Board Composition and Operation	29	
	2-19	Remuneration policies	1.1.2 Board Composition and Operation	32	
	2-20	Process of determining remuneration	1.1.2 Board Composition and Operation	32	
	2-21	Annual total compensation ratio	1.1.2 Board Composition and Operation	32	

GRI 2: General Disclosures 2021					
GRI Standards		Disclosure Item	Chapter	Page	Annotations
Strategy, Policies and Practices	2-22	Statement on sustainable development strategy	Sustainable Vision and Business Strategy	6	
	2-23	Policy commitments	Sustainable Vision and Business Strategy	6	
			4.1 Talent Attraction and Retention	92	
	2-24	Embedding policy commitments	Sustainable Vision and Business Strategy	6	
			4.1 Talent Attraction and Retention	92	
	2-25	Processes to remediate negative impacts	Material Topics Management	16	
			3. Material Topics and Value Chain	34, 60, 72, 87, 100	
	2-26	Mechanisms for seeking advice and raising concerns	1.4.1 Code of Conduct	40	
Stakeholder Engagement	2-27	Legal compliance	1.4.1 Code of Conduct	40	
	2-28	Membership of associations	Our Value Chain	9	
	2-29	Approach to stakeholder engagement	Stakeholder Engagement	11	
	2-30	Collective bargaining agreements	---	95	No collective agreement with the labor union

GRI 3: Material Topics 2021					
GRI Standards		Disclosure Item	Chapter	Page	Annotations
Disclosure of Material Topics	3-1	Process of determining material topics	Material Topics Management	16	
	3-2	List of material topics	Material Topics Management	16, 19	
	3-3	Management of material topics	Management of Various Material Topics	34, 43, 49, 60, 72, 76, 81, 87, 100	

Topic-specific Disclosures						
Material Topics	Management Approach and Disclosures				Page	Annotations
Category: Governance						
Economic Performance	GRI 201: Economic Performance 2016	Specific Topics	201-1	Direct Economic Value Generated and Distributed	34	
			201-2	Financial Implications and Other Risks and Opportunities Due to Climate Change	60	
			201-3	Defined Benefit Plan Obligations and Other Retirement Plans	92	
			201-4	Financial Assistance Received from Government	36	
Technology R&D		Self-defined Topics			49	
Product Quality		Self-defined Topics			43	
Category: Environmental						
Climate Change and Energy Management	GRI 302: Energy 2016	Specific Topics	302-1	Energy Consumption Within the Organization	67	
			302-2	Energy Consumption Outside of the Organization	-	Data Unavailable
			302-3	Energy Intensity.	67	
			302-4	Reduction of Energy Consumption.	67	
			302-5	Reductions in Energy Requirements of Products and Services	-	N/A
	GRI 305: Emissions 2016	Specific Topics	305-1	Direct (Scope 1) Greenhouse Gas (GHG) Emissions	68	
			305-2	Energy Indirect (Scope 2) Greenhouse Gas (GHG) Emissions.	68	
			305-3	Other Indirect (Scope 3) GHG Emissions	68	
			305-4	Density of GHG Emissions	69	
			305-5	Reduction of GHG Emissions	70	
Water Management	GRI 303: Water and Effluents 2018	Specific Topics	303-1	Interactions with Water as a Shared Resource	73	
			303-2	Management of Water Discharge-Related Impacts	74	
			303-3	Water Withdrawal	73	
			303-4	Water Discharge	75	
			303-5	Water Consumption	73	
Waste Management	GRI 306: Waste 2020	Management approaches	305-6	Emissions of Ozone-Depleting Substances	-	No relevant emissions in the process, not applicable
			305-7	Nitrogen Oxides (Nox), Sulfur Oxides (Sox), and Other Significant Gas Emissions	78	

Topic-specific Disclosures						
Material Topics	Management Approach and Disclosures				Page	Annotations
Category: Environmental						
Waste Management	GRI 306: Waste 2020	Management approaches	306-1	Waste Generation and Significant Waste-Related Impacts	81	
			306-2	Management of Significant Waste-Related Impacts	81	
		Specific Topics	306-3	Waste Generated	81	
			306-4	Waste Diverted from Disposal	82	
			306-5	Waste Directed to Disposal	82	
Category: Society						
Talent Attraction and Retention	GRI 401: Employment 2016	Specific Topics	401-1	New Employee Hires and Employee Turnover	90	
			401-2	Benefits Provided to Full-Time Employees (Excluding Temporary or Part-time Employees)	92	
			401-3	Parental Leave	92	
OH&S	GRI 403: Occupational Health and Safety 2018	Management approaches	403-1	Occupational Health and Safety Management System	101	
			403-2	Hazard Identification, Risk Assessment, and Incident Investigation	101	
			403-3	Occupational Health Services	103	
			403-4	Worker Participation, Consultation, and Communication on Occupational Health and Safety	104	
			403-5	Worker Training on Occupational Health and Safety	106	
			403-6	Promotion of Worker Health	103	
			403-7	Prevention and Mitigation of Occupational Health and Safety Impacts Directly Linked by Business Relationships	103	
		Specific Topics	403-8	Workers Covered by an Occupational Health and Safety Management System	101	
			403-9	Work-related injuries	102	
			403-10	Work-Related Illnesses	104	

Chemical Industry SASB Index

SASB Indicators	Code	Category Description	Metric Data	Corresponding Section	Page
Greenhouse Gas Emissions	RT-CH-110a.1	(1) Scope 1 GHG emissions (tCO ₂ e): (2) Percentage (%) of Category 1 Greenhouse Gas Emissions Regulated by Emission Limitation Regulations	(1) 15,788 (2) NA	3.2.3 GHG Management	68
	RT-CH-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			
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants (kg): (1) Nox (2) Sox (3) VOCs (4) HAPs	(1) 17601.5 (2) 2836.81 (3) 57103.6 (4) -	3.4 Air Pollution Control	78
	RT-CH-130a.1	(1) Total consumed energy (GJ) (2) Grid electricity usage ratio (%) (3) Renewable energy usage ratio (%) (4) Self-produced energy (GJ)	(1) 809,083 (2) 44.57 (3) 0 (4) 0	3.2.2 Energy Usage and Management	67
Water Management	RT-CH-140a.1	(1) Total Water Intake (Million Liters) (2) Total Water Consumption (Million Liters) (3) Percentage of each in regions with high or extremely high baseline water stress and the proportion of (1) and (2)	(1) 928 (2) 316 (3) 0	3.3.1 Water Resources Management	73
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	-		
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	-		
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated; percentage recycled	0	3.5 Waste Management	84
Labor Health and Safety	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) formula: (Number of Incidents x 200,000)/Total Hours Worked; (2) fatality rate for (a) direct employees and (b) contract employees	(1) 0 (2) 0	4.3.1 Occupational Safety and Health	102 104
	RT-CH-320a.2	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks			
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.1	Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances; and the percentage (%) of related products underwent hazard analysis.	-	None of our products contain GHS hazardous chemicals.	-
	RT-CH-410b.2	Discussion of strategy to manage chemicals of concern and develop alternatives with reduced human and/or environmental impact			
Genetically Modified Organisms	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	-	No genetically modified products produced by the company.	-
Management of the Legal & Regulatory Environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	-	1.4 Ethical Corporate Management	39
Operational Safety and Emergency Response	RT-CH-540a.1	Process Safety Incident Count (PSIC), Process Safety Incident Rate (PSTIR), Process Safety Incident Severity Rate (PSISR).	0	4.3.1 Occupational Safety and Health	102
	RT-CH-540a.2	Number of transport incidents	0		

Sustainability Disclosure Indicators - Plastics Industry

No.	Unit of Measure	Category	Annual Disclosure	Unit	Corresponding Section	Page
I.	Total energy consumption, percentage of purchased electricity, utilization rate (renewable energy/total energy), and total self-generated and self-use energy	Quantitative	Total energy consumption: 809,083 Percentage of purchased electricity: 44.57% Utilization rate (renewable energy/total energy): 0 Total self-generated and self-use energy: 0	Gigajoules (GJ), Percentage (%), Percentage (%), Gigajoules (GJ)	3.2.2 Energy Usage and Management	66
II.	Total water withdrawn and total water consumption	Quantitative	Total water withdrawn: 928 Total water consumed: 316	thousand M ³	3.3.1 Water Resources Management	72
III.	Total general and hazardous waste generated, and percentage recycled	Quantitative	Total hazardous waste generated: 0 Percentage recycled: Not applicable	Tons, (%)	3.5 Waste Management	81
IV.	Number of employees in and rate of occupational accidents	Quantitative	Occupational accident count: 0 Rate: 0	persons, percentage (%)	4.3.1 Occupational Safety and Health	100
V.	Production by product category	Quantitative	Linyuan Plant ABS: 83,809 Qianzhen Plant EPS: 57,600 Qianzhen Plant GPS: 96,997 Toufen Plant GW: 8,972 Zhongshan Plant EPS: 126,926	Tons	2.1.1 Sales Regions for Major Products	44

Climate-related Financial Disclosures

No.	Item	Implementation Status
1	Describe the board's oversight of climate-related risks and opportunities.	At TTC, the ESG Committee is the highest governance body of climate management under the Board of Directors. Chaired by independent directors, the committee reviews the Company's climate change strategies and targets every year, manages the actions and reviews the performance in climate change risks and opportunities, and reports to the Board.

No.	Item	Implementation Status			
2	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Based on the likelihood and impact of climate-related risks and opportunities, we identified 11 material climate topics (1 physical risk, 5 transition risk, and 5 opportunities), and assess the duration of impact and potential financial impacts as tabulated below:			
		Type	Item	Duration	
		Physical risk	Drought	Short-term (<3 years)	
		Transition risk	Government regulation or supervision - Levy of water conservation	Short-term (<3 years)	
			Carbon fee	Short-term (<3 years)	
			Renewable energy regulations - Risk of energy-heavy industries clause	Short-term (<3 years)	
			Transition of low-carbon technology	Short-term (<3 years)	
			Increased raw materials price	Short-term (<3 years)	
		Type	Item	Developmental	Technical Feasibility
		Opportunity	High-efficiency production	Progressive and aligned with the existing policies of the company	Expanding development
			Recycling and reuse - Circular Economy	Progressive and aligned with the existing policies of the company	Expanding development
			Reduce water use and water consumption	Progressive and aligned with the existing policies of the company	Matured
			Use low-carbon energy	Progressive and aligned with the existing policies of the company	Matured
			R&D and innovation of new products and services - research and development of low-carbon and energy-saving products	Progressive and aligned with the existing policies of the company	Expanding development

No.	Item	Implementation Status		
3	Describe financial impacts of extreme weather events and transition actions.	The financial impacts of extreme weather events and transition actions are tabulated below:		
		Type	Related Item	Potential Financial Risk
		Physical risk	Drought	Increase in operating costs
		Transition risk	Levy of water conservation	Increase in operating costs
			Carbon fee	Upfront costs were high, while later carbon emissions were low and operating costs were reduced
			Risk of energy-heavy industries clause	Increase in operating costs
			Transition of low-carbon technology	Increased capital expenditure and decreased in operating costs
			Increased raw materials price	Increase in operating costs
		Opportunity	High-efficiency production	Increased capital expenditure and decreased in operating costs
			Recycling and reuse - Circular Economy	Increase in revenue
			Reduce water use and water consumption	The early investment cost of water conservation technology is high
			Use low-carbon energy	Increase in operating costs, reduction in carbon fees
			R&D of low-carbon and energy-efficient products	Increase in revenue
4	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	TTC based on the framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD), we identify climate-related risks and opportunities, assess risks and opportunities from different departments, assess financial impacts and set responsive plans, plan overall assessment every three years, and review updates every year.		

No.	Item	Implementation Status
5	When assessing the resilience taking into consideration different climate-related scenarios, state the input parameters, assumptions, and analytical choices for the scenarios used, and critical financial impacts.	No scenario analysis has been used for assessing the resilience in climate-related risks. We will include scenario analysis in two years.
6	If transition plans are used in climate-related risk management, state the contents of such plans and the metrics and targets used to identify and manage physical risks and transition risks.	Promotion plans include: Equipment replacement and upgrade, construction of renewables facilities, optimization of production scheduling, planning building aircon, energy management systems, extreme weather events contingency plans. Please refer to Section 3.2 of this report for the details.
7	If internal carbon pricing is the planning tool, state the basis of the pricing system.	TTC evaluates the use of internal carbon pricing as a shadow price, incorporating carbon costs into investment assessments to increase the execution opportunities of carbon reduction items.
8	If climate-related targets are set, state the activities, scopes of GHG emissions, planning period, and annual targets. If the relevant targets are achieved with the renewable energy certificates (RECs), state the sources and quantity of the carbon credit of such RECs or the quantity of RECs.	We set 2017 as the base year, with a mid-term goal of reducing 27% carbon emissions by 2030 and a long-term goal to achieve carbon neutrality by 2050. Every year we disclose the data of Scopes 1, 2, and 3 GHG emissions in the ESG report and review the achievement progress periodically. No REC has been used for carbon reduction so far.
9	GHG inventory and verification.	Please refer to Section 3.2.3 for the details of GHG inventory.

UN Sustainable Development Goals (SDGs) Content Index

Material Topics		SDG Targets		Page	Corresponding Section
Governance	Economic Performance		8.2 Enhance economic capacity through diversification, technological upgrading, and innovation, including focusing on high value-added and labor-intensive industries.	34	1.2 Economic Performance
	Technology R&D		9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency, and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	49	2.2 Technology R&D
	Product Quality		12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.	43	2.1 Product Quality
Environment	Climate Change and Energy Management		13.3 Enhance education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.	60	3.2 Climate Change and Energy Management
	Water Management		6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.	72	3.3 Water Resources Management
	Air Pollution Control		11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, urban administration, and waste management.	76	3.4 Air Pollution Control
	Waste Management		12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.	81	3.5 Waste Management
Social	Talent Attraction and Retention		8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, particularly women, and those in precarious employment.	87	4.1 Talent Attraction and Retention
	OH&S		3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution as well as other contamination.	100	4.3 Occupational Safety and Health

External Assurance Report


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INDEPENDENT AUDITORS' LIMITED ASSURANCE REPORT

ACME Electronics Corporation

We have undertaken a limited assurance engagement on the selected performance indicators in the Sustainability Report ("the Report") of ACME Electronics Corporation ("the Company") for the year ended December 31, 2023.

Subject Matter Information and Applicable Criteria

See Appendix 1 for the Company's selected performance indicators ("the Subject Matter Information") and applicable criteria.

Responsibilities of Management

The management of the Company is responsible for the preparation of the Subject Matter Information in accordance with Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies, Universal Standards, Sector Standards and Topic Standards published by the Global Reporting Initiative (GRI), and the criteria specifically designed by the Company, and for such internal control as management determines is necessary to enable the preparation of the Subject Matter Information that are free from material misstatement resulted from fraud or error.

Auditors' Responsibilities

Our responsibility is to plan and conduct our limited assurance engagement in accordance with Standard on Assurance Engagement 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the Accounting Research and Development Foundation of the Republic of China to issue a limited assurance report on whether the Subject Matter Information (see Appendix 1) is free from material misstatement. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and, therefore, a lower assurance level is obtained than a reasonable assurance.

We based on our professional judgment in the planning and conducting of our work to obtain evidence supporting the limited assurance. Because of the inherent limitations of any internal control, there is an unavoidable risk that even some material misstatements may remain undetected. The procedures we performed include, but not limited to:

- Inquiring of management and the personnel responsible for the Subject Matter Information to obtain an understanding of the policies, procedures, internal control, and information system relevant to the Subject Matter Information to identify areas where a material misstatement of the subject matter information is likely to arise.
- Selecting sample items from the Subject Matter Information and performing procedures such as inspection, re-calculation, and observation to obtain evidence supporting limited assurance.

- 1 -

Inherent Limitations

The Subject Matter Information involved non-financial information, which was subject to more inherent limitations than financial information. The information may involve significant judgment, assumptions and interpretations by the management, and the different stakeholders may have different interpretations of such information.

Independence and Quality Control

We have complied with the independence and other ethical requirements of the Norm of Professional Ethics for Certified Public Accountant in the Republic of China, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies Standard on Quality Management 1 "Quality Management for Public Accounting Firms" issued by the Accounting Research and Development Foundation of the Republic of China, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Subject Matter Information is not prepared, in all material respects, 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 applicable criteria after the issuance date of this report.

The engagement partner on the limited assurance report is Chang, Cheng-Hsiu.

Deloitte & Touche
Taipei, Taiwan
Republic of China

August 1, 2024

Notice to Readers

For the convenience of readers, the independent auditors' limited assurance report and the accompanying summary of subject matter information have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' limited assurance report and summary of subject matter information shall prevail.

- 2 -

APPENDIX

SUMMARY OF SUBJECT MATTER INFORMATION

#	Subject Matter Information	Corresponding Section	Applicable Criteria	Industry-specific Disclosures of the Sustainability Metrics Describe in the Rules Governing the Preparation and Filing of Sustainability Reports - Electronic Parts and Components Industry
1.	Taoyuan Plant, Kunshan Plant, and Guangzhou Plant: In 2023, the total energy consumption was 344,162.85 GJ, percentage of purchased electricity was 79.02%, and utilization rate (renewable energy/total energy) was 1.4%.	5.3 Sustainability Disclosure Indicators - Electronic Parts and Components Industry	Total energy consumption, percentage of purchased electricity, and utilization rate (renewable energy/total energy)	Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies, Article 4, Paragraph 3, Appendix 1-12, No. 1
2.	Taoyuan Plant, Kunshan Plant, and Guangzhou Plant: In 2023, total water withdrawn was 313.72 thousand m ³ , and total water consumption was 193.88 thousand m ³ .	5.3 Sustainability Disclosure Indicators - Electronic Parts and Components Industry	Total water withdrawn and total water consumption	Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies, Article 4, Paragraph 3, Appendix 1-12, No. 2
3.	Taoyuan Plant, Kunshan Plant, and Guangzhou Plant: In 2023, total general waste generated was 2,133.801 tons, and percentage recycled was 96.58%. Total hazardous waste generated was 89.197 tons, and percentage recycled was 71.54%.	3.1.3 Waste reduction and recycling/ 5.3 Sustainability Disclosure Indicators - Electronic Parts and Components Industry	Total general and hazardous waste generated, and percentage recycled	Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies, Article 4, Paragraph 3, Appendix 1-12, No. 3
4.	Taipei Headquarters, Taoyuan Plant, Kunshan Plant, and Guangzhou Plant: In 2023, the number of employees in occupational accidents was 0 person, and the rate of occupational accidents was 0%.	5.3 Sustainability Disclosure Indicators - Electronic Parts and Components Industry	Types of, number of employees in and rate of occupational accidents	Taipei Exchange Rules Governing the Preparation and Filing of Sustainability Reports by TPEX Listed Companies, Article 4, Paragraph 3, Appendix 1-12, No. 4
5.	Taipei Headquarters, Taoyuan Plant, Kunshan Plant, and Guangzhou Plant: As of December 31, 2023, the proportion of female managements was 22.22%.	4.1 Talents attraction and retention	Proportion of female managements = (Number of female managements)/(Total number of managements as of December 31, 2023) (%). Managements were defined as at the section chiefs level or above.	Not applicable



Taita Chemical Company, Limited

