泰銘實業股份有限公司

THYE MING INDUSTRIAL CO., LTD.

2024

Sustainability Report

永續報告書

股票代碼：9927

泰銘實業股份有限公司
THYE MING INDUSTRIAL CO., LTD.

2024 Sustainability Report

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About This Report

Basis of Preparation

This report is prepared in response to the United Nations Sustainable Development Goals (SDGs) and follows the core option of the GRI Sustainability Reporting Standards 2021 (GRI Standards 2021) published by the Global Reporting Initiative (GRI). Concurrently, the report is compiled and information is disclosed in accordance with the Sustainability Accounting Standards Board (SASB) for the "Metals & Mining" industry within the "Extractives & Minerals Processing" sector, as well as the Task Force on Climate-related Financial Disclosures (TCFD).

Reporting Period and Frequency

This report covers the performance of Thye Ming Industrial Co., Ltd. as a single entity in the economic, social, and environmental aspects for the year 2024 (January 1 to December 31, 2024). Thye Ming Industrial Co., Ltd. issues this report independently.

Current Report Issuance Date: August 2025

Next Report Issuance Date: August 2026

Report Boundary and Scope

Thye Ming Industrial Co., Ltd. Main Plant - No. 6, Juguang 3rd St., Daliao Dist., Kaohsiung City.

External Assurance/Verification

None

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Message from Management

Our company was established in 1983. Our main operations include importing pure lead ingots, manufacturing litharge (yellow lead oxide) and red lead oxide, and recycling domestic waste lead-acid batteries and lead dross to produce lead ingots for both domestic and international markets.

In response to climate change, we address pollution sources generated during our processes. On the immediate front, we install or improve pollution control equipment and enhance operator training to continuously reduce pollution. On the fundamental front, we implement radical waste reduction measures in the process of smelting wastewater and waste lead to achieve environmental protection and generate profit.

Potential safety and health risks within the plant are managed in accordance with occupational safety and health and fire safety regulations. To ensure the physical and mental well-being of our workers, we strive to create and continuously improve the workplace environment to reduce the risks of occupational injuries and illnesses arising from physical, chemical, biological, ergonomic, and psychosocial hazards associated with our activities, products, and services.

Under the consensus management of all employees, our company operates on the principle of integrity, with concrete actions and a pragmatic commitment to self-improvement. We aim for continuous improvement in quality and the sustained enhancement of customer satisfaction, striving for excellence in quality and perpetually leading in service.

Since its establishment, Thye Ming has been committed to becoming a leader in the "lead ingot" metal industry. Our primary focus is on recycling domestic waste lead-acid batteries and lead dross to re-manufacture lead ingots. After more than a decade of effort, we officially registered our product as an LME-certified brand in 1999 and were listed on the Taiwan Stock Exchange in the same year. When a company reaches a certain scale, brand development is a long-term investment for us. We aspire to stand on the same starting line as our international competitors, which will enable Taiwanese businesses to be more

competitive globally. For the current Thye Ming, it is the investment and efforts of the past that allow us to continuously grow and thrive.

Sincerely,

【Lee Mao-Sheng】
THYE MING INDUSTRIAL CO., LTD.
【General Manager】

Highlights (Key Milestones and Awards)

- **Feb 1983** Thye Ming Industrial Co., Ltd. established.
- **Nov 1994** Obtained Class A Waste Treatment Plant Operating Permit.
- **Feb 1996** Obtained ISO 9001 Quality Management Certification.
- **Feb 1996** Thye Ming shares listed on the over-the-counter market for public trading.
- **Jan 1997** Recognized by the Environmental Protection Administration (now the Ministry of Environment) as an outstanding manufacturer for annual battery recycling rate.
- **Sep 1997** Obtained ISO 14001 Environmental Management Certification.
- **Mar 1999** Thye Ming shares listed on the Taiwan Stock Exchange for public trading.
- **Nov 1999** Registered as a brand with the London Metal Exchange (LME).
- **Nov 2002** Obtained Registration Certificate for Recyclable Waste Treatment Enterprise.
- **Dec 2006** Invested in Thye Ming Vietnam Co., Ltd.
- **Aug 2018** Awarded the Circular Regeneration and Recycling Appreciation Plaque by the Environmental Protection Administration (now the Ministry of Environment).

- 2021 Recognized as an outstanding business for annual uniform invoice issuance.
- **Apr 2022** Received the Resource Recycling Foresight Award for Recyclable Waste Treatment Enterprises.
- **Oct 2023** Obtained ISO 45001 Occupational Health and Safety Management Certification.
- **Oct 2023** Obtained Ministry of Economic Affairs Permit for Industrial Waste Reuse.

Thye Ming's Sustainability Performance

Thye Ming's Sustainability Role	Thye Ming's Sustainability Role	Unit	2024
The Most Trusted Team	The Most Trusted Team	NT$ Billion	-
	Operating Revenue	NT$ Million	8,553.56
Pioneer of Green Industry	Greenhouse Gas Emissions (Scope 1+2)	tCO_2e	18,432.00
	Thye Ming Plant GHG Emission Intensity	tCO_2e/person	68.78
	Thye Ming Plant EUI	kWh/m²	427.67
	Thye Ming Plant Energy Intensity	kWh/person	38,280.60
	Construction Site Energy Intensity	tCO_2e/million man-hours	-
	Cost Reduction from Energy Saving (Electricity) at Thye Ming Plant	NT$	-
	Thye Ming Plant Water Consumption	m³	29,150.00
	Thye Ming Plant Waste Generation (General Waste)	kg	52,570.00
	R&D Expenses	NT$	1,521,000.00
Employer of a Happy Workplace	Voluntary Turnover Rate	%	13.89
	Involuntary Turnover Rate	%	0
	Performance-Based Turnover Rate	%	0
	Total Turnover Rate	%	13.89
	Employment Rate of People with Disabilities	%	1.39
	Number of Employee Nationalities (Excluding Domestic)	-	11.11
	Female Employee Ratio	%	15.28
	Female Manager Ratio	%	13.60
	Internal Job Filling Rate	%	0
	Training Hours	Hours	2,370.50
	Parental Leave Application Rate	%	0
	Health Check Rate	%	100%
	Recordable OHS Incident Frequency for Thye Ming Projects	-	0
	Recordable OHS Incident	-	0

	Frequency for Contractors			
	Occupational Disease Incidence Rate		-	0
Committed Corporate Citizen	Social Investment Amount		NT$	3,988,000.00
	Category	Charitable Activities	%	100.00
		Community Investment	%	-
		Commercial Activities	%	-
	Type	Cash Donation	%	100.00
		In-kind Donation	%	-
		Volunteer Manpower	%	-
		Management Cost	%	-

I. Sustainability Management

1.1 Sustainability Roles

1.1.1 Taiwan’s Largest Lead-Acid Battery Recycling Kingdom

In recent years, the renewable resource industry has garnered significant attention, with the field of lead-acid battery recycling being particularly noteworthy. Thye Ming Industrial Co., Ltd. specializes in the recycling and reuse of lead-acid batteries, a process it has long mastered. Through mature technology and comprehensive equipment, the company transforms discarded lead-acid batteries into high-quality reusable products, making a significant contribution to environmental protection and resource circulation.

Thye Ming has not only driven the development of the lead-acid battery recycling industry but has also injected new vitality into Taiwan's renewable resource sector. Its professional, innovative, and sustainable business philosophy has established it as Taiwan's largest lead-acid battery recycling kingdom, making an outstanding contribution to the development of the green and environmental protection industry.

In response to the trend of government and EU circular economy policies, as well as the concept of circular regeneration and sustainable development, Thye Ming is committed to resource recovery from waste, moving towards a circular economy where industrial development and environmental protection go hand in hand. The company looks forward to achieving greater success and contributing more to the resource reuse industry and environmental protection in the future, upholding the sustainable business philosophy of **"Environmental Protection, Quality, and Innovation,"** and striving for a win-win situation for both the environment and the economy through energy conservation and resource recycling.

1.1.2 Environmental Expenditure Information

The total amount of losses and penalties incurred by the Company due to environmental pollution during the most recent fiscal year and up to the date of this annual report, along with an explanation of future countermeasures and potential expenditures:

(1). The Company has incurred no losses or penalties due to environmental pollution during the most recent fiscal year and up to the date of this annual report.

(2). Since July 1, 2006, the European Union has required that all electrical and electronic products circulated in the EU market must not contain six hazardous substances: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE). This restriction impacts all electrical and electronic products exported to the EU that contain these six hazardous substances.

Although the Company's main products are lead ingots, lead alloys, and lead oxide, and the majority of its customers are lead-acid battery manufacturers, lead-acid batteries are highly sealed, and the lead contained within the battery does not directly contact the human body. Furthermore, lead has the advantages of being easily sourced, economically priced, and recyclable. The EU's restrictions on batteries only limit the use of mercury and cadmium, with lead not being included. Therefore, the implementation of RoHS has had no impact on the Company's business or financial performance.

1.1.3 Sustainability Development Organization

The Company's Board of Directors approved the establishment of the Sustainable Development Promotion Team on November 12, 2024. The General Manager serves as the convener, working with department heads from various fields to jointly review the Company's core operational capabilities, formulate medium- and long-term sustainable development plans, and regularly report to the Board of Directors on the implementation of corporate sustainable development.

The General Manager serves as the convener of the Company's Sustainable Development Promotion Team, with the General Manager's Office acting as the executive unit. The convener oversees the operation of the team, which is responsible for planning

sustainable environmental, social responsibility, and corporate governance (ESG) related performance and standard implementation. The team is also responsible for compiling the ESG Sustainability Report and consolidating and reporting related information. The promoting units and their responsibilities are as follows：

(1). **Convener：** Supervises the operation of the Sustainable Development Promotion Team.

(2). **Promotion Team：** Plans the Company's environmental, social, and corporate governance (ESG) related sustainability performance and standard implementation, is responsible for compiling the ESG Sustainability Report, consolidating and reporting related information, and coordinating with relevant departments for all necessary suggestions.

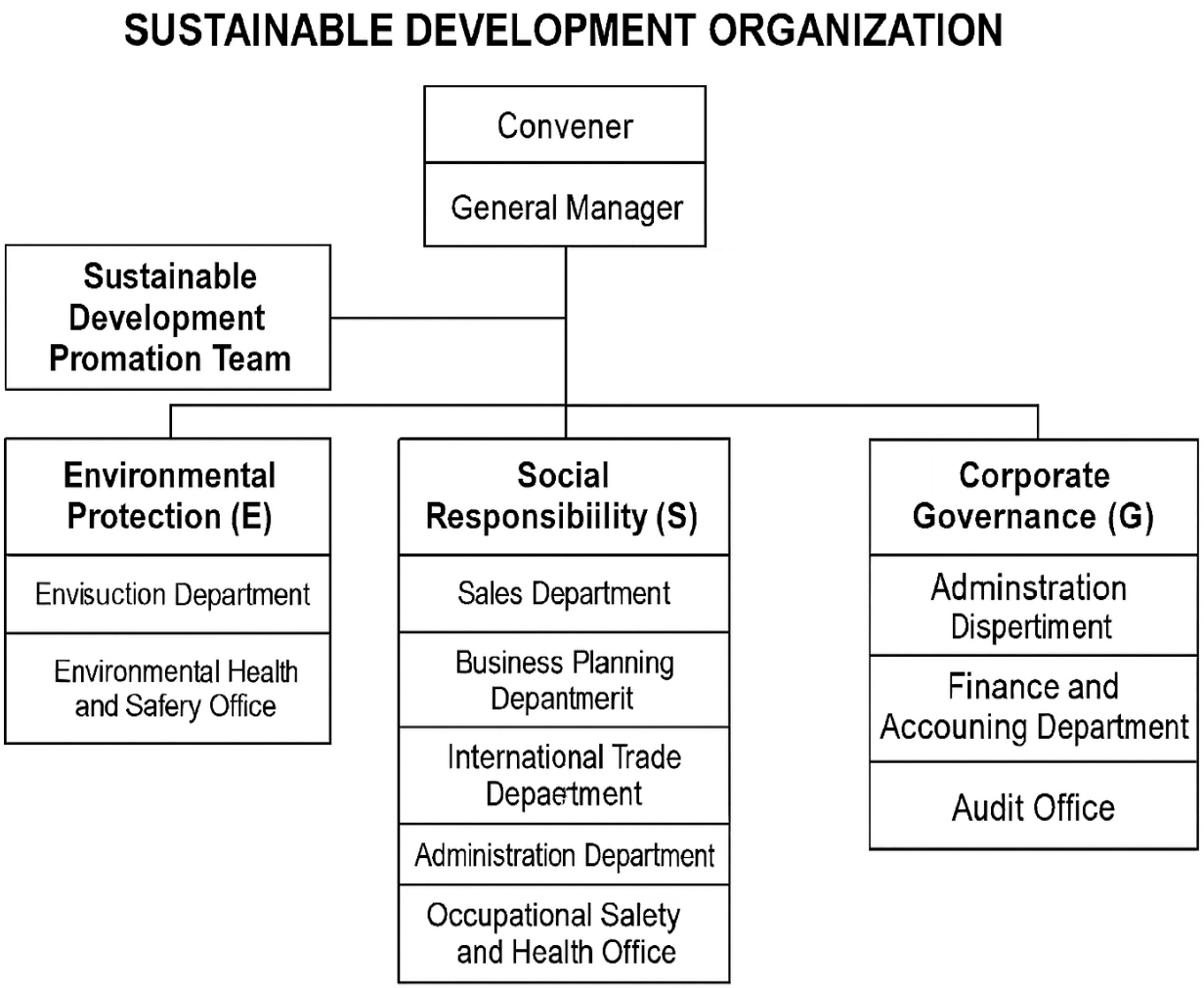
(3). **Executive Units：** Composed of the Environmental Health and Safety Office, Production Department, Administration Department, Finance and Accounting Department, Sales Department, International Trade Department, Business Planning Department, Information Technology Department, and Audit Office. These units are responsible for collecting relevant data for all aspects of ESG. The structure of the ESG aspects is as follows：

A、 **Environmental Protection：** Greenhouse gas emission data collection, energy management, water resource management, waste management, climate issue management, fuel management, and product life cycle.

B、 **Social Responsibility：** Human resource development, food safety, supply chain management, product quality and safety, community relations, and information security.

C、 **Corporate Governance：** Board governance issues, risk management policies, functional committees, equity control, anti-competitive behavior legal proceedings, and investor communication.

1.1.4Sustainable Development Organizational Chart



1.2 Sustainability Management Strategy

1.2.1 Governance Structure for Sustainable Development

The unit responsible for promoting sustainable development within the Company is the **Office of the President**, which regularly reports to the management on the implementation of corporate social responsibility (CSR) initiatives. The Company's concrete actions in promoting sustainable development and fulfilling its corporate social responsibilities are outlined as follows：

I. Human Rights

In fulfilling its corporate social responsibility and safeguarding the human rights of employees and stakeholders, the Company adheres to the **Universal Declaration of Human Rights** and the **International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work**. The Company strictly prohibits any actions that infringe upon or violate human rights, and is committed to preventing forced or compulsory labor, ensuring workplace safety, enforcing non-discrimination policies, and protecting the rights and interests of employees and stakeholders.

II. Labor Practices

The Company strictly prohibits the use of child labor. Employees are provided with reasonable remuneration in accordance with applicable laws and regulations, and statutory social insurance coverage is duly arranged. An Employee Welfare Committee has been established to provide various welfare benefits.

The Company obtained **ISO 45001 Occupational Health and Safety Management System certification in 2023** and has maintained the certification to date. To ensure a safe and healthy workplace, the Company conducts regular employee health examinations, annual fire drills, and occupational safety training programs to enhance employees' emergency response capabilities and self-safety management, thereby reducing occupational safety and health risks.

Upholding diversity and equal opportunity, the Company provides employee training and development programs and convenes labor-management meetings on a regular basis to

establish an effective communication platform and foster harmonious labor relations. In 2024, a total of four labor-management meetings were held.

III. Social Engagement

The Company prioritizes the employment of local personnel in its operational locations to enhance community engagement and recognition. It also makes regular donations to local religious organizations to support initiatives such as nutritious meal programs, scholarships, and blood donation activities. Through its business operations, the Company strives to address social and environmental issues.

Furthermore, the Company complies with its **Code of Ethical Conduct**, strictly prohibits bribery of public officials or customers, and enforces anti-monopoly practices.

IV. Economic Contribution

While pursuing business growth, the Company actively fulfills its corporate social responsibility by expanding revenue and contributing to national tax revenues, thereby enhancing its overall contribution to economic development.

V. Environmental Protection

The Company strictly complies with environmental protection laws and regulations. Measures for air pollution control, soil pollution prevention, and water pollution prevention all meet national standards. The Company has been **ISO 14001 Environmental Management System certified since 1997** and continues to maintain this certification.

VI. Product Responsibility

All products of the Company comply with relevant government regulations and service laws. The Company has maintained **ISO 9001 Quality Management System certification since 1996**. Through a rigorous quality control system, the Company provides customers with consistent and reliable product quality. In addition, customer satisfaction surveys are conducted annually to strengthen cooperative relationships with customers.

1.2.2 Risk Management Policies and Strategies Based on the Principle of Materiality

In accordance with ISO procedures, the Company regularly evaluates and identifies risks related to environmental, social, and governance (ESG) issues associated with its

operations. Specific actions include reviews of operational planning management procedures, environmental policy management procedures, environmental program management procedures, emergency response management procedures, compliance obligation identification procedures, management responsibility procedures, and employee education and training procedures, among others. After reviewing each procedure, management risks are analyzed, and responsible units, performance indicators, risks, required knowledge and expertise, and stakeholders are identified in order to establish appropriate risk control measures.

1.2.3 Environmental Issues

I. Has the Company established an appropriate environmental management system based on its industry characteristics?

The Company has obtained **ISO 14001 (2015 version) Environmental Management System certification**.

II. Is the Company committed to improving energy efficiency and using renewable materials with lower environmental impact?

The Company promotes various energy reduction measures by selecting equipment with high energy efficiency and energy-saving designs to reduce energy consumption in both operations and products, thereby optimizing energy efficiency.

Waste lead-acid batteries impose environmental burdens. In fulfilling its corporate social responsibility, the Company uses waste lead-acid batteries as one of its raw material sources. In 2023, the total volume of recycled waste lead-acid batteries processed by the Company accounted for **36.73% of the total national recycled waste lead-acid batteries**, which increased to **37.07% in 2024**, enabling the reuse of industrial waste resources and reducing environmental impact.

In green manufacturing, the Company reduces unnecessary packaging material waste and seeks recyclable and reusable packaging materials. Due to shipping requirements, the Company purchased 4,815 wooden pallets in 2020. To reduce environmental impact, some

shipping packaging materials were replaced with recyclable plastic pallets. In 2024, the number of wooden pallets purchased decreased to 3,558 units (a reduction of **26%**), demonstrating certain achievements in resource recycling and reuse.

III. Does the Company assess the potential risks and opportunities of climate change on its current and future operations and adopt relevant response measures?

The Company adopts the **TCFD (Task Force on Climate-related Financial Disclosures) framework** to assess climate change risks and opportunities, helping the Company identify and disclose climate-related financial risks and opportunities, including:

(1). **Transition risks**: such as carbon fee implementation or increases in carbon fee rates, changes in policies and regulations, and changes in consumer preferences.

(2). **Physical risks**: such as extreme weather events, water resource shortages, and supply chain disruptions.

(3). **Opportunities**: such as the development of green products, the development of energy-saving and emission-reduction technologies, and new market development.

Related response measures include：

(1). Establishing carbon reduction targets and pathways.

(2). Investing in or issuing green and sustainability bonds.

(3). Adopting circular economy models to extend product life cycles and promote recycling and reuse.

(4). Regularly disclosing climate-related information to strengthen stakeholder trust.

(5). Providing employees with education and training on climate-related risks.

1.2.4 Social Issues

I. Has the Company established relevant management policies and procedures in accordance with applicable laws and international human rights conventions?

The Company respects fundamental labor human rights and, in accordance with the Labor Standards Act, has established **Personnel Regulations** governing employee appointment, attendance, leave, performance evaluation, salaries, bonuses, and profit sharing to protect employees' lawful rights and interests. As no labor union has been established, no collective bargaining agreement has been executed.

II. Has the Company established and implemented reasonable employee welfare measures (including compensation, leave, and other benefits), and appropriately reflected operational performance or results in employee remuneration?

(1). **Employee Welfare Measures**

The Company has established an Employee Welfare Committee and has allocated more than **NTD 2.5 million annually** to the Employee Welfare Committee's designated account over the past three years. Various employee welfare benefits are provided, including employee health examinations, education and training, employee travel, holiday bonuses, birthday allowances, marriage allowances, bereavement subsidies, childbirth subsidies, occupational injury compensation, and scholarships or financial assistance for employees and their children.

Based on a two-day weekend system, employees with six months to less than one year of service are granted three days of special leave, while employees with one year to less than two years of service are granted seven days of special leave, among others. Any unused special leave within the year is compensated proportionally in salary. Employees may also apply for marriage leave, bereavement leave, maternity leave, prenatal examination leave, paternity (prenatal examination) leave, menstrual leave, or family care leave due to personal or family needs.

(2). **Workplace Diversity and Equality**

The Company values workplace diversity and equality, providing equal pay for equal work and equal promotion opportunities for male and female employees. As the Company operates in the metal manufacturing industry, the proportion of female employees is relatively low due to industry characteristics. In 2024, female employees accounted for **18%** of the total workforce, and female supervisors accounted for **7%** of total employees.

The Company values employee rights and welfare by distributing employee remuneration to share operational achievements with all employees and maintaining a good working environment, including recruitment, training, utilization, cultural integration, health, and safety management for foreign employees. Facilities such as lactation rooms are also provided to promote a friendly workplace, allowing employees to work with peace of mind.

III. Does the Company provide employees with a safe and healthy working environment and conduct regular safety and health education for employees?

The Company has established an Environmental and Safety Office as the unit responsible for occupational safety and health management, and has revised written **Occupational Safety and Health Rules** to ensure workplace safety and hygiene. Specific measures implemented by the Company to safeguard employee safety and health include the installation of air pollution control equipment, water pollution control equipment, noise pollution control equipment, and Automated External Defibrillators (AEDs). "No Smoking" signs are posted in the workplace to remind employees that smoking is strictly prohibited in work areas.

The Company regularly convenes environmental and safety meetings to review workplace safety facilities and measures, and engages physicians to periodically provide health consultations for employees. Annual employee health examinations are conducted, followed by individual consultations. Employees with abnormal test results are reminded and encouraged to practice self-health management. In addition, a high-risk case management mechanism has been established, utilizing on-site health services and health interviews to provide case-based health education and assist employees in improving their lifestyle habits.

In 2024, no fire incidents occurred. There was one occupational accident involving a commuting traffic accident, affecting one employee, accounting for **0.68% of the total workforce**. The Company has conducted traffic safety awareness campaigns and strengthened relevant training content for future education and training programs.

IV. Has the Company established effective career development and capability training programs for employees?

The Company has established a human resources management system to accurately track employees' expertise, aptitudes, experience, and training records, enabling employees to better understand themselves and supporting operational planning needs. Each department formulates education and training programs based on annual work objectives

and Company policies. Training programs are categorized into pre-employment training, on-the-job training, and long-term continuing education.

The Management Department reviews and improves the effectiveness of education and training implementation, using the results as a reference for planning education and training programs for the following year.

V. With respect to customer health and safety, customer privacy, marketing, and labeling of products and services, does the Company comply with relevant regulations and international standards, and establish policies and complaint procedures to protect consumer or customer rights?

The Company establishes marketing and labeling practices for products and services in accordance with **ISO 9001 standards**.

To promptly handle customer complaints, identify the causes of complaints, prevent recurrence, improve product quality and service, and safeguard the Company's reputation, the Company has established **Customer Complaint Handling Procedures**. In 2024, there were no customer complaint cases.

VI. Has the Company established supplier management policies requiring suppliers to comply with relevant regulations regarding environmental protection, occupational safety and health, or labor and human rights issues, and what is the implementation status?

The Company requires suppliers, through contractual agreements, to comply with relevant laws and regulations concerning environmental protection, occupational safety and health, and labor and human rights issues.

1.2.5 The Company's Reference to Internationally Recognized Reporting Standards or Guidelines

In preparing its Corporate Sustainability Report, the Company refers to internationally recognized reporting standards and guidelines such as **GRI**, **SASB**, and **TCFD**. The Company has also established the **Code of Ethical Conduct** and the **Corporate Social Responsibility Best Practice Principles** to implement corporate social responsibility and foster a corporate culture of integrity.

1.2.6 The Company's "Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies"

In November 2017, the Company's Board of Directors approved the establishment of the **Corporate Social Responsibility Best Practice Principles**, which were subsequently amended by the Board in March 2020 to further strengthen the implementation of corporate social responsibility.

In November 2024, in response to the latest revisions to the **Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies**, the Company revised the **Corporate Social Responsibility Best Practice Principles** and renamed them as the **Sustainable Development Best Practice Principles**. In accordance with these principles, the Company manages and improves its risks and impacts on economic, environmental, and social aspects. To date, no discrepancies have been identified in the implementation.

1.2.7 Other Important Information Helpful in Understanding the Implementation of Sustainable Development：

I. Environmental Protection

(1). The Company has obtained **ISO 14001:2015 Environmental Management System certification**.

(2). The Company has obtained a **Recycling and Disposal Operator Registration Certificate** issued by the Kaohsiung City Government Environmental Protection Bureau (Certificate No. **Kaohsiung EPB Wei No. 11139056500**).

(3). Approval has been granted by the Ministry of Economic Affairs under Letter No.

11251032581 for the reuse of industrial waste.

(4). Auditing and certification of industrial waste are conducted by audit and certification institutions recognized by the competent authority, the Environmental Protection Administration, Executive Yuan (currently the **Resource Circulation Administration, Ministry of Environment**).

(5). Expenditure on hazardous industrial waste treatment amounted to approximately **NTD 17.29 million**.

(6). Expenditure on air, wastewater, and soil pollution prevention amounted to approximately **NTD 4.03 million**.

(7). The Company employs environmental protection professionals, including **three Class A wastewater treatment technicians**, **two Class B wastewater treatment technicians**, **three Class A air pollution control technicians**, **five Class A waste treatment technicians**, **four Class B waste treatment technicians**, and **two Class A toxic and concerned chemical substance management professionals**. In addition, the Company has **31 ISOISISO 9001 Quality Management System internal auditors**, **39 ISO 14001 Environmental Management System internal auditors**, and **36 ISO 45001 Occupational Health and Safety Management System internal auditors**.

II. Consumer Rights

The Company's products are not sold directly to consumers.

III. Human Rights

Both domestic and foreign employees are employed in accordance with the **Labor Standards Act** and relevant laws and regulations to safeguard the human rights and interests of domestic and foreign employees. In 2024, no complaints were received from either domestic or foreign employees regarding violations of their rights or interests.

IV. Other Corporate Social Responsibility Activities：

None.

1.3 Sustainability Management Process

In accordance with the **GRI Sustainability Reporting Standards** regarding reporting principles, Tai Ming follows the principles of **stakeholder inclusiveness, sustainability context, materiality, and completeness** throughout each stage of the sustainability management process.

First, with respect to communication and engagement with stakeholders, the Company formulates material topic survey questionnaires. Through the results of stakeholder engagement, the Company aims to identify the material issues of concern to stakeholders, which serve as an important basis for materiality assessment. These material issues are incorporated into key operational considerations of the Company. By prioritizing actions and response outcomes, the Company seeks to meet stakeholder expectations.

Phase 1: Identification of Key Stakeholders	Based on the reporting principles of the **GRI Standards** and with reference to the five principles of the **AA1000 Stakeholder Engagement Standard (SES)**—**dependency, responsibility, concern, influence, and diversity of perspectives**—the Sustainability Development Committee and members of the ESG Implementation Team assess and score each stakeholder across these five dimensions. The scores for the five dimensions are then aggregated, and stakeholders with a total score exceeding **15 points** are identified as stakeholders directly related to the Company.
Phase 2: Communication with Key Stakeholders	After the identification of stakeholders is finalized, Tai Ming engages with stakeholders through diversified communication channels and transparent disclosure practices to ensure effective and constructive communication outcomes. At the same time, the Company summarizes in this report the communication channels used with various key stakeholders during its operational activities in **2024**.
Phase 3: Collection of Material Topics	To better understand key stakeholders' concerns and expectations regarding Tai Ming's sustainability issues, the Company developed a survey questionnaire covering **38 sustainability topics** by referencing the **GRI Sustainability Reporting Standards**, the characteristics of the **metal and mining industry**, and information collected from relevant external sustainability reports.
Phase 4: Material Topic Concern Level Survey	In **2024**, the Company communicated with key stakeholders through the responsible departments to understand their level of concern regarding various sustainability issues. Following the evaluation by the Sustainability Report Preparation Team, it was determined that there were no significant changes in the sustainability topics of concern to stakeholders.
Phase 5: Impact Level Analysis	After reviewing changes in the business environment, **nine senior executives** evaluated the **severity and likelihood** of the impacts generated by each issue on the **economic, environmental, and social** aspects, serving as the basis for the **2024 material topic analysis**.
Phase 6: Impact Management and Disclosure	After consolidation and analysis by the Sustainability Report Preparation Team, **11 material sustainability topics** were identified in **2024** as the basis for disclosure. The confirmed key topics were mapped to the relevant topics under the **GRI Sustainability Reporting Standards**, and the corresponding material topics and disclosure indicators were selected. At the same time, meetings were conducted to review, on a topic-by-topic basis, the impacts of each GRI material topic on Tai Ming and its upstream and downstream value chain, in order to confirm the topic boundaries for information disclosure in this report.

1.4 Stakeholder Engagement

The Company has established a **"Stakeholder Section"** on its official website to facilitate communication with stakeholders, including but not limited to shareholders, employees, customers, and suppliers.

In addition, the Company provides a **Financial Information Section** and a **Corporate Governance Section** to enable stakeholders to better understand financial information, corporate governance, and other related matters of concern. Through appropriate communication mechanisms, the Company seeks to understand stakeholders' reasonable expectations and needs, ensuring that stakeholders have sufficient information to make informed judgments and that the Company appropriately responds to key corporate social responsibility issues of concern.

1.4.1 Identification of Key Stakeholders

The relevance of stakeholders to Tai Ming is reviewed and discussed during stakeholder and material topic analysis meetings. Based on the analysis, key stakeholders—including shareholders, customers, employees, and suppliers—are identified and confirmed.

Table 1.1 Stakeholders of the Company

Stakeholders	Significance to the Company
Shareholders	Shareholders play an important role in urging Tai Ming to pursue stable growth and sustainable profitability.
Customers	By providing diversified products and implementing effective inventory management, the Company delivers optimal sales services to customers.
Employees	Employees' work performance and growth within the Company are key factors in Tai Ming's continued business expansion.
Suppliers	To achieve sustainable development, the Company relies on suppliers to collaboratively provide raw materials in order to complete product manufacturing and deliver products to customers.

1.4.2 Communication with Key Stakeholders

After the identification of stakeholders is finalized, Tai Ming engages with stakeholders

through diversified communication channels and transparent disclosure practices to ensure effective and constructive communication outcomes. At the same time, the Company summarizes in this report the communication channels used with various key stakeholders during its operational activities in **2024**.

Table 1.1 Stakeholder Communication Methods and Frequency

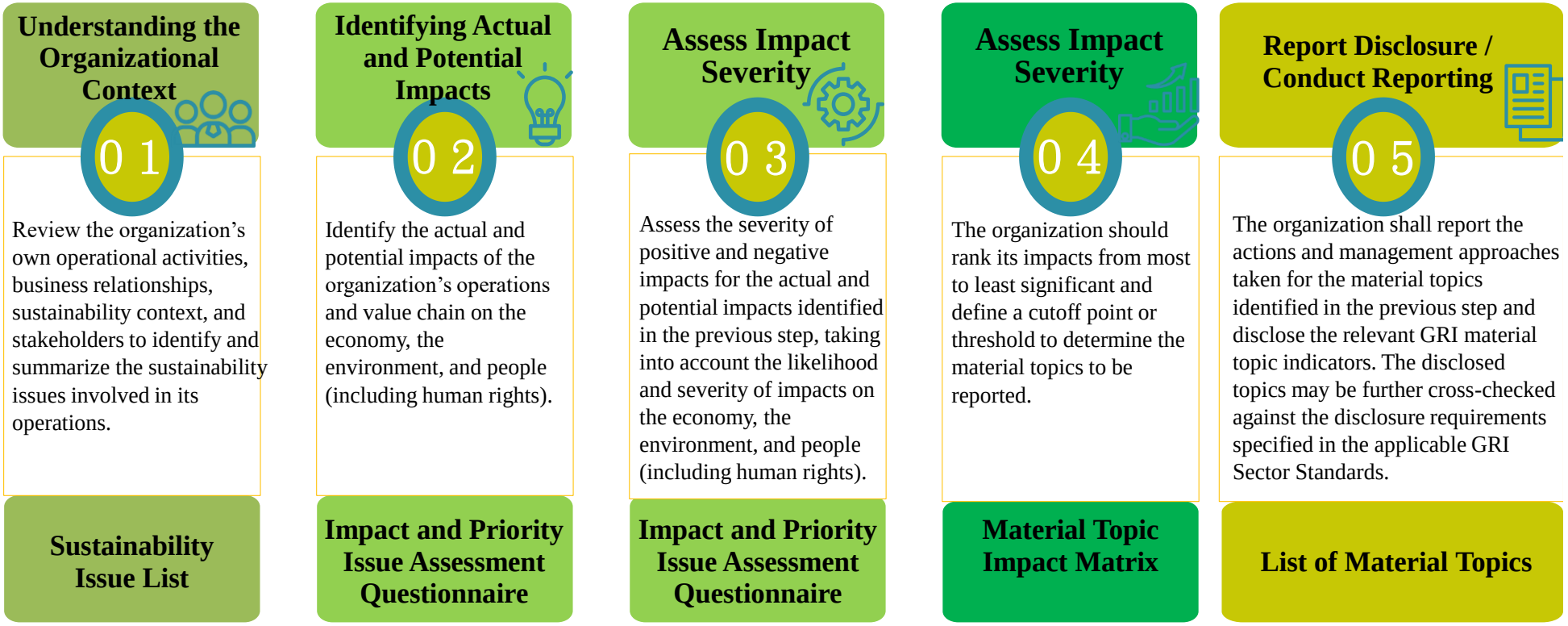
Stakeholders	Communication Methods	Communication Frequency
Shareholders	• Convening annual shareholders' meetings • Convening board meetings • Updating the Company website • Updating information on the Market Observation Post System (MOPS)	• Annually • Quarterly • As needed • As needed
Customers	• Customer satisfaction surveys • Customer visits and factory tours • Customer audits • Telephone and e-mail communication	• Annually • As needed • Annually • At any time
Employees	• New employee orientation and training • Online suggestion forms on the internal website • Employee suggestion boxes in factory areas	• As needed • At any time • At any time
Suppliers	• Via external mailboxes, telephone, and e-mail • Supplier audits	• Annually • As needed

1.5 Material Topic Analysis

1.5.1 Material Topic Assessment Process

Material Topic Identification – Process Description

GRI 3 provides guidance for organizations to identify material topics, aiming to enable organizations to more comprehensively assess the topics that have the most significant impacts arising from their operations, services, and products on the **economy, the environment, and people (including human rights)**.



Overview of Material Topic Identification Results and Analysisa

In **2024**, Tai Ming conducted its first material topic identification exercise, consolidating **38 ESG topics** and assessing their impact on internal and external stakeholders in order to identify the core key issues of the Company's sustainability development strategy. Based on the assessment, the results indicate that among the three dimensions—**Environmental (E), Governance (G), and Social (S)**—the topics with the highest impact levels primarily relate to corporate compliance and governance, employee rights, and environmental management. The results further demonstrate that Tai Ming needs to continuously strengthen transparency, accountability, and environmentally friendly strategies in its pursuit of sustainable operations.

Material Topic Analysis

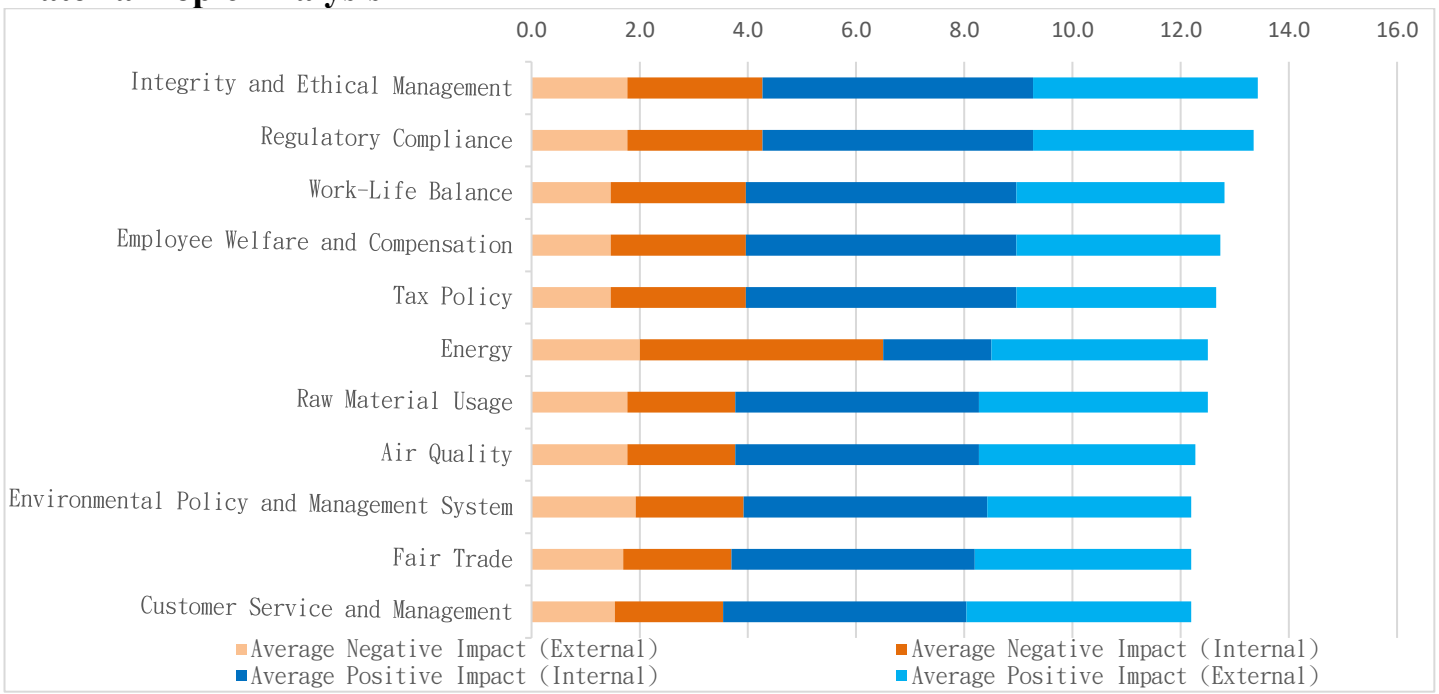


Figure 1.1 – Material Topics Bar Chart

Governance (G) Dimension

<u>Integrity and Ethical Management (13.4):</u>

Integrity and ethical management is the topic with the highest impact level identified in this assessment, reflecting stakeholders' strong concern regarding the Company's business ethics and transparency. Tai Ming continues to strengthen its internal control mechanisms, anti-corruption policies, and corporate integrity governance to ensure that all business activities comply with ethical standards and to mitigate operational risks.

Regulatory Compliance (13.3):

Regulatory compliance is a core foundation of Tai Ming's sustainable operations, ensuring that business activities comply with local and international regulations and reducing regulatory risks. Tai Ming has established regulatory monitoring and internal audit mechanisms to ensure that all business units meet relevant regulatory requirements.

Tax Policy (12.7):

Financial transparency and compliant tax management are critical components of sustainable corporate operations. Tai Ming is committed to fulfilling its tax obligations in accordance with the law and continues to enhance its tax management policies to ensure that its tax strategies adhere to principles of fairness and compliance.

Social (S) Dimension

Work-Life Balance (12.8):

Employee well-being is a core element of human capital management. Tai Ming is committed to providing a friendly workplace environment and promotes flexible working arrangements, mental health support, and employee care programs to enhance employee satisfaction and productivity.

Employee Welfare and Compensation (12.7):

Fair compensation and comprehensive welfare systems directly affect employee satisfaction and corporate competitiveness. Tai Ming continuously reviews its salary structure and provides market-competitive compensation and incentive mechanisms to safeguard employee rights and interests.

Human Rights (12.1):

Human rights protection is a core issue of corporate social responsibility. Tai Ming adheres to international human rights standards to ensure that all employees enjoy a fair, dignified, and safe working environment, and continues to improve its human rights protection mechanisms.

Environmental (E) Dimension

Energy Management (12.5):

Energy use and management are critical to Tai Ming's operating costs and environmental impact. Tai Ming continuously optimizes its energy management policies, promotes energy-saving and carbon-reduction technologies, and enhances the use of renewable energy to reduce environmental impacts from operations.

Raw Material Usage (12.5):

Efficient resource utilization and sustainable supply chain management are important strategies for Tai Ming to reduce environmental impacts. The Company continues to promote green procurement policies and optimize production processes to improve resource utilization efficiency.

Air Quality (12.3):

Air pollution control is a key issue in environmental management. Tai Ming implements stringent environmental standards and ensures that operational impacts on the environment are minimized through low-emission technologies and pollution prevention programs.

Overall Analysis and Outlook

The results of this material topic identification indicate that integrity in governance, regulatory compliance, employee rights, and environmental responsibility are the issues with the most profound impact on both internal and external stakeholders. This reflects strong market and societal expectations for compliant operations, labor rights protection, and environmental stewardship.

Looking ahead, Tai Ming will continue to strengthen its governance mechanisms, deepen its environmental sustainability strategies, and optimize employee welfare systems based on the results of this assessment to ensure steady business development and to respond to stakeholder expectations. At the same time, Tai Ming will regularly review trends in material topics to ensure that its sustainability goals align with global standards and international ESG trends, thereby enhancing corporate competitiveness and social impact.

1.5.2 Material Topic Impact Management

Impact Boundaries and Target Outcomes of Material Topics

Material Topic	Corresponding GRI Topic	Description of Positive and Negative Impacts	Cause of Impact	Management Strategy	Mitigation Actions	Effectiveness Tracking Process	KPI & Targets		Corresponding SDGs
							2024 Performance	2030 Target	
E1 Energy	GRI 302 Energy	**Positive:** Promotion of high-efficiency equipment and renewable energy use drives green transformation of local energy structures, reduces air pollution and greenhouse gas emissions, and improves overall environmental quality.**Negative:** Production relies on high-pollution, high-energy traditional energy sources, increasing environmental burden, deteriorating air quality, affecting residents' health, and increasing public health costs.	Company Operations (Impact Caused)	• Company-led initiatives encouraging employees to practice energy conservation and carbon reduction from home life to green office practices and daily life.• Establishment of green offices through energy conservation, source reduction, plastic reduction, waste reduction, and green procurement.• Participation in international initiatives and promotion of sustainability awareness.	• Compliance with government and group policies to implement energy-saving and carbon-reduction measures and reduce environmental impact.	Improvement of production motors; exhaust fans equipped with IE3 high-efficiency motors and variable frequency drives, achieving electricity savings of 700,570.25 kWh and total benefits of NT$2,739.96 thousand.	At least 5% energy savings compared to 2023.	SDGs 07 Affordable and Clean EnergySDGs 12 Responsible Consumption and ProductionSDGs 13 Climate Action	5.2 Energy Management

E2 Raw Material Use	GRI 301 Materials	**Positive:** Promotion of recycled raw materials reduces resource depletion risks for external stakeholders and improves environmental quality.**Negative:** Dependence on non-renewable resources or conflict minerals may lead to resource depletion; corporate procurement may drive illegal mining or exploitation, causing long-term social and environmental damage.	Supply Chain (Impact Contributed)	• Verification that incoming raw materials meet acceptance standards.• Priority use of low-carbon, energy-efficient, and eco-labeled products.	• Inspection by testing centers based on raw material inspection forms.• Gradual replacement of high-energy, low-efficiency equipment.	• Independent sampling and analysis of raw materials.• Regular review of energy policy performance and improvement planning.	Implementation of ethical metal procurement policies; raw materials not sourced from conflict minerals.Reuse of waste lead-acid batteries as raw materials, with no use of conflict or illegally mined metals.	Continuous ethical metal procurement; reuse of industrial waste as raw materials to achieve circular economy goals.	SDGs 12 Responsible Consumption and ProductionSDGs 17 Partnerships for the Goals
E3 Air Quality	GRI 305-6, 305-7 Emissions	**Positive:** Installation of air pollution control equipment reduces ozone-depleting substances and air pollutants, lowering respiratory disease risks and improving quality of life.**Negative:** Excessive emissions of harmful gases worsen local air pollution, causing long-term health impacts and potential social protests or litigation.	Company Operations (Impact Caused)	• Installation of air pollution control facilities in production processes and proactive maintenance of equipment performance.	• Implementation of regular inspections, equipment maintenance, component replacement, and environmental monitoring to track operational efficiency.	• Regular recording, environmental monitoring, and internal meeting reviews.	Air pollutant emissions from production processes remain below regulatory standards.	Air pollutant emissions maintained below regulatory standards.	SDGs 11 Sustainable Cities and CommunitiesSDGs 13 Climate Action

E4 Environmental Policy and Management System	GRI 2 General Disclosures2-23 Policy Commitments2-24 Embedding Policy Commitments	**Positive:** Establishment and implementation of strict environmental policies reduce greenhouse gas emissions and improve energy management, ensuring regulatory compliance and strengthening corporate responsibility and brand image.**Negative:** Failure to effectively implement environmental and energy management may cause pollution, energy waste, legal risks, public criticism, reputational damage, and increased operating costs.	Company Operations (Impact Caused)	• Improve energy efficiency and reduce electricity demand.• Promote equipment maintenance and retrofitting through internal carbon reduction practices.	• Sustainability policy statement.• Establishment of internal carbon pricing mechanisms.• Promotion based on TCFD risk and opportunity indicators.• Continuous energy-saving and carbon-reduction proposal initiatives.	• Regular energy-saving review meetings to evaluate and promote carbon reduction proposals.	Implementation of waste reduction plans; 5% energy savings by 2030.	Improvement of production motors and exhaust fans with IE3 motors and VFDs, saving 700,570.25 kWh with benefits of NT$2,739.96 thousand.	At least 5% energy savings compared to 2023.

S1 Work-Life Balance	GRI 2 General Disclosures2-7 Employees	**Positive:** Effective work-life balance measures enhance employee satisfaction, well-being, productivity, loyalty, and long-term corporate development and reputation.**Negative:** Insufficient measures may increase stress, turnover rates, damage employer branding, and reduce talent attraction and retention.	Company Operations (Impact Caused)	• Legal protection, communication mechanisms, labor-management negotiations, training and development, benefits, working hour management, and work-life balance.	• Establish sound labor regulations to protect workers' rights and promote fair labor relations.	• Establish strong labor-management cooperation to improve employee welfare and corporate competitivenes s.	Compliance with relevant regulations to protect employee rights.	Compliance with relevant regulations to protect labor rights.	SDGs 03 Good Health and Well-beingSDGs 04 Quality Educatio
S2 Employee Benefits and Compensati on	GRI 401 Employment	**Positive:** Provision of wages and benefits above legal minimum standards promotes healthy local economic development.**Negative:** Paying only minimum wages and providing insufficient benefits exacerbates income inequality and social dissatisfaction.	Company Operations (Impact Caused)	• Establish fair and incentive-based compensation and benefits systems aligned with corporate strategy and future goals.	• Update salary scales based on latest market trends.	• Provide fair and competitive compensation and benefits with integrity.	Competitive compensation packages provided.	Salary adjustments made in accordance with regulations and inflation.	SDGs 03 Good Health and Well-beingSDGs 04 Quality EducationSDGs 05 Gender Equality

G1 Business Integrity	GRI 205 Anti-corruptionGRI 206 Anti-competitive Behavior	**Positive:** Adherence to integrity promotes fair competition, transparency, trust, and social and economic efficiency.**Negative:** Failure to enforce antitrust policies creates unfair competition, undermines market health, and harms social welfare.	Company Operations (Impact Caused)	• Establish governance systems based on laws and integrity.• Maintain effective accounting and internal control systems with periodic audits.	• Internal control audits.• Reduce financial and reputational risks related to integrity violations.	• Maintain stakeholder communication channels.• Require integrity commitments from suppliers and conduct evaluations.• 100% ethics training for new employees.	No violations of integrity principles.	Continuous enforcement of integrity principles with zero violations.	SDGs 08 Decent Work and Economic GrowthSDGs 09 Industry, Innovation and InfrastructureSDGs 16 Peace, Justice and Strong Institutions
G2 Regulatory Compliance	GRI 2 General Disclosures2-27 Compliance	**Positive:** Strict compliance ensures lawful operations, environmental improvement, and enhanced corporate image.**Negative:** Non-compliance may cause pollution, labor rights violations, legal disputes, fines, and reputational damage.	Company Operations (Impact Caused)	• Compliance with central and local regulations.• Continuous pollution prevention and energy efficiency improvements.	• Regular tracking of regulatory changes via internal and external issue registers.	• Establish whistleblower and reporting mechanisms and strengthen compliance awareness.	No regulatory violations.	No regulatory violations.	SDGs 16 Peace, Justice and Strong Institutions

G3 Tax Policy	GRI 207 Tax	**Positive:** Transparent and lawful tax payments support public infrastructure and social welfare.**Negative:** Aggressive tax avoidance reduces public revenue and undermines social trust.	Company Operations (Impact Caused)	• Honest tax declaration and timely payment in accordance with regulations.	• Transparent disclosure of tax information in financial statements.	• Maintain trust-based communication with tax authorities.	No tax law violations.	No tax law violations.	SDGs 16 Peace, Justice and Strong Institutions
G4 Fair Trade	GRI 2 General Disclosures2-6 Activities, Value Chain and Business RelationshipsGRI 308 Supplier Environmental AssessmentGRI 414 Supplier Social Assessment	**Positive:** Compliance with fair trade laws ensures market fairness and protects stakeholder rights.**Negative:** Anti-competitive behavior disrupts markets and damages stakeholders, leading to legal and reputational risks.	Supply Chain (Impact Contributed)	• Promote awareness through meetings and communications.• Implement supplier evaluations and green procurement.	• Enhance supplier sustainability awareness and conduct audits and corrective actions.	• Require supplier commitments and conduct evaluations to enhance sustainability performance.	Compliance with fair trade regulations.	Compliance with fair trade regulations.	SDGs 12 Responsible Consumption and Production

G5 Customer Service and Management	GRI 416 Customer Health and SafetyGRI 418 Customer Privacy	**Positive:** Active customer engagement improves satisfaction, loyalty, brand image, and long-term competitiveness.**Negative:** Ignoring customer feedback reduces satisfaction, harms reputation, and causes market loss.	Supply Chain (Impact Contributed)	• Protect confidential information and enhance service quality and trust.	• Engage customers early in product design and consult industry experts.	• Conduct customer satisfaction surveys and continuous improvement.	Customer satisfaction survey results indicate good overall satisfaction.	Maintain effective customer communication.	SDGs 12 Responsible Consumption and Production

II. About Tailyming

With economic development, national income and living standards have continued to rise, and high-technology industries such as automobiles, motorcycles, and computer information technology have also developed rapidly. As a result, demand for lead-acid batteries used as backup power sources has continued to increase.

Tailyming Industrial Co., Ltd. (hereinafter referred to as “Tailyming”) provides domestic and international lead-acid battery manufacturers with high-grade lead-antimony alloys and lead-calcium alloys, as well as supplying the PVC plastic stabilizer industry with high-grade litharge and the paint manufacturing industry with high-grade red lead. In terms of production capacity, the Company is one of the largest manufacturers in Asia. Its product quality has reached international standards, making it the leading enterprise in product quality within Taiwan’s lead products industry.

The Company is certified under ISO 9001, ISO 14001, and ISO 45001 quality, environmental, and occupational health and safety management systems for lead product manufacturing and treatment. It continuously improves product quality to meet customer requirements.

2.1 Company Profile

I. Tailyming was established on February 19, 1983. At its inception, the Company primarily engaged in non-ferrous metal trading and later gradually developed into lead-acid battery recycling and regeneration as its main business.

II. In different years, the Company obtained ISO 9001, ISO 14001, and ISO 45001 certifications and received environmental management awards from the Environmental Protection Administration (now the Ministry of Environment), demonstrating its strong commitment to quality management, environmental protection, and occupational health and safety.

III. Tailyming's high-quality products are not only traded in the Taiwan market but are also registered under the "TMI" brand with the London Metal Exchange (LME), expanding trade into international markets.

IV. The Company continuously engages in technological research and development, including the development of new electrode materials, cost reduction in manufacturing, and strengthening the recycling and treatment of waste lead-acid batteries, in order to respond to market demand and enhance competitiveness.

V. The subsidiary, Tailyming (Vietnam), was established in Vietnam and engages in the production of various lead-based products, recycling and regeneration of domestic waste lead-acid batteries, and recycling and reprocessing of plastic products, thereby expanding the Company's business footprint.

VI. Tailyming's future development strategy includes leveraging growth opportunities in Southeast Asian markets, researching and developing new products, increasing product added value, and continuously monitoring external competitive conditions, regulatory environments, and the overall business environment to maintain competitive advantages.

2.2 Products and Processes

2.2.1 Business Scope

Business Scope

I. Scope of Business

(1). Main Business Activities：

A、 Manufacturing, processing, and trading of electrolytic chemical refined metals such as copper, aluminum, tin, zinc, and antimony.

B、 Manufacturing, processing, and trading of copper ingots, copper plates, copper bars, copper tubes, lead plates, lead ingots, lead tubes, lead wires, tin wires, lead alloy ingots, red lead powder, litharge powder, pigments, zinc oxide powder, lead oxide, and die casting products.

C、 Wholesale and retail of various department store goods and general merchandise.

D、 Agency, distribution, quotation, and bidding services for domestic and overseas products related to the above items.

E、 Import and export trading business related to the above items.

F、 Entrusting construction companies to build national housing and commercial buildings for leasing and sale.

G、 Entrusting construction companies to build national housing and commercial buildings for leasing and sale.

H、 General and industrial waste cleaning services (excluding construction industry; no fixed workplace).

I、 Collection, recycling, and treatment of general and industrial waste (such as waste lead-acid batteries and lead slag).

J、 Trading of waste lead-acid batteries, lead slag, and related materials.

K、 Trading of chemicals and chemical products (excluding controlled substances).

L、 Warehousing services.

M、Other business activities not prohibited or restricted by laws and regulations, except for licensed businesses.

(2). Current Product Items and Their Revenue Proportions

Unit: NT$ thousand

Major Products	2024 Consolidated Net Operating Revenue	Revenue Share (%)
Litharge and Red Lead	572,640	6.69
Lead Ingots and Lead Alloy Ingots	7,874,035	92.06
Others (Note)	106,882	1.25
Total	8,553,557	100.00

Note: Revenue derived from the sale of by-products generated during the production process and from the treatment of general and industrial waste.

(3). Planned New Product Development：

A、 Lead-calcium alloys for lead-acid batteries with low self-discharge rates.

B、 Lead-tin alloys with improved electrical conductivity and corrosion resistance.

II. Industry Overview

(1). Industry Status and Development

Taiwan does not produce lead ore. The lead industry in Taiwan primarily relies on the import of unwrought lead (including lead ingots and lead alloy ingots), which is then processed through secondary manufacturing procedures to produce semi-finished and finished lead products. Within Taiwan's non-ferrous metal industry, the lead industry ranks in importance second only to aluminum, copper, and zinc.

Globally, more than 400 million metric tons of hazardous waste are generated each year (Li Wen-Chin & Lu Chih-Ming, 1996). To address the cross-border transportation and disposal of hazardous industrial waste and to prevent harm to human health and the environment, the United Nations, together with 105 countries and the European Community, signed the **Basel Convention** in March 1989 to regulate the transboundary movement and disposal of hazardous waste. The main objective of the Convention is to

restrict the transboundary movement of hazardous waste and require such waste to be treated in the country or place of origin.

In Taiwan, waste lead materials—once a source of lead product demand—were no longer permitted to be imported after 1993 due to environmental protection requirements. As a result, imports of unwrought lead increased, with lead ingots accounting for the largest growth. In recent years, the widespread use of automobiles, motorcycles, lighting systems, telecommunications equipment, uninterruptible power supply (UPS) systems, and electric and electronic products has significantly increased demand for lead-acid batteries, driving year-by-year growth in lead consumption.

Currently, there are two main sources of lead raw materials in Taiwan. The first is imported primary lead from overseas, and the second is secondary lead produced through the recycling and smelting of waste lead-acid batteries. As demand for lead products continues to rise rapidly in emerging Asian markets, although global primary lead ore supply remains sufficient, it must be imported and is subject to international lead prices on the London Metal Exchange (LME). In contrast, recycled lead is more cost-effective and can be obtained through domestic recycling of waste lead-acid batteries or lead scrap, making it an increasingly important source of raw materials.

Lead-acid batteries are the most widely produced type of battery worldwide. According to data from the U.S. research firm Market.us, the global lead-acid battery market is expected to reach USD 65.1 billion by 2030, with a compound annual growth rate (CAGR) of 5.10% from 2023 to 2032. Growing demand for grid-connected renewable energy generation and the expansion of data centers have also contributed to the steady growth of the lead-acid battery market. Lead-acid batteries provide charging support for UPS (Uninterruptible Power Supply) systems and deliver stable and continuous power through SLI (Starting, Lighting, Ignition) systems. Although lead-acid batteries are heavier and larger than lithium batteries, they are readily available, cost-effective, suitable for large-scale energy storage grids, capable of operating efficiently at low temperatures, and do not require active cooling.

The report indicates that 33.80% of market growth originates from the Asia-Pacific region. China, Japan, and India are the major markets for industrial lead-acid batteries in this region, and market growth in Asia-Pacific is expected to outpace that of Europe. In the foreseeable energy sector, the increasing use of industrial lead-acid batteries in renewable energy and industrial applications will further drive market growth in the Asia-Pacific region.

Due to the maturity of lead-acid battery technology, high safety, tolerance to extreme temperatures, high recyclability, and low cost, advanced economies in Europe and the United States continue to produce and use lead-acid batteries extensively. According to statistics released by the **International Lead and Zinc Study Group (ILZSG)** in February 2025, global refined lead production in 2024 totaled 13.013 million metric tons, while lead consumption reached 12.977 million metric tons. A report by CRU indicates that lead consumption for lead-acid batteries accounts for approximately 80% of total global lead consumption. In addition, the malleability, density, and corrosion resistance of lead make it widely used in containers for corrosive liquids and for shielding against X-ray and gamma radiation. Other applications include the manufacture of coatings, pigments, and various compounds.

As demand for automotive batteries continues to increase in the Asia-Pacific region, along with growing requirements for mobile phone base stations and backup power storage systems, the demand for lead-acid batteries continues to rise. Industrialization and urbanization have also driven increased energy consumption in the region, further stimulating demand. In October 2024, the ILZSG projected that global lead consumption would increase to 13.39 million metric tons in 2025.

In summary, lead-acid batteries continue to play an important role in industries such as the automotive sector. With the advancement of clean energy policies, demand for lead-acid batteries and lead is expected to continue growing. Driven by the circular economy, lead recycling technologies have matured, and recycled lead consumes significantly less energy and produces fewer carbon emissions than primary smelting, aligning with low-carbon and circular economy trends. Many lead producers have

therefore elevated recycled lead to a core strategic focus and have received government subsidies to support these efforts.

Although the lead industry faces challenges related to environmental protection and competition from alternative materials, its high recyclability, stable industrial demand, and potential for emerging applications indicate continued development potential. The key lies in whether industry players can continuously innovate in environmental upgrades, circular utilization, and smart manufacturing to adapt to the global sustainability transition. The ILZSG noted that in 2024, **67.50%** of global refined lead supply came from recycled lead (compared to **67%** in 2023).

(2). Upstream, Midstream, and Downstream Industry Linkages

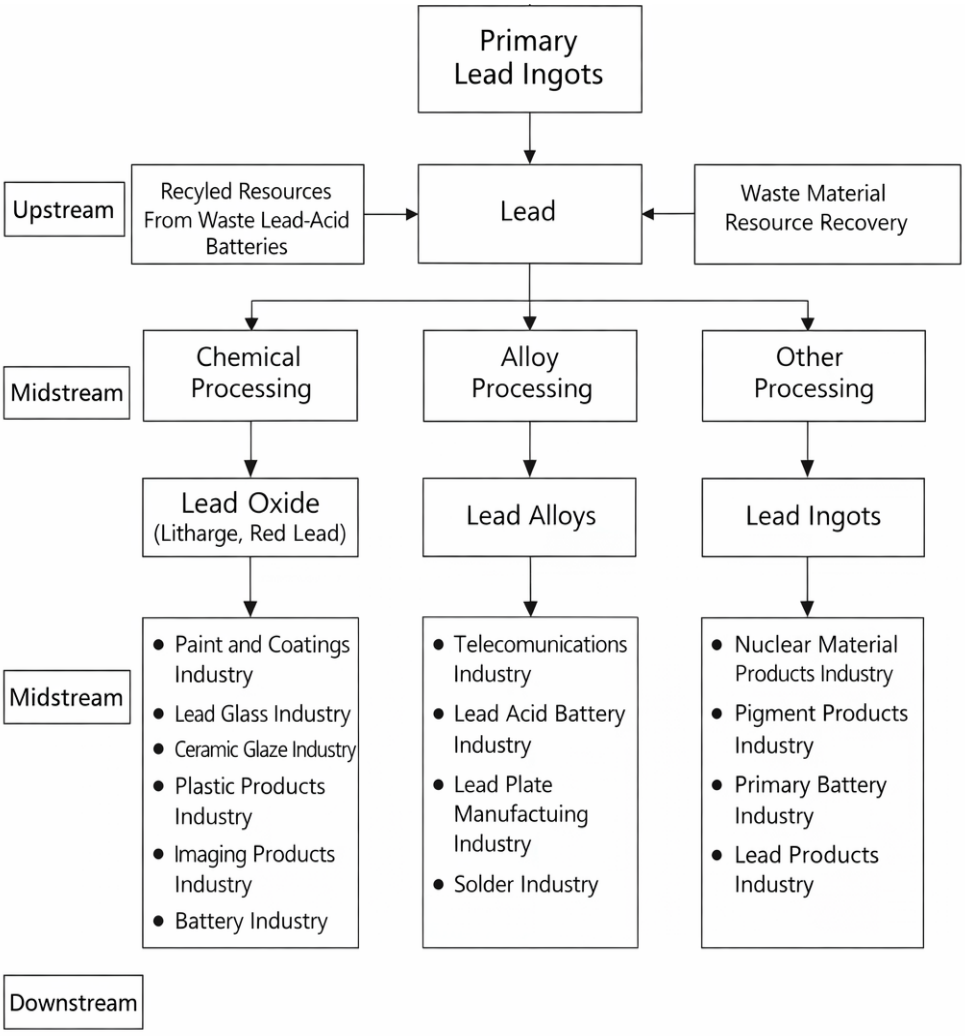


Figure 2.1 Upstream, Midstream, and Downstream Linkages of the Lead Ingot Industry

1. Upstream – Raw Material Supply

The Company's primary raw material is lead. There are two main sources of lead raw materials. One source is primary lead ingots, mainly supplied from Australia, Europe, China, and the Americas. The other source is secondary lead produced through the smelting of recycled waste lead-acid batteries.

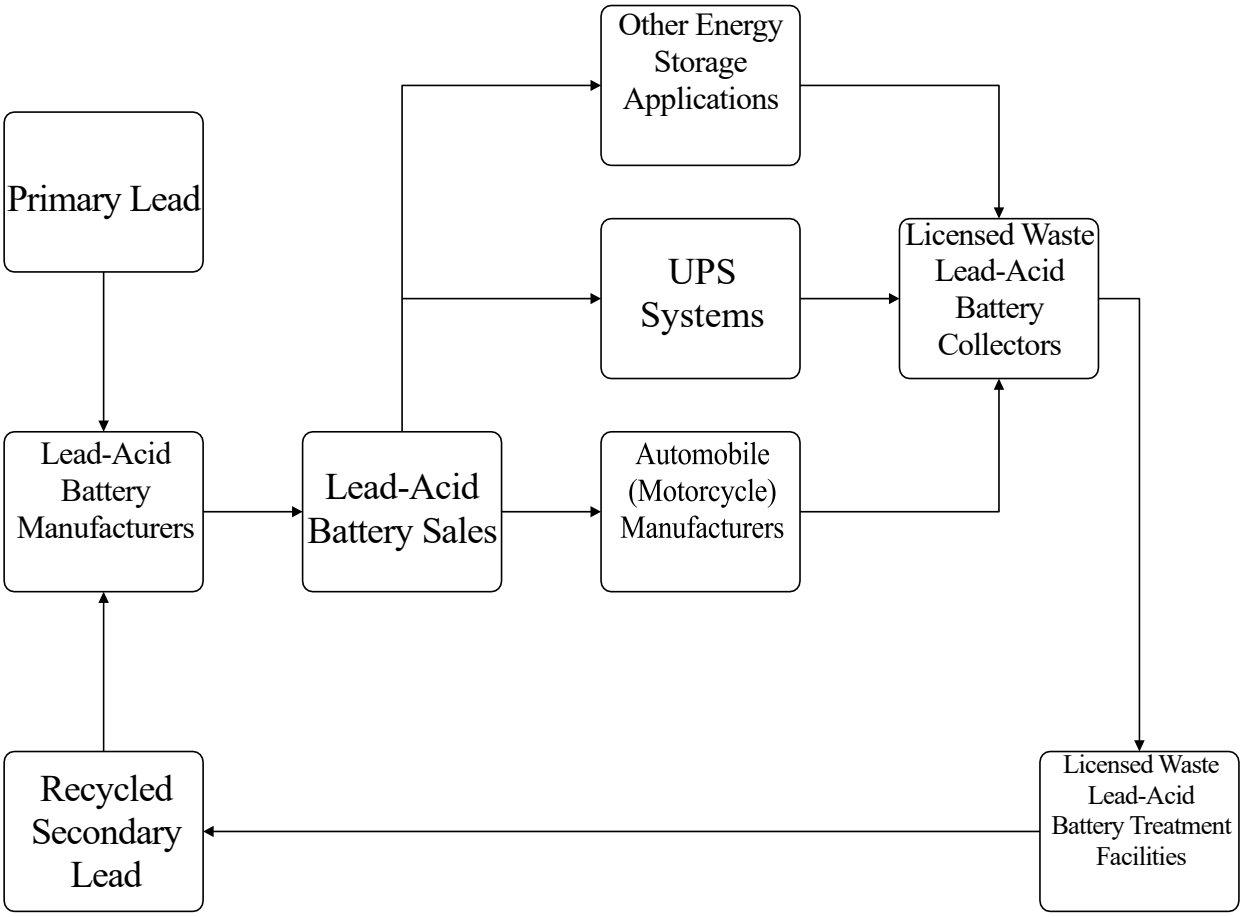


Figure 2.2 Recycling Linkage Diagram of Waste Lead-Acid Batteries

2. Midstream – Lead Product Processing

The main products of the lead processing industry are lead-antimony alloys and lead-calcium alloys. Other lead chemical products are mainly litharge and red lead. The manufacturing processes are as follows:

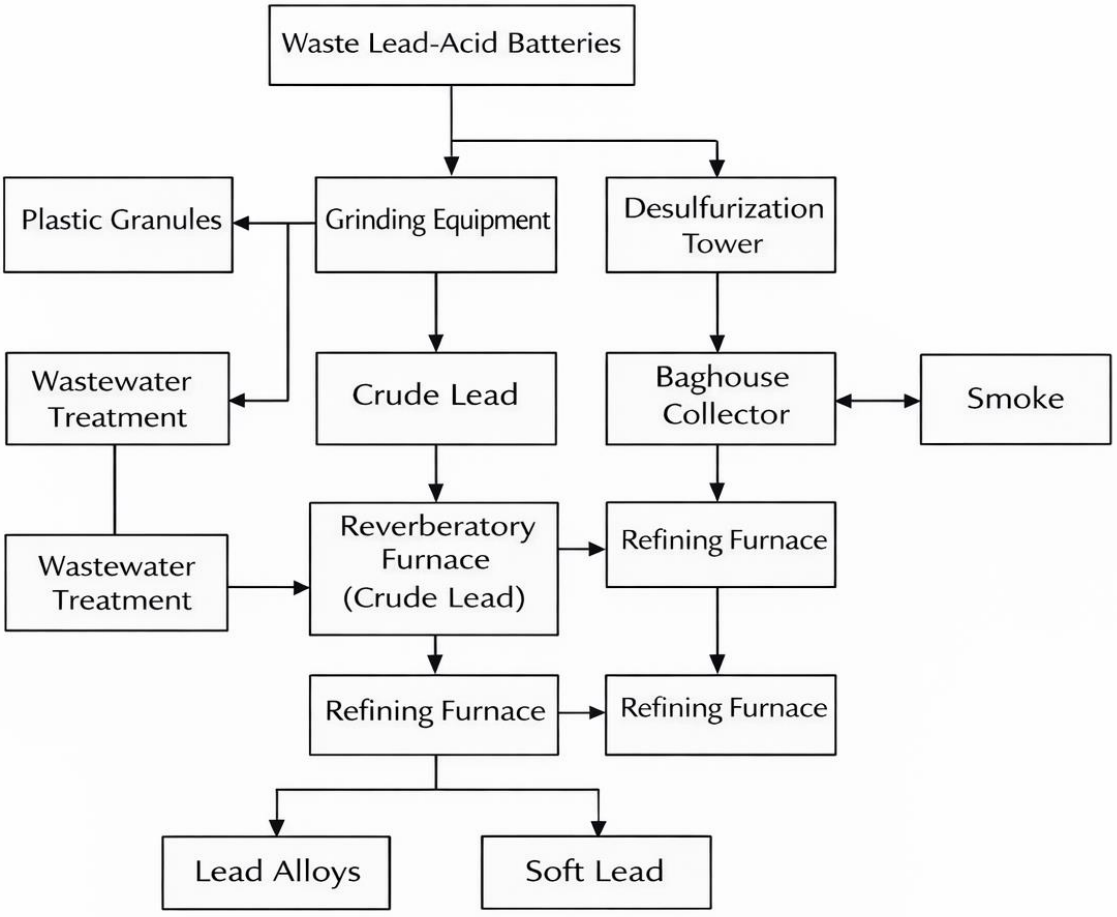
(1) Manufacturing Process of Lead Alloys：

Lead Ingots → Refining Furnace → Lead Alloys

Waste Lead-Acid Batteries → Crushing → Reverberatory Furnace (Crude Lead) → Refining Furnace → Lead Alloys or Soft Lead

(2) Manufacturing Process of Lead Oxides：

Lead Ingots → Lead Melting Furnace → Lead Powder Mill → Litharge/Red Lead Furnace → Litharge and Red Lead Powder (Granules)



2.3 Waste Lead-Acid Battery Recycling Process

3. Downstream – Various Industries

The primary sales destinations for lead alloys produced by the lead processing industry are battery manufacturers. In addition, lead alloys are also widely used in industries such as shipbuilding, lead plate manufacturing, lead weight manufacturing, and soldering industries. Lead oxides (litharge and red lead) are mainly supplied to downstream industries including plastic stabilizer manufacturing, paint manufacturing, glaze production, and glass manufacturing, with a broad range of applications.

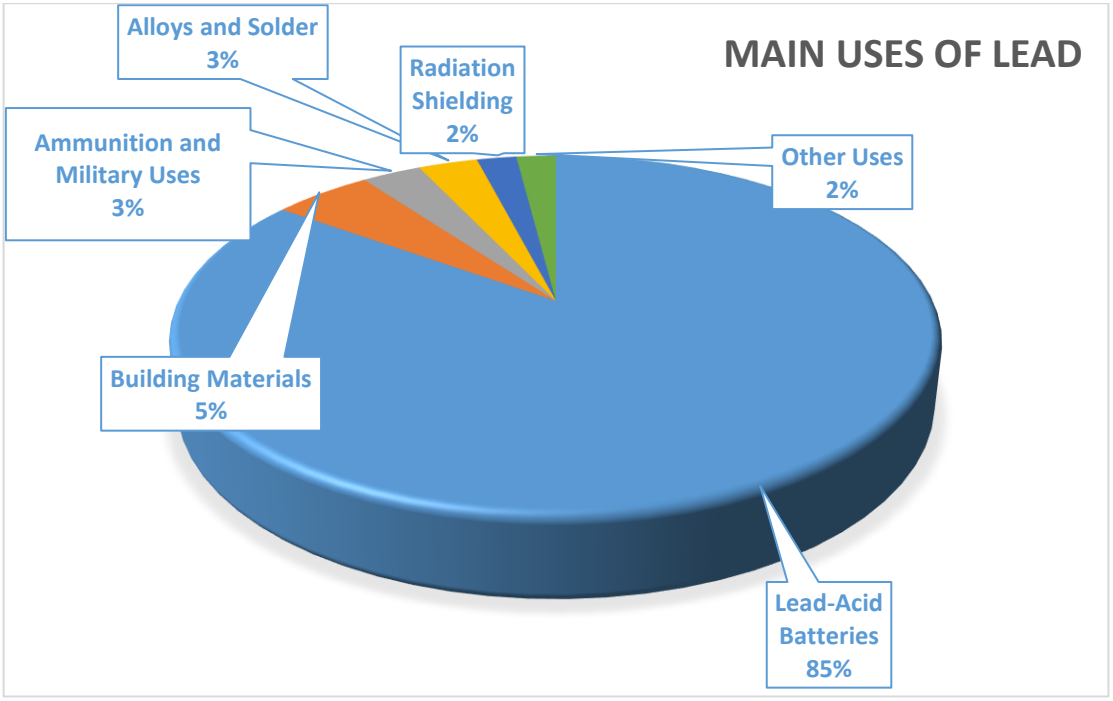
(3). Product Development Trends and Competitive Landscape

The level of lead consumption is closely related to the growth of the lead-acid battery industry, particularly in developing regions such as Mainland China, India, ASEAN countries, and other emerging economies. As economic development accelerates in these regions, the number of vehicles has increased rapidly, resulting in relatively high growth rates in battery demand. Furthermore, batteries are expected to be widely used in electric motorcycles, electric bicycles, handheld electronic communication products, base stations, and various communication devices in the future. As national economies continue to grow, derived lead consumption is also expected to increase accordingly.

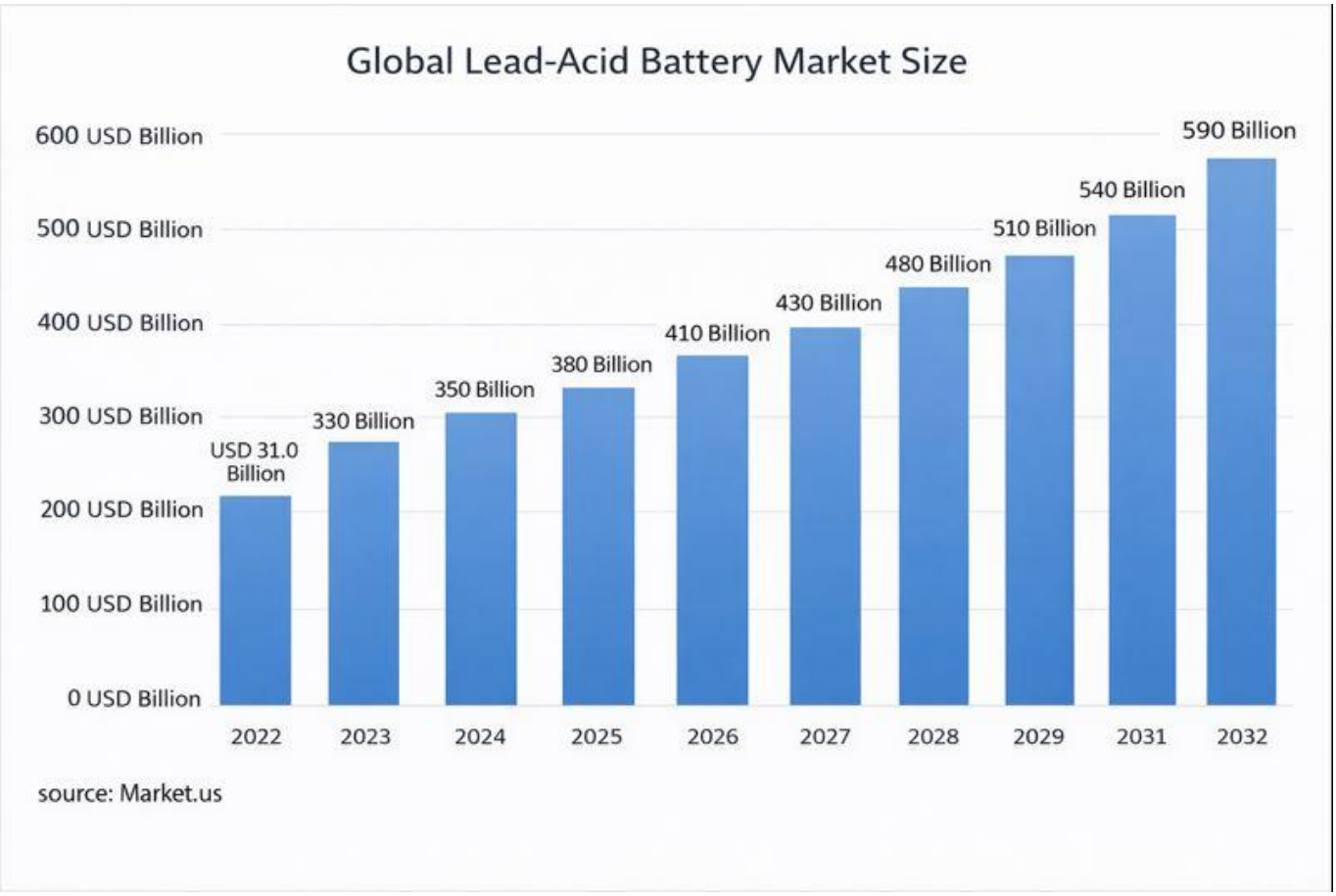
Although the growth rate of the lead products market has slightly slowed in the past one to two years due to partial market saturation, resulting in a more moderate increase in sales volume, from a long-term perspective, the number of automobiles and motorcycles will continue to grow alongside rising national income and improved living standards. Therefore, lead products are expected to maintain a steady development trend. In addition, the Company's main products, litharge and red lead, are primarily applied in the plastic stabilizer industry and the lead-acid battery industry.

At present, approximately **85%** of lead consumption is used in lead-acid batteries, while other industries account for around **15%**. In the future, the proportion of lead used in lead-acid batteries is expected to continue increasing. The main drivers of this growth include stable demand from the automotive industry—especially in emerging markets where vehicle ownership continues to rise—thereby driving battery demand. In

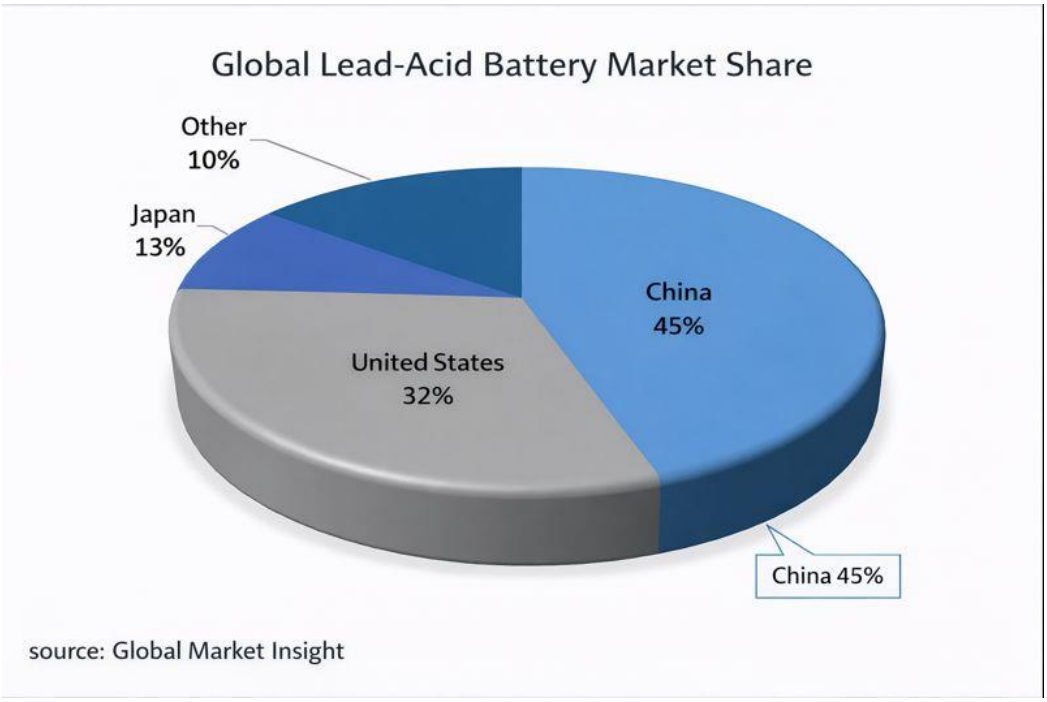
telecommunications, data centers, and industrial facilities, lead-acid batteries remain the primary choice for backup power due to their cost-effectiveness and reliability. Although lithium batteries dominate large-scale energy storage systems, lead-acid batteries remain competitive in certain small- and medium-scale energy storage applications.



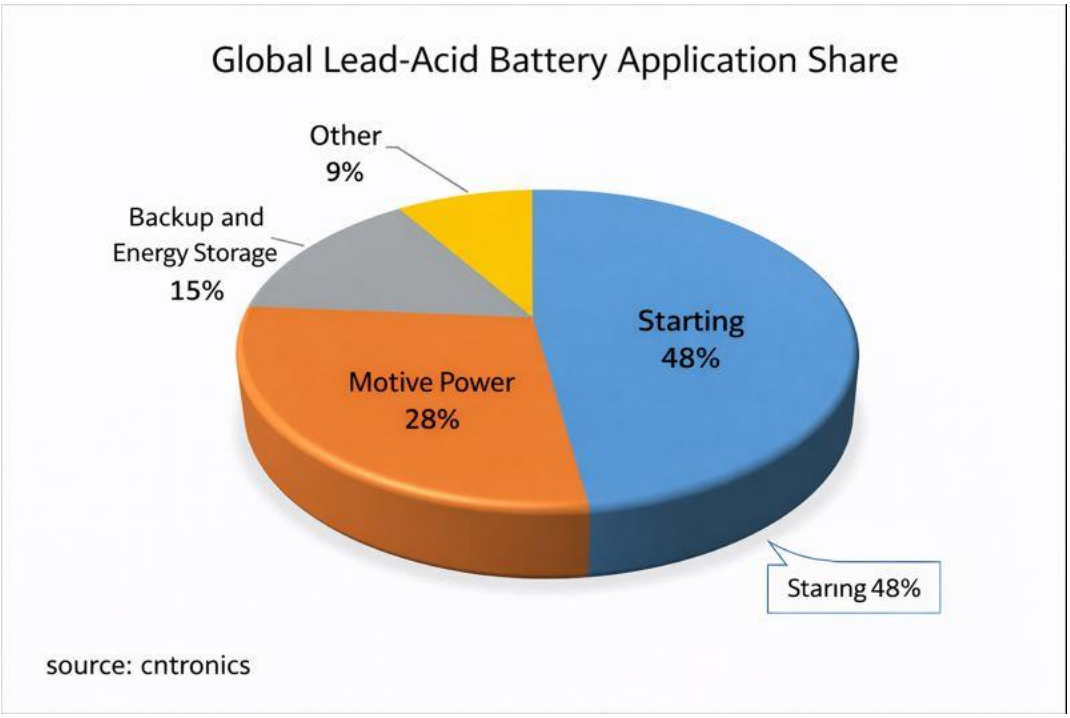
Global Lead-Acid Battery Market Size



From the perspective of global lead-acid battery production capacity, China is a major producer, accounting for approximately **45%** of global output, followed by the United States at around **32%**, with Japan ranking third at approximately **13%** of global production.



In terms of the product structure of lead-acid batteries, **starting-type lead-acid batteries** account for the largest share at **48%**, followed by **motive power lead-acid batteries** at **28%**, while **backup and energy storage lead-acid batteries** account for approximately **15%**.



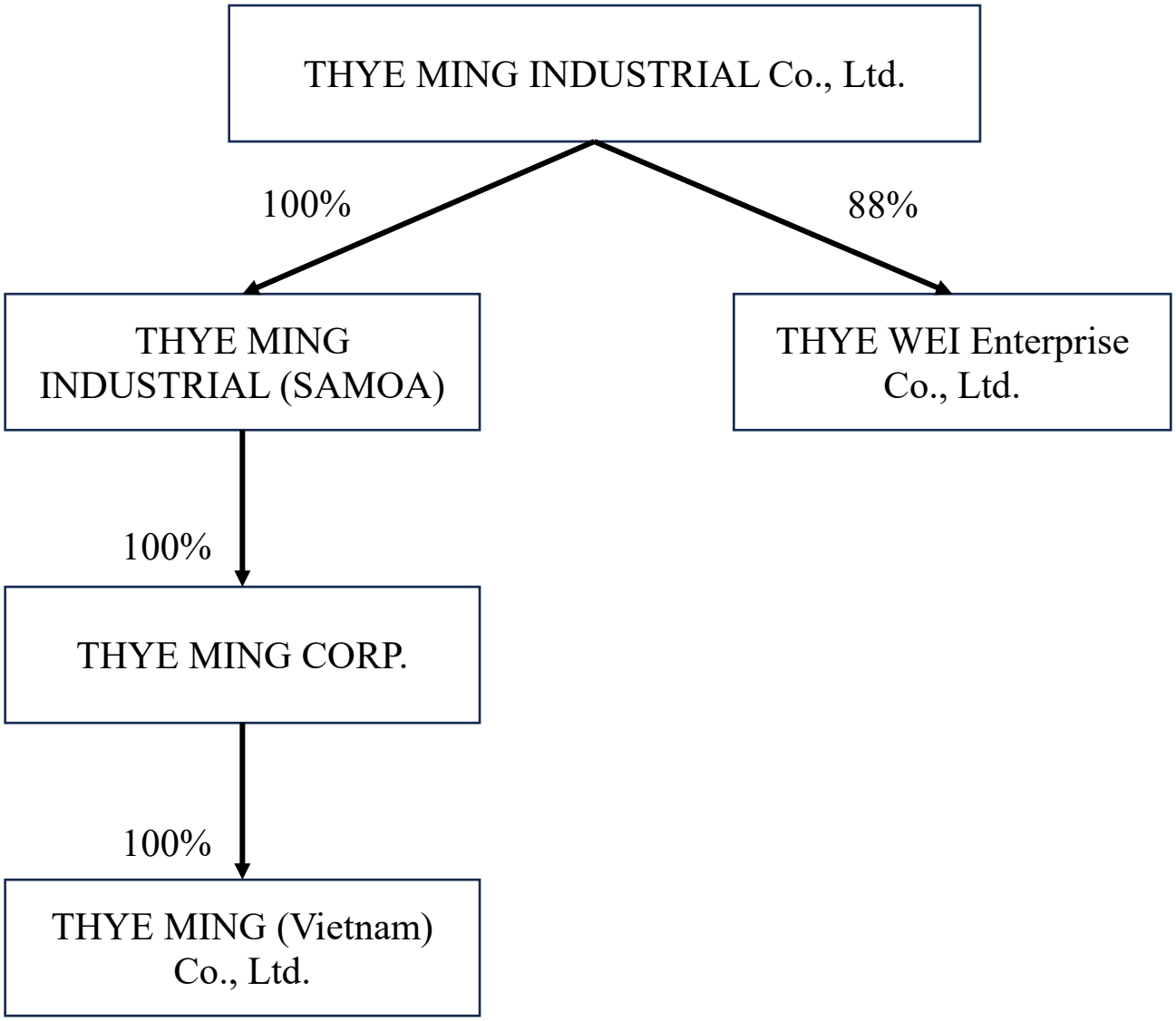


Figure 2.4 Organizational Structure of Affiliated Companies

Table 2.1 Basic Information of Affiliated Companies

As of December 31, 2024

Unit: NT$ thousand / Foreign currency in original currency

Company Name	Date of Incorporation	Address	Paid-in Capital	Main Business Activities
THYE WEI Enterprise Co., Ltd.	1987.05.28	1F., No. 6, Juguang 3rd St., Daliao Dist., Kaohsiung City, Taiwan	NT$100,000	General and industrial waste collection, recycling and treatment services; trading of waste lead-acid batteries, lead slag, and related materials
THYE MING INDUSTRIAL (SAMOA)	2006.11.02	Protcullis TrustNet Chambers,P.O.BOX 1225,Apia,Samoa.	USD30,000,000	Investment activities
THYE MING CORP.	2006.11.02	Protcullis TrustNet Chambers,P.O.BOX 1225,Apia,Samoa.	USD30,000,000	Investment activities
THYE MING (Vietnam) Co., Ltd.	2006.12.19	My Phuoc 2 Industrial Park, Ben Cat City, Binh Duong Province, Vietnam	USD30,000,000	Manufacturing of various lead-based products; recycling and reprocessing of domestic waste lead-acid batteries, lead products, and plastics

Table 2.2 Operating Overview of Affiliated Companies

As of December 31, 2024

Unit: NT$ thousand

Company Name	Capital	Total Assets	Total Liabilities	Net Worth	Operating Revenue	Operating Profit	Profit/Loss for the Period (After Tex)
THYE WEI Enterprise Co., Ltd.	100,000	248,711	20,566	228,145	534,024	24,577	22,687
THYE MING INDUSTRIAL (SAMOA)	970,497	1,719,174	0	1,719,174	0	0	140,203
THYE MING CORP.	970,497	1,719,172	0	1,719,172	0	0	140,203
THYE MING (Vietnam) Co., Ltd.	970,497	1,786,485	67,375	1,719,110	2,796,657	157,181	139,895

2.2.2 Market and Sales Overview

I. Market Analysis

(1). Sales Regions of Major Products

1. **Domestic Market:**

   Approximately **44%** of the Company's products are sold domestically, with distribution covering the entire country.

2. **Overseas Market:**

   Approximately **56%** of the Company's products are exported, with major export destinations including **Vietnam, Malaysia, Japan, Indonesia, and Thailand**.

3. **General and Industrial Waste Collection and Recycling:**

   The collection and recycling of general and industrial waste are conducted domestically. The Company is the **first enterprise in Taiwan** to obtain comprehensive permits for lead-related operations, enabling it to provide such services.

(2). Market Share

The Company's domestic market share is approximately **85%** for lead alloy products and approximately **60%** for litharge and red lead products.

(3). Future Market Supply and Demand Conditions and Growth Potential

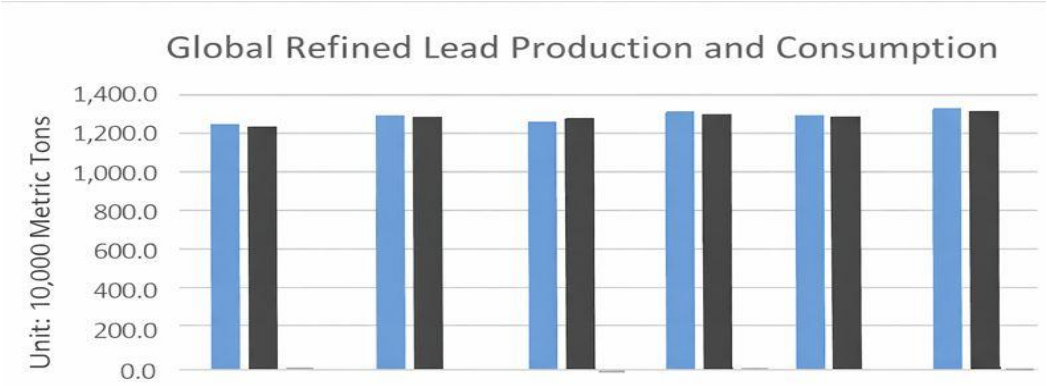
In terms of applications, approximately **85%** of lead-series products are used in lead-acid batteries for the automobile and motorcycle industries. In these markets, lead-acid batteries are consumables with an average lifespan of approximately **2 to 3 years**. Other applications include electric vehicle power systems and industrial UPS (Uninterruptible Power Supply) systems. Litharge and red lead are mainly used in glazes, crystal, and optical glass.

With social progress and improvements in living standards, demand continues to grow not only in the automobile and motorcycle industries but also for electrical appliances. In addition, the applications of lead continue to expand across various fields,

including batteries, lead glass, ceramics, yacht ballast, welding, building roof insulation, vibration-damping materials for high-rise buildings, radiation shielding in hospitals or nuclear power plants, and lead containers for the storage of nuclear waste.

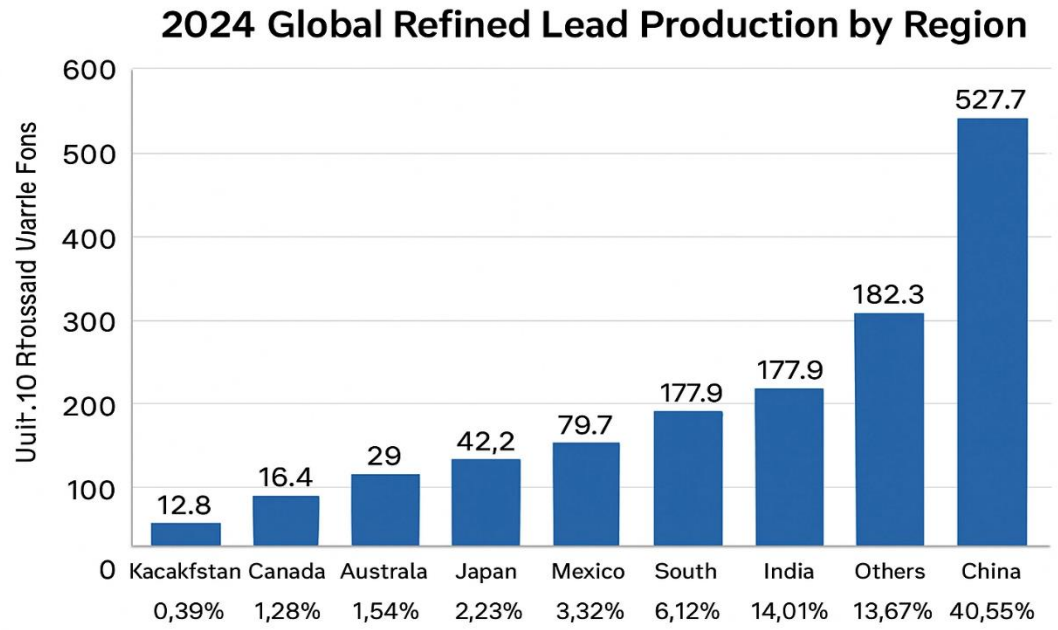
Rapid urbanization and industrialization in the Asia-Pacific region, together with rising average incomes and relatively stable oil prices, have increased demand for transportation vehicles, driving growth in automobile and motorcycle sales. This trend is a key factor supporting the continued growth of the lead-acid battery market.

Lead-acid batteries are increasingly used in uninterruptible power systems (UPS), which are receiving growing attention and reliance in sectors such as financial institutions, hospitals, research organizations, and educational institutions. Applications in smart grids and electric vehicle charging infrastructure have also broadened the scope of lead-acid battery usage. According to the latest report released by international market research firm **Markets.us**, the global lead-acid battery market is expected to reach **USD 59.0 billion by 2032**, with a compound annual growth rate (CAGR) of **6.90%** during the period. The Asia-Pacific region accounts for the largest share, with large automotive and manufacturing bases serving as key drivers of market growth.

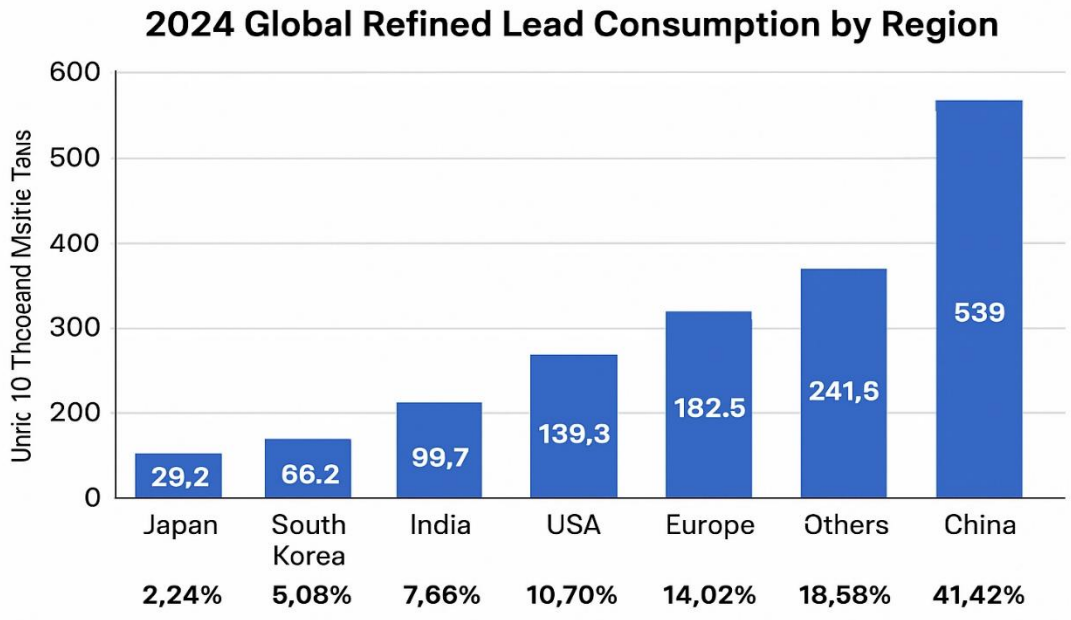


	2020年	2021年	2022年	2023年	2024年	2025 (Est.)
Refined Lead Production	125.4	130.0	127.8	132.4	135.1	
Refined Lead Consumption	123.9	129.5	129.6	130.8	133.9	
Surplus (Deficit)	1.5	0.4	-1.8	1.6	1.2	

Source: ILZSG (International Lead and Zinc Study Group)



Source: ILZSG (International Lead and Zinc Study Group)



Source: ILZSG (International Lead and Zinc Study Group)

(4). Competitive Advantages and Development Outlook: Favorable and Unfavorable Factors and Countermeasures：

1. Competitive Advantages

(1) Superior Quality and Strong Brand Reputation

The Company has consistently upheld high quality standards and accumulated extensive technical expertise and experience over many years. This has enabled the Company to establish an excellent corporate reputation and brand image. It has also obtained ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 45001 (Occupational Health and Safety Management) certifications, positioning the Company as a leading brand in Taiwan's lead products industry.

(2) Extensive Manufacturing and Technical Experience

The Company's management team has accumulated substantial manufacturing and technical experience, allowing it to effectively control production efficiency. Continuous improvements in process simplification, production automation, new product development, and yield management have not only reduced production costs but also enhanced product quality, thereby strengthening operational performance and market competitiveness.

(3) Comprehensive Product Portfolio

The Company produces a wide range of lead alloy products for different applications, enabling it to meet diverse customer needs. Its customer base spans both domestic and international markets, reducing reliance on any single downstream industry. The ability to offer a comprehensive product line represents a key competitive advantage in the market.

(4) Secure Control of Raw Materials

The Company's raw materials include both primary lead ingots and recycled lead ingots. Primary lead ingots are mainly imported from overseas, while recycled lead ingots are produced domestically through the smelting of

spent lead-acid batteries. When domestic supply is insufficient, additional materials are sourced from abroad. Overall, the supply of raw materials is ample and stable, with no concern over shortages.

2. Favorable Factors for Development Outlook

(1) Emergence of Emerging Markets Sustains Growth Momentum in the Lead Industry

The growth potential for lead demand remains substantial.

a. Energy storage systems (UPS) can store surplus electricity generated during off-peak periods and supply power during peak demand, which is expected to drive significant growth in battery demand.

b. According to the International Energy Agency (IEA) and other research institutions, global sales of internal combustion engine (ICE) vehicles reached approximately 62.8 million units in 2023 and are estimated to increase to around 68.4 million units in 2024. By 2025, the global vehicle fleet is projected to reach approximately 1.644 billion vehicles, equivalent to about 203 vehicles per 1,000 people, reflecting the world's continued reliance on automobiles. According to The Hedges Company's 2025 report, Asia accounts for approximately 619 million vehicles (37.7%), followed by Europe with approximately 431 million vehicles (26.2%). These figures indicate that demand for traditional ICE vehicles remains strong, which in turn supports growth in lead consumption.

c. The application of uninterruptible power supply (UPS) systems continues to expand. As information technology becomes increasingly pervasive, data security and real-time availability are receiving greater attention, further promoting the widespread adoption of UPS systems and driving growth in lead demand.

(2) The Company Is the Only Listed Company Engaged in Lead-Acid Battery Recycling and Reuse and Is the Largest Producer in Taiwan

The Company enjoys a strong product quality image.

a. In November 1994, the Company obtained a waste treatment facility operating permit and has since been dedicated to the recycling of spent lead-acid batteries, making it one of the few licensed operators in the lead products industry.

b. The Company was the first professional lead products manufacturer in Taiwan to obtain ISO 9001, ISO 14001, and ISO 45001 certifications. In 1998, it was further awarded the ISO 14001 Environmental Management System Excellence Award by the Environmental Protection Administration of the Executive Yuan (now the Ministry of Environment).

(3) Well-Established Recycling Channels for Spent Lead-Acid Batteries

The Company's subsidiary, Taiwei Corporation, has established a nationwide collection system for spent lead-acid batteries. The recovered lead is smelted into recycled lead, which not only secures raw material supply and reduces costs but also effectively mitigates environmental pollution caused by lead waste.

(4) Stable Customer Base and Strong Sales Capability

a. Sales of lead alloys are mainly focused on the domestic market, with customers comprising major battery manufacturers in Taiwan, resulting in a stable customer base. Lead oxides are primarily exported, mainly to Japanese and Taiwanese companies, through long-term sales contracts that foster close and stable business relationships.

b. Both domestic and international customers are major enterprises within their respective regions, with strong credit ratings, high receivables collectability, and minimal bad debt risk.

c. Over the past three years, the Company's domestic and export sales proportions have remained relatively balanced, reducing exposure to fluctuations in any single market.

3. Unfavorable Factors Affecting Development Outlook and Countermeasures

(1) Lead Prices Are Highly Influenced by International Markets, Making Price Control Difficult

Countermeasures

a. Strengthen market data collection, analysis, and application to timely mitigate price volatility risks.

b. Actively manage inventory, shorten production and sales cycles, and secure long-term sales contracts to stabilize revenues and reduce exposure to price fluctuations.

c. The Company's lead ingot products are listed on the London Metal Exchange (LME), providing greater flexibility in procurement and sales. Since Kaohsiung Port became an LME delivery port in 2013, the Company can leverage its geographic advantage to improve pricing accuracy and significantly reduce transportation costs.

(2) Rising Environmental Awareness and Stricter Regulatory Oversight

Countermeasures

a. In addition to pollution prevention, the Company has actively invested in environmental protection initiatives. In November 1994, it obtained a waste treatment facility operating permit, and in October 2023, it successfully transitioned to obtain approval from the Ministry of Economic Affairs for industrial waste reuse, engaging in the environmentally responsible treatment and recycling of spent lead-acid batteries and lead-containing waste.

b. The Company has consistently promoted environmental protection policies and obtained ISO 14001 certification in September 1997. In

1998, it was awarded the ISO 14001 Environmental Management System Excellence Award by the Environmental Protection Administration (now the Ministry of Environment).

(3) Shortage and Low Stability of Entry-Level Labor, a Common Issue in Taiwan's Manufacturing Sector

Countermeasures

a. The Company supplements domestic labor shortages by hiring foreign workers while continuously improving the working environment and employee benefits to enhance workforce cohesion.

b. Improve production processes and increase automation to raise output and reduce unit labor costs.

(4) Absence of Domestic Lead Mining and Smelting Results in Heavy Reliance on Imported Raw Materials and Exposure to Foreign Exchange Risk

Countermeasures

a. Strengthen relationships with suppliers in major lead-producing regions and dispatch personnel to production sites to assess capacity and manufacturing processes as references for future procurement.

b. Actively diversify procurement sources, maintain flexibility among trading partners, and develop new suppliers to ensure stable and continuous raw material supply.

c. Through investment in Taiwei Corporation (a qualified recycler), the Company reduces dependence on imported raw materials by leveraging its nationwide recycling system.

d. As most overseas procurement payments and export receivables are denominated in U.S. dollars, export proceeds are largely retained in

foreign currency for raw material payments, creating a natural hedge that reduces foreign exchange risk and potential losses.

II. Major Products: Key Applications and Manufacturing Processes

(1). Key Applications of Major Products

Product	Key Applications
Lead–Antimony Alloy	Lead-acid batteries, lead terminals, cable sheathing, solder, fishing sinkers, die casting, ballast lead ingots
Lead–Calcium Alloy	Maintenance-free lead-acid batteries, lead-acid batteries for electric vehicles, emergency lead-acid batteries, UPS lead-acid batteries
Lead Ingots	Lead-acid batteries, lead oxides, cable sheathing, solder, fishing sinkers, die casting, ballast lead ingots
Litharge (Yellow Lead Oxide)	CRT glass, ceramic glazes, inorganic pigments, plastic stabilizers, crystal glass, optical glass
Red Lead (Minium)	Lead-acid batteries, ceramic glazes, red pigments, paints, red glass, crystal glass, optical glass

(2). Manufacturing Processes of Major Products

1. Litharge (Yellow Lead Oxide) and Red Lead：

Lead Ingots → Lead Melting Furnace → Lead Powder Mill → Yellow/Red Lead Furnace → Yellow/Red Lead Powder (Granules)

2. Lead Alloy Ingots

Spent Lead-Acid Batteries → Crushing → Reverberatory Furnace → Refining Furnace → Lead Alloy / Soft Lead Ingots → Refining Furnace → Lead Alloy Ingots

III. Supply Status of Major Raw Materials

The Company’s primary raw materials include **primary lead ingots** and **secondary (recycled) lead ingots**.

Primary lead ingots are mainly imported from overseas, while secondary lead ingots are produced through the smelting of spent lead-acid batteries and are primarily supplied domestically. Although the domestic supply volume is subject to certain limitations, overseas sources of lead ingots and scrap lead are abundant, ensuring a stable and sufficient supply without concerns of shortage.

2.3 Business Strategy and Current Operations

I. Technology and R&D Overview

(1). R&D Expenditure in the Most Recent Year and Up to the Date of Annual Report Publication

Unit: NT$ thousand

Item	FY 2024	Up to March 31, 2025
R&D Expenditure	5,794	1,521

(2). Successfully Developed Technologies or Products

The key technologies successfully developed by the Company over the past three years are as follows:：

Year	R&D Achievements
2021	Improvement of continuous feeding system for litharge furnace
2022	Improvement of desulfurization tower exhaust system
2023	Improvement of heat exchanger system
2024	Development of low self-discharge lead–calcium alloy Development of lead–tin alloy with enhanced electrical conductivity and corrosion resistance

II. Long-term and Short-term Business Development Plans

(1). Short-term Development Plan

1. Marketing Strategy

(1) Collecting and analyzing development trends in the lead products market to strengthen domestic and overseas market expansion.

Domestic market: focus on increasing market share.

Overseas market: focus on Asia, with the goal of securing at least one customer in each Asian country to diversify export customer concentration.

(2) Providing customers with relevant information on lead products in response to their needs, and strengthening after-sales consultation channels to assist customers in resolving issues and enhancing after-sales service quality.

2. Production and Product Development

(1) Increasing utilization of machinery capacity, optimizing production planning and scheduling, and adopting performance-based incentive systems to enhance employee productivity and reduce defect rates caused by human error.

(2) Strengthening training for on-site personnel and improving operational proficiency to enhance production efficiency and economies of scale.

(3) Enhancing training for quality control personnel and adopting modern precision instruments to maintain product quality stability.

(4) Diversifying procurement regions and suppliers, actively developing new sources of raw materials. In addition to sourcing lead from spent lead-acid batteries, procurement regions will be diversified globally to avoid excessive dependence on any single region or country.

3. Operations Management and Financial Planning

(1) Enhancing management performance, strengthening employee training, stimulating work potential, and improving operational quality.

(2) Emphasizing employee welfare policies and implementing profit-sharing and performance bonus systems to boost morale and strengthen employee cohesion.

(3) Strengthening internal control systems and promoting the application of computerized systems to improve operational efficiency and labor productivity, while enhancing coordination between production and sales and improving the accuracy of reporting.

(4) Flexibly utilizing various financial instruments to reduce capital costs and enhance financial management effectiveness.

4. Environmental Protection

(1) Increasing investment in pollution prevention equipment and improving its effectiveness to ensure environmental protection and prevent pollution incidents.

(2) Improving the efficiency of spent lead-acid battery recycling equipment to increase recycling rates. This not only provides a cost-effective source of raw materials, reducing lead alloy material costs, but also prevents secondary pollution caused by lead products, contributing to environmental protection.

(3) Continuously promoting energy conservation and carbon reduction. Since 2022, the Company has cooperated with the Green Industry Development Center of Chia Nan University of Pharmacy and Science on a “Green Management Planning” project, providing training programs including:

Carbon Neutrality Education Program

Carbon Inventory and ESG Education Program

(2). Long-term Development Plan

1. Marketing Strategy

(1) Strengthening the development of domestic and overseas marketing channels to increase sales volume, while gradually establishing overseas production bases and diversifying sales channels to expand both domestic and export revenues.

2. Production and Product Development

(1) Developing automated systems to reduce labor input, lower production costs, and design optimized production processes to improve work quality and reduce waste.

(2) Strengthening research on lead product functionalities, developing new applications for lead products, and participating in downstream customers' R&D projects to enhance product performance and expand usage scenarios.

(3) In response to battery demand from electric vehicles, energy storage systems, and uninterruptible power supply (UPS) systems, enhancing lead alloy performance to increase energy density, extend battery life, and improve charge–discharge rates of lead-acid batteries.

3. Operations Management and Financial Planning

(1) Continuously expanding vertically integrated operations.

(2) Promoting internationalization strategies and strengthening global business management capabilities, while actively cultivating international talent.

(3) Appropriately utilizing financial instruments to diversify and mitigate financial risks.

4. Environmental Protection

(1) Researching improvements to integrated operational processes for spent lead-acid battery recycling and developing technologies and equipment for industrial battery recycling.

(2) Participating in pollution prevention programs with academic research institutions and developing additional waste recycling and resource regeneration solutions to contribute to waste reduction and environmental protection.

III. Governance

3.1 Corporate Governance

I. Occupational Safety and Health

(1). The Company has obtained certification for the **ISO 45001:2018 Occupational Health and Safety Management System**.

(2). To implement occupational safety and health policies, the Company has established the **"Occupational Safety and Health Rules."**
In order to clearly define responsibilities, the Environmental Protection and Occupational Safety units conduct weekly safety and health inspections. A reward and penalty system has also been implemented to encourage compliance and reinforce awareness.

(3). Environmental and Safety Committee meetings are held regularly to review deficiencies and promote occupational safety and health matters.

(4). Employees are required to wear appropriate safety and health protective equipment within the plant premises in accordance with regulations, including safety helmets, dust masks or respirators, fire-resistant gloves, and safety shoes.

(5). Fire drills are conducted regularly within the plant, and joint fire response exercises are organized in cooperation with local fire departments.

(6). Licenses for operating machinery are periodically reviewed to ensure they remain valid, and external training programs are arranged as needed.

(7). Annual employee health examinations are conducted, with additional examination items for employees engaged in special operations.

(8). The Company has established professional occupational safety and health staffing as follows:

- Fixed crane operators: 53 persons
- Forklift operators: 67 persons

- Acetylene welding operators: 31 persons
- High-pressure gas designated equipment operators: 12 persons
- Lead operation supervisors: 25 persons
- Specific chemical substance operation supervisors: 5 persons
- Oxygen-deficiency operation supervisors: 8 persons
- General high-pressure gas operation supervisors: 2 persons
- Organic solvent operators: 3 persons
- Class B Occupational Safety and Health Administrators: 3 persons
- Class A Occupational Safety and Health Supervisors: 8 persons
- Fire safety managers: 3 persons
- Hazardous materials safety supervisors: 4 persons
- Hazardous materials safety inspectors: 2 persons
- Occupational accident first-aid trained personnel: 28 persons
- Aerial work platform operators: 12 persons

II. Competitive Advantages, Development Prospects, and Countermeasures：

1. Competitive Advantages

(1). Superior Quality and Brand Reputation

The Company has consistently adhered to high-quality standards and accumulated extensive technical expertise and experience over the years. This has enabled the Company to establish a strong reputation and brand image, while obtaining certifications such as **ISO 9001, ISO 14001, and ISO 45001** for quality, environmental management, and occupational safety and health systems, positioning the Company as a leading brand in Taiwan's industry.

(2). Extensive Manufacturing Technology and Practical Experience

The Company's management team possesses years of manufacturing experience and has a strong command of production efficiency. Continuous improvements have been made in process simplification, production automation, new product development, and yield control. These efforts have not only reduced production costs but also enhanced product quality, thereby improving operational performance and market competitiveness.

(3). Comprehensive and High-quality Product Portfolio

The Company produces a wide range of lead alloy products for different applications, enabling it to meet diverse customer needs. Its customer base spans both domestic and international markets, reducing dependence on fluctuations in any single downstream industry. The ability to provide a comprehensive product line represents a key competitive advantage.

(4). Stable Control of Raw Materials

The Company's raw materials include both primary lead ingots and recycled lead ingots. Primary lead ingots are mainly imported from overseas, while recycled lead ingots are produced by smelting spent lead-acid batteries, primarily sourced domestically. When domestic supply is insufficient, overseas procurement is

utilized. Overall, raw material supply is abundant and not subject to shortages.

3.1.1 Board of Directors

Board of Directors

The Board of Directors is responsible for guiding corporate strategy, supervising management, and being accountable to the Company and its shareholders. All governance-related operations and arrangements are designed to ensure that the Board exercises its authority in accordance with applicable laws, the Company's Articles of Incorporation, and resolutions of shareholders' meetings.

Directors' Profiles

Name	Professional Qualifications and Experience	Independence Status	Number of Independent Director Positions Held in Other Public Companies
Representative of Tai-Yong Investment Co., Ltd.: Chen Feng-Ming	Over five years of experience required for company operations; Chairman of THYE MING Industrial Co., Ltd.	No circumstances under Article 30 of the Company Act	None
Director: Chen Chang-Hao	Over five years of experience required for company operations; General Manager of Thye Ming (Vietnam) Co., Ltd.	No circumstances under Article 30 of the Company Act	Not Applicable
Representative of Tai-Lin Investment Co., Ltd.: Chen Chi-Lin	Over five years of experience required for company operations; Chairman of Tai-Yeh Enterprise Co., Ltd.	No circumstances under Article 30 of the Company Act	None
Representative of Tai-Lin Investment Co., Ltd.: Chou Chung-Fa	Over five years of experience required for company operations; Special Assistant to the General Manager's Office, Thye Ming Industrial Co., Ltd.	No circumstances under Article 30 of the Company Act	None
Representative of Jin-Jun Investment Co., Ltd.: Chen Han-Wen	Attending Physician, Department of Surgery, Kaohsiung Medical University Hospital; Lecturer in Surgery, Kaohsiung Medical University; Vice Superintendent, Yuan's General Hospital	No circumstances under Article 30 of the Company Act	None
Representative of Mao-Sheng Investment Co., Ltd.: Lee Mao-Sheng	Over five years of experience required for company operations; General Manager of Thye Ming Industrial Co., Ltd.	No circumstances under Article 30 of the Company Act	None
Director: Chen Yi-Ming	Over five years of experience required for business, legal, financial, accounting, or company operations; Audit Committee Member, Thye Ming Industrial Co., Ltd.; Compensation Committee Member, Thye Ming Industrial Co., Ltd.; Compensation Committee Member, WALSIN LIHWA CORP.; Compensation Committee Member, Wah Hong Industrial Corp.; Accountant, Crowe Horwath Taiwan	No circumstances under Article 30 of the Company Act	None
Director: Lee Wen-Fa	Over five years of experience required for business, legal, financial, accounting, or company operations; Audit Committee Member, Thye Ming Industrial Co., Ltd.; Compensation Committee Member, Thye Ming Industrial Co., Ltd.; Deputy Director-General, Kaohsiung National Taxation Bureau, Ministry of Finance	No circumstances under Article 30 of the Company Act	None

Director: Lo Yu-San	Over five years of experience required for business, legal, financial, accounting, or company operations; Audit Committee Member, Thye Ming Industrial Co., Ltd.; Compensation Committee Member, Thye Ming Industrial Co., Ltd.; Director, Shin-Shih CPA Firm; Person in Charge, Shin-Shih Tax Consulting Co., Ltd.	No circumstances under Article 30 of the Company Act	None

3.1.2 Board Diversity and Independence

I. Board Diversity：

In accordance with Article 20 of the Company's Corporate Governance Best Practice Principles, members of the Board of Directors shall collectively possess the knowledge, skills, and professional qualities necessary to perform their duties. To achieve sound corporate governance objectives, the Board as a whole should demonstrate the following competencies：

(1). Operational judgment capability

(2). Accounting and financial analysis capability

(3). Business management capability

(4). Crisis management capability

(5). Industry knowledge

(6). International market perspective

(7). Leadership capability

(8). Decision-making capability

The composition of the Board of Directors shall take diversity into consideration. In principle, directors concurrently serving as company executives should not exceed one-third of the total number of board seats. Based on the Company's operational characteristics and development needs, appropriate diversity policies shall be formulated, including but not limited to the following two key dimensions：

(1). Basic conditions and values：Gender, age, nationality, and cultural background, among others. The proportion of female directors is expected to reach at least one-third of the total number of board seats.

(2). Professional knowledge and skills：Professional background (such as law, accounting, industry, finance, marketing, or technology), professional expertise, and industry experience.

Implementation Status of Board Member Diversity

Core Diversity Items / Director Name	Basic Composition										Skills		Industry Experience			Overall Capability						
	Nationality	Gender	Concurrent Employee of the Company	Age				Independent Director Tenure			Finance/Accounting	Medicine	Metal	Medical	Construction	Operational Judgment	Accounting and Financial Analysis	Management Capability	Crisis Management	International Market Perspective	Leadership	Leadership
				Under 51	50–60	61–70	71 and above	Less than 3 years	3–9 years	More than 9 years												
Chen, Feng-Ming	R.O.C	M					✔						✔		✔	✔	✔	✔	✔	✔	✔	✔
Chen, Chang-Hao	R.O.C	M		✔									✔			✔	✔	✔	✔	✔	✔	✔
Chen, Chi-Lin	R.O.C	M					✔						✔		✔	✔	✔	✔	✔	✔	✔	✔
Chou, Chung-Fa	R.O.C	M	✔		✔								✔			✔	✔	✔	✔	✔	✔	✔
Chen, Han-Wen	R.O.C	M				✔						✔		✔		✔	✔	✔	✔	✔	✔	✔
Lee, Mao-Sheng	R.O.C	M	✔			✔							✔		✔	✔	✔	✔	✔	✔	✔	✔
Chen, Yi-Ming	R.O.C	M					✔		✔		✔		✔			✔	✔	✔	✔	✔	✔	✔
Lee, Wen-Fa	R.O.C	M					✔		✔		✔		✔			✔	✔	✔	✔	✔	✔	✔
Lo, Yu-San	R.O.C	M				✔		✔			✔		✔			✔	✔	✔	✔	✔	✔	✔

Specific Management Objectives and Achievement Status of the Board Diversity Policy

The Company has established specific management objectives for its Board diversity policy and their current achievement status is summarized as follows：

Management Objective	**Achievement Status**
Directors concurrently serving as company executives should not exceed one-third of the total number of board seats	Achieved
Independent directors should not serve more than three consecutive terms	Achieved
The proportion of female directors should reach one-third of the total number of board seats	Not achieved

At present, the Company does not have any female directors. As the current term of the Board of Directors has not yet expired, the Company plans to increase the number of female directors during the next board re-election scheduled upon the expiration of the current term in 2026, in order to achieve the objective of enhancing board diversity.

II. Board Independence：

The Company's current Board of Directors consists of a total of **nine (9) directors**, including **three (3) independent directors** and **two (2) directors who also hold employee status**, representing **33.30%** and **22.20%** of the total board seats, respectively.
In terms of age distribution, **one (1) director** is aged **41–50**, **one (1) director** is aged **51–60**, **three (3) directors** are aged **61–70**, and the remaining directors are aged **71 or above**.

The proportion of independent directors accounts for **one-third of the total board seats**, in compliance with applicable regulations governing independent directors. Furthermore, there are no circumstances as stipulated in **Paragraphs 3 and 4 of Article 26-3 of the Securities and Exchange Act** between any directors or independent directors.

3.1.3 Board Performance Evaluation

The Company has established the **"Board Performance Evaluation Procedures"** and corresponding evaluation methods.
The scope of evaluation covers the **overall Board of Directors**, **individual board members**, the **Audit Committee**, and the **Remuneration Committee**. Evaluations are conducted **annually**.

Evaluation methods include:

- Internal self-evaluation by the Board,
- Self-evaluation by individual directors,
- Peer evaluation,
- Engagement of external professional institutions or experts, or
- Other appropriate evaluation approaches.

The relevant regulations governing the Board performance evaluation have been publicly disclosed on the Company's website:
http://www.tmicl.com.tw/inside-c-7.html

The performance evaluations for the **Board of Directors**, **individual board members**,

the **Audit Committee**, and the **Remuneration Committee** for **2023** were completed and submitted to the Board meeting on **March 12, 2024**, serving as a reference for individual director remuneration and reappointment nominations.
Details of the Board performance evaluation implementation are disclosed on **pages 17–18 of the 2024 Annual Report**.

3.1.4 Remuneration Policy

I. Director Remuneration Policy：

Director remuneration is handled in accordance with the Company's **Articles of Incorporation** and the **Remuneration Committee Charter**, subject to proposal by the Remuneration Committee and approval by the Board of Directors.

1. Director Compensation： The Chairman's remuneration is determined by the Board based on the extent of involvement in Company operations and contribution value, with reference to industry standards.
   In the event of profitability, pursuant to **Article 21 of the Articles of Incorporation**, the Company shall appropriate **no less than 1%** of annual pre-tax net profit (before employee and director compensation) as employee compensation and **no more than 3%** as director compensation. Where accumulated losses exist, such losses shall be offset first.
2. Independent Director Compensation：Independent directors receive fixed remuneration. Other director compensation is clearly stipulated in the Company's Articles of Incorporation.
3. Attendance Fees：All directors receive attendance fees (transportation allowances) regardless of profit or loss. The amount is determined by the Board of Directors.

II. Executive Officer Remuneration Policy：

The appointment and removal of executive officers are conducted in accordance with the Company Act.

Executive remuneration is determined in accordance with the **"Director and Executive Remuneration Policy"** and consists of **salary and bonuses**.

- **Salary** is determined with reference to industry standards and factors such as job title, education and experience, professional competence, and responsibilities.
- **Bonuses** are based on performance evaluations, including:
  - **Financial indicators** (revenue, sales volume, achievement rates of pre-tax and post-tax net profit), and
  - **Non-financial indicators** (material deficiencies in legal compliance and operational risk management, KPI achievement rates).

Bonus distribution ratios are approved by the Remuneration Committee, and final determinations are made by the Chairman based on operating performance.

III. Employee Remuneration Policy：

Employee compensation includes **base salary**, **allowances**, **year-end bonuses**, and **employee profit-sharing**.

Overall compensation policies are formulated with reference to market salary benchmarks and the Company's operating performance and are adjusted as necessary based on labor market trends, economic conditions, industry cycles, and regulatory requirements.

Employee compensation is determined based on education, experience, professional knowledge and skills, tenure, and individual performance, and is **not differentiated by age, gender, race, religion, political affiliation, or marital status**.

Promotion and salary adjustments are conducted annually based on individual performance evaluations.

In alignment with corporate performance, employee profit-sharing is appropriated in accordance with the Articles of Incorporation. Where the Company generates profits, **no less than 1% of pre-tax net profit** shall be allocated as employee compensation. If accumulated losses exist, such losses shall be offset prior to allocation.

3.1.5 Explanation of Annual Total Compensation Ratio

Annual total compensation may include the sum of salary, bonuses, stock awards, option awards, non-equity incentive plan compensation, pension amounts, and the change in unvested deferred compensation earnings provided during the year. When calculating the ratio, the organization should consider the following factors based on the organization's compensation policy and data availability:

- **Base Salary:** The sum of guaranteed, short-term, and fixed cash compensation.
- **Total Cash Compensation:** The sum of base salary, cash allowances, bonuses, commissions, cash profit-sharing, and other forms of cash compensation.
- **Direct Compensation:** The sum of total cash compensation and the total fair value of all annual long-term incentives (e.g., stock option awards, restricted stock or units, performance stock or units, phantom stock, stock appreciation rights, long-term cash awards).

Annual Total Compensation Change Ratio

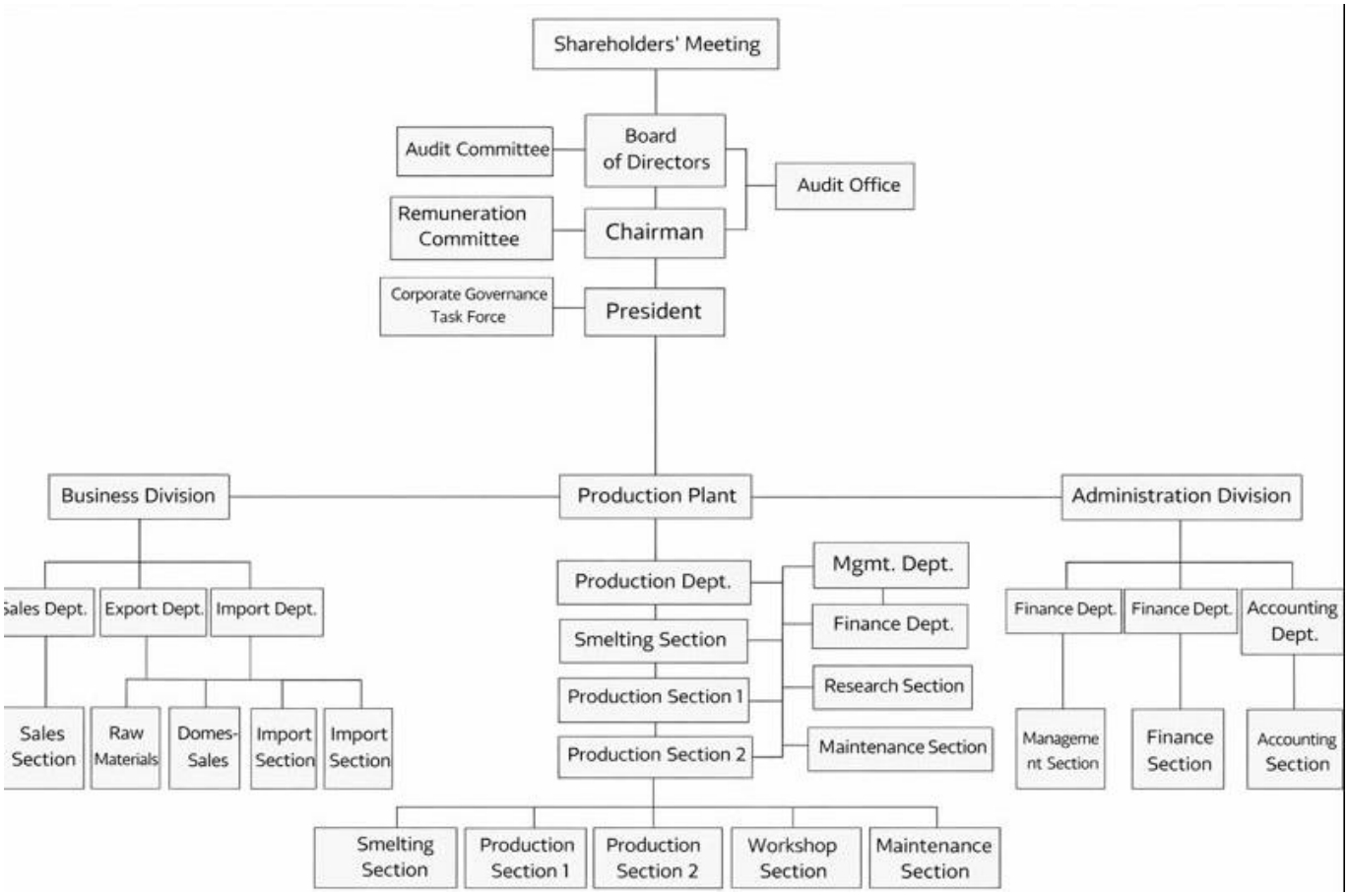
Formula

$$\frac{\text{Annual Percentage Increase in Total Remuneration of the Highest-Paid Individual}}{\text{Annual Percentage Increase in the Median Total Remuneration of All Employees(excluding the Highest-Paid Individual)}}$$

Unit：Percentage (%)

Item Name	Position	Remuneration Components	Data (%)
Annual Percentage Increase in Total Remuneration of the Highest-Paid Individual	General Manager	Salary, Retirement and Pension Benefits, Bonuses, Special Allowances, Employee Compensation	0.35
Annual Percentage Increase in the Median Total Remuneration of All Employees (excluding the Highest-Paid Individual)	All Employees		5.08
Annual Total Remuneration Change Ratio (%)			6.91

3.1.6 Organizational Structure Chart



3.1.7 Scope of Responsibilities of Major Departments：

I. Audit Office

Responsible for executing internal control reviews and related audit activities of the Company.

II. Office of the President

Responsible for information systems, environmental safety and health, and corporate planning functions.

- Information Systems: Planning and implementation of computerization, system development, employee training, system promotion, review, and continuous improvement.
- Corporate Planning: Administrative and financial regulatory affairs related to the Vietnam plant.
- Occupational Safety: Planning and implementation of industrial safety and occupational health programs.
- Environmental Protection: Planning and implementation of environmental protection–related operations.

III. Administration Department

Responsible for general affairs, human resources, payroll, and procurement.

- Administration Section: Human resources management, payroll administration, on-the-job training, insurance enrollment, and document handling.
- General Affairs Section: Procurement of domestic materials, other supplies, fixed assets, and contract management.

IV. Finance & Accounting Department

Responsible for accounting, cost management, fund allocation, banking relations, and shareholder affairs.

- Accounting Section: Accounting operations and cost accounting.
- Finance Section: Fund allocation, banking transactions, and shareholder services.

V. Business Department

Responsible for domestic raw material procurement and product sales.

- Business Section: Domestic market development, pricing, sales, and after-sales services.
- Raw Materials Section: Domestic raw material procurement and related operations.

VI. International Trade Department

Responsible for overseas raw material procurement and international product sales.

- Export Section: Overseas market development, pricing, contracts, and after-sales services.
- International Trade Section: Overseas raw material procurement, market development, issuance of import letters of credit, and handling of import claims.

VII. Operations & Planning Department

Responsible for procurement and operational planning for both domestic and overseas plants.

- Operations Planning Section: Overall coordination with the Vietnam plant, budgeting, and execution of operational targets.
- Import Section: Coordination of raw material procurement and import operations between the Taiwan and Vietnam plants.

VIII. Production Department

Responsible for production planning and control, engineering, quality assurance, maintenance, plant operations, and manufacturing.

- Production Control: Production planning, scheduling, and process analysis.
- Engineering: Engineering design, outsourcing, progress control, and acceptance inspections.
- Quality Assurance: Formulation and execution of inspection plans.
- Research & Development: Product and process technology research and development.

- Maintenance Section: Equipment maintenance, repairs, and annual overhauls.
- Plant Operations Section: Inventory storage, receiving, dispatching, and procurement requests.
- Production Section I: Production of yellow lead oxide and red lead oxide powders (granules).
- Production Section II: Production of crude lead and lead alloy ingots.
- Production Section III: Dismantling of waste lead-acid batteries.

3.2 Ethical Management

To implement ethical management policies and actively prevent unethical conduct, THYE MING has established internal and external reporting and complaint channels in accordance with the “Code of Ethical Management.” All whistleblowing information is kept confidential, and appropriate legal protection measures are adopted to safeguard whistleblowers’ personal data and privacy.

Relevant provisions of the Code of Ethical Management are publicly disclosed on the Company’s website:
http://www.tmicl.com.tw/inside-c-7.html

Personal data provided by whistleblowers—including name, telephone number, and email address—may be processed and used by the Company during investigations solely for verification and communication purposes. Whistleblowers are required to provide concrete information and supporting documents; incomplete submissions may prevent the Company from conducting investigations.

Whistleblowers must not fabricate facts. Any report proven to be malicious or intentionally false will subject the whistleblower to legal liability.
In 2024, no reports of violations of ethical management policies were received.

To strengthen anti-corruption management, the Company conducts self-assessments and inspections of internal control systems, including accounting systems, by each department, followed by audit verification. In 2024, no corruption issues were identified by the audit supervisor.

3.3 Risk Management

3.3.1 Capital Risk Management

The Company manages capital to ensure that all entities within the Group can continue as going concerns, while optimizing the balance between debt and equity to maximize shareholder returns. The Company's capital structure consists of consolidated net debt (i.e., borrowings less cash and cash equivalents) and equity attributable to owners of the Company (including share capital, capital surplus, retained earnings, and other equity items).

I. Objectives and Policies of Financial Risk Management

The Company's primary financial instruments include cash and cash equivalents, notes and accounts receivable, other receivables, refundable deposits, financial assets measured at amortized cost, short-term borrowings, notes and accounts payable, other payables, lease liabilities, and deposits received.

The finance department provides services to all operating units and centrally coordinates participation in financial markets. Through analysis of risk exposure levels and scopes, it monitors and manages financial risks related to the Group's operations. These risks include market risk (comprising foreign exchange risk, interest rate risk, and other price risks), credit risk, and liquidity risk.

3.3.2 Market Risk

he Company's operations expose the Group primarily to foreign exchange risk arising from fluctuations in foreign currency exchange rates (see Item 1 below) and interest rate risk (see Item 2 below).

I. Foreign Exchange Risk

The Company engages in sales and procurement transactions denominated in foreign currencies, resulting in exposure to foreign exchange fluctuations. Monetary assets and liabilities denominated in currencies other than the functional currency are recorded at their carrying amounts as of the balance sheet date.

(1). Sensitivity Analysis

The Company is primarily affected by fluctuations in the U.S. dollar exchange rate.

The table below illustrates the sensitivity analysis of the Group when the exchange rate between the functional currency and relevant foreign currencies increases or decreases by 1%. The 1% change represents the sensitivity ratio used internally when reporting foreign exchange risk to senior management and reflects management's assessment of a reasonably possible range of exchange rate fluctuations.

The sensitivity analysis includes only outstanding foreign currency–denominated monetary items, with year-end balances adjusted based on a 1% exchange rate change.

Positive figures indicate that when the functional currency depreciates by 1% against the U.S. dollar, pre-tax net profit increases by the corresponding amount. Conversely, when the functional currency appreciates by 1% against the U.S. dollar, the impact on pre-tax net profit is the same amount but negative.

	Impact of U.S. Dollar (USD)	
	2024	2023
Profit or Loss	$21,146	$29,351

II. Interest Rate Risk

The consolidated group is exposed to interest rate risk as entities within the Group borrow funds at both fixed and floating interest rates. The Group manages its interest rate exposure by maintaining an appropriate mix of fixed-rate and floating-rate borrowings.

As of the balance sheet date, the carrying amounts of financial assets and financial liabilities exposed to interest rate risk are as follows：

	2024/12/31	2023/12/31
Exposure to Cash Flow Interest Rate Risk	$281,186	$448,011
Financial Assets	-	100,00
Financial Liabilities		

(一) Sensitivity Analysis

The following sensitivity analysis is determined based on the interest rate exposure of non-derivative instruments as of the balance sheet date. For floating-rate liabilities, the analysis is prepared under the assumption that the outstanding balance of liabilities at the balance sheet date remained outstanding throughout the reporting period.

The interest rate variation used by the Group when reporting interest rate risk to key management personnel is an increase or decrease of 1%, which also represents management's assessment of a reasonably possible change in interest rates.

If interest rates had increased/decreased by 1%, while all other variables remained constant, the Company's profit before tax for the years ended 2024 and 2023 would have increased/decreased by NT$2,819 thousand and NT$3,480 thousand, respectively. This is mainly attributable to the Group's floating-rate bank deposits and borrowings.

III. Other Price Risk

The Group is exposed to equity price risk arising from investments in beneficial certificates of funds and listed equity securities. Group management manages such risk by maintaining diversified investment portfolios. The Group's equity price risk is mainly concentrated in equity instruments listed on the Taiwan Stock Exchange and open-ended fund beneficiary certificates traded in the Taiwan market.

1. Sensitivity Analysis

The following sensitivity analysis is based on the equity price exposure as of the balance sheet date.

If equity prices had increased/decreased by 1%, the profit before tax for the years ended 2024 and 2023 would have increased/decreased by NT$10,703 thousand and NT$3,336 thousand, respectively, as a result of changes in the fair value of financial assets measured at fair value through profit or loss.

If equity prices had increased/decreased by 1%, other comprehensive income for the years ended 2024 and 2023 would have increased/decreased by NT$1,312 thousand and NT$1,241 thousand, respectively, due to changes in the fair value of financial assets measured at fair value through other comprehensive income.

3.3.3 Credit Risk

Credit risk refers to the risk that the counterparty to a transaction will fail to fulfill its contractual obligations, resulting in a financial loss to the Company. As of the balance sheet date, the Company's maximum exposure to credit risk that could result in a financial loss due to counterparty default mainly arises from the following:

1. The carrying amounts of financial assets recognized in the separate balance sheet.
2. The maximum amount that the Company may be required to pay under financial guarantees provided, regardless of the probability of occurrence.

The Company's policy is to conduct transactions only with counterparties of sound credit standing. The Company evaluates major customers by using publicly available financial information and historical transaction records. Credit exposure and counterparty creditworthiness are continuously monitored.

As of December 31, 2024 and 2023, accounts receivable with significant concentrations of credit risk were as follows:

	2023/12/31	2024/12/31
Company A	$568,646	$547,904
Percentage of total accounts receivable (%)	72	69

3.3.4 Liquidity Risk

The Company manages liquidity risk by maintaining sufficient levels of cash and cash equivalents to support group operations and to mitigate the impact of fluctuations in cash flows. Management monitors the utilization of bank credit facilities and ensures compliance with the covenants of borrowing agreements.

Bank borrowings represent an important source of liquidity for the consolidated group.

As of December 31, 2024 and 2023, the Company's unused short-term bank credit facilities amounted to NT$3,327,897 thousand and NT$2,787,195 thousand, respectively.

Maturity Analysis of Non-derivative Financial Liabilities and Interest Rate Risk

The maturity analysis of non-derivative financial liabilities is prepared based on the earliest date on which the consolidated group can be required to repay the liabilities, and is presented using undiscounted cash flows, including principal and estimated interest.

Accordingly, bank borrowings that are repayable on demand are included in the earliest time band in the table below, regardless of the probability that the banks will exercise such rights. The maturity analysis of other non-derivative financial liabilities is based on the agreed repayment dates.

Interest cash flows related to liabilities bearing floating interest rates are calculated using the interest rates prevailing as of the balance sheet date, and the undiscounted interest amounts are included accordingly.

	Within 3 Months	3 Months to 1 Year	Over 1 Year	Total
2024/12/31				
Non-derivative financial liabilities	$208,417	$53,885	$910	$263,212
Non-interest bearing liabilities	413	-	-	413
Lease liabilities	-	35,056	-	35,056
Fixed-rate instruments				
	$208,830	$88,941	$910	$298,681
2023/12/31				
Non-derivative financial liabilities	$199,974	$52,537	$250	$252,761
Non-interest bearing liabilities	413	1,238	413	2,064
Lease liabilities	-	100,416	-	100,416
Floating-rate instruments	400,296	-	-	400,296
Fixed-rate instruments				
	$600,683	$154,191	$663	$755,537

Further information on the maturity analysis of lease liabilities is as follows:

	Less than 1 year	1 to 5 years
Lease liabilities	$1,651	$413

The amounts of the floating-rate instruments included in the above non-derivative financial liabilities are subject to changes based on fluctuations in floating interest rates as estimated at the balance sheet date.

3.3.5 Climate Change Risks

Board and Management Oversight and Governance of Climate-related Risks and Opportunities

Although the Company has not established a Sustainability Committee, the Board of Directors approved the establishment of a **Sustainability Promotion Task Force** on November 12, 2024. The Task Force is convened by the President and comprises department heads from various functional areas to jointly review the Company's core operational capabilities, formulate mid- to long-term sustainability development plans, and regularly report the implementation of corporate sustainability initiatives to the Board of Directors.

The President serves as the convener of the Sustainability Promotion Task Force, with the President's Office acting as the executive unit. The convener oversees the operation of the Task Force, which is responsible for planning and implementing sustainability performance related to environmental, social responsibility, and corporate governance (ESG), executing relevant standards, and compiling, consolidating, and submitting the ESG Sustainability Report and related information.

The Sustainability Promotion Task Force shall report sustainability performance to the Board of Directors at least once a year and is scheduled to report to the Board by November 12, 2025.

How Identified Climate Risks and Opportunities Affect the Company's Business, Strategy, and Financial Performance (Short-, Medium-, and Long-term)

The Company evaluates climate change–related physical risks and potential opportunities, categorized by the time horizon of their impact as follows:

Short-term (1–3 years)

Business Impact:

- Increased volatility in energy and raw material costs, leading to higher production costs
- Implementation of carbon fees and greenhouse gas inventories, requiring enhanced compliance and disclosure capabilities
- Brand customers requiring carbon footprint disclosure across supply chains,

potentially affecting order acquisition

Financial Impact:

- Initial capital expenditures related to carbon inventory implementation and equipment improvements
- Increased operating costs resulting from the implementation of carbon pricing mechanisms

Medium-term (3–10 years)

Business Impact:

- Failure to actively reduce carbon emissions may result in the loss of major customers or exclusion from green supply chains
- Increased investment required for equipment replacement and energy transition
- Heightened low-carbon competition within the industry, accelerating process innovation and product development

Financial Impact:

- Increased medium-term capital expenditures (e.g., high-efficiency furnaces, renewable energy investments)
- Significant increases in export costs due to rising carbon prices or the implementation of carbon border adjustment mechanisms (e.g., CBAM)
- Opportunities to apply for government subsidies or green financing instruments (e.g., sustainability-linked loans, green bonds)

Long-term (Over 10 years)

Business Impact:

- Expected intensification of extreme climate events may affect supply chain stability (e.g., raw material supply disruptions, logistics interruptions)
- Significant growth in market demand for low-carbon materials and circular economy products, enabling early movers to gain competitive advantages
- Corporate reputation and ESG ratings will have an increasing influence on decisions made by investors and insurance institutions

Financial Impact:

- Successful transition may enhance profit margins, reduce risk premiums, and attract

long-term capital

- Failure to transition in a timely manner may result in asset impairment (e.g., carbon-intensive equipment becoming stranded assets), adversely affecting the balance sheet

Financial Impacts of Extreme Climate Events and Transition Actions

The financial impacts of extreme climate events and transition actions include:

1. With the implementation of carbon fees and carbon trading systems, additional costs must be paid for carbon emissions; without mitigation measures, carbon costs may become a significant expense item
2. Investments in high-efficiency equipment (e.g., furnaces, energy-efficient motors), renewable energy, carbon inventory systems, and information systems are required to comply with decarbonization policies and customer requirements, resulting in increased initial capital expenditures
3. Failure to meet downstream customer or export market ESG standards may lead to the loss of green supply chain orders, negatively affecting revenue and profitability
4. Poor ESG performance may result in higher borrowing costs or inability to obtain sustainability-linked loans or green bonds, increasing financing costs and restricting access to capital
5. Traditional high-carbon equipment may become stranded assets or unusable in the future, leading to early retirement, asset impairment, and adverse financial statement impacts

Integration of Climate Risk Identification, Assessment, and Management into the Overall Risk Management Framework

The Sustainability Promotion Task Force regularly identifies climate-related risks, including but not limited to equipment damage caused by extreme weather, supply disruptions, carbon pricing policies, customer ESG requirements, and technology upgrade costs.

Each identified risk is assessed based on its likelihood of occurrence and potential financial impact, and classified into high, medium, or low risk levels using a risk matrix approach. All climate risk assessment results are incorporated into the Company's enterprise risk management system and reviewed together with financial and operational risks.

The Sustainability Promotion Task Force periodically reports climate risk conditions and management outcomes to the Board of Directors, ensuring that management remains fully informed of key risk dynamics.

3.4 Information Security

I. Information and Communication Security Management

(1). Information Security Risk Management Framework, Policies, Management Measures, and Resources Invested

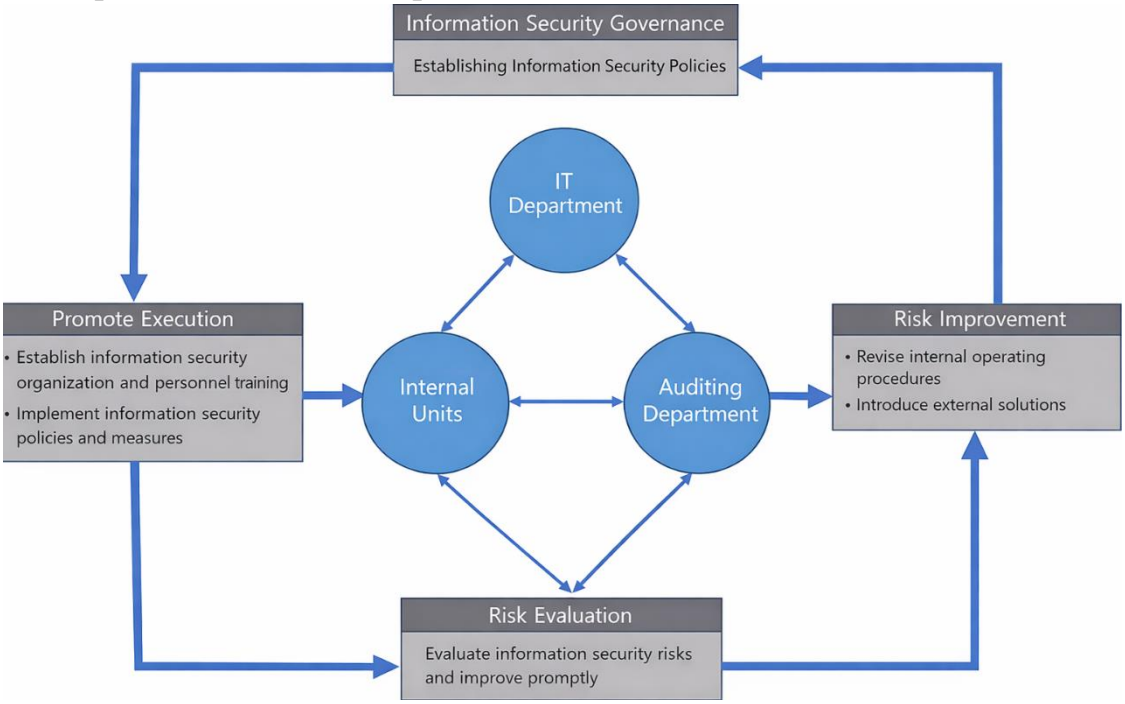
I. Information Security Risk Management Framework

The Company's information and communication security (hereinafter referred to as "information security") responsibilities are assigned to the Information Department, which is staffed with an IT manager and professional IT personnel. This department is responsible for formulating internal information security policies, planning and executing information security operations, and promoting and implementing information security policies to ensure the confidentiality, integrity, and availability of information and information assets required for the Company's operations.

The Audit Office serves as the supervisory unit for information security governance and is staffed with an audit manager and dedicated auditors. The Audit Office oversees the implementation of information security controls. If deficiencies are identified during audits, the audited unit is required to propose specific corrective actions, and improvement effectiveness is tracked regularly to mitigate internal information security risks.

Operational Model:

The Information Department formulates information security policies and procedures; internal departments implement and promote these policies and conduct information security awareness and training; the Audit Office conducts information security risk audits. When deficiencies are identified, corrective actions are required and followed up to ensure effective remediation.



II. Information Security Policies and Management Measures

The Company's information security management framework comprises three dimensions：

(1) **Governance:** Establishing information security management systems to regulate employee conduct and conducting regular internal audits to reduce information security risks

(2) **Technology:** Deploying information security protection equipment to enhance system security and enforce security management measures

(3) **People:** Conducting information security training and awareness programs to enhance employee knowledge and awareness

III. Information Security Management Measures

(1) Installation of antivirus software on all departmental personal computers to prevent malware intrusion

(2) Daily updates of virus definitions and scanning engines by the Information Department

(3) Deployment of firewalls to prevent external attacks

(4) Regular monitoring of email server traffic by IT personnel, with abnormal activities reported to responsible supervisors

IV. Resources Invested in Information Security Management

Resources invested include:

(1) Network hardware such as firewalls, email antivirus systems, spam filtering, internet behavior analysis tools, and managed switches

(2) Software systems including endpoint protection, backup management software, and encryption tools

(3) Procurement of backup storage devices and intrusion protection services

(4) Human resource investments, including daily system status checks, weekly backups and offsite storage of backup media, at least one annual information security awareness training, annual disaster recovery drills, annual internal audits of information cycles, and CPA audits

(5) Information security staffing: one information security manager and one information security officer responsible for security architecture design, operations and monitoring, incident response and investigation, and policy review and revision. The information security manager reports to the Board of Directors at least once per year

(2). Major Information Security Incidents

For the most recent fiscal year and up to the date of this annual report, the Company has not incurred any losses or significant impacts arising from major information security incidents.

3.5 Policies and Regulatory Compliance

3.5.1 Corporate Policy

Established in 1983, the Company's principal operations include the import of refined lead ingots, the manufacture of litharge (yellow lead oxide), red lead oxide, and lead-calcium alloy products for both domestic and international markets. In addition, the Company recycles domestic waste lead-acid batteries and lead slag, which are reprocessed into lead-antimony alloys supplied to lead-acid battery manufacturers in Taiwan and overseas.

In the manufacturing process, lead ingots are the primary raw material, while gas, fuel, water, and electricity are the main energy sources. Wastewater and exhaust gases generated during production are treated through effective pollution control facilities and discharged only after meeting regulatory standards. Final waste products, such as furnace slag, are handled in accordance with applicable environmental protection regulations.

In response to climate change, pollution sources arising from production processes are addressed through both short-term and fundamental approaches. Short-term measures include installing or upgrading pollution control equipment and strengthening operator training to continuously reduce pollution. Fundamental measures focus on source reduction by redesigning wastewater treatment and waste lead smelting processes to minimize waste generation, thereby achieving environmental protection while creating economic value.

Since its establishment, the Company has upheld the principles of **"Environmental Protection, Quality, and Innovation"** as the foundation of sustainable operations, emphasizing energy conservation and resource recycling to achieve a win-win outcome for environmental protection and economic development.

The Company is committed to the following principles：

I. To adopt appropriate production and pollution prevention technologies and equipment in manufacturing processes, actively engage in waste reduction and pollution

prevention, and continuously improve environmental performance.

II. To ensure that wastewater and air emissions, noise control, chemical management, and waste disposal comply with regulatory requirements and fulfill obligations and commitments to stakeholders.

III. To implement risk assessments and environmental considerations, comprehensively strengthen risk control and pollution prevention, and eliminate potential hazards.

IV. To conserve energy and promote resource recycling and regeneration.

V. To strengthen environmental protection education and awareness among employees, affirming that environmental protection is a shared responsibility of all personnel. The Company will continue to educate employees to understand and support this policy and communicate it through appropriate channels so that relevant stakeholders recognize the Company's commitment and responsibility toward environmental management.

3.5.2 Regulatory Compliance

All pollution sources generated during production are managed in accordance with environmental protection laws and regulations. Short-term measures include installing or upgrading pollution control equipment and enhancing operator training to continuously reduce pollution. Fundamental measures focus on source reduction through process improvements in wastewater treatment and waste lead smelting, aiming to protect the environment while generating economic benefits.

Since its establishment, the Company has adhered to the sustainable management philosophy of environmental protection, quality, and innovation, emphasizing energy conservation and resource recycling to achieve both environmental and economic benefits. As THYE MING's primary sales markets are located in Asia, and its products fall under the exemption clauses of the RoHS (Restriction of Hazardous Substances) Directive, and given that lead is fully recyclable and enables the sustainable use of lead-acid batteries, these regulations have not adversely affected the Company's sales volume.

International institutional investors and corporations are increasingly focusing on carbon footprints within supply chains. If the lead industry fails to align with sustainable development goals, it may face pressure from reduced orders. THYE MING continues to implement ESG policies to strengthen lead recycling and green smelting practices, not only creating economic value but also advancing toward a sustainable future that benefits the environment and society.

3.6 Supply Chain Management

To ensure the quality of incoming materials (including environmental protection and occupational safety and health), delivery schedules, and quantity stability in line with Company requirements, the Company regularly compiles and evaluates statistics on incoming inspection results, delivery timeliness, and delivery quantities. Supplier delivery performance is assessed and recorded based on quality and delivery performance, with aggregated evaluations conducted accordingly.

Suppliers that fail to meet evaluation standards are required by procurement personnel to implement corrective actions. If improvements are not achieved, the supplier is reported to the department supervisor for reevaluation and may have its qualified supplier status revoked.

IV. Social Aspect

4.1 Occupational Safety and Health

I. Safety and Health

(1). The Company has obtained ISO 45001:2018 certification for its Occupational Health and Safety Management System.

(2). To implement its safety and health policy, the Company has established "Occupational Safety and Health Rules." To clearly define responsibilities, environmental protection and occupational safety units conduct weekly safety and health inspections, supported by reward and disciplinary measures to encourage compliance and vigilance.

(3). Environmental and safety meetings are held regularly to review deficiencies and promote safety and health awareness.

(4). Employees are required to wear appropriate safety and health protective equipment within the factory premises, such as safety helmets, dust masks or respirators, fire-resistant gloves, and safety shoes.

(5). Fire drills are conducted regularly within the plant, in coordination with local fire departments.

(6). Operating licenses for machinery are periodically reviewed for validity, and external training programs are arranged as necessary.

(7). Annual employee health examinations are conducted, with additional examinations for personnel engaged in special operations.

(8). The Company maintains a workforce with professional occupational safety and health qualifications, including:

- Fixed crane operators: 53
- Forklift operators: 67
- Oxy-acetylene welding operators: 31

- High-pressure gas specific equipment operators: 12
- Lead operation supervisors: 25
- Designated chemical substance supervisors: 5
- Oxygen-deficiency operation supervisors: 8
- High-pressure gas supply and consumption supervisors: 2
- Organic solvent operators: 3
- Class B occupational safety and health managers: 3
- Class A occupational safety and health supervisors: 8
- Fire safety managers: 3
- Hazardous materials safety supervisors: 4
- Occupational accident first-aid trained personnel: 28
- Aerial work platform operators: 12

Precautions for Lead Operation Areas

(1) Precautions for Lead Operation Areas

a. Floors and equipment in lead operation areas shall be cleaned using vacuum dust collectors or water.

b. Entrances to rest areas shall be equipped with washing facilities or adequately moistened mats to remove lead dust from workers' footwear, and clothing brushes shall be provided at entrances.

c. Respiratory protective equipment and work clothing assigned to workers shall be stored in dedicated lockers and kept separate from clean clothing.

d. After completing work, employees shall shower and change into clean clothing to remove lead dust and prevent contamination of home environments.

e. To prevent lead dust from contaminating non-lead workers' clothing or being carried home, work clothing must be cleaned within the factory and shall not be taken home.

f. Before eating, smoking, drinking water, or after completing lead operations, workers shall wash hands using prepared hand-cleaning solutions, nail brushes, and soap, and rinse their mouths with mouthwash.

g. Smoking and eating are strictly prohibited in work areas.

h. Protective equipment shall be worn as required by operational regulations.

i. Workers shall wash their faces and hands before eating and shall not bring beverages, food, cigarettes, or cosmetics into work areas. Regular tooth brushing is required, especially after completing daily work.

(2) Safety and Health Rules for Supervisors

a. Supervisors (including foremen and responsible persons) shall assist the employer in preventing accidents.

b. Supervisors shall be familiar with safety and health rules relevant to their work and apply them in daily supervision.

c. When new employees (including transferred staff) commence work, supervisors shall thoroughly explain safety and health precautions.

d. Supervisors shall regularly explain safety and health rules to ensure employees remember and implement them in daily work.

e. Supervisors shall maintain close communication with relevant departments to jointly prevent accidents.

f. Supervisors are responsible for overseeing the maintenance and inspection of safety equipment and personal protective equipment.

g. Supervisors are responsible for overseeing cleanliness, organization, and protection of the work environment.

h. Supervisors shall remain attentive to employees' physical and mental health and arrange medical care or rest when necessary.

i. Employees are encouraged to jointly discuss potential workplace accidents and analyze improvement measures.

j. In the event of an accident, supervisors shall oversee emergency handling and assist safety personnel in investigations and preventive planning. Major incidents shall be reported immediately to higher management.

(3) General Safety and Health Rules for Employees

a. All employees are responsible for occupational safety and health within their scope of work and must comply with Company safety regulations and instructions from supervisors or foremen.

b. Unauthorized operation of unfamiliar tasks is strictly prohibited; any uncertainties shall be reported immediately.

c. During working hours, employees shall maintain professional conduct and refrain from play, joking, or distracting others. Leaving work posts without authorization is prohibited.

d. All personnel entering work areas must wear safety helmets and work uniforms; wearing slippers or going barefoot is prohibited. Any work-related injury, regardless of severity, must be reported to supervisors.

e. Work areas shall be kept clean and hygienic. Employees who are ill or unwell shall seek medical attention or rest.

f. Employees shall regularly inspect and maintain protective equipment and personal protective gear.

g. All employees have a duty to participate in firefighting and be proficient in the use of firefighting equipment.

h. Employees shall undergo regular annual health examinations and follow medical advice when ill.

i. In the event of an accident, employees shall remain calm, take effective action, and report to supervisors without panic to prevent escalation.

j. Eating or smoking (including betel nut and chewing gum) is strictly prohibited in work areas.

k. Hands and face must be washed before eating; beverages, food, cigarettes, and cosmetics are prohibited in work areas. Regular tooth brushing, especially after work, is required.

l. Consumption of alcoholic beverages shall be avoided, as alcohol increases lead absorption.

m. Protective equipment must be worn as required and used correctly, fostering proper protective habits

4.2 Talent Development and Growth

4.2.1 A Harmonious and Happy Workplace

In modern enterprises, establishing a harmonious labor–management relationship is essential. It not only enhances employee job satisfaction and productivity but also supports sustainable corporate development. THYE MING exemplifies labor–management harmony by fostering a happy and inclusive workplace culture.

At THYE MING, mutual trust and cooperation between management and employees are well established. The Company values employees' opinions and suggestions and encourages active participation in corporate decision-making to jointly promote business development. At the same time, THYE MING is committed to providing a favorable working environment and comprehensive welfare benefits, with particular attention to employees' physical and mental well-being.

THYE MING places strong emphasis on professional training and career development, offering employees opportunities for learning and growth. The Company advocates an equal and fair compensation system to ensure that employees' contributions are rewarded appropriately. This culture of labor–management harmony has made THYE MING a desirable workplace.

Within this harmonious and happy corporate family, every employee is regarded as an indispensable member, and each individual's efforts and contributions are fully recognized and respected. Through its warm corporate culture and collaborative working environment, THYE MING enables employees to work together and grow together as one family.

The spirit of a harmonious and happy workplace demonstrated by THYE MING not only brings positive momentum internally but also contributes to a stable and harmonious employment environment for society as a whole. The Company hopes that more enterprises will follow this example, establishing additional harmonious workplaces to jointly promote sustainable corporate and social development.

Employee Profile

As of December 31, 2024

Year		2023	2024	As of March 31, 2025
Number of Employees	Direct labor	52	51	49
	Indirect labor	42	43	42
	Sales & administrative staff	56	54	53
	Total employees	150	148	144
Average age (years)		40.10	43.7	44.5
Average tenure (years)		10.70	13.4	13.8
Education Level	Doctorate	0%	0%	0%
	Master's	5.3%	5.4%	5.5%
	Bachelor's	62.7%	61.5%	63.9%
	Senior High School	18.7%	19.6%	17.4%
	Below Senior High School	13.3%	13.5%	13.2%

Employee Composition by Gender		
2024	Female	Male
Number of employees	22	122
Permanent employees	22	122
Temporary employees	-	-
Full-time employees	22	122

4.2.2 Labor–Management Relations

一、Employee Welfare Measures

(1). Employee Benefits

1. Key Milestones of the Employee Welfare Committee

(1) January 1989: Establishment of the Employee Welfare Committee to manage employee welfare affairs.

(2) January 2010: Revision of regulations for children's education scholarships and assistance, as well as marriage, childbirth, bereavement, occupational injury, and hardship subsidies.

2. Employee Benefits Provided by the Company

(1) **Festival allowances:** Cash gifts provided during Labor Day, Dragon Boat Festival, Mid-Autumn Festival, and Lunar New Year. Subsidies are also granted for marriage, childbirth, bereavement, illness hospitalization, and birthdays.

(2) **Enhanced training:** Employees receive periodic job-related training to improve work efficiency and professional competence. On-site personnel also receive certification training for equipment operation (e.g., forklifts, overhead cranes).

(3) **Regular health examinations:** Annual employee health check-ups are conducted in accordance with regulations.

(4) **Employee travel:** Annual employee trips are organized, subject to operational needs, to strengthen camaraderie and improve work efficiency.

(2). Employee Training and Development

To enhance human resource utilization, stimulate employee self-development, and cultivate talent, the Company has established the Employee Education and Training Procedures and Professional Training Regulations. Employees may participate in internal and external training programs, job rotations, project assignments, overseas assignments, and competency-based professional training courses to enhance knowledge, skills, and overall workforce quality, thereby improving operational performance.

Training Performance in 2024:

Training Category	No. of Sessions	Total Participants	Total Hours	Total Cost (NTD)
Management capability training	33	60	198	22,043
Professional knowledge	39	140	916	151,988
Practical skills	71	269	666.50	3782
New employee training	12	19	590	0
T o t a l	155	488	2,370.50	177,813

(3). Retirement System and Implementation

In May 1989, the Company formally established the Labor Pension Reserve Fund Supervisory Committee and enacted retirement regulations, which provide that employees may apply for retirement under the following conditions：

- At least 15 years of service and age 55 or above
- At least 25 years of service
- At least 10 years of service and age 60 or above

Mandatory retirement applies under the following circumstances:

- Reaching the age of 65
- Mental incapacity or physical disability rendering the employee unfit for work

The Company and its domestic subsidiaries deposit monthly pension contributions into a dedicated account at the Bank of Taiwan. Following the implementation of the *Labor Pension Act* on July 1, 2005:

- Employees hired before June 30, 2005 and still employed on July 1, 2005 may choose to remain under the *Labor Standards Act* pension system or switch to the new system while retaining prior service years.

- Employees hired on or after July 1, 2005 are subject only to the new pension system.
- For employees under the new system, the Company contributes 6% of monthly salary to individual pension accounts managed by the Bureau of Labor Insurance.
- Overseas subsidiary THYE MING (Vietnam) contributes pension funds in accordance with local regulations.

(4). Labor Agreements and Employee Rights Protection

1. Provision of comprehensive education and training, with dedicated management units responsible for implementation and supervision.
2. Employee compensation complies with all applicable wage laws and regulations, including minimum wage and statutory benefits.

(1) Workplace Safety and Security

MeasuresAccess control: 24-hour surveillance systems and on-site security personnel.

(2) **Facility maintenance and inspection:** Regular public safety inspections, annual fire safety inspections, and periodic maintenance of HVAC, fire protection equipment, and other facilities.

(3) **Physical and mental health:** Smoke-free workplaces, health promotion measures, and regular employee health examinations.

(4) **Insurance:** Employees are covered by labor insurance, health insurance, and group insurance. In the event of injury or death, the Company assists with insurance claims.

(5) Employee Welfare

The Employee Welfare Committee, established on July 5, 1990, is elected by employees and oversees welfare programs, including marriage, bereavement, childbirth subsidies, education grants, recreational activities, and

other benefits. Welfare budgets and expenditures are reviewed and supervised quarterly.

(6) Employee Retirement and Bereavement Benefits

The Company provides retirement and bereavement benefits in accordance with the Labor Standards Act. In the event of death due to occupational injury or disease, the Company provides funeral expenses equivalent to five months of average wages and death compensation equivalent to forty months of average wages to surviving dependents.

No losses resulting from labor disputes were incurred during the most recent fiscal year or up to the publication date of this report, and no such disputes are anticipated.

4.3 Social Participation

Community Engagement

Company directors and employees actively participate in community affairs during their spare time, including:

- Assistance to 85 economically disadvantaged households: NTD 23.2 million
- Sponsorship of student holiday camps: NTD 280,000
- Scholarships and grants: NTD 210,000
- Donations to social welfare institutions: NTD 130,000
- Winter relief programs: NTD 78,000
- Student meal voucher programs: NTD 300,000
- Public blood donation initiatives: NTD 200,000
- Other social welfare activities: NTD 170,000

Social Contributions

- 2024 net profit after tax: NTD 1.05232 billion; EPS: NTD 6.29
- Corporate income tax paid in 2024: NTD 222.93 million
- Employment created for 148 employees, with harmonious labor–management relations and no labor disputes to date

Social Services and Public Welfare

- Donation to Kaohsiung Blood Donation Center: NTD 200,000
- Student meal voucher programs: NTD 1 million
- Sponsorship of GTM International Industry–Academia Exchange Forum: NTD 300,000

V. Environmental Aspect

5.1 Greenhouse Gas Management

5.1.1 Strategies, Approaches, and Targets for Greenhouse Gas Management

Greenhouse Gas Management Strategy

Greenhouse Gas Management Strategy

In compliance with the *Greenhouse Gas Reduction and Management Act*, the Company promotes various energy-saving, water-saving, and carbon reduction initiatives to reduce greenhouse gas (GHG) emissions and waste generation. The Company's GHG emissions primarily originate from purchased gas and electricity, as well as diesel used in emergency generators and gasoline used by company vehicles.

Carbon dioxide emissions resulting from gas and electricity consumption in the manufacturing process represent the main source of the Company's GHG emissions. Accordingly, energy conservation efforts focus on reducing gas and electricity consumption to fulfill corporate social responsibility and advance sustainable development.

The Company encourages employees to conduct business communications online whenever possible to reduce the use of company vehicles and associated gasoline-related GHG emissions. In addition, when replacing company vehicles, priority is given to hybrid or electric vehicles to further reduce emissions. The Company targets a minimum **5% reduction in energy consumption by 2030 compared to 2023**, and will continue to reduce total GHG emissions.

Greenhouse Gas Emission Reduction Targets

Total GHG emissions are positively correlated with production volume. The Company continues to improve production equipment and reduce energy consumption through factory management practices, enhancing the operational efficiency of furnaces and conveying equipment to reduce water, electricity, and gas usage.

More than 90% of the Company's carbon dioxide emissions are derived from water, electricity, and gas consumption. Therefore, conserving these resources is the primary focus

of energy conservation and carbon reduction efforts. The Company aims to achieve a **1% reduction in electricity consumption in 2025 compared to 2024**, and will continue to reduce overall GHG emissions.

Budget and Action Plans for Greenhouse Gas Reduction

Through factory and administrative management, the Company improves the efficiency of furnaces, conveying equipment, and air-conditioning systems to reduce water, electricity, and gas consumption. Key measures include:

1、 **Production Process Improvements**:

- Optimization of boiler temperature control
- Optimization of motor operation control
- Waste heat recovery to reduce gas and electricity consumption and carbon dioxide emissions
- Recycling treated wastewater for cleaning by-products and factory surfaces to reduce water consumption
- Outsourcing production waste to certified recycling entities for reuse, reducing overall environmental impact

2、 Establishment of incentive programs to encourage employees to propose energy-saving and carbon reduction initiatives.

3、 Promotion of habits such as turning off lights and power sources when not in use.

4、 Replacement of office and plant lighting with energy-efficient LED lighting.

5、 Use of video conferencing to reduce transportation-related energy consumption.

6、 Installation of sunshades or heat-insulating films in sun-exposed areas to reduce solar radiation and improve air-conditioning efficiency.

7、 Setting office air-conditioning temperatures at no lower than **26°C**.

8、 Powering off office automation and computer equipment after working hours.

9、 Monthly reviews of electricity and water consumption to prevent waste.

10、Continued promotion of ERP-based electronic document approval systems.

11、Ongoing education and communication on climate change, carbon reduction, and energy-related information.

Carbon Reduction Impacts of Products and Services

1、 As an environmentally friendly recycling industry, the Company regenerates waste lead-acid batteries, reducing the need for primary lead mining and minimizing environmental pollution, thereby achieving carbon reduction benefits.

2、 Products avoid excessive packaging and utilize recycled pallets and recyclable steel strapping materials.

3、 The Company assists customers in developing new green-energy lead alloy products to reduce energy consumption during processing.

5.1.2 Greenhouse Gas Emissions

The Company compiles greenhouse gas emissions, water consumption, and total waste generation data for the past two years, and establishes policies for greenhouse gas reduction, water conservation, and waste management.

Greenhouse Gas Emissions in the Past Two Years

(Scope 1 and Scope 2 data cover the Company's entire plant)

Unit: metric tons CO_2 per year

Year	Scope 1	Scope 2	CO_2 Emissions per Ton of Product
2023	13,782	4,779	0.81 tCO_2
2024	13,569	4,863	0.81 tCO_2

The Company calculates only **Scope 1 and Scope 2 emissions** in accordance with the *Sustainable Development Roadmap* issued by the Financial Supervisory Commission (FSC). Emissions are estimated using the prescribed calculation methodologies on the Ministry of Environment's **National Greenhouse Gas Registry Platform**.

Emission Estimation Results (2024)

- **Total GHG emissions**: **18,432 tCO_2e/year**
  - **Scope 1**: 13,569 tCO_2e/year (**73.62%** of total emissions)
  - **Scope 2**: 4,863 tCO_2e/year (**26.38%** of total emissions)

According to the former Environmental Protection Administration (now the Ministry of Environment) announcement dated January 7, 2016, *"First Batch of Greenhouse Gas Emission Sources Required to Conduct Inventory and Registration"*, entities in high energy-consuming industries (such as power generation, steel, cement, and petroleum refining), or facilities with annual Scope 1 fossil fuel combustion emissions exceeding **25,000 tCO_2e/year**, are required to complete annual greenhouse gas inventory registration by the end of August each year.

As the Company's annual emissions are **below 25,000 tCO_2e**, it is **not subject to mandatory inventory registration**. The emissions figures are therefore calculated and retained on the registry platform for future reference and verification.

Breakdown of Scope 1 Emissions by Source

Unit: metric tons CO_2 per year

Year	Emissions and Share	Fixed Combustion	Mobile	Fugitive	Process	Total
2023	Greenhouse Gas Emissions (tCO_2e)	13,512	230	8	0	13,750
	Share of Total Emissions (%)	98.27	1.67	0.06	0	100.00
2024	Greenhouse Gas Emissions (tCO_2e)	13,338	206	23	1	13,569
	Share of Total Emissions (%)	72.87	1.52	0.17	0.01	100.00

5.2 Energy Management

5.2.1 Energy Management Approach and Reduction Targets

Policy for Improving Energy Efficiency

When procuring equipment, the Company clearly specifies energy efficiency requirements and prioritizes the purchase of high-energy-efficiency equipment. Taking **2024 as the base year**, the Company targets a **5% reduction in electricity consumption by 2030**.

5.2.2 Energy Consumption

Year	Peak Electricity (kWh)	Semi-Peak Electricity (kWh)	Off-Peak Electricity (kWh)	Anthracite Coal (tons)	Heavy Fuel Oil (kL)
2023	4,241,200	814,800	4,598,400	1,173.15	3,129.68
2024	4,549,600	871,600	4,838,000	1,155.54	3,015.17

Year	Liquefied Petroleum Gas (kg)	Natural Gas (m^3)	Liquid Oxygen (liters)	Diesel (liters)
2023	2,340	174,946	32,650	81,330
2024	2,440	209,499	26,420	74,587

Source:

https://esggenplus.twse.com.tw/inquiry/info/individual?companyCode=9927&year=2024

5.3 Water Resource Management

5.3.1 Water Management Approach and Reduction Targets

To reduce total water consumption and wastewater discharge, parts of the production processes utilize treated wastewater, achieving both water reduction and circular reuse objectives. In addition to regularly testing the quality of discharged water, all raw materials are stored indoors to prevent contamination from rainwater runoff.

Rainwater drainage systems are installed on rooftops and around the plant area to collect rainwater uniformly. Two wastewater treatment systems are used to separately treat process wastewater and domestic sewage as well as surface runoff wastewater.

5.3.2 Water Usage

Wastewater Discharge in the Past Two Years

Unit: metric tons/year

Year	Tap Water Consumption (m^3)	Wastewater Treated (m^3)
2023	29,518m^3	20,538.73m^3
2024	29,150m^3	19,556.26m^3

Collected wastewater is treated by a dedicated wastewater treatment system operated by specialized personnel to prevent pollution. After treatment, the wastewater is discharged into a joint wastewater treatment plant.

5.4 Waste Management

5.4.1 Waste Management Approach and Reduction Targets

The Company actively promotes waste reduction programs by implementing strict waste segregation to reduce waste generation and enhance resource recycling. Waste generated during production processes is classified and stored based on its characteristics.

All waste storage, labeling, and management comply with the *Standards for Storage, Clearance, and Treatment of Industrial Waste*. Storage sites, containers, and facilities are maintained in clean and intact conditions to prevent scattering, leakage, seepage, ground contamination, or odor emissions.

Hazardous industrial waste is periodically tested and entrusted to qualified waste disposal contractors. At least once a year, waste flow tracking and audits are conducted, and contractors are required to provide proper disposal documentation for record-keeping.

5.4.2 Waste Generation

Waste Generation in the Past Two Years

Unit: metric tons/year

Year	General Industrial Waste	Hazardous Industrial Waste
2023	64.71	514.12
2024	52.57	518.04

According to the *Regulations Governing Hazardous Industrial Waste Testing and Record Management*, samples are tested every six months. As the test values exceeded the leaching test standard for lead (5.00 mg/L), the waste is classified as hazardous

leachable toxic industrial waste and is disposed of by licensed contractors in accordance with regulatory requirements. All waste storage, clearance, and treatment comply with the Environmental Protection Administration's regulations.

5.5 Air Quality Management

5.5.1 Air Quality Management Approach and Reduction Targets

To ensure air pollution control equipment remains in optimal operating condition and to prevent pollutant emissions, the Company has implemented the following measures:

1、 Regular cleaning, maintenance, and inspection of gas collection pipelines, hoods, exhaust fans, and air pollution control facilities.

2、 Close monitoring of equipment integrity during operations; production processes are immediately halted if any abnormality is detected, and resumed only after full restoration.

3、 Routine inspections of gas transmission pipelines to prevent blockage caused by metal or non-metal deposits; maintenance is promptly scheduled in case of abnormal motor noise or pipeline vibration.

5.5.2 Air Pollutant Generation

The Company applies **Best Available Techniques (BAT)** to control pollutant emissions. During the crushing and feeding of waste lead-acid batteries, lead dust is kept in a moist state and transported in sealed systems, preventing dust dispersion.

Acid mist generated during battery crushing and separation is captured by local exhaust systems and treated before discharge. Exhaust gases from smelting and refining processes are collected in enclosed systems and treated by pollution control equipment prior to release.

In addition to routine maintenance, annual monitoring and testing are conducted to ensure compliance with emission standards.

5.6 SDGs Action Mapping

Table 4.1 SDGs and Corresponding Sections in the Report

Item	Corresponding Sections
SDGs 01 No Poverty	Not addressed in this report
SDGs 02 Zero Hunger	1.2.1 Governance Structure of Sustainable Development4.3 Community Engagement
SDGs 03 Good Health and Well-being	1.2.1 Governance Structure of Sustainable Development4.1 Occupational Safety and Health
SDGs 04 Quality Education	1.2.1 Governance Structure of Sustainable Development4.1 Occupational Safety and Health4.2 Labor Relations
SDGs 05 Gender Equality	1.2.4 Social Issues
SDGs 06 Clean Water and Sanitation	5.3.1 Water Resource Management Approach and Reduction Targets
SDGs 07 Affordable and Clean Energy	5.2.1 Energy Management Approach and Reduction Targets
SDGs 08 Decent Work and Economic Growth	1.2.1 Governance Structure of Sustainable Development
SDGs 09 Industry, Innovation and Infrastructure	2.3 Business Strategy and Current Status
SDGs 10 Reduced Inequalities	1.2.1 Governance Structure of Sustainable Development1.2.7 Other Key Information on Sustainable Development Implementation
SDGs 11 Sustainable Cities and Communities	Not addressed in this report
SDGs 12 Responsible Consumption and Production	1.2.3 Environmental Issues2.3 Business Strategy and Current Status
SDGs 13 Climate Action	1.2.3 Environmental Issues5.1.1 Greenhouse Gas Management Strategy, Methods, and Targets
SDGs 14 Life Below Water	Not addressed in this report
SDGs 15 Life on Land	Not addressed in this report
SDGs 16 Peace, Justice and Strong Institutions	1.2.1 Governance Structure of Sustainable Development1.2.5 Reference to International Reporting Standards and Guidelines3.2 Ethical Management
SDGs 17 Partnerships for the Goals	2.1 Company Profile

5.6.1 SDGs and Corresponding Corporate Actions

- DGs 02 – Zero Hunger

- Regular donations to community religious organizations to support meal programs
- Sponsorship of NTD 1 million worth of meal vouchers for students during summer and winter breaks

- SDGs 03 – Good Health and Well-being

- Annual occupational health examinations to ensure workplace safety
- Annual employee health check-ups, with additional examinations for employees engaged in special operations
- Continuous attention to employees' physical and mental health

- SDGs 04 – Quality Education

- Regular fire drills and occupational safety training
- Climate risk education and training programs for employees
- Establishment of education and training management procedures, with designated units responsible for implementation and supervision
- Supervisors regularly explain occupational safety rules to ensure employees fully understand and implement them in daily work

- SDGs 05 – Gender Equality

- Promotion of diversity and equal opportunity through employee training and education
- Participation in workplace sexual harassment and unlawful infringement prevention seminars organized by the Kaohsiung Industrial Development Bureau
- Awareness programs for directors, supervisors, and employers regarding workplace sexual harassment prevention responsibilities
- Internal awareness campaigns on workplace sexual harassment prevention
- Equal pay for equal work and equal promotion opportunities for male and female employees

➢ SDGs 06 – Clean Water and Sanitation

- Reuse of water within production processes
- Regular testing of discharged wastewater quality

➢ SDGs 07 – Affordable and Clean Energy

- Priority procurement of high energy-efficiency equipment

➢ SDGs 08 – Decent Work and Economic Growth

- Strict prohibition of child labor

➢ DGs 09 – Industry, Innovation and Infrastructure

- Development of successful technologies and products
- Technologies successfully developed in recent years include:
- 2022: Improvement of desulfurization tower exhaust system
- 2023: Improvement of heat exchanger system
- 2024: Lead-calcium alloy with reduced self-discharge rate, and lead-tin alloy with improved conductivity and corrosion resistance

➢ SDGs 10 – Reduced Inequalities

- Prevention of any form of human rights violations, including forced or compulsory labor
- Assurance of workplacee safety, non-discrimination policies, and protection of employees' and stakeholders' rights.

➢ SDGs 11 – Sustainable Cities and Communities

- Air pollution prevention
- Soil pollution prevention
- Water pollution prevention

- SDGs 12 – Responsible Consumption and Production

- Adoption of a circular economy model to extend product life cycles through recycling and reuse
- Reduction of unnecessary packaging and use of recyclable packaging materials in green manufacturing
- Increased investment in pollution prevention equipment to enhance pollution control performance
- Improvement of efficiency in waste lead-acid battery recycling equipment
- Participation in pollution prevention projects with academic research institutions to develop environmentally friendly recycling and resource regeneration technologies

- SDGs 13 – Climate Action

- Establishment of carbon reduction targets and transition pathways
- Investment in or issuance of green and sustainable bonds
- Implementation of energy-saving, water-saving, and carbon reduction initiatives

- SDGs 16 – Peace, Justice and Strong Institutions

- Implementation of the Ethical Management Guidelines and Corporate Social Responsibility Best Practice Principles

- SDGs 17 – Partnerships for the Goals

- Establishment of the subsidiary TMIC (Vietnam), engaged in the production of various lead-based products, recycling of domestic waste lead-acid batteries, and recycling of lead products and plastics, thereby expanding the Company's business footprint
- Future development strategies focus on leveraging Southeast Asian market opportunities, developing new products, enhancing product value-added, and continuously monitoring external competition, regulatory environments, and macroeconomic conditions to maintain competitive advantages

VI. Appendix

6.1 GRI Standards Index

GRI Standard	Disclosure	Report Section
GRI 2: 2021 (General Disclosures)	2-1 Organizational details	2.3 Business Strategy and Current Status
	2-2 Entities included in the organization's sustainability reporting	About This Report; 2.3 Business Strategy and Current Status
	2-3 Reporting period, frequency and contact point	About This Report
	2-4 Restatements of information	No restatement of information (if no corrections, disclosure is not required)
	2-5 External assurance	6.4 CPA Limited Assurance Report
	2-6 Activities, value chain and other business relationships	2.2 Products and Processes; 2.3 Business Strategy and Current Status; 3.6 Supply Chain Management
	2-7 Employees	4.1 Occupational Safety and Health; 4.2 Talent Development and Training; 4.2.2 Labor Relations
	2-8 Workers who are not employees	Not applicable / No relevant content in this report
	2-9 Governance structure and composition	2.1 Company Profile; 3.1.1 Board Members; 3.1.2 Board Diversity and Independence
	2-10 Nomination and selection of the highest governance body	3.1.1 Board Members; 3.1.2 Board Diversity and Independence
	2-11 Chair of the highest governance body	3.1.1 Board Members; 3.1.2 Board Diversity and Independence
	2-12 Role of the highest governance body in overseeing the management of impacts	1.1.3 Sustainability Development Organization
	2-13 Delegation of responsibility for managing impacts	1.1.3 Sustainability Development Organization
	2-14 Role of the highest governance body in sustainability reporting	1.1.3 Sustainability Development Organization
	2-15 Conflicts of interest	3.1.1 Board Members; 3.1.2 Board Diversity and Independence

	2-16 Communication of critical concerns	3.1.1 Board Members; 3.1.2 Board Diversity and Independence
	2-17 Collective knowledge of the highest governance body	3.1.1 Board Members; 3.1.2 Board Diversity and Independence
	2-18 Evaluation of the performance of the highest governance body	3.1.3 Board Performance Evaluation
	2-19 Remuneration policies	3.1.4 Remuneration Policy
	2-20 Process to determine remuneration	3.1.4 Remuneration Policy
	2-21 Annual total compensation ratio	3.1.5 Annual Total Compensation Ratio
	2-22 Statement on sustainable development strategy	1.2 Sustainability Management Strategy
	2-23 Policy commitments	3.2 Ethical Management*
	2-24 Embedding policy commitments	3.2 Ethical Management*
	2-25 Processes to remediate negative impacts	1.5 Materiality Analysis
	2-26 Mechanisms for seeking advice and raising concerns	3.2 Ethical Management; 3.5.2 Regulatory Compliance
	2-27 Compliance with laws and regulations	3.5.2 Regulatory Compliance
	2-28 Membership associations	Not a member of any associations
	2-29 Approach to stakeholder engagement	1.4 Stakeholder Engagement
	2-30 Collective bargaining agreements	No collective bargaining agreements (no union agreements signed)
GRI 3: 2021 (Material Topics)	3-1 Process to determine material topics	1.5.1 Material Topic Assessment Process
	3-2 List of material topics	1.5.2 Material Topic Impact Management
GRI 201: 2016 (Economic Performance)	201-1 Direct economic value generated and distributed	Not addressed in this report
	201-2 Financial implications and other risks and opportunities due to climate change	Not addressed in this report

	201-3 Defined benefit plan obligations and other retirement plans	4.2.2 Labor Relations
	201-4 Financial assistance received from government	Not applicable / No relevant content in this report
GRI 202: 2016 (Market Presence)	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Not addressed in this report
	202-2 Proportion of senior management hired from the local community	Not addressed in this report
GRI 203: 2016 (Indirect Economic Impacts)	203-1 Infrastructure investments and services supported	Not addressed in this report
	203-2 Significant indirect economic impacts	Not addressed in this report
GRI 204: 2016 (Procurement Practices)	204-1 Proportion of spending on local suppliers	Not addressed in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	3.2 Ethical Management
GRI 205: 2016 (Anti-corruption)	205-1 Operations assessed for risks related to corruption	Not addressed in this report
	205-2 Communication and training about anti-corruption policies and procedures	3.2 Ethical Management
	205-3 Confirmed incidents of corruption and actions taken	Not applicable / No relevant content in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not applicable / No relevant content in this report
GRI 206: 2016 (Anti-competitive Behavior)	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Not applicable / No relevant content in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	—
GRI 207: 2019	207-1 Tax approach	Not addressed in this report

(Tax)	207-2 Tax governance, control, and risk management	Not addressed in this report
	207-3 Stakeholder engagement and management of concerns related to tax	Not addressed in this report
	207-4 Country-by-country reporting	Not addressed in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	2.2 Products and Processes; 2.3 Business Strategy and Current Status
GRI 301: 2016 (Materials)	301-1 Materials used by weight or volume	Not addressed in this report
	301-2 Recycled input materials used	2.2 Products and Processes; 2.3 Business Strategy and Current Status
	301-3 Reclaimed products and their packaging materials	1.2.3 Environmental Issues
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	5.2.2 Energy Consumption
GRI 302: 2016 (Energy)	302-1 Energy consumption within the organization	5.2.2 Energy Consumption
	302-2 Energy consumption outside of the organization	Not addressed in this report
	302-3 Energy intensity	Not addressed in this report
	302-4 Reduction of energy consumption	5.2.1 Energy Management Approach and Reduction Targets
	302-5 Reductions in energy requirements of products and services	Not addressed in this report
GRI 303: 2018 (Water and Effluents)	303-1 Interactions with water as a shared resource	Not addressed in this report
	303-2 Management of water discharge-related impacts	5.3.1 Water Resource Management Approach and Reduction Targets
	303-3 Water withdrawal	Not addressed in this report
	303-4 Water discharge	5.3.2 Water Use
	303-5 Water consumption	5.3.2 Water Use
GRI 304: 2016 (Biodiversity)	304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value	Not addressed in this report

	304-2 Significant impacts of activities, products and services on biodiversity	Not addressed in this report
	304-3 Habitats protected or restored	Not addressed in this report
	304-4 IUCN Red List species and national conservation list species with habitats affected by operations	Not addressed in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not addressed in this report
GRI 305: 2016 (Emissions)	305-1 Direct (Scope 1) GHG emissions	5.1.2 Greenhouse Gas Emissions
	305-2 Energy indirect (Scope 2) GHG emissions	5.1.2 Greenhouse Gas Emissions
	305-3 Other indirect (Scope 3) GHG emissions	Not addressed in this report
	305-4 GHG emissions intensity	5.1.1 GHG Management Strategy, Methods, and Targets
	305-5 Reduction of GHG emissions	5.1.1 GHG Management Strategy, Methods, and Targets
	305-6 Emissions of ozone-depleting substances (ODS)	Not addressed in this report
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Not addressed in this report
GRI 306: 2020 (Waste)	306-1 Waste generation and significant waste-related impacts	5.4.1 Waste Management Approach and Reduction Targets
	306-2 Management of significant waste-related impacts	5.4.1 Waste Management Approach and Reduction Targets
	306-3 Waste generated	5.4.2 Waste Generation
	306-4 Waste diverted from disposal	5.4.1 Waste Management Approach and Reduction Targets
	306-5 Waste directed to disposal	5.4.1 Waste Management Approach and Reduction Targets
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not addressed in this report
GRI 308: 2016 (Supplier	308-1 New suppliers screened using environmental criteria	Not addressed in this report

Environmental Assessment)	308-2 Negative environmental impacts in the supply chain and actions taken	Not addressed in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	4.2.2 Labor Relations
GRI 401: 2016 (Employment)	401-1 New employee hires and employee turnover	4.2.2 Labor Relations
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.2.2 Labor Relations
	401-3 Parental leave	4.2.2 Labor Relations
GRI 402: 2016 (Labor/Management Relations)	402-1 Minimum notice periods regarding operational changes	2.3 Business Strategy and Current Status
GRI 403: 2018 (Occupational Health and Safety)	403-1 Occupational health and safety management system	4.1 Occupational Safety and Health
	403-2 Hazard identification, risk assessment, and incident investigation	Not addressed in this report
	403-3 Occupational health services	4.1 Occupational Safety and Health
	403-4 Worker participation, consultation, and communication on occupational health and safety	Not addressed in this report
	403-5 Worker training on occupational health and safety	Not addressed in this report
	403-6 Promotion of worker health	4.1 Occupational Safety and Health
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Not addressed in this report
	403-8 Workers covered by an occupational health and safety management system	4.1 Occupational Safety and Health
	403-9 Work-related injuries	4.1 Occupational Safety and Health
	403-10 Work-related ill health	4.1 Occupational Safety and Health
GRI 404: 2016 (Training and	404-1 Average hours of training per year per employee	4.2 Talent Development and Training

Education)	404-2 Programs for upgrading employee skills and transition assistance programs	4.2.2 Labor Relations
	404-3 Percentage of employees receiving regular performance and career development reviews	Not addressed in this report
GRI 405: 2016 (Diversity and Equal Opportunity)	405-1 Diversity of governance bodies and employees	3.1.2 Board Diversity and Independence
	405-2 Ratio of basic salary and remuneration of women to men	Not addressed in this report
GRI 406: 2016 (Non-discrimination)	406-1 Incidents of discrimination and corrective actions taken	Not applicable / No relevant content in this report
GRI 407: 2016 (Freedom of Association and Collective Bargaining)	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Not applicable / No relevant content in this report
GRI 408: 2016 (Child Labor)	408-1 Operations and suppliers at significant risk for incidents of child labor	1.2.1 Governance Structure of Sustainable Development
GRI 409: 2016 (Forced or Compulsory Labor)	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	1.2.1 Governance Structure of Sustainable Development
GRI 410: 2016 (Security Practices)	410-1 Security personnel trained in human rights policies or procedures	Not addressed in this report
GRI 411: 2016 (Rights of Indigenous Peoples)	411-1 Incidents of violations involving rights of indigenous peoples	Not applicable / No relevant content in this report
GRI 413: 2016 (Local Communities)	413-1 Operations with local community engagement, impact assessments, and development programs	Not addressed in this report
	413-2 Operations with significant actual and potential negative impacts	Not addressed in this report

	on local communities	
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not addressed in this report
GRI 414: 2016 (Supplier Social Assessment)	414-1 New suppliers screened using social criteria	Not addressed in this report
	414-2 Negative social impacts in the supply chain and actions taken	Not addressed in this report
GRI 415: 2016 (Public Policy)	415-1 Political contributions	Not addressed in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not addressed in this report
GRI 416: 2016 (Customer Health and Safety)	416-1 Assessment of the health and safety impacts of product and service categories	Not addressed in this report
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Not applicable / No relevant content in this report
GRI 417: 2016 (Marketing and Labeling)	417-1 Requirements for product and service information and labeling	2.2 Products and Processes
	417-2 Incidents of non-compliance concerning product and service information and labeling	Not applicable / No relevant content in this report
	417-3 Incidents of non-compliance concerning marketing communications	Not applicable / No relevant content in this report
GRI 3: 2021 (Material Topics)	3-3 Management of material topics	Not applicable / No relevant content in this report
GRI 418: 2016 (Customer Privacy)	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Not applicable / No relevant content in this report

6.2 SASB Standards Index Table

SASB Industry: Metals & Mining

SASB Metric Code	Disclosure Topic	Accounting Metric	Type	Amount	Unit	Report Section	Page
EM-MM-110a.1	Greenhouse Gas Emissions	Gross global Scope 1 GHG emissions	Quantitative	13,569.00	metric tons of CO2e (tCO2e)	5.1.2 Greenhouse Gas Emissions	87
EM-MM-110a.1	Greenhouse Gas Emissions	Percentage of gross global Scope 1 GHG emissions covered under emissions-limiting regulations	Quantitative	73.62	%	5.1.2 Greenhouse Gas Emissions	87
EM-MM-110a.2	Greenhouse Gas Emissions	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission reduction targets, and an analysis of performance against those targets	Discussion & Analysis	–	–	5.1.1 GHG Management Strategy, Methods, and Targets	85
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (1) Carbon monoxide (CO)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (2) Nitrogen oxides (NOx) (excluding N_2O)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (3) Sulfur oxides (SOx)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (4) Particulate matter	Quantitative	–	metric tons (t)	Not addressed in this report	–

		(PM10)					
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (5) Mercury (Hg)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (6) Lead (Pb)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-120a.1	Air Quality	Air emissions of the following pollutants: (7) Volatile organic compounds (VOCs)	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-130a.1	Energy Management	(1) Total energy consumed	Quantitative	–	gigajoules (GJ)	Not addressed in this report	–
EM-MM-130a.1	Energy Management	(2) Percentage grid electricity	Quantitative	–	%	Not addressed in this report	–
EM-MM-130a.1	Energy Management	(3) Percentage renewable energy	Quantitative	–	%	Not addressed in this report	–
EM-MM-140a.1	Water Management	(1) Total water withdrawn	Quantitative	–	cubic meters (m^3)	Not addressed in this report	–
EM-MM-140a.1	Water Management	(2) Total water consumed	Quantitative	29,150.00	cubic meters (m^3)	5.3.2 Water Use	89
EM-MM-140a.1	Water Management	(3) Percentage of water withdrawn/consumed in regions with High (40–80%) or Extremely High (>80%) Baseline Water Stress	Quantitative	–	%	Not addressed in this report	–
EM-MM-140a.2	Water	Number of incidents of non-	Quantitative	–	cases	No violations of wastewater	–

	Management	compliance associated with water quality permits, standards, and regulations				discharge during the 2024 reporting period	
EM-MM-150a.4	Waste & Hazardous Materials Management	Total weight of non-mineral waste generated	Quantitative	52.57	metric tons (t)	5.4.2 Waste Generation	89
EM-MM-150a.5	Waste & Hazardous Materials Management	Total weight of tailings generated	Quantitative	–	metric tons (t)	Not applicable (no ore beneficiation process)	–
EM-MM-150a.6	Waste & Hazardous Materials Management	Total weight of waste rock generated	Quantitative	–	metric tons (t)	Not applicable (no ore beneficiation process)	–
EM-MM-150a.7	Waste & Hazardous Materials Management	Total weight of hazardous waste generated	Quantitative	518.04	metric tons (t)	5.4.2 Waste Generation	89
EM-MM-150a.8	Waste & Hazardous Materials Management	Total weight of hazardous waste recycled	Quantitative	–	metric tons (t)	Not addressed in this report	–
EM-MM-150a.9	Waste &	Number of significant incidents	Quantitative	–	cases	No related incidents during the	–

	Hazardous Materials Management	associated with hazardous materials and waste management				2024 reporting period	
EM-MM-150a.10	Waste & Hazardous Materials Management	Description of waste and hazardous materials management policies and procedures for active and inactive operations	Discussion & Analysis	–	–	5.4.1 Waste Management Approach and Reduction Targets	85
EM-MM-160a.1	Biodiversity Impacts	Description of environmental management policies and practices at operational sites	Discussion & Analysis	–	–	1.2 Sustainability Management Strategy; 3.5.1 Company Policy; 4.2.2 Labor Relations	9–15; 73; 80–83
EM-MM-160a.2	Biodiversity Impacts	Percentage of mine sites where Acid Rock Drainage (ARD): (1) is likely to occur	Quantitative	–	%	Not applicable	–
EM-MM-160a.2	Biodiversity Impacts	Percentage of mine sites where ARD: (2) is actively mitigated	Quantitative	–	%	Not applicable	–
EM-MM-160a.2	Biodiversity Impacts	Percentage of mine sites where ARD: (3) is under treatment or remediation	Quantitative	–	%	Not applicable	–
EM-MM-160a.3	Biodiversity Impacts	In or near protected areas or habitat of endangered species: (1) Proven reserves	Quantitative	–	%	Not applicable	–
EM-MM-160a.3	Biodiversity Impacts	In or near protected areas or habitat of endangered species: (2) Probable reserves (%)	Quantitative	–	%	Not applicable	–

EM-MM-210a.1	Security, Human Rights & Indigenous Peoples' Rights	In or near areas of conflict: (1) Proven reserves	Quantitative	–	%	Not applicable	–
EM-MM-210a.1	Security, Human Rights & Indigenous Peoples' Rights	In or near areas of conflict: (2) Probable reserves (%)	Quantitative	–	%	Not applicable	–
EM-MM-210a.2	Security, Human Rights & Indigenous Peoples' Rights	In or near indigenous land: (1) Proven reserves	Quantitative	–	%	Not applicable	–
EM-MM-210a.2	Security, Human Rights & Indigenous Peoples' Rights	In or near indigenous land: (2) Probable reserves (%)	Quantitative	–	%	Not applicable	–
EM-MM-210a.3	Security, Human Rights & Indigenous Peoples' Rights	Discussion of engagement processes and due diligence practices related to human rights, indigenous peoples' rights, and conflict areas	Discussion & Analysis	–	–	3.5 Regulatory Compliance	74
EM-MM-210b.1	Community Relations	Discussion of process to manage risks and opportunities associated with community rights and	Discussion & Analysis	–	–	–	–

		interests					
EM-MM-210b.2	Community Relations	(1) Number of non-technical delays	Quantitative	–	count	Not addressed in this report	–
EM-MM-210b.2	Community Relations	(2) Duration of non-technical delays	Quantitative	–	time	Not addressed in this report	–
EM-MM-310a.1	Labor Practices	Percentage of active workforce covered under collective bargaining agreements	Quantitative	–	%	Not addressed in this report	–
EM-MM-310a.2	Labor Practices	(1) Number of strikes and lockouts	Quantitative	–	count	No strikes or lockouts during the 2024 reporting period	–
EM-MM-310a.2	Labor Practices	(2) Duration of strikes and lockouts	Quantitative	–	time	No strikes or lockouts during the 2024 reporting period	–
EM-MM-320a.1	Worker Health & Safety	(1) Total recordable incident rate (TRIR)	Quantitative	–	%	Not addressed in this report	–
EM-MM-320a.1	Worker Health & Safety	(2) Fatality rate	Quantitative	–	%	Not addressed in this report	–
EM-MM-320a.1	Worker Health & Safety	(3) Near miss frequency rate (NMFR)	Quantitative	–	%	Not addressed in this report	–
EM-MM-320a.1	Worker Health & Safety	(4)(a) Average hours of health, safety and emergency response training for employees	Quantitative	8.85	hours	4.1 Occupational Safety and Health	82
EM-MM-320a.1	Worker Health & Safety	(4)(b) Average hours of health, safety and emergency response training for contract workers	Quantitative	–	hours	Not addressed in this report	–

EM-MM-510a.1	Business Ethics & Transparency	Description of management system for preventing corruption and bribery throughout the value chain	Discussion & Analysis	–	–	Not addressed in this report	–
EM-MM-510a.2	Business Ethics & Transparency	Production in countries with the 20 lowest rankings in Transparency International's Corruption Perceptions Index	Quantitative	–	–	Not addressed in this report	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (1) Facility name	Quantitative	–	–	Not applicable (no ore beneficiation process)	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (2) Location	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (3) Ownership status	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (4) Operating status	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (5) Construction method	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage	TSF Inventory: (6) Maximum	Quantitative	–	–	Not applicable	–

	Facilities Management	allowable storage capacity					
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (7) Current tailings storage	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (8) Consequence classification	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (9) Date of most recent independent technical review	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (10) Material findings	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (11) Mitigation measures	Quantitative	–	–	Not applicable	–
EM-MM-540a.1	Tailings Storage Facilities Management	TSF Inventory: (12) Site-specific Emergency Preparedness and Response Plan (EPRP)	Quantitative	–	–	Not applicable	–
EM-MM-540a.2	Tailings Storage Facilities Management	Summary of tailings management system and governance used to monitor and maintain TSF stability	Discussion & Analysis	–	–	Not applicable	–
EM-MM-540a.3	Tailings Storage	Approach to developing TSF	Discussion	–	–	Not applicable	–

	Facilities Management	Emergency Preparedness and Response Plan (EPRP)	& Analysis				
EM-MM-000.A	(1) Production of metals mining		Quantitative	–	saleable metric tons (t)	Not addressed in this report	–
EM-MM-000.A	(2) Production of metallic products		Quantitative	–	saleable metric tons (t)	Not addressed in this report	47–50
EM-MM-000.B	Total employees		Quantitative	268	number	4.2.1 A Harmonious and Happy Workplace	78
EM-MM-000.B	Percentage of contractors		Quantitative	–	%	Not addressed in this report	–

6.3 Climate-related Information – Implementation Status

Item	Implementation Status
1. 1. Describe board and management oversight and governance of climate-related risks and opportunities. *(Mandatory in 2028)*	Although the Company has not established a Sustainability Development Committee, it has formed a Sustainability Development Promotion Task Force composed of the General Manager and department heads. The GM Office coordinates climate-related projects, conducts periodic climate risk assessments, and the Task Force reports (at least once a year) to the Board on climate risk management strategies and responses to policy risks such as carbon fees and carbon trading schemes. The Company promotes GHG inventory management to meet downstream customers' ESG requirements, discloses the financial impacts of climate risks, and explains carbon performance in the sustainability report. It also actively participates in circular economy platforms and green supply chain initiatives to enhance industry resilience and green competitiveness.
2. 2. Explain how identified climate risks and opportunities affect the business, strategy, and financial planning (short-, medium-, long-term). *(Mandatory in 2028)*	The Company assesses climate-related physical risks and potential opportunities by time horizon: **Short-term (1–3 years):** Business—greater volatility in energy and raw material costs increases production costs; carbon fee and GHG inventory requirements require stronger compliance and disclosure; brand customers require supply-chain carbon footprint disclosure affecting order acquisition. Financial—initial carbon inventory and equipment improvement increases capex; carbon fee increases operating costs. **Medium-term (3–10 years):** Business—without proactive decarbonization, the Company may lose key customers or be excluded from green supply chains; requires more resources for equipment replacement and energy transition; low-carbon competition accelerates process and product innovation. Financial—higher capex (e.g., high-efficiency furnaces, renewable energy); rising carbon credit prices or CBAM may significantly increase export costs; opportunities for government subsidies and green finance (e.g., sustainability-linked loans, green bonds). **Long-term (10+**

	years): Business—greater climate extremes may disrupt supply stability (raw materials, logistics); demand for low-carbon materials and circular economy products grows, creating leadership opportunities for successful transformers; ESG ratings affect investors and insurers. Financial—successful transition can improve margins and lower risk premium, attracting long-term capital; failure to transition may lead to impairment/stranded assets (carbon-intensive equipment), affecting the balance sheet.
3. 3. Describe the financial impact of extreme weather events and transition actions. *(Mandatory in 2028)*	(1) Carbon fees and carbon trading require additional payments for emissions; without reduction measures, carbon cost becomes a major expense. (2) Decarbonization policies and customer requirements drive investments in high-efficiency equipment (e.g., furnaces, energy-saving motors), renewable energy, carbon inventory and IT systems, increasing initial capex. (3) Failure to meet downstream/export ESG standards may result in losing green supply chain orders, reducing revenue and profitability. (4) Weak ESG performance may increase loan rates or limit access to sustainability-linked loans/green bonds, raising financing costs and weakening capital access. (5) Traditional high-carbon equipment may become "stranded assets," leading to early retirement and asset impairment, affecting financial statements.
4. 4. Explain how climate risk identification, assessment, and management are integrated into overall risk management. *(Mandatory in 2028)*	The Sustainability Development Promotion Task Force regularly identifies climate-related risks such as equipment damage and supply disruption from extreme weather, carbon fee policy risks, customer ESG requirements, and technology upgrade costs. Each risk is assessed for likelihood and financial impact and classified into high/medium/low using a risk matrix. Results are incorporated into the enterprise risk management system and reviewed together with financial and operational risks. The Task Force regularly reports climate risk status and management outcomes to the Board to ensure management is informed of key risk dynamics.
5. 5. If scenario analysis is used to assess resilience to climate risks,	As of the report publication date, scenario analysis has not been conducted because the

describe scenarios, parameters, assumptions, factors, and key financial impacts.	identification of climate risks and opportunities has not been completed. Once completed, related information will be disclosed on the Company's website.
6. 6. If a transition plan is in place, describe the plan and the metrics/targets used to identify and manage physical and transition risks.	As of the report publication date, a transition plan has not been completed because the identification of climate risks and opportunities has not been completed. Once completed, related information will be disclosed on the Company's website.
7. 7. If internal carbon pricing is used as a planning tool, explain the basis for setting the price.	Not applicable, as internal carbon pricing is not used as a planning tool as of the report publication date.
8. 8. If climate-related targets are set, disclose coverage (activities and GHG scopes), time horizon, annual progress, and details of offsets/RECs used.	Not applicable. As of the report publication date, the Company does not fall under the "companies meeting certain criteria," therefore this requirement does not apply.
9. 9. Status of GHG inventory and assurance, and reduction targets/strategy/action plans (to be filled in 1-1 and 1-2). *(Mandatory in 2029)*	Not applicable. As of the report publication date, the Company does not fall under the "companies meeting certain criteria," therefore this requirement does not apply.

6.4 Independent Auditor’s Limited Assurance Report