

FIRST COPPER
TECHNOLOGY CO., LTD.

2023

| Corporate Sustainability Report |



第一铜科技股份有限公司
FIRST COPPER TECHNOLOGY CO., LTD.

About the Report

First Copper Technology Co., Ltd. (hereinafter referred to as "FCC" or "the company") presents its operational performance to shareholders through its annual report. In accordance with the Global Reporting Initiative (GRI) Standards 2021, including the Universal Standards, Sector Standards, and Specific Standards on Significant Topics, FCC voluntarily prepares and publishes a Corporate Sustainability Report for the previous fiscal year. This report discloses non-financial information identified by the company, including economic, environmental, and social (including human rights) aspects, serving as a crucial communication channel with stakeholders. It addresses stakeholder concerns and aims to review and enhance sustainable performance.

To demonstrate our commitment as a responsible local corporate citizen and its dedication to protecting the environment, FCC continually disclose climate-related issues follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and work with third-party certification bodies to verify our greenhouse gas emissions for Scope 1 and Scope 2.

Collected and provided by relevant departments within the company, the data and information in this report are compiled and authored by the Sustainability ESG Promotion Team and subjected to internal administrative review procedures before final approval by the General Manager and Chairman for publication.

Period, Scope, and Boundary of the Report

This report covers the period from January 1, 2023, to December 31, 2023, and the reporting boundaries and scope include FCC's main operational locations, which encompass:
Head Office : No. 170, Chung Cheng 4th Rd., Chien Chin Dist., Kaohsiung City, Taiwan, R.O.C.
Taipei Branch : 11F, 210, Nan King East Road, Sec. 3, Taipei, Taiwan, R.O.C.
Taichung Branch : 5F1., No. 186, Sec. 2, Dungshing Rd., Nantuen Chiu, Taichung, Taiwan 408, R.O.C.
Lin Hai Factory : No. 479, Yen Hai 1st Rd., Hsiao Kang Dist., Kaohsiung City, Taiwan, R.O.C.

Reference

In addition to complying with Global Reporting Initiative(GRI), the report also follows guidelines and recommendations of Preparation and Filing of Sustainability Reports by TWSE Listed Companies, Task Force on Climate-related Financial Disclosures (TCFD), and Sustainability Accounting Standards Board (SASB) for information disclosure.

External Verification

After performing a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (ISAE 3000) - Assurance Engagements Other than Audits or Reviews of Historical Financial Information on this report, KPMG Taiwan issues a limited assurance statement. For the scope and conclusions of the limited assurance statement, please refer to the appendix.

Contact Information

Please feel free to contact us if you have any feedback, inquiries, or suggestions regarding this report or FCC's sustainable development efforts.

- Tel:+886-7-2814161 #411 Jia-Yu, Wu/Manager
Head Office : No. 170, Chung Cheng 4th Rd., Chien Chin Dist., Kaohsiung City, Taiwan, R.O.C.
E-mail:wendy@hegroup.com.tw
- Tel:+886-7-8023811 #102 Fei-Peng, Shih/Assistant Factory Director
Lin Hai Factory:No. 479, Yen Hai 1st Rd., Hsiao Kang Dist., Kaohsiung City, Taiwan, R.O.C.
E-mail:h33421@hegroup.com.tw
- Official Website:http://www.fcht.com.tw

Reporting Period

This is the third ESG report issued by the company, and it is issued annually on a regular basis.
Current report: Issued in August, 2024
Last report: Issued in June, 2023
Next report: Expected to be issued in August, 2025

Letter from the Chairman



王宏仁

王宏仁

First Copper Technology Co., Ltd. Chairman

In 2023, the global semiconductor industry faced unexpected challenges in the terminal application market, with extended inventory adjustment times exacerbated by high interest rates, inflation, and a lackluster post-pandemic economic performance in China. Additionally, escalating tensions in US-China tech war further complicated the global demand for terminal products, creating an unfavorable operating environment for FCC.

Amidst these economic pressures, FCC strategically shifted its focus to green energy products, particularly in developing renewable energy and electric vehicle products. This realignment reflects the company's core strategy in response to the current economic downturn, aiming for potential recovery in 2024.

Environmental, social, and governance (ESG) considerations have become essential drivers for global sustainability. To achieve sustainable development, companies must possess not only the capability to identify operational risks and potential opportunities, but also the capability to transform. While facing threats from external risks, corporate economic activities can also threaten the environment and society. Enhanced transparency in reporting helps stakeholders understand how companies promote sustainable operations, benefiting the overall market perception. Recognizing such global trends, FCC closely aligns with domestic regulatory policies such as the Corporate Governance 3.0 - Sustainable Development Blueprint, the Sustainable Development Roadmap for Listed Companies issued by Taiwan's Financial Supervisory Commission in 2020 and 2022, the Taiwan's Pathway to Net-Zero Emissions in 2050 issued by the National Development Council and the Greenhouse Gas Reduction Act (Climate Change Response Act by the Ministry of Environmental Protection).

Based on sustainable development principle, FCC manages operational risks, while continues to deepen our core values and foster innovation. To sustain competitiveness and consider stakeholder interests, in terms of the environment, we assess the potential risks and opportunities includes greenhouse gas emissions, water resources, and waste disposal for the company; in terms of the society, we prioritize employee welfare and actively engage with and contributes to the community; in terms of the governance, we maintain robust governance frameworks to balance profitability with shareholder rights, fostering collaborative growth with supply chain partners and ensuring alignment with international trends.

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Sustainability at FCC

Impacted by unexpected challenges in the terminal application market for the global semiconductor industry, production volumes have decreased due to weakening demand. Consequently, revenue has declined, resulting in weaker performance in 2023.

Sustainability	Items	2021	2022	2023
 Governance	Operating Revenue (NT\$ billion)	32.19	28.95	26.46
	EPS (NT\$)	1.18	0.55	-0.03
	ROA (%)	5.97	2.82	0.16
	ROE (%)	7.92	3.59	-0.18
	Annual Production Output (metric tons)	11,209	10,627	7,433
 Environmental	Occupational Injury Key Indicators (I.R)	0.98	4.12	3.52
	Volume of Recyclables (metric tons)	601.76	601.08	270.24
	Energy Consumption per Copper Strip (GJ/metric tons)	16.57	18.52	21.67
	Greenhouse Gas Emissions Intensity (metric tons CO2e/ metric tons copper strip)	1.85594	2.08432	2.41313
	Process water recycling (metric tons)	915,626	887,364	809,236
 Social	Labor/Management Relations (Total expenditures on Employee Welfare : NT\$ thousand)	3,799	4,191	3,700
	Employee Compensation (Average annual salaries: NT\$ thousand)	695	550	548
	Disabling Frequency Rate (Disabling injuries/ Million work hours)	7.34	17.66	18.98

Stakeholder Communication

Communication and responses

To understand various stakeholder' s opinions and address their priority concerns, FCC operates a Sustainable Development ESG (hereinafter referred to as "the ESG team") led by the General Manager. Integrating internal departments including Finance, Stock, Sales, Factory, QC, R&D, Internal Audit, General Affairs, Procurement, IT, Facilities, and environmental health and safety, the ESG team assesses and identify major issues concerning employees, customers, government, investors, suppliers, communities, and NGOs through surveys and statistical analysis, then use such data as a foundation for communicating with and responding to stakeholders.

In additional to disclosing relevant information transparently in this report based on identified major issues and corresponding indicators, FCC commits to systematically integrate ESG initiatives into annual departmental work plans. To review the execution outcomes, and report on them to ensure proper responses and handling, appropriate budgets will be allocated by the ESG Team to effectively manage and address the major issues. Annual reports will be presented to and approved by the Board of Directors. The stakeholder communication details in 2023 have been reported to the Board of Directors on May 3, 2024.

● Sustainable Development ESG Promotion Team -Team Members



Stakeholder Communication

Reporting Process

Identifying stakeholders and establishing effective communication with them is a crucial foundation for a company's continuous progress and sustainable development. Through the stakeholder identification process, FCC categorizes specific stakeholders and evaluates the communication channels and issues with each group. This process involves activities such as customer visits, telephone interviews, or surveys to analyze major issues and propose management policies, which will then be incorporated into the current report.



● Stakeholders Identification

Convened meetings based on the five evaluation factors of the Stakeholder Engagement Standard (AA1000 SES: 2015), which include dependency, responsibility, tension, influence, and diverse perspectives, members of the ESG Team contributed their insights and experiences to brainstorm. Come up with identified stakeholders across different dimensions, considering all directly / indirectly relevant individuals and organizations, they then agreed-upon stakeholders for FCC are Employees, Customers, Government Agencies, Suppliers, Shareholders, Communities, and Non-Governmental Organizations.

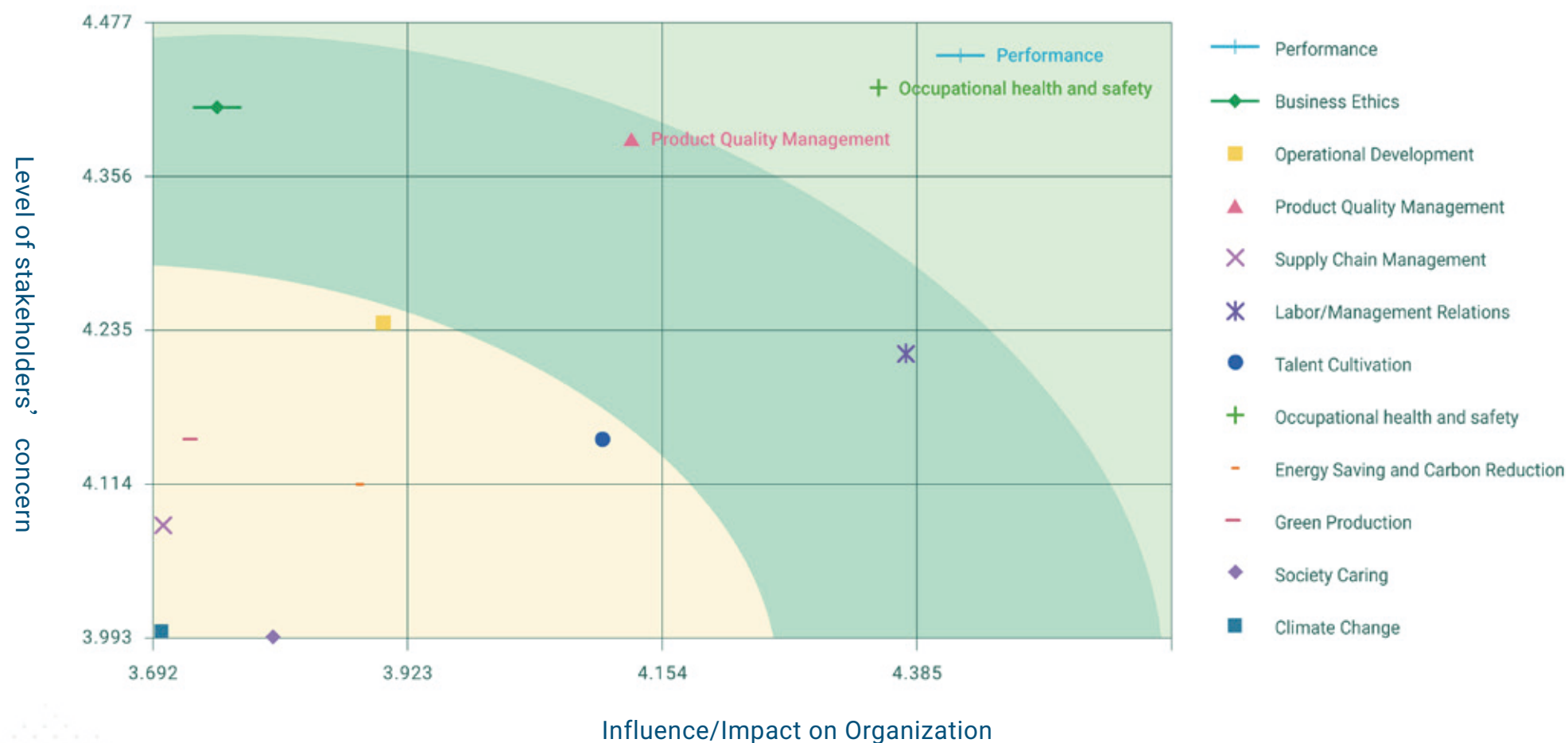
Identified stakeholders for FCC

Employees	Customers	Government Agencies	Shareholders	Suppliers	Communities	NGOs
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● Issues Prioritization and Identification

Engaged in regular communication with stakeholders and consulted with ESG advisors , the ESG team convened a meeting on March 10, 2022, and identified 12 major issues to be included in a survey. The topics and scope of information disclosed in this report are based on such survey, aiming to comprehensively present the company's continuous efforts in sustainable management. The prioritization and identification of issues aimed to gauge stakeholders' concerns and impacts regarding sustainability topics. Questionnaires were distributed by departments to external stakeholders, and results were weighted based on stakeholder characteristics to assess these concerns and impacts. Internal surveys were also conducted among first and second-level managers to evaluate FCC's operational impact on sustainability issues. Statistical analysis was employed to create a quadrant chart, highlighting the priorities of major issues.

● Analysis Chart of Major issues



● Communication Channels between FCC and Stakeholders

In addition to regular business interactions, FCC continually strengthens the establishment of various communication channels with stakeholders. The company is attentive to the issues that concern stakeholders and strives to address their needs, then presented all communication outcomes in this report.

FCC believes that establishing good interactions with stakeholders not only helps the company to better understand social and environmental trends and challenges but also creates greater value for both the company and society. This process is key to driving the company's development, continuous growth, and innovation.

Stakeholders	Interaction Objects	Concerned issues	Communication Channels, Approaches and Frequency	Achievements in 2023
Employees	Permanent Employees	Talent recruitment and retention	Union members' assembly (Annually) Health and safety committee (Quarterly) Labor/Management Meeting (Quarterly) Welfare Committee (Quarterly)	Communication and suggestions on labor rights and working conditions, with facility management's participation. Reviewing occupational safety incidents, personnel training, and tracking improvements through safety audits. Addressing issues of mutual concern between labor and management and engaging in communication and negotiation when employees provide feedback or suggestions. Advocating for increased subsidies for employee welfares, including meals and other benefits.
		Training and development		
	Temporary Employees	Physical and mental health and safety		
		Filing mechanism for labor rights complaints		
Customer	Customer	Compensation and welfares	Visits(Regularly/As needed) Customer-requested meetings (As needed)	Price, Quality, Delivery Schedule, responding to customer after reviewing in the production and sales meeting Social responsibility of supplier, cooperating in factory inspection matters.
		Product delivery and satisfaction		
Government	Relevant regulatory authorities, Municipal government	Trust and privacy	On-site audits/visits (Irregularly conducted by Department of Labor, Department of Environmental Protection, Fire Department) Official letters (Irregularly issued by Department of Labor, Department of Environmental Protection, Sewage Treatment Plant)	Regular inspection of bridge cranes, inspection reports from third-party notary agencies, occupational safety, environmental protection, and fire inspections; supervision testing, issuance of inspection or audit reports, or submission of improvement tracking reports. Reminder of recent occupational safety incidents and preventive measures, recording of sewage discharge volumes. Conducting a comprehensive greenhouse gas emissions inspection across the entire company, verified by external validation agencies, and developing measures to reduce carbon emissions.
		Regulatory compliance		
		Pollution prevention and control		
		Code of professional ethics		
		Carbon emissions and carbon credit management		

Stakeholders	Interaction Objects	Concerned issues	Communication Channels, Approaches and Frequency	Achievements in 2023
Investor	Investors, shareholders, banks	Disclosure of financial information Addressing investor concerns Dividend policy Effective two-way communication Annual report preparation	General shareholders' meeting, Annual report (Annually), Investor conference, Spokesperson system (irregularly)	Company operational status and future development direction; based on financial report presentations with Q&A by senior executives. Significant company operational updates; disclosed on the website and through media channels.
Supplier	Suppliers, contractors, outsourcing vendors	Supply risk management Sustainable supply chain management Supplier evaluation management Contracting and outsourcing safety	E-mails/Phone Calls/Documents/Relevant meetings(Irregularly)	Quality, price, delivery schedule, and service of raw material supply; establishing qualified suppliers; implementing supplier evaluation management procedures. Negotiating procurement contracts and addressing quality issues through communication channels. Providing hazard notifications for contractors and outsourcing operations and auditing operational safety.
Community	Nearby communities around Factories	Pollution issues Interactions with communities ESG report publication	Neighborhood activities (irregularly communicated through community leaders) Irregular communication with neighboring factories Phone calls, invitation cards (irregularly invited by community development associations, district offices)	Noise and pollution control, dispatch personnel for inspection and measurement, and tracking improvement measures. Participating in safety and health promotion meetings organized by the coastal industrial zone. Community feedback (sponsorship for school green space cleaning and maintenance).
NGOs	Industry association, Academic institution	Environmental issue reporting mechanism Product environmental responsibility Energy and resource efficiency Green supply chain	Letters (Irregularly issued) Industrial meetings(Regular/Irregular)	Seminar, Conference and etc., dispatch appointed representatives. Industry meetups, market information dissemination; dispatch appointed representatives.

● ESG Issues Identification and Responses from FCC

Based on the statistical analysis on survey results from stakeholders and company employees, identified major issues and other concerned issues will be elaborated and responded in this report.



● Scope Definition of Major issues

Discussed by the ESG team, the scope and boundaries of each major issue within FCC's internal operations and its relevant external units are defined and indicated in the table.

Major issue	Impact on FCC' s internal operations	Impact on FCC' s relevant external units		
		Customer	Supplier	Government
Performance	◎	◎		
Product quality management	◎	◎	◎	
Occupational health and safety	◎		◎	◎

*Note: "◎" indicates the Major issue is relevant, and the corresponding information will be disclosed in this report.

Major issue

Major issue	Short To Medium-Term Business Policies/Development Plans	Long Term Business Policies/ Development Plans
Performance	▲ Expand production for high-end brass products and products used in semiconductor market, while discontinue promotion of general-purpose products. ▲ Focus on developing the automotive terminal market, special alloys in particular. ▲ Tin-plating material alloys shifts from brass to high-end alloys. ▲ Further enhance the quality and production yield of copper-nickel-silicon special alloy strips, gradually increasing sales volume. ▲ Increase the production output and quality of copper heat sinks, gradually improve the supply of thick plates.	▲ Expand the supply market for copper-nickel-silicon alloy series products. ▲ Maintain stable supply to the LED market. In addition to semiconductor stamping process materials, increase supplies for etching process materials. ▲ Continuously supply tin-plated copper alloy materials for automotive and electric vehicle applications. ▲ Develop alloy materials for lithium battery packs used in automobiles and motorcycles.
Product Quality Management	▲ Closely follow EU REACH and RoHS and other regulations concerning new hazardous substances and Substances of Very High Concern (SVHCs), have products inspected by third-party testing organizations regularly or as needed. ▲ Enhance and implement the quality management system to ensure product quality and customer satisfaction. ▲ Focus on equipment regular cleaning, inspection, and consumables replacement to enhance the stability of product quality.	▲ Establish strong audit and certification capabilities. Utilize internal and external audits, as well as second and third-party certifications such as customer certifications, product certifications, and system verifications. Use the PDCA cycle to improve the quality management system. ▲ In response to the demand for copper materials in electric vehicle battery packs and AI applications, establish and implement production process controls to meet quality requirements.
Occupational Health and Safety	▲ Establish a comprehensive Environmental Health, and Safety (EHS) management system and implement the ISO 45001 management system. ▲ Improve EHS awareness and capabilities by having grassroots cadres trained for class-3 manager of Occupational Health and Safety Affairs. ▲ Have more employees trained as operators of dangerous machinery, aiming to raise the operating license acquisition rate of foreign workers by 20% ▲ Maintain and ensure a safe and healthy workplace for employees.	▲ Establish a predictive risk and potential EHS risk management system. ▲ Cultivate professional talents of environmental health management to respond to new government regulations and international trends. ▲ Aim for zero occupational accidents.



01

Operation and Governance

第一伸銅的營運與治理

- 1-1 Operational development
- 1-2 Financial Performance
- 1-3 Corporate Governance
- 1-4 Business Ethics
- 1-5 Operational Risk Management
- 1-6 Climate-related Risk Management(TCFD)
- 1-7 Supply chain Management

Operational Development

Industry Development and Business Policies



Industry Development

- ✦ The global shift towards green energy increases the demand for copper in electric vehicles, which is four times that of fuel vehicles. The demand for copper strips was also boosted by the increase of demand for automotive relays and sensor products .
- ✦ To meet the vast market for tin-plated copper alloy products, increase the supply of tin-plated copper alloys.
- ✦ To address the demand for high transmission and high efficiency, the demand for copper alloy materials for 5G-related products is increasing, which aligns with the development of copper alloy materials.
- ✦ High-strength, high-conductivity special alloy copper strip is the up and comer materials in the future. FCC will continues to develop related copper materials for applications.
- ✦ The rapid development of AI has increased the demand for Vapor chamber products, thick plate products in particular. Actions to meet such demands will be priority.
- ✦ FCC will ensure a stable production of special alloy tin-plated materials for connecting pieces in electric tool batteries to meet the marker demand.



Business Policies

- ✦ Increase the production of etching process materials for semiconductor market and develop domestic high-end customers and high-end products.
- ✦ Focus on three segments in the tin-plating market: automotive, electronics, and electric tools.
- ✦ Develop new specifications and new customers for perforated copper strips and increase high-margin products' sales proportion.
- ✦ Aim to raise the number of export markets, focusing on increasing the Southeast Asian market' s sales proportion.
- ✦ Ensure the stable quality of perforated copper products and accept orders on different specifications of perforated copper products.
- ✦ To improve product quality and yield rate, gradually renew equipment and electronic controls in the factory.
- ✦ Increase the number of thick plate slitting machines to improve slitting thick copper plate quality, facilitating an increase in thick plate orders.

About FCC

Introduction

Founded in 1969, FCC initially focusing on copper refining and processing. In 1974, a new 16,530 sqm factory was expanded in the Lin Hai Industrial Zone, equipped with a full set of automatic copper refining and rolling equipment. In 1982, another new factory of over 66,120 sqm was expanded, introducing the latest production technologies for various copper alloy products. In 1989, the company was listed on the Taiwan Stock Exchange.

FCC's copper alloy production technology originates from Mitsubishi Shindoh Co., Ltd., Japan., supplying various high-quality Copper and Copper Alloy Strips including Brass, Copper, Bronze, Phosphor Bronze, Nickel Silver, Lead frame Copper, Eco-friendly Tin-plated Copper, and special terminal materials, which are known for their excellent quality, stability, and variety, to domestic public and private sectors, the semiconductor industry, the electronics industry, and exports to Southeast Asia, Hong Kong, China, Northeast Asia, the United States etc.

Information

- ◆ Head Office: No. 170, Chung Cheng 4th Rd., Chien Chin Dist., Kaohsiung City, Taiwan, R.O.C
- ◆ Chairman : Hong-Ren, Wang
- ◆ General Manager : Mao-Yang, Hung
- ◆ Founded date: July 8th, 1969
- ◆ Capital Amount : NT\$3.596 billion (Listed on TWSE on Oct 20th, 1989)
- ◆ Main Products and Services :
Development and sales of copper strips, brass strips, phosphor bronze strips, high-performance Copper strips and special alloys strips.
- ◆ Factory and Size
Lin Hai Factory (68,765 sqm) : No. 479, Yen Hai 1st Rd., Hsiao Kang Dist., Kaohsiung City, Taiwan, R.O.C.
Hsiao Kang Factory (16,530 sqm) : No. 20, Taiji Rd, Hsiao Kang Dist., Kaohsiung City , Taiwan, R.O.C. (Currently rented)
- ◆ Official Website | <http://www.fcht.com.tw>

Lin Hai Factory ▶



◀ Head Office in Kaohsiung



Aerial view of Lin Hai Factory ▶



Product Introduction and Operational Overview

Widely applied in products for electronics, semiconductors, automotive, and household appliances, copper alloy materials are massively used. The modern desire for high efficiency in various electronic products, alongside advancing technologies, has caused a significant increase in demand for copper products. FCC is committed to satisfying our customers by developing a variety of alloy copper strips to meet their requirements for strength and conductivity.

Copper

Oxygen Free Copper C1010,C1020

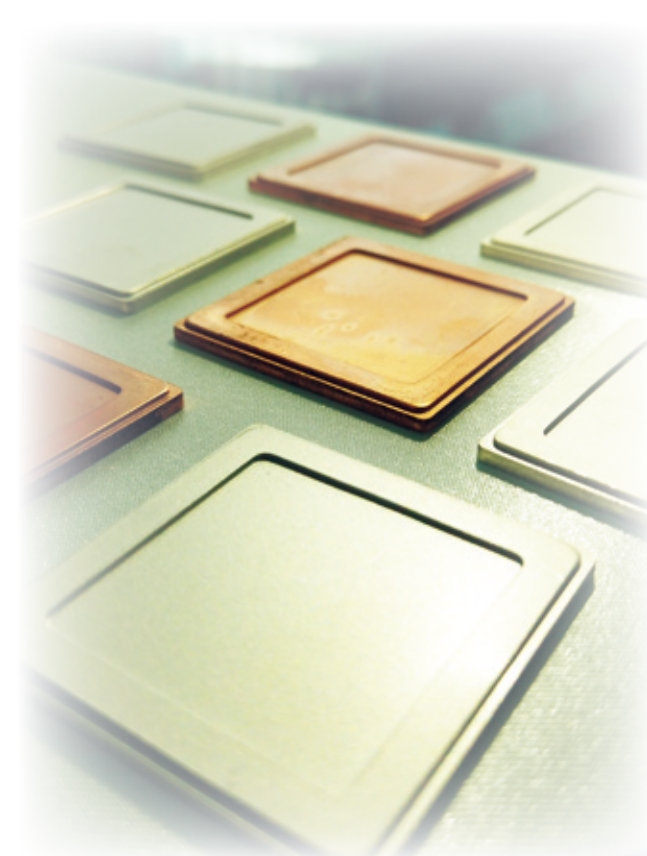
- ✦ Characteristic
C1010(OFE)(Oxygen Free Electronic): Excellent electrical and thermal conductivity, processability, ductility, and high purity. Free from hydrogen embrittlement during the heating process.
C1020(OFC)(Oxygen Free Copper):Excellent electrical and thermal conductivity, processability, ductility, and high purity. Free from hydrogen embrittlement during the heating process.
- ✦ Application
Electrical materials, terminal materials, printed circuit board, vapor chamber, automotive battery, etc.



Copper

Electrolytic Tough Pitch (ETP) Copper Phosphorus Deoxidized Copper C1100,C1100P,C1201,C1220,C1221

- ✦ Characteristic
C1100/C1100P:Excellent electrical and thermal conductivity, processability, ductility, corrosion resistance, and weather resistance.
C1201/C1220/C1221:Great processability, ductility, weldability, corrosion resistance, weather resistance, and electrical and thermal conductivity.
- ✦ Application
Electrical materials, terminal materials, vapor chamber, copper tape for wire and cable shielding, air cushion, water tank cover, power transformer busbar, badge, pot art , etc.



Copper Vapor Chamber ▲

Brass

Brass

C2600,C2680,C2801,C2801S

- ✦ Characteristic
C2600:Beautiful color, good processability, ductility, suitable for stretching, easy to electroplate or paint, more suitable for use in art materials.
C2680:Beautiful color, good processability, ductility, suitable for stretching, easy to electroplate or paint, with good solderability.
C2801/C2801S:Good intermediate processability, high strength and corrosion resistance. Adding tin enhances its sound quality, making it suitable for copper cymbals.
- ✦ Application
Used for stretching processing, connectors, terminals, artworks, buttons, tubular locks, and consumer electronics materials.



Brass

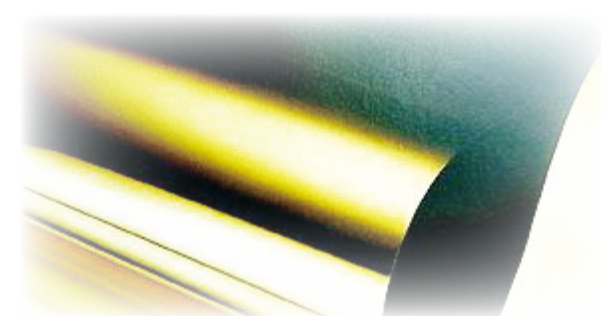
Red Brass

C2100,C2200,C2300,C2400

- ✦ Characteristic
Fine luster, good processability, extensibility, corrosion resistance and weather resistance.
- ✦ Application
Applied in building materials, personal accessories, cosmetic accessories, tubular locks, zipper heads, etc.



Brass Artwork ▼



Mirror-finish Brass ▲

Phosphor Bronze

Phosphor Bronze
C5050,C5191,C5210,C5240

- ✦ Characteristic
 - C5050:High electrical conductivity, Anti-stress corrosion, High heat resistant.
 - C5191:Electrical materials, connecting terminals, etc., with high strength and hardness characteristics.
 - C5210:Excellent fatigue resistance and elasticity, ideal for high performance electronic connectors.
 - C5240:Fatigue-resistant with high elasticity and high strength, most suitable for high-performance telecommunications terminals and connectors.
- ✦ Application
 - Mobile phones, NB connectors, recording heads, terminal materials, slides, switching components, telecommunications components, etc.



High-performance copper

Lead frame Copper Alloy
C194,C19210

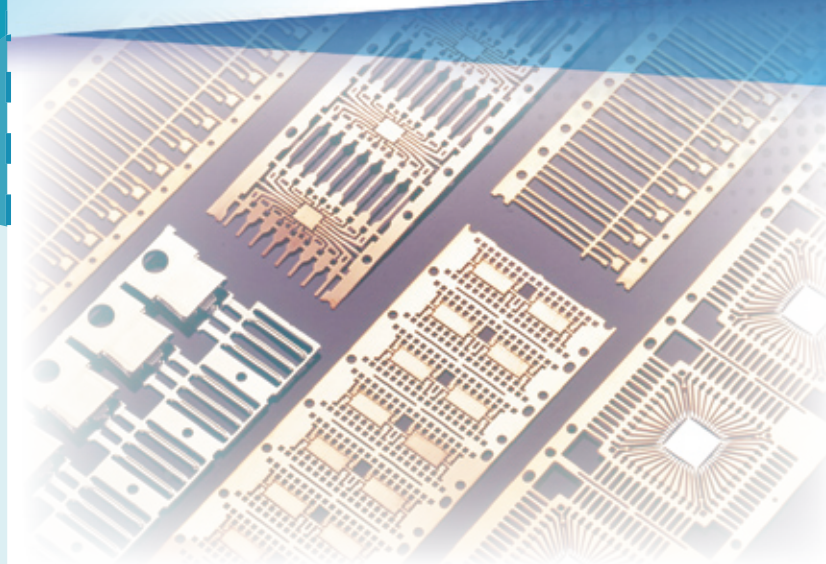
- ✦ Characteristic
 - C194:High strength, high electrical conductivity(60% IACS or Higher), fine crystal structure, strong corrosion resistance, good weldability, high softening resistance.
 - C19210:High electrical conductivity (85% IACS or more), good processability, strong corrosion resistance, high softening resistance.

Application

- ✦ LED lighting and backlight, transistor, diode, integrated, Lead frame, Heat sink, automotive fuses, automotive terminals.



Phosphor Bronze ▲



Lead frame Copper ▲

High-performance copper

Copper Tin Alloy
C1441,C14415

- ✦ Characteristic
 - C1441/C14415:High conductivity (80/90% IACS), good thermal conductivity, high corrosion resistance, easy to electroplate, high softening temperature.
- ✦ Application
 - Lead frame, automotive water tank, freezer fins, electrical switches, relays.



Special Alloys

Corson
C19010,C7025,C7026,MAX126

- ✦ Characteristic
Corson: A high-reliability and high-performance copper alloy, particularly notable for its application of metal aging treatment. This treatment effect is akin to re-calendering, enhancing the material's hardness and strength, while increasing its conductivity and elongation.
- ✦ Application
It can be applied to electrical connection parts in both signal and power, making it particularly suitable for use in automotive terminals, connector and IC lead frame materials and smartphones. Corson tin-plated materials are commonly used in connector applications.



Special Alloys

Special Copper Alloy
C50715, C50710

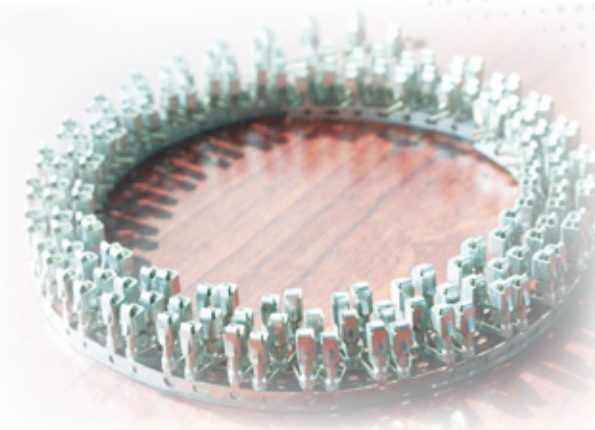
- ✦ Characteristic
High strength and good processability, high softening temperature and easy to electroplate.
- ✦ Application
Mainly used for automobile terminals, electrical terminals and connectors.



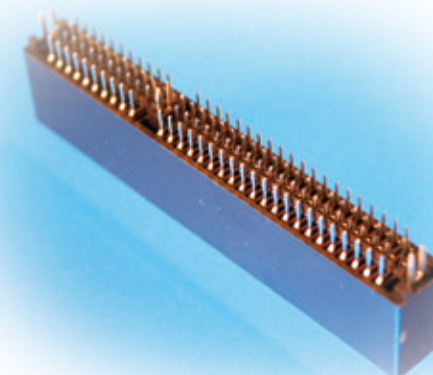
Special Alloys

Tin Brass
C4250

- ✦ Characteristic
Mechanical strength is higher than Brass C2600 and close to Phosphor Bronze C5191 with a higher conductivity than C5191. Good heat resistance.
- ✦ Application
Widely used for automobile terminals.



Special Terminal Material ▲

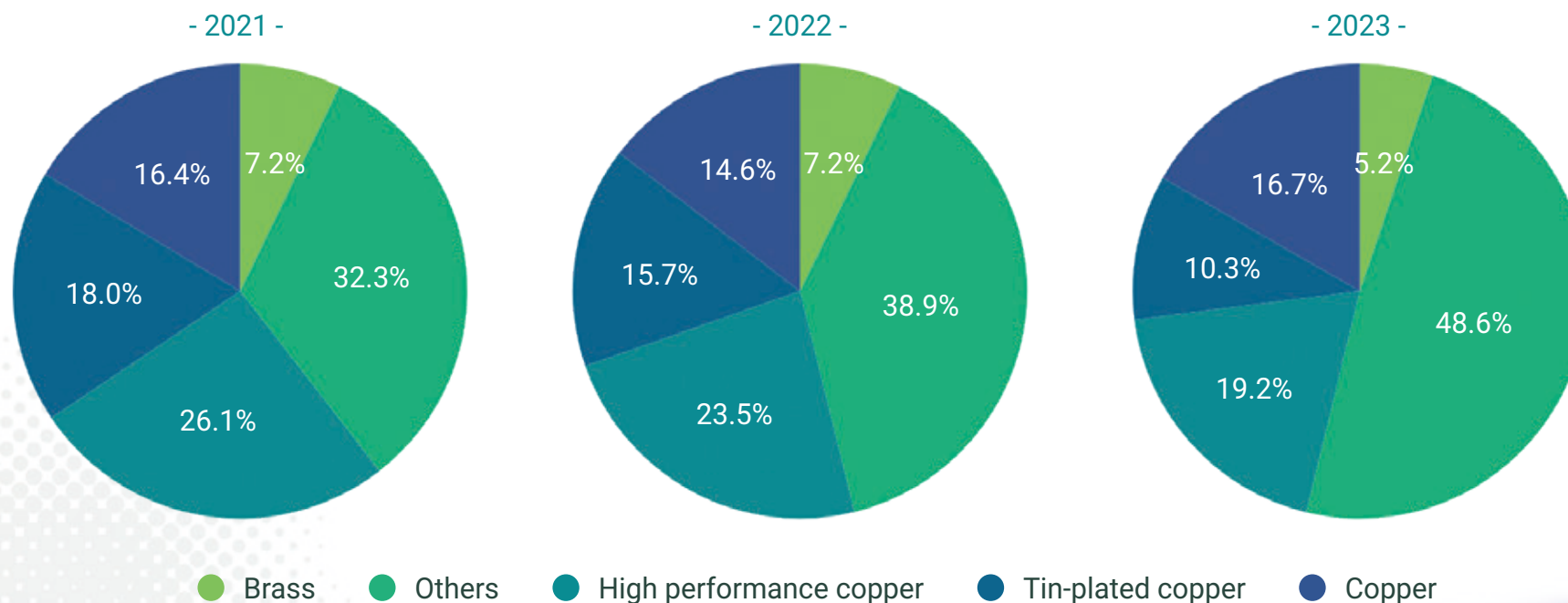


Special Terminal Material ▲

Sales Overview

FCC supplies various Copper Alloy Strips including Brass, Copper, Phosphor Bronze, High-performance alloys, Special alloys to customers in Taiwan, Mainland China, Southeast Asia and Japan. In Taiwan, FCC's total sales volume of all alloys holds approximately 30% of the Taiwan market. High-end products such as high-performance copper and special alloys capture over 60% of the Taiwan market. The direct sales ratio between domestic and export markets is approximately 67:33.

Sales Ratio of Alloys over the Years



Sales Volume and Value (Unit: NT\$ thousand/ metric tons)

Domestic						
Alloys \ Year	2021 年		2022 年		2023 年	
	Volume	Value	Volume	Value	Volume	Value
Brass	491	112,456	444	113,157	411	101,117
Copper	1,443	419,768	1,008	330,370	1,283	406,868
High performance copper	2,836	854,776	2,108	700,659	1,681	551,755
Tin-plated copper	555	149,876	519	161,091	341	103,626
Others	2,965	242,031	3,064	300,953	3,982	766,551
Total	8,290	1,778,916	7,143	1,606,230	7,698	1,929,917

Export						
Alloys \ Year	2021 年		2022 年		2023 年	
	Volume	Value	Volume	Value	Volume	Value
Brass	476	108,041	348	95,806	109	27,291
Copper	756	204,069	605	197,119	382	118,873
High performance copper	648	186,310	484	165,922	238	75,761
Tin-plated copper	1,855	554,539	1,213	409,923	692	221,670
Others	1,348	386,929	1,224	420,412	870	272,637
Total	5,083	1,439,888	3,874	1,289,182	2,291	716,232

Milestones

1969

The company was founded under its original name of First Wire & Cable Co., Ltd.

1971

Changed company name to First Copper Productions Co., Ltd.

1972

Changed company name to First Copper & Iron Co., Ltd.

1982

Acquired the whole equipment from Revere in the USA and developed the technical cooperation with Mitsubishi Shindoh Co., Ltd., Japan.

1985

Launched the production of Copper Alloys.

1988

Invested NT\$600 million to develop Copper Strips and Foils.

1989

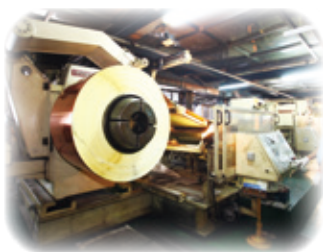
Listed on Taiwan Stock Exchange.

1990

Succeed in the development of Nickel Silver Alloys.



Milestones



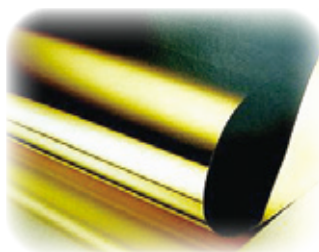
1992

Invested NT\$500 million to upgrade production equipment.



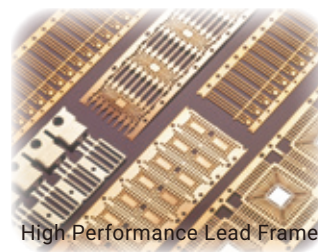
1993

Trademark registered by N.B.S.



1994

Developed Mirror-finish copper strip successfully; monthly production exceeded 2,000 metric tons.



1997

Invested NT\$800 million and collaborated with Industrial Technology Research Institute to develop semi-conductor Lead Frame materials.



First Copper Technology Co., Ltd.

2000

Successfully transformed to a high-tech copper producer, supplying materials for electronics and semi-conductor industry. Renamed to First Copper Technology Co., Ltd.

1996

Certified by the B.C.I.Q. with ISO-9002 certification; Adopted IBM's MIS Production Management System.

2001

Invested NT\$500 million to expand the production scale to 3,300 - 3,600 metric tons per month.

Milestones

2002

Successfully developed Copper Nickel Alloy Strips, environmentally friendly Tin-plated Copper Strips, and Free-cutting Copper Alloys, supplying materials for connectors, case of Quartz Oscillator, Mobile phone cases and Keys.



2003

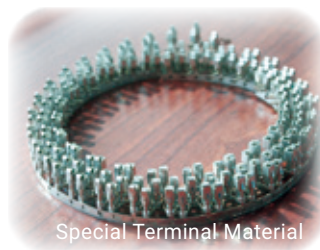
Developed precipitation processing technology and developed Corson alloy for supplying specialized materials for semiconductor and communication termina.



Fine Calendaring Machine

2005

Expanded the production scale of high-precision copper strips, dedicated to developing various high-end copper strips and specialized materials for automotive terminals.



Special Terminal Material

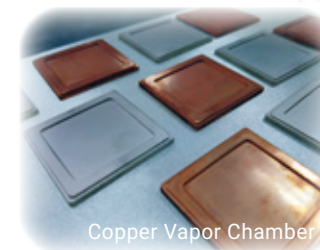
2007

Increased lead frame production capacity and developed high-performance alloy materials for automotive terminals. Enhancing the manufacturing capability of shaped copper materials and CPU heat spreaders, improving lead frame surface treatment technology to enter the IC semiconductor field.



2008

Focused on performance-oriented operations to implement process improvements, enhancing production yield rate and productivity, adjusting production capacity to 3,800 metric tons/month. and introducing solid solution/ metal aging technology to mass-produce special copper alloys.



Copper Vapor Chamber

2009

Advanced QC to microscopic management to achieve high quality surface of products. Improved thick plate quality and refined thin plate surface treatment to supply heat sink and high-end lead frame materials.

2006

Added German made slitting machines to increased lead frame production to 800 metric tons per month.

Milestones



2010

Reformed tin-plating equipment to meet the demand for automobile connectors and terminals, increased production speed and capacity.



2011

Certified with ISO/TS16949 and ISO 14001.



2016

To enhance precision in rolling thickness and refine surface quality, X-Ray thickness control and surface defect detection was added to the Rolling and Slitting process.



2018

Completed the 1st upgrading phase - the electric control system upgrades of the Continuous Annealing and Pickling machines.



2021

Completed upgrading the 20-stand High rolling machine and planned the 2nd upgrading phase - the temperature control system upgrades of the Continuous Annealing and Pickling machines.

2013

Introduced Mitsubishi Shindoh Co., Ltd., Japan's MAX126 and C18140 production technologies to develop materials for automotive terminals and mass-produced C19010/C1901M series. Developed high-performance Brass strip and Phosphor Bronze.

2017

Planned to upgrade the entire electrical control and temperature control systems to improve the Continuous Annealing and Pickling machines.

2023

Planned rooftop solar photovoltaic panels installation, expected to start in 2024. The 2nd upgrading stage of the Continuous Annealing and Pickling machines is expected to be completed by March 2024.

Participation in External Organization

Taiwan Metal Industry Association

FCC values product quality and the environmental impact of the production process. In addition to hold certifications such as ISO 9001, IATF 16949, and ISO 14001, the company actively participates in relevant industry association activities, which enables us to leverage industry cooperation and member exchanges to stay informed about trends, market information, and government labor regulations. This involvement helps us collaborate with other businesses, stay current with market and technological advancements, and enhance our brand image and market presence.



Taiwan Metal Industry Association ▲

Our participation in the organization, a platform to communicate with government and regulatory authorities, provides insights into industry information and relevant regulations.

D-U-N-S® Registered™

Dun & Bradstreet (D-U-N-S® Registered™) provides an internationally recognized business identification. Listed in the D-U-N-S global database and assigned a unique number after undergoing the D&B's investigation process and review, establishing an accessible channel from potential partners, international companies, and governments to FCC.



D-U-N-S® Registered™ Certificate ▲

Presenting the D-U-N-S® Registered™ e-certificate to customers or displaying it at trade shows helps establish trust during initial interactions with customers.

Financial Performance

Performance at FCC

FCC' s annual operating budget and capital expenditure budget are presented for approval by the board of Directors. The Accounting Department will provide financial performance updates at each board meeting, and the General Manager will report operational business status at both board meetings and monthly management meetings, ensuring that the top management can effectively monitor and supervise the budget execution.

In 2023, FCC' s revenue declined due to the global drop in copper prices, which were suppressed by significant interest rate hikes by the US Federal Reserve to curb inflation, ongoing Russia-Ukraine war, potential energy crisis caused by the Israel-Hamas conflict, the US-China trade conflict, and the slowdown in China's economy. We managed to minimize operating losses by inventory control.

To meet market demand and adapt to industry changes, production of thinned copper alloy lead frames and etching products for semiconductor has been increased, along with products for the automotive sector. The supply of tin-plated products for automotive connectors and terminals has been increased in response to market demand. Additionally, various production processes for vapor chamber products have been developed to advance product quality and to meet customized needs.

In 2023, FCC had a capital of NT\$3.596 billion and revenue of NT\$2.646 billion, a decrease of NT\$249 million, or 9% compared to 2022. Government subsidies for 2023 amounted to NT\$360,000.

(For detailed financial information, please refer to our financial report at www.fcht.com.tw)

Performance at FCC (Unit:NT\$ thousand)

Items \ Year	2021	2022	2023
Operating Revenue	3,218,804	2,895,412	2,646,149
Operating Costs	2,896,491	2,943,882	2,657,368
Operating Expenses	65,900	62,609	56,130
Net Operating Income (Loss)	256,413	(111,079)	(67,349)
Non-Operating Income and Expenses	210,083	285,490	73,127
Profit (Loss) Before Tax	466,496	174,411	5,778
Income Tax Expense	43,821	(22,529)	15,272
Profit (Loss) After Tax	422,675	196,940	(9,494)
Employee Compensation	177,501	137,282	128,456
Employee Welfare	25,680	26,859	24,399
Employee Pension	6,402	6,948	5,972

Corporate Governance

Corporate Governance

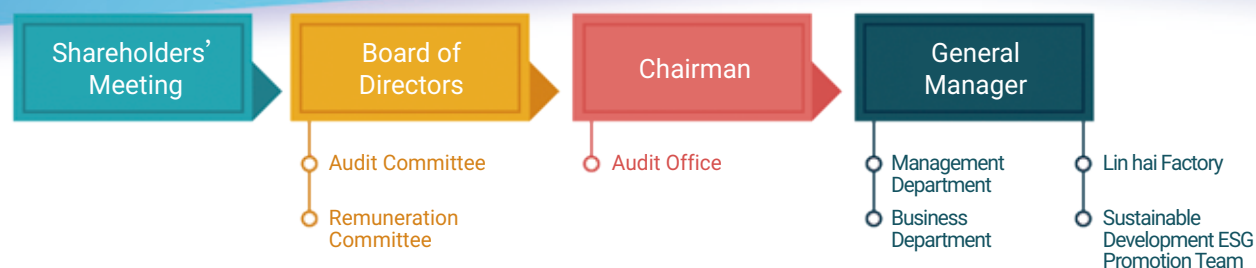
Upholding the principles of integrity and sustainable development, FCC fulfills its social responsibilities in accordance with company law, securities regulations, and other pertinent legislation. Committed to establishing an effective corporate governance structure and improve operational efficiency, ‘The FCC Corporate Governance Practice Principles’ has been established to focus on goals such as safeguarding shareholder rights, reinforcing board functions, optimizing audit committee roles, respecting stakeholder interests, and enhancing information transparency. The Remuneration Committee was established in 2011, followed by the introduction of independent Directors and the formation of an audit committee in 2018, replacing the role of supervisors to strengthen the board's independence and management.

Board of Directors

The Board of Directors, as the highest governance unit, entrusted with overseeing corporate management and operational performance, including responsibilities of appointing executives, monitoring the execution of objectives, setting operational and sustainability policies, reviewing sustainability issues (including environmental, human rights, and economic impacts), and approving resolutions. The board comprises four non-independent Directors and three independent Directors, and the board members were selected for their expertise in business management, accounting, financial analysis, or relevant professional experience.

The current board members, serving until August 26, 2024, are detailed in the table below

Title	Name	Gender	Experience	Title	Name	Gender	Experience
Chairman	Wang Hong-Ren	Male	Chairman, Hua Eng Wire & Cable Co., Ltd. Chairman, First Copper Technology Co., Ltd. Chairman, Hua Ho Engineering Co., Ltd. Chairman, Taiwan Times Co., Ltd.	Independent Director	Cheng Tiao-Hsiang	Male	President, Bankers Association of Tainan Manager, Bank of Taiwan Tainan Branch President, Bankers Association of Kaohsiung Manager, Bank of Taiwan Fengshan Branch Manager, Bank of Taiwan Gangshan Branch Manager, Bank of Taiwan Liujading Branch Independent Director / Member of the Remuneration Committee and Audit Committee, First Copper Technology Co., Ltd. Independent Director / Member of the Remuneration Committee and Audit Committee, NeoCore Technology Co., Ltd.
Director	Liu Chung-Jen	Male	Chairman, Hua Eng Wire & Cable Co., Ltd. Chairman, First Copper Technology Co., Ltd. Chairman, Hua Ho Engineering Co., Ltd. Chairman, Taiwan Times Co., Ltd.				Adjunct Associate Professor, Department of Financial Management, National Sun Yat-sen University Independent Director / Member of the Remuneration Committee and Audit Committee, First Copper Technology Co., Ltd.
Director	Wang Feng-Shu	Female	Director, Hua Eng Wire & Cable Co., Ltd. Director, First Copper Technology Co., Ltd. Director, Hua Horng Investment Co., Ltd. Supervisor of Taiwan Times Co., Ltd.	Independent Director	Huang Jen-Tsung	Male	Independent Director / Member of the Remuneration Committee and Audit Committee, First Copper Technology Co., Ltd. Independent Director / Member of the Remuneration Committee, Ample Electronic Technology Independent Director / Member of the Remuneration Committee and Audit Committee, MAYO Human Capital Inc. Supervisor, Ruipeng Technology Co., Ltd.
Director	Wang Ming-Jen	Male	Director, Hua Eng Wire & Cable Co., Ltd. Director, First Copper Technology Co., Ltd. Director/ President, Taiwan Times Co., Ltd.				
Independent Director	Hu Lee-Ren	Male	Independent Director / Member of the Remuneration Committee and Audit Committee, First Copper Technology Co., Ltd. Chairman/ President, Gains Investment Corp. Assistant Vice President of Financial Division, China Steel Corp. Director, CDIB & Partners Investment Holding Corporation Director, Bionime Corporation				



Functional Committee and Department	Functions and Duties
Audit Committee	Assist the board of Directors in executing its supervisory and regulatory compliance duties, ensuring the quality and integrity of the company's accounting, auditing, and financial reporting processes.
Remuneration Committee	Assist the board of Directors in implementing and evaluating the company's overall compensation and welfare policies, including remuneration for directors and managers.
Audit Office	Ensure the company complies with operational regulations and monitors the ethical conduct of personnel. Conduct audits on departments according to the annual audit plan approved by the board of Directors, reporting the audit results and improvement plans to enhance audit effectiveness.
Sustainable Development ESG Promotion Team	Led by the General Manager, this team is responsible for deciding on ESG sustainable development initiatives, including corporate governance, business integrity, environmental protection, risk management, key stakeholder issues, and social responsibility. Additionally, the team supervises the execution of ESG strategies, such as management policies, KPI indicators, and other ESG-related improvement proposals.
Management Department	In charge of accounting, cost, stock affairs, finance, general affairs, procurement, reinvestment, computerized operations, and other matters.
Business Department	In charge of the company's operation, delivery, and trade, as well as business matters in Taipei and Taichung.
Lin hai Factory	In charge of the company's production plan, manufacturing, inspection, quality assurance, production technology, product and material development.

Operation of the Board of Directors

FCC's board of Directors meets at least once in a quarter. Each Director possesses the necessary professional knowledge, skills, and leadership abilities to perform their duties. In accordance with legal regulations, the company's articles of association, and shareholder resolutions, they provide operational guidelines, financial planning, and expert advice for business development. If a board member has a conflict of interest regarding a matter under discussion, either personally or as a representative of a corporation, they must abstain from the discussion and voting to avoid harming the company's interests. This rule also applies to the Director's spouse, relative within the second degree of kinship, or a company with controlling interest or subordinate relationship with the Director. No conflicts of interest avoidance were required in 2023.

Meeting Resolutions in 2023

Date	Meeting	Resolutions
March 6th, 2023	The 1st Meeting in 2023	1. Approval of the Statement of Internal Control System in 2022. 2. Approval of the assessment of the independence and suitability of the certified public accountants.
May 8th, 2023	The 2nd Meeting in 2023	1. Approval of the amendment to the internal control system of the company.
Aug 7th, 2023	The 3rd Meeting in 2023	1. Approval of the amendment to the company's internal control system for shareholders' services.
Nov 6th, 2023	The 4th Meeting in 2023	1. Approval of the company's audit plan in 2024 2. Approval of the amendment to the division of supervisory powers and responsibilities. 3. Approval of the review of the Directors' remuneration . 4. Approval of the review of the management remuneration policies, systems, standards, structure, performance, and evaluation methods. 5. Approval of the adjustment of employee salaries.

Note: The resolutions listed above pertain to disclosures related to ESG issues. For complete details, please refer to the public information, URL: <https://www.fcht.com.tw/index.php?option=module&lang=cht&task=pageinfo&id=172&index=2>

Eighteen ESG-related issues such as operational status, financial condition, internal audit, information security management, board performance evaluations, greenhouse gas inventory and verification progress were discussed in board meetings in 2023. Resolutions communicated between responsible units and the board included operational plans, audit plans, internal control systems, financial statements (including profit distribution), quarterly financial reports, employee and director remuneration, assessment of CPA's independence and suitability, and revisions to corporate governance procedures.

In response to climate change and societal focus on sustainability issues, FCC has developed a greenhouse gas inventory and verification schedule in accordance with the Sustainable Development Roadmap for Listed Companies policy. This schedule was submitted to the board and subsequent quarterly progress reports have been presented to ensure control and implementation oversight. These efforts aim to promote energy conservation and carbon reduction, thereby achieving the company's sustainability goals. The greenhouse gas inventory and verification operations for 2022 was completed and such related reports, including verification statements, assurance reports, and inventory reports, have been disclosed on the company's website at <https://reurl.cc/8vOqKo>

Further Study for the Board of Directors

To enhance and elevate Directors' knowledge in legal, economic, environmental, and sustainable development areas, FCC arranges for Directors to take ESG-related sustainability courses, which is including but not limited to finance, business, legal affairs, accounting, risk management, sustainability, internal control systems, and financial reporting responsibilities. Details regarding further study for the board of Directors in 2023, please refer to the 2023 Annual Report under the section Recent Director Education Initiatives.

The Audit Committee

The Audit Committee meets at least quarterly. Details regarding meeting occurrences and member attendance rates can be found in the FCC' s annual reports for each respective year. To enhance corporate governance and strengthen the board's functions, the Audit Committee was established in 2018 in accordance with the Securities and Exchange Act and the Regulations Governing the Exercise of Powers by Audit Committees of Public Companies. The committee's organizational regulations were subsequently defined.

Comprising three independent directors, with at least one possessing expertise in accounting or finance, the Audit Committee assists the board in oversight responsibilities. It is responsible for ensuring the fair presentation of the company's financial statements, the selection/dismissal and independence assessment of certified financial auditors, effective implementation of internal controls, compliance with relevant laws and regulations, and management of existing or potential risks. The committee also engages in discussions with the company's auditors and reviews their independence.

In 2023, the Audit Committee convened four times with an attendance rate of 91.67%.

The Remuneration Committee

The Fifth Remuneration Committee, composed of three independent directors, regularly reviews the company's policies, systems, standards, and structures for the evaluation of performance and compensation of directors and managers. In 2023, the Compensation Committee held two meetings with an attendance rate of 83.33%.

As a critical element in corporate governance, the Compensation Committee was established in 2011 to assist the board of directors in evaluating the company's overall compensation and welfares policies. It oversees the compensation of directors and executives, ensuring the integrity of the company's compensation system, and establishing organizational regulations to ensure compliance with these objectives.



● Performance Evaluation of Board, Directors and Functional Committees

To enhance corporate governance and improve the effectiveness of the board of directors, the company has formulated the Board Performance Evaluation Guidelines in accordance with Article 37 of the Corporate Governance Best Practice Principles for TWSE/GTSM Listed Companies. The performance evaluation of the board of directors, individual directors and functional committees has been carried out annually since 2020.

◆ Evaluation criteria for the board of directors encompass five main aspects	1) participation in company operations, 2) enhancement of decision-making quality, 3) board composition and structure, 4) director selection and continuing education, and 5) internal controls.
◆ Evaluation criteria for individual directors encompass six main aspects	1) understanding of company goals and missions, 2) awareness of director responsibilities, 3) participation in company operations, 4) management of internal relationships and communication, 5) professional competence and continuing education, and 6) internal controls.
◆ Evaluation criteria for functional committees encompass five main aspects	1) participation in company operations, 2) understanding of committee responsibilities, 3) enhancement of decision-making quality for committees, 4) composition and selection of committee members, and 5) internal controls.

Considering the board's independence, the performance evaluation involves self-assessment questionnaires by directors, then collected by the company's administrative unit. The administrative unit analyzes the evaluation results based on assessment indicators and scoring criteria, then presents the results in the first-quarter board meeting of the following year, serving as a basis for review and improvement.

Details regarding the 2023 performance evaluation, please refer to the 2023 Annual Report under the section Evaluation Report on the Board, Members and Functional Committees.

Business Ethics

Integrity

FCC's core value is integrity, committing us to conduct business in accordance with Company Law, Securities and Exchange Act, Commercial Accounting Act, Political Contributions Act, Anti-Corruption Act, Government Procurement Act, Public Official Conflicts of Interest Avoidance Act, relevant regulations for TWSE/GTSM listed companies, and other applicable commercial laws.

Policies and Procedures

Developing a management philosophy of integrity, transparency, and accountability, based on ethical conduct, and establishing robust corporate governance and risk management mechanisms to foster a sustainable operating environment is the foundation of our integrity policy. It includes clear and comprehensive guidelines on ethical business practices and preventive measures against unethical behavior (hereinafter referred to as preventive measures), including operational procedures, codes of conduct, and training programs.

● FCC's preventive measures policy should at least cover the following unethical behavior,

1. Bribery and corruption.
2. Illegal political contributions.
3. Improper charitable donations or sponsorships.
4. Offering or accepting undue gifts, services, or other improper benefits.
5. Violation of trade secrets, trademarks, patents, copyrights, and other intellectual property rights.
6. Unfair competition practices.
7. Actions in research, procurement, manufacturing, provision, or sale of products and services that directly or indirectly harm the interests, health, and safety of consumers or other stakeholders.

Operational Risk Management

Risk Management

To implement a robust self-supervision mechanism and promptly respond to environmental changes, we continuously adjust the design and execution of our internal control systems. We enhance the quality and efficiency of our internal audit department in accordance with the guidelines outlined in the Regulations Governing the Establishment of Internal Control Systems by Public Companies to ensure ongoing effectiveness.

Monthly risk management meetings convene by production, operations, procurement, and accounting department to control risks regarding metal raw material procurement and sales, as well as to assess risk categories, potential risks, managing strategies and practices. Based on the risk assessment results, the Audit department will develop an annual audit plan then present to the board of directors. Upon the approval of the board, the audit affairs will be reported to Audit Committee, with the audit manager attending board meetings to present findings.

In addition to annual audit plan, examining and reviewing deficiencies in internal control systems, audits will be conducted as needed or directed by

the board. Audit reports are reviewed and verified by independent directors. The Audit Department prepares tracking reports on identified deficiencies and improvements for management's review of internal control system enhancements.

All internal units and subsidiaries shall conduct self-assessments at least annually. Results are reported to the General Manager and Chairman to assess the implementation of self-supervision, prioritizing improvements based on the significance and urgency of the impact.

Significant operational policies, investment projects, asset acquisitions or disposals, and bank financing are evaluated and analyzed by relevant departments and approved by the board of directors. The audit unit devises and executes annual audit plans based on risk assessment results to enforce oversight and manage various risk factors effectively.

As per shareholder meeting resolutions, the company adheres to risk management principles of "no lending funds to others" and "no endorsing or guaranteeing for others."

Internal Control

To enhance corporate governance, FCY established the internal control system in accordance with the Regulations Governing the Establishment of Internal Control Systems by Public Companies, ensuring that below goals are achieved,

- ▮ Operational effectiveness and efficiency: profitability, performance, and the safeguarding of assets.
- ▮ Reliability, timeliness, transparency, and compliance of reporting: Internal/external and financial/non-financial reporting. External financial statements in accordance with principles such as the Regulations Governing the Preparation of Financial Reports by Securities Issuers, generally accepted accounting principles, and appropriate approvals are obtained for transactions.
- ▮ Compliance with relevant laws and regulations.

Code of Conduct

To enhance employee management and efficiency, the company has established "Work Rules" to regulate behavior. These rules are provided upon hiring and served as guidelines for training and management. Disciplinary measures are in place for employees who exploit their positions for illegal gains, accept gifts or services, receive kickbacks, embezzle funds, or engage in other unethical activities.

In 2022, to foster a culture of integrity and strengthen risk control management, the company adopted clear principles such as the "Integrity Management Code," "Code of Ethical Conduct," and "Procedures for Ethical Management and Guidelines for Conduct." These principles are explicitly stated in regulations and external documents, demonstrating the commitment of the board and management to actively implement integrity policies. These principles are rigorously enforced in internal management and business activities, and widely promoted to instill an ethical and transparent corporate culture.

Relevant code of conducts has been continuously promoted, especially the prohibition of bribery. Anti-bribery policies are communicated to suppliers and partners, who are required to sign an integrity commitment to prevent procurement malpractices. The company maintains accessible grievance channels through a dedicated section on the website titled "Stakeholder Communication and Contact Information.", providing approach for stakeholders to submit suggestions or complaints, with designated personnel handling correspondence and calls. The company ensures open communication between management and employees through direct dialogues in labor-management meetings.

To prevent insider trading and improper information leakage, and to ensure the consistency and accuracy of public disclosures, the company mandates annual external training for directors, managers, and relevant personnel. Employees are educated on regulations and prohibited from disclosing significant information to unauthorized individuals or seeking out non-public company information unrelated to their duties.

Risk Management and Prevention

Risk Category	Potential risks	Strategies and actions in 2023	Achievements	Responsible Unit
Financial	Interest rate	◆ To mitigate interest rate risk, properly arrange the duration of liabilities and the structure of fixed or floating interest rates. ◆ Utilize best financing tools based on weekly, monthly, and annual budget needs to reduce funding costs. ◆ Actively maintain good relationships with correspondent banks to secure the best in-terest rates.	The financial performance is briefed by the accounting department at each board meeting. The general manager reports on operational status during both board meetings and monthly management meetings, ensuring top governance levels monitor and supervise budget achievement progress.	Finance
	Exchange rate	◆ Monitor exchange rate trends daily, gather market information, and adjust export financing schedules accordingly. ◆ Mitigate exchange rate risk by balancing foreign currency assets and liabilities through natural hedging and financing methods like foreign currency accounts receivable financing.		
Supply Chain and Raw material	Discontinuation of equipment components and raw materials	◆ Proactively respond to market intelligence and development trends with technical and production units. ◆ Continuously develop alternative materials to avoid supply disruptions and reduce dependency on a single supplier. ◆ Prioritize local procurement to flexibly meet production demands.	The procurement unit continues to provide alternative raw material information for evaluation by the requisitioning unit and collaborates with the technical unit on production line equipment upgrades. Supplier KPIs consistently meet company requirements, maintaining the domestic priority procurement strategy.	Procurement
Market	Supply-demand imbalances	◆ Base production plans on order forecasts, simulating various production and sales scenarios for dynamic coordination.	From 2022 to 2023, instability in various industries resulted from the Ukraine-Russia conflict, U.S.-China trade tensions, and geopolitical conflicts. High inventory levels due to reduced market demand were managed by extended lead times coordination during high copper prices. Pre-receiving orders six months in advance mitigated risks from declining orders. Production stability and market downturn risks were managed effectively through production and sales coordination. Pay extra attention to leading indicators of economic recovery to maintain supply and quality. Economic conditions reached a low in 2023Q2-Q3, with recovery evident in early customer orders sustained for 2 quarters, normalizing by Q4.	Business
	Sudden changes	◆ Stay informed about industry, market, and customer developments to guide sales strategies.		
	Price	◆ Set reasonable sales prices based on cost analysis and industry benchmarks.		
	Qualification	◆ Obtain third-party inspection reports for products with hazardous substances as required by customers, regularly have samples inspected by third-party testing organizations.		

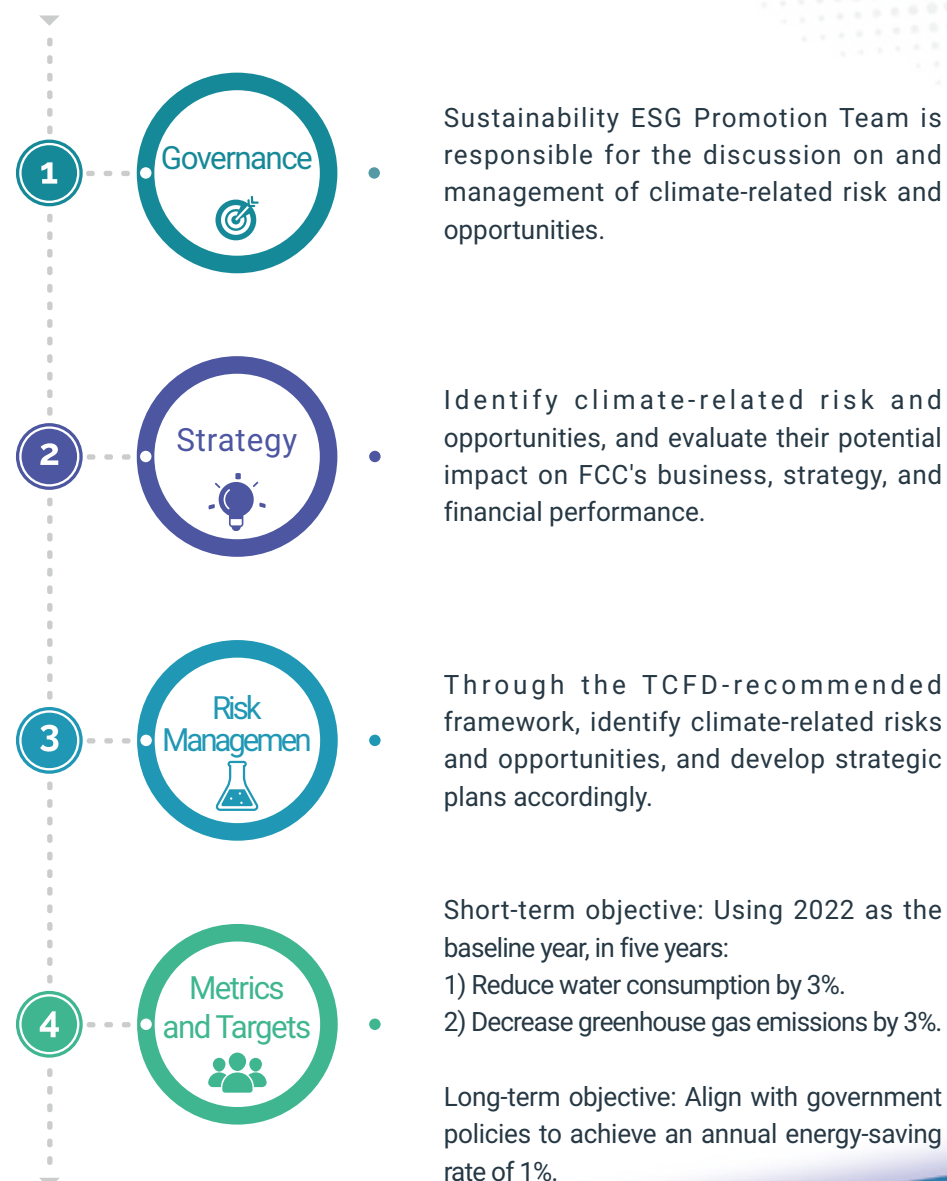
Risk Category	Potential risks	Strategies and actions in 2023	Achievements	Responsible Unit
Climate Change	Control on carbon emission	- Continue energy-saving and carbon reduction initiatives. - Expand solar power generation to reduce reliance on external energy sources. Identify climate change-related risks and opportunities through cross-departmental reviews.	Replaced one 200HP air compressor in November 2023, saving approximately 316,990.674 KWH/year. Continued replacement of old air compressors in 2024 for ongoing energy savings. Planned installation of solar power in Lin hai factory with a capacity of 1,235 kW, approximately 10% of the factory's contracted electricity capacity. Estimated cost: NT\$55 million. Held a meeting on March 31, 2023, to review climate change-related risks and opportunities and outlined Task Force on Climate-related Financial Disclosures (TCFD) response measures and actions.	Lin hai Factory
Environment, Health and Safety	Environmental Health and Safety management	- Increase the number of employees with fixed crane operation certifications to reduce accident rates. - Strengthen occupational safety and health management by implementing ISO 45001.	30 foreign workers completed education and training on fixed crane operation by 2023. 4 foreign workers obtained technical certificates for fixed crane operation. Disabling Injury Frequency Rate (F.R.) increased to 18.98 in 2023, up from 17.66 in 2022, primarily due to operational non-compliance and commuting accidents. Safety training and awareness programs were conducted to reduce injury rates.	Lin hai Factory
Management	Personnel Labor/Management relation	- Enhance personnel training to cultivate technical leaders and prevent skill gaps, ensuring smooth company operations. - Promote equal pay, transparent promotions, and interdepartmental exchanges to improve corporate identity and reduce turnover rates.	Total expenditure decreased by NT\$491,000 compared to 2022, representing an 11.71% decline.	General Affairs
Information security	Safety concerns on Information system	- Continuously update cybersecurity equipment to protect, manage, and monitor systems and network behavior. - Establish data backup and redundancy mechanisms. - Regularly conduct disaster recovery simulations. - Promote the importance of cybersecurity, intellectual property, and personal data protection.	Enhanced MIS system with updated password protection measures to maintain system stability and strengthen information security.	
Factory Management	Disposal of waste	Manage factory waste by finding qualified disposal vendors, signing contracts, and completing waste removal operations.	In 2023, contracts were signed with 8 qualified waste disposal companies to effectively handle and dispose of the company's generated waste.	Lin hai Factory
	Dated production equipment	- Improve and update peripheral facilities, electronic control systems, hydraulic units, and cooling and lubrication systems for rolling equipment. - Plan to repair and replace the deformed and high-risk heating furnace structure of the AP Line.	Dated equipment's electrical control systems are gradually being replaced to enhance production efficiency, product quality, and operational safety. The AP LINE furnace body is scheduled for electrical control system upgrades in 2024 to reduce maintenance frequency.	
	Workforce Shortage	Address the shortage of succession personnel by planning multi-skill training programs and implementing a foreign worker supplementation plan.	In 2023, 45 training sessions were arranged for on-the-job staff to enhance their multi-skilled capabilities. In 2023, to address workforce shortages and time-consuming training, experienced and technically capable foreign mid-level workers were recruited to supplement the workforce, promoting their long-term retention and utilization.	
	Process improvement	Expand the thick copper plate supply market, ensuring all plant equipment is optimized for the best production design, yield, and higher profit margins.	In response to quality requirements for thick plate products, improvement plans for the rough rolling production process and equipment additions are underway to enhance product yield.	

Climate-related Risk Management (TCFD)

Climate-related Risk Management

According to the Global Risks Report 2024 published by the World Economic Forum (WEF), the top three risks for 2024 are extreme weather, misinformation generated by AI, and societal and political polarization. Environmental risks will dominate over the next decade, accounting for five of the top ten risks, including extreme weather, critical change to Earth systems, biodiversity loss and ecosystem collapse, resource shortages, and pollution.

Referencing the Task Force on Climate-related Financial Disclosures (TCFD) guidelines issued by the Financial Stability Board (FSB) in 2017, FCC has established a climate risk management framework based on four core elements—Governance, Strategy, Risk Management, and Metrics and Targets, and the framework is presented in this ESG Report to provide stakeholders with a clear understanding of how FCC addresses climate-related risks.



Climate-Related Risk and Opportunities

Category	Risk	Potential Financial Impact	Opportunity	Potential financial impact	Preventive measures and plan	
Transition Risks	Policy and Regulations	Carbon border taxes and carbon fees	Increased operating cost	♦ Adopt low-carbon energy and enhance energy substitution/diversification. ♦ Install green energy equipment ♦ Implement high-efficiency production processes to reduce resource consumption	Reduced operating cost	♦ Participate in forums to stay updated on domestic and international trends and developments (such as climate regulations, carbon neutrality, and carbon trading mechanisms) ♦ Continuously conduct greenhouse gas inventories following ISO 14064-1 standards
		Terms for high electricity users Note	Increased operating cost		Added asset value	♦ Implement ongoing energy-saving and carbon reduction initiatives to improve energy efficiency ♦ Evaluate the installation of solar photovoltaic systems on rooftops to meet the 10% renewable energy demand for high electricity users ♦ Gradually replace old air compressors and with high-efficiency, low-energy models.
		Water usage fees imposed	Increased operating cost		Increased operating revenue	
	Market	Changes in market trends and end-user demand	Changes in income composition and sources	♦ Enhance water management to improve water use efficiency per unit	Reduced operating cost	♦ Monitor water usage statistics regularly and promptly address abnormal water consumption ♦ Inspect and replace leaking and old water pipes to ensure efficient water circulation and conservation
Changes in market trends and end-user demand		Changes in income composition and sources	♦ Enter the green energy copper alloy market	Increased operating revenue	♦ Strengthen competitiveness in the green energy copper alloy market and seize opportunities from electric vehicles. ♦ Continuously develop products to meet the demands of electric vehicles and charging stations.	
Physical Risk	Immediacy	Increased severity of extreme weather events such as typhoons, floods, and droughts.	Increased capital expenditures Decreased operating income (due to production interruptions)	♦ Strengthen resilience and adaptation to climate disasters.	Increased capital expenditure Enhancing climate resilience to reduce potential business losses from operational disruptions	♦ Set up an emergency response organization for immediate response to reduce disaster losses. ♦ Convene pre-typhoon meetings before the rainy season and typhoon season. ♦ Conduct regular inspections of rain drains and drainage pumps. ♦ Install emergency power generation systems and water storage systems for contingencies. ♦ Regularly clean and maintain drainage ditches.

*Note: The “Regulations for the Management of Setting up Renewable Energy Power Generation Equipment of Power Users above a Certain Contract Capacity” has officially taken effect since January 1, 2021. Commonly known as the terms for high electricity users, it mandates that users with contracted capacities exceeding 5,000 kW must install renewable energy facilities equivalent to 10% of their contracted capacity within 5 years.

Supply Chain Management

FCC's External Procurement

FCC's external procurement focuses on using local Taiwanese suppliers whenever possible for major metals such as copper and zinc and equipment that are not locally produced. This approach aims to enhance supply chain flexibility, shorten delivery times, reduce unnecessary transportation in the supply chain, support domestic industries, and minimize environmental impact from material transportation. In 2023, domestic procurement excluding raw metals and equipment amounted to NT\$146 million, accounting for 75.07% of total procurement. Foreign procurement excluding raw metals and equipment amounted to NT\$38 million, accounting for 2.03% of total procurement. Compared to 2022, changes in domestic procurement were primarily driven by electrical equipment and other raw materials, while changes in foreign procurement were attributed to electrical and mechanical components.

Procurement Amount in the most recent 3 years (Unit: NT\$ thousand)

2021	Domestic	238,041
	Foreign	82,560
2022	Domestic	229,035
	Foreign	64,922
2023	Domestic	146,186
	Foreign	38,410

Procurement Policy

Committed to green procurement, FCC's procurement department aligns with various internal requisition needs to adhere to these green and energy saving policies when procuring and contracting projects. For example, in 2023, the amount spent on recyclable packaging materials was NT\$2.621 million, accounting for 24.16% of the total annual expenditure on packaging materials. Energy-saving projects totaled NT\$6.134 million, representing 29.57% of the total annual expenditure on contracted projects. Compared to previous two years, expenditures on eco-friendly projects have been consistently increasing.

Green Procurement Amount in the most recent 3 years (Unit: NT\$ thousand)

2021	Recyclable packaging materials	4,237
	Eco-friendly projects	4,118
2022	Recyclable packaging materials	3,505
	Eco-friendly projects	4,523
2023	Recyclable packaging materials	2,621
	Eco-friendly projects	6,134

Supplier Assessment and Selection

FCC has established a "Supplier Management and Control Procedure" to select suppliers and ensure that raw material quality meets standards. We implement supplier screening and management practices and maintain a "Qualified Supplier List." Suppliers undergo periodic written evaluations or site visits to monitor their performance, ensuring the quality and stability of raw material supply to meet FCC's production needs and operational requirements.

Supplier's Integrity Commitment

To Ensure business integrity, new suppliers are required to sign an "Integrity Commitment" agreement before engaging with FCC. This document strictly outlines all transactions involving FCC and its affiliates, including:

- Suppliers shall not request, promise, or deliver any bribes or improper benefits to employees, related parties, or designated persons of FCC.
- Suppliers commit not to induce or entice employees of FCC to leave their positions or breach their duties for their own or others' interests.

To further study on the Integrity Commitment, please refer to <http://www.fcht.com.tw/userfiles/Investors/F2022incorruptible.pdf>



Suppliers in 2023

Category	Ratio
Electromechanical materials	4.9%
Packaging materials	0.49%
Other raw materials	0.8%
Administrative materials	0.01%
Raw materials	92%
Projects and maintenance	1.8%

Supplier's Corporate Social Responsibility(CSR) and Improvement

To fulfill our global citizenship responsibility and address the serious challenges posed by climate change, FCC not only complies with government regulations but also continues to invest in eco-friendly, energy saving and carbon reduction equipment to mitigate our environmental impact during the manufacturing process. Going forward, our supplier management strategy will take a proactive stance, integrating environmental, social, and economic considerations, aiming to identify and mitigate supply chain risks while leveraging our influence to foster sustainability and drive positive industry-wide change.

Supplier's CSR commitment includes :



FCC has established a "Supplier Management and Control Procedure" to select suppliers and ensure that raw material quality meets standards. We implement supplier screening and management practices and maintain a "Qualified Supplier List." Suppliers undergo periodic written evaluations or site visits to monitor their performance, ensuring the quality and stability of raw material supply to meet FCC's production needs and operational requirements.

To further study on the CSR Commitment Statement, please refer to <http://www.fcht.com.tw/userfiles/Investors/F2022responsibility.pdf>



CSR Commitment Statement Signed by Suppliers

2021	Signed Amount	27
	Signed Ratio	100%
2022	Signed Amount	30
	Signed Ratio	100%
2023	Signed Amount	23
	Signed Ratio	100%



02

Products and Services

產品與服務

2-1 Product and Services Introduction

2-2 Quality Management and Customer
Service

2-3 R&D and Innovation

2-4 Achievements

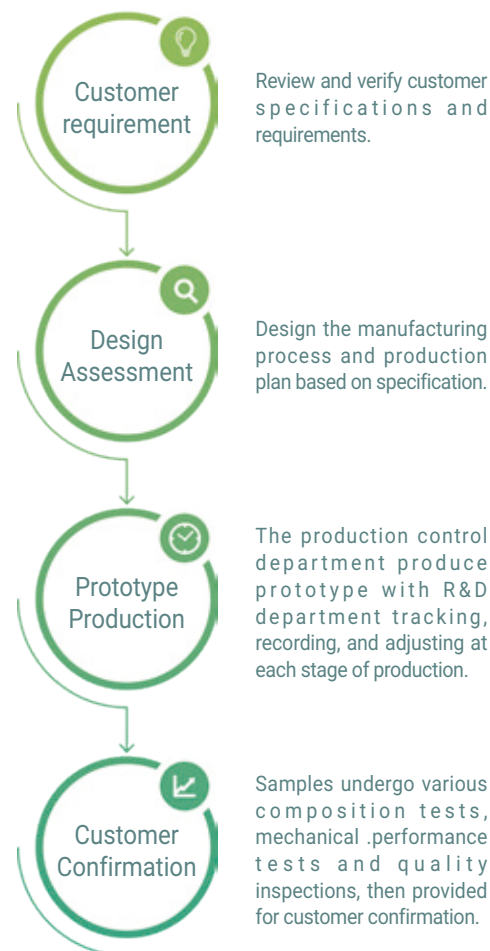
Products and Services Introduction

Products and Services Introduction

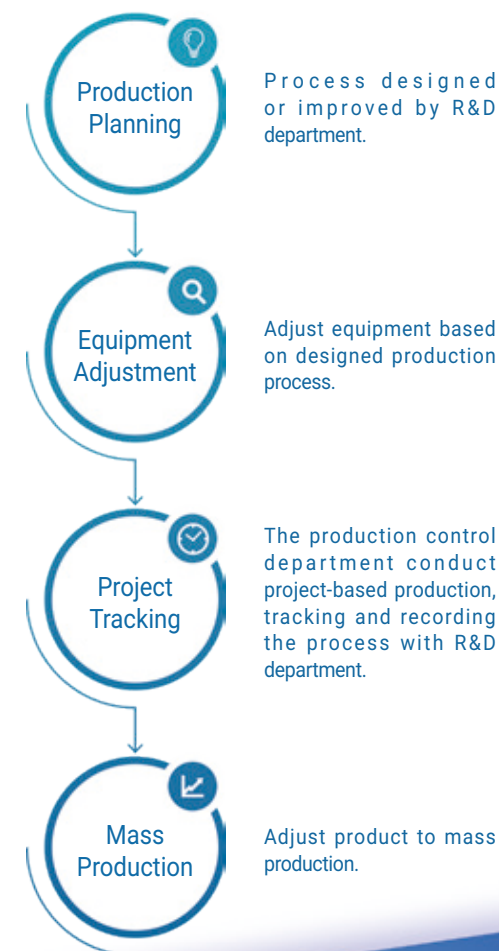
Committed to upholding the spirit of sustainable service with high quality and low cost, FCC manufactures in-house from smelting to slitting. Smelting equipment is divided into two main categories: Vertical Semi-Continuous Casting (VCC) and Horizontal Continuous Casting (HCC). Our smelting technology continuously improves through testing and research, aiming to produce high-quality copper ingots and coils.

FCC's copper strip products feature high-precision thickness control and flatness. We have introduced high-tension leveling equipment from Germany, along with operation by 4-stand and high-precision 20-stand rolling mills, meeting various thickness requirements from 4.0mm thick plates to 0.07mm thin plates. Heat treatment uses bell-type annealing furnaces (BF furnaces) with protective gases to prevent copper strips from oxidation, maintaining their bright properties. Advantage of Open Continuous Annealing and Pickling machines (AP Line) is to combine temperature and speed, achieving uniform crystallization refinement (Grain size: below 10 μ m). Surface treatment technology collaborates with brush suppliers to develop copper materials with fine and uniform textures. FCC is dedicated to innovating with our manufacturing essence, primarily categorized into R&D Technology and Production Technology.

R&D Technology



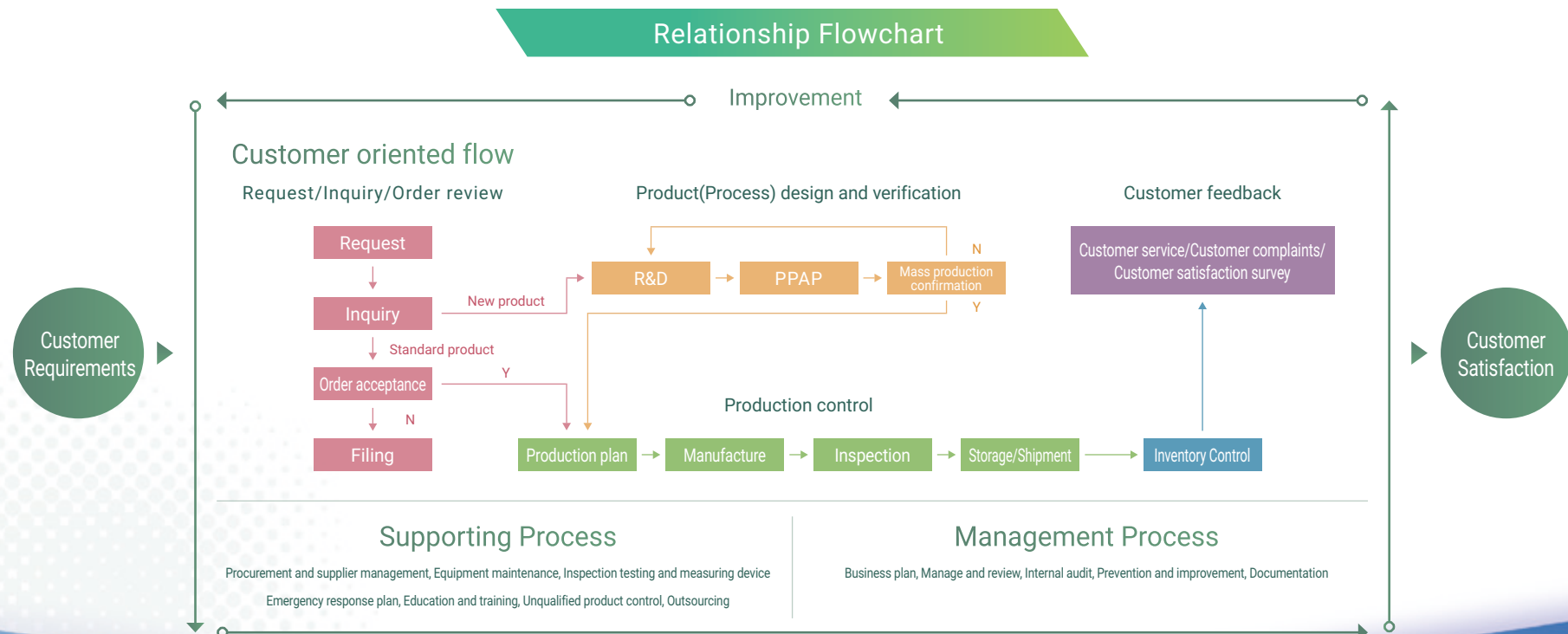
Production Technology



Quality Management and Customer Service

Quality Management Policies

To pursue product stability and sustainable operation, FCC maintains a rigorous approach in all stages from R&D to manufacturing and quality management, adhering to the principle of 'Stable Quality, Professional Service, and Customer Satisfaction.' In addition to the ISO 9001 certification, FCC actively entered the automotive supply chain and achieved ISO/TS 16949 certification in 2011. To meet the new IATF 16949:2016 standards, we enhanced management in 'Product Safety,' 'Corporate Social Responsibility,' 'Risk Analysis,' and 'Process Management Responsibilities,' and strengthened supplier management, obtaining the IATF 16949:2016 certification in 2018. Our quality management system adopts a process-oriented structure, including customer-oriented, management, and support processes, combined with the PDCA cycle and statistical analysis for continuous improvement, ultimately achieving customer satisfaction.



PDCA Cycle of Quality Control System



Customer Service and Privacy Protection

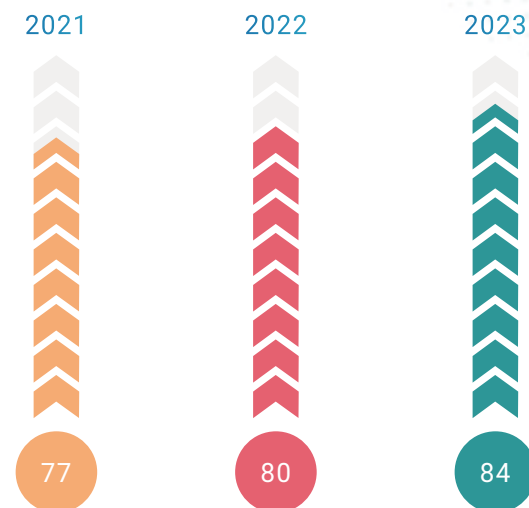
FCC communicates with customers through various channels, including email, phone, fax, and messaging apps. Additionally, we regularly visit customers to communicate face-to-face, listening to their feedback on product and understanding their current and future needs. Maintaining stable product quality and building strong partnerships with customers is one of our key efforts towards sustainable operations. We will continue to enhance the quality of value-added products and provide professional services to meet customer needs. When handling customer specifications or confidential information, we enforce strict internal protocols to ensure confidentiality and protect customer privacy, guaranteeing that information is never disclosed to unauthorized third parties.

Customer Satisfaction Survey

To understand customer satisfaction with FCC products and to guide future product improvements, ensuring they better meet customer needs, an annual customer satisfaction survey is conducted through email, telephone interviews, or on-site visits to clients.

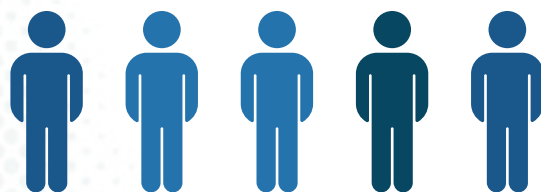
In 2023, we surveyed twelve customers, representing approximately 68% of total sales amount for the year. The survey evaluated satisfaction levels in product quality, delivery times, service, and coordination. The survey results show improvements across all areas compared to 2022, reflecting a notable increase in customer satisfaction.

Customer Satisfaction Survey Results



Customer Affirmation

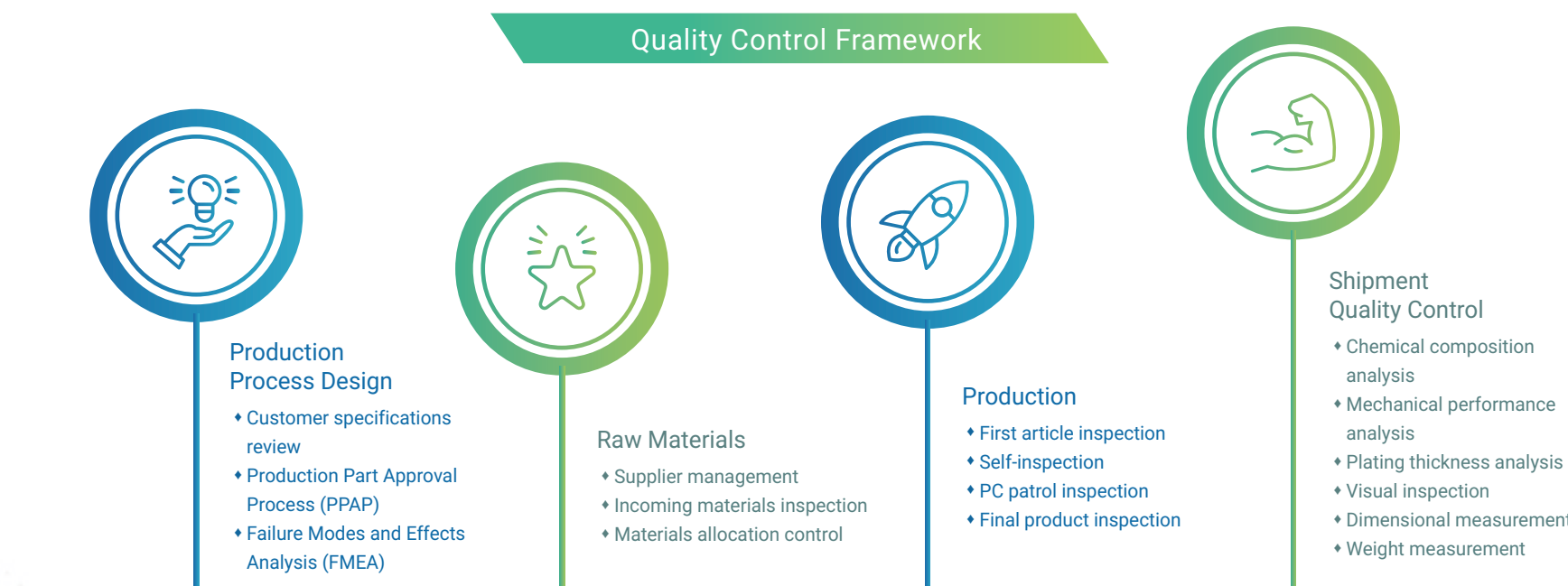
FCC supplies products to domestic public and private sectors and exports to Southeast Asia, Hong Kong, mainland China, Northeast Asia, and other regions, spanning various industries such as electrical appliances, semiconductor, household products, electronics, and automotive industries. Our quality and service have earned recognition from customers, fostering partnerships for mutual growth.



Excellence awards and medals received from customers. ▲

Quality Control and Product Safety

FCC's quality control for products spans from process design to shipping. It begins with reviewing customer specifications, followed by incoming material inspection, in-process checks, and final product inspection. Each stage of the process ensures rigorous quality control over product quality aspects.



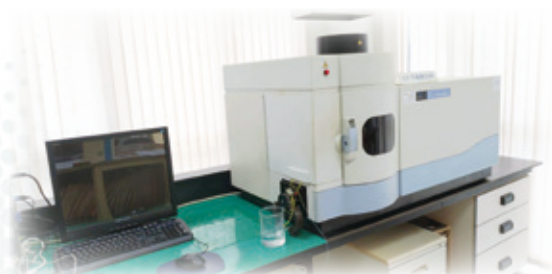
FCC conducts product inspections using precision testing equipment, including chemical composition analysis tools such as SPARK-OES (Optical Emission Spectrometer) and ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometer); mechanical performance testing tools such as tensile testing machines, Vickers hardness testers, conductivity meters, surface roughness testers, and X-ray coating thickness measurement devices. In addition, inspection tools and facilities for thickness, width, and various dimensional aspects ensure meticulous product inspection.

To ensure the accuracy of inspection equipment and maintain stable testing performance, FCC's testing equipment is regularly calibrated by professional technicians and is also periodically sent to a Taiwan Accreditation Foundation(TAF) calibration laboratory for calibration. Given that FCC produces basic copper materials for industrial, electronic, and automotive products, without specific product safety regulations that would pose customer safety concerns, there haven't been any customer complaints related to product safety or penalties.

Our products comply with the EU RoHS and REACH standards. We regularly commission SGS testing to verify compliance, and all tested items consistently meet 100% of RoHS requirements. Copper alloy products also confirm compliance with REACH standards regarding high concern substance content, and there were no complaints related to violations of RoHS or REACH regulations in 2023.



Tensile Testing Machines ▲



ICP- Optical Emission Spectrometer ▲



◀ SPARK-Optical Emission Spectrometer



To ensure smooth and efficient operation and product quality, FCC has established equipment maintenance control procedures. These procedures are tailored to the maintenance requirements of each equipment, including daily inspections, monthly, quarterly, annually cleaning and maintenance and ordinary management of breakdown repairs.



Equipment Failure Repair ▲



Cleaning and Maintenance ▲



Product Labeling

FCC ensures all products are clearly labeled as per company or customer specifications. This includes material specs, copper coil numbers, incoming serials, weight, customer codes, and product certifications like CNS marks. RoHS labeling is added as requested by customers on outer packaging.

Products bearing the CNS mark are labeled with the mark and the certification number according to regulatory requirements. We strictly adhere to labeling regulations and have not encountered warnings or penalties due to non-compliant labeling practices. In acts of marketing, FCC accurately describe product features and certifications in catalogs, maintaining integrity in customer interactions, avoiding exaggerated claims or improper labeling that could result in warnings or penalties.

 第一銅科技股份有限公司 FIRST COPPER TECHNOLOGY CO., LTD. ISO-9001 IATF-16949 品質管理系統	
ALLOY. 品名:	SER.NO. 序號:
SPEC. 規格:	NET.WT. 淨重:
CLIENT. 客戶:	MFG.NO. 製號:
COIL.NO. 編號:	公司(07)2814161(10線) 工廠(07)8023811(6線)

Product Label ▲

R&D and Innovation

R&D Focus and Progress

FCC has developed over 70 different alloy types, catering to market and customer demands by researching and developing customized products. The company focuses on new product development, performance enhancement, and process improvement testing. In recent years, there has been a proactive approach to equipment upgrades. In 2018, the first phase of electronic control system updates was implemented for the Continuous Annealing and Pickling machines. By July 2021, the transformation of the 20-stand high precision rolling mill was completed. Plans for 2024 include the second phase of furnace temperature control system updates for the Annealing and Acid Rinse machines and updates to the slitting equipment's electronic control system. These initiatives aim to stabilize production processes, enhance product quality, and support the company's sustainable development goals.

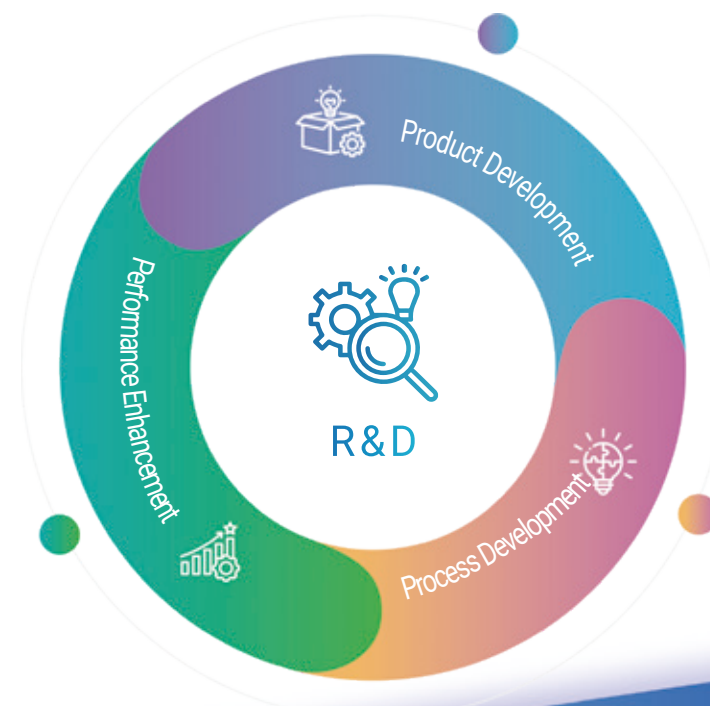
3 Primary Focus

- ◆ **Product Development:** Grasp market dynamics to develop new products of high value and quality and provide customers with applicable materials.
- ◆ **Process Development:** Optimize production conditions, conduct process research and testing to reduce production costs and increase operational efficiency.
- ◆ **Performance Enhancement:** Study appropriate conditions and conduct trials based on customer requirements to meet their needs.



R&D and progress in 2023

- ◆ Gradual expansion of copper alloys for automotive parts and eco-friendly reflow tin-plated materials for terminals and connectors.
- ◆ Research on copper vapor chamber with low internal stress, high flatness, and no hair line surface.
- ◆ Research and development of ultra-thick plate copper vapor chamber.
- ◆ Research and development of low internal stress etching materials for high-performance copper alloys.
- ◆ Development and cast-testing of low-oxygen copper C1030.
- ◆ Incremental promotion of C2100/C2600 perforated alloy.
- ◆ Development and promotion of new copper alloy materials for lithium battery packs.
- ◆ Research on improving performance of high-performance copper with high strength and softening resistance.



Innovative Products

Trendy Products



Renewable energy: Due to global concerns regarding the Paris Agreement and sustainability issues like climate change, the world has placed significant emphasis on the green energy industry. Copper has become an essential material in efficient renewable energy technologies such as solar and wind power, playing an indispensable role in energy transmission.

Representative Materials: Copper, high-performance copper



Electric Vehicles (EVs): In response to international environmental and carbon emission policies, promoting EV development plays a significant role. Consequently, FCC continues to develop products to meet the substantial increase in copper demand for EVs and charging stations.

Representative Materials: High-performance copper, special alloy copper, tin-plated copper



Semiconductors: With the demand for high-tech slim designs, lead frame processes are evolving towards etching to enhance production efficiency and precision. FCC develops process technologies to provide high-quality, low-stress copper strips for customer's processing needs.

Representative Materials: High-performance copper



Vapor Chamber: With rapid advancements in AI and the high transmission demands of 5G, the heat dissipation requirements for high-power and energy-consuming chips have increased, and copper is the essential material for such requirement. FCC develops and produces copper strips with over 100% IACS electrical conductivity, suitable for server chips, 5G base stations, and various heat dissipation needs.

Representative Materials: Copper



Automotive Materials

With its excellent conductivity and reliability, copper has become a crucial component in vehicle manufacturing. Our products are widely used in automotive materials, including terminal materials, automotive fuses, busbars, automotive substrates, and relays, etc.

Terminals		Automotive Fuses	
C5191/C5210	High strength and hardness, excellent fatigue resistance, and good elasticity. Suitable for high-performance electronic connectors and automotive terminals.	C194	High strength, high conductivity, high softening resistance, and good stress corrosion and stress relaxation resistance.
C50715/C50710	High strength, good processability, high softening resistance, and easy to electroplate. Suitable for automotive terminals and plug-in components.	C151	High thermal conductivity, high electrical conductivity, and softening resistance, ideal for heat dissipation applications.
C2100/C2200/C2300	Fine luster, good processability, drawability, and corrosion resistance. Predominantly used in drawing applications, such as automotive lamp caps.	C1814	High strength, high conductivity, heat resistance, and good stress corrosion and stress relaxation resistance. Suitable for automotive terminals and electronic components.
C2600/C2680	Good processability, ductility, drawability, easy to electroplate or paint, good weldability.		
C19010/C7025/C7026	High strength, high softening resistance, corrosion resistance, and high conductivity. Suitable for high-strength conductive materials.		
C1814	High strength, high conductivity, heat resistance, and good stress corrosion and stress relaxation resistance. Suitable for automotive terminals and electronic components.		

Busbars and Automotive Substrates		Relays	
C1020	Extremely high thermal and electrical conductivity, excellent processability, ductility, corrosion resistance, and weather resistance. No hydrogen embrittlement at high temperatures.	C19210	High electrical conductivity, good processability, easy to electroplate, and high softening resistance.
C1100	High thermal and electrical conductivity, used in applications requiring efficient heat and electrical transfer, such as terminals and water heater covers.	C1441	High electrical conductivity and good heat resistance and thermal conductivity, widely used in automotive radiators and heat dissipation fins.
C151	High thermal conductivity, high electrical conductivity, and softening resistance, ideal for heat dissipation applications.	C151	High thermal conductivity, high electrical conductivity, and softening resistance, ideal for heat dissipation applications.
C1814	High strength, high conductivity, heat resistance, and good stress corrosion and stress relaxation resistance. Suitable for automotive terminals and electronic components.	C4250	Offers good wear and fracture resistance as well as elasticity, suitable for manufacturing elastic parts such as switches, relays, and contact components.

Eco-friendly Tin-plated Product

In response to the rapidly changing and diverse market, FCC has not only focused on strengthening the development of copper processing, developing high-strength, high-conductivity alloys and advanced surface treatment technologies but has also gradually introduced secondary processing techniques to supply a wider range of products to meet market demands. In 2001, we collaborated with Mitsubishi Shindoh Co., Ltd., Japan to introduce eco-friendly electroplating equipment for producing tin-plated copper strips.

Characteristics : Uniform and well-bonded tin layer, excellent heat peel resistance, glossy surface to prevent from tin whisker and burrs (Higebari) during perforating

Applications : Automotive terminals, 3C electronic connectors

Trends : In view of the requirements of the 2004 International Environmental Protection Convention, cadmium-lead electroplating products have been classified as non-green products. Following the 2006 European WEEE regulations, which suggest the promotion of Reflow tin-plated copper products, another non-tariff trade barriers is expected to emerge internationally. To meet these environmental demands, FCC successfully developed Reflow tin-plated copper strips, becoming the first Taiwanese company to develop eco-friendly tin-plated copper strips.



Reflow Tin ▲

Achievements



ISO 9001:2015 Quality Management System is established by the International Organization for Standardization (ISO). This standard is based on several quality management principles, including a focus on customer needs, the involvement of top management, process approaches, and continual improvement. The implementation and certification of the ISO 9001:2015 standard aim to consistently meet customer needs and legal requirements, thereby gaining customer trust in the quality of products and services. It helps address operational risks and opportunities, supports continuous improvement, and establishes a foundation for sustainable development.

ISO 9001: 2015



ISO9001 Certificate



IATF 16949:2016 is a quality management system for the automotive industry developed by the International Automotive Task Force (IATF) in conjunction with the ISO 9001:2015 framework, focusing on the quality management system requirements for manufacturers of automotive parts and related services. Its core principles emphasize "process management" and "customer orientation," actively promoting the achievement of "zero defects" in automotive manufacturing processes.

Implementing the automotive supply chain quality management system standard not only meets the ISO 9001:2015 requirements but also incorporates additional management requirements, methods, and tools specific to automotive materials. These enhancements cover the entire process, from product development to post-shipment services, with strengthened requirements and performance monitoring. Obtaining this certification further increases customer trust in FCC's quality management.

IATF 16949: 2016



IATF16949 Certificate ▶



Issued by the Bureau of Standards, Metrology and Inspection (BSMI) under the Ministry of Economic Affairs, the CNS Mark certifies that a product's quality has been inspected and verified the compliance of product quality with national standards and the compliance of manufactures' quality management system with international standards. This government-supervised certification ensures that the products manufactured are of high quality and can be trusted by customers.

Obtaining the CNS Mark signifies that a product meets all national quality standards, which not only enhances the product's image in marketing and adds value to the brand but also increases visibility through the government's promotion and query platform for the CNS Mark. Furthermore, the CNS Mark ensures that customers can confidently choose products with assured quality.

CNS mark



CNS Mark ▶



CNS Mark Certificate ▲



03

Environmental Protection

環境保護

3-1 Green Production and Environmental Protection

3-2 Energy Saving and Carbon Reduction

3-3 Pollution Prevention

3-4 Waste Management

3-5 Regulatory Compliance

Green Production and Environmental Protection

The Earth's natural resources are limited

To conserve the earth's natural resources, it is crucial to prevent pollution, reduce waste, seek alternative energy sources, and encourage recycling. These efforts aim to foster environmental conservation and striving for sustainable development.



Environmental policy:Regulatory compliance, improvement, pollution prevention

FCC integrates environmental protection into every aspect of our product lifecycle, focusing on reducing the impact on land, air, water, and ecosystems. To ensure sustainability, we are committed to comply with all environmental and regulatory requirements and strive to improve environmental practices and reduce pollution. Our commitments include:

- ✦ Compliance with government environmental and regulatory requirements
- ✦ Enhance resource efficiency through energy saving, waste reduction, water conservation, and recycling.
- ✦ Waste reduction, recycling, and pollution prevention.
- ✦ Promote environmental awareness internally and foster communication with external stakeholders to address environmental issues effectively.

Environmental Policy



Our main materials for producing copper alloy strips and plates include electrolytic copper plates, zinc, tin, and recycled copper. Primary materials such as copper strip protective paper, PE film, packaging tapes, and pallets. Electrolytic copper plates are sourced from Japan, China, Korea, Chile, Peru, copper strip protective paper, PE film from Japan and Taiwan.

We recycle materials such as pallets and metal straps internally, along with recycling copper strip protective paper and PE film through certified vendors. Our waste management practices adhere to environmental regulations and ISO 14001 standards. Since January 2022, we've internally recycled copper strip protective paper during strip slitting for reuse or reroll. 13,703 kgs of copper strip protective paper were recycled in 2023, along with 6,400 kgs of pallets.

Resources Usage

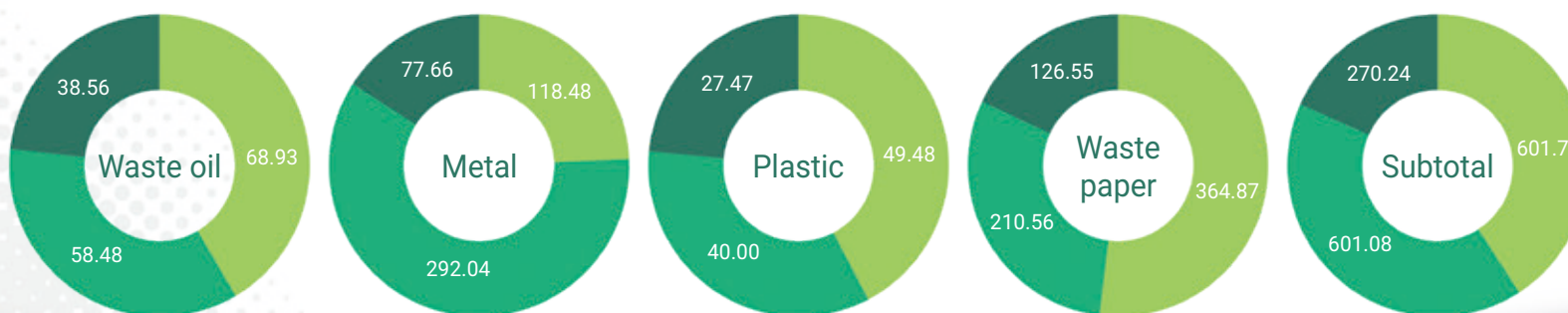
Unless stated otherwise, the data used in this chapter refers exclusively to the Lin-hai factory, excluding the head office, Taipei branch, and Taichung branch.

Raw Materials Usage

Usage of Primary Raw Material and Others						
Item(Unit)	2021		2022		2023	
	Quantity	Ratio	Quantity	Ratio	Quantity	Ratio
Electrolytic copper plates (metric tons)	4,238.604	18.88%	4,387.756	25.32%	3,632.655	20.96%
Zinc (metric tons)	891.210	3.97%	880.154	5.08%	824.742	4.76%
Tin (metric tons)	57.185	0.25%	24.337	0.14%	18.450	0.11%
Recycled copper (metric tons)	17,376.984	77.41%	12,150.361	70.10%	9,748.611	56.25%
Copper strip protective paper (metric tons)	304.847	1.36%	153.970	0.89%	98.009	0.57%
Copper strip protective PE film (metric tons)	52.955	0.24%	35.759	0.21%	24.933	0.14%
Casting quantity (metric tons)	22,447.954		17,332.013		14,129.98	

Recycling Quantity (metric tons)

● 2021 ● 2022 ● 2023



Energy Saving and Carbon Reduction

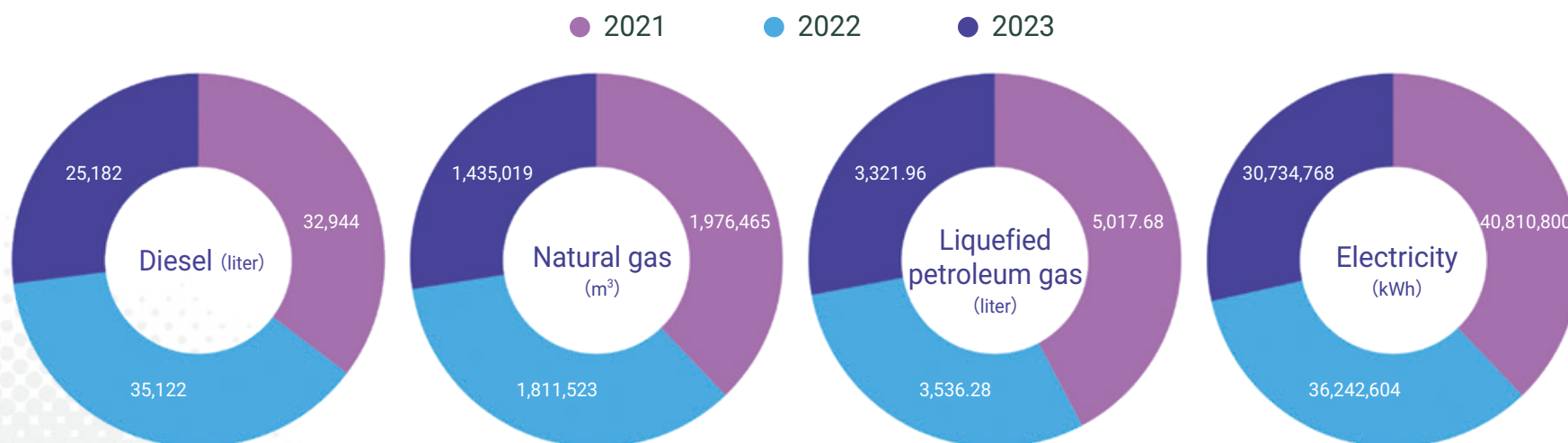
Response to Climate Change

Committed to sustainable development, FCC is dedicated to focusing on process improvements aimed at reducing the frequency of copper rolling and pickling to lower energy resource consumption and improve energy resource efficiency. Additionally, we are installing solar power generation and replacing old facilities to achieve our goals of energy conservation and carbon reduction.

Internal Energy Resources Consumption

Energy consumed in production operations include electricity, natural gas, liquefied petroleum gas, diesel, etc. Natural gas accounts for most direct energy usage, while purchased electricity predominates as the main indirect energy source. In 2023, the percentages of total heat values for direct and indirect energy use were 32.83% and 67.17%, respectively. FCC's energy intensity in 2023 was 21.67 (total heat value 164,758.27 GJ/ annual production output 7,603.708 metric tons).

2021~2023 | Energy Resources Consumption

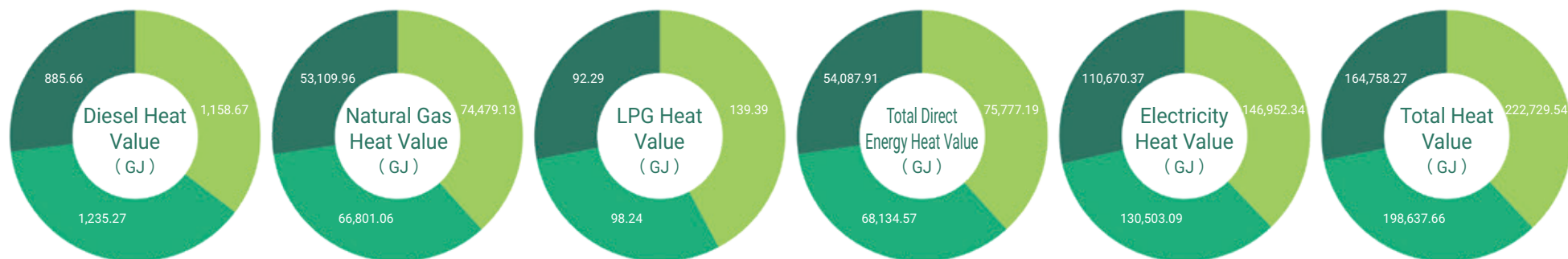


※Note:

1. Direct energy includes diesel, natural gas, liquefied petroleum gas while indirect energy includes electricity.
2. The data is compiled from Taiwan Power Company's electricity consumption records and the procurement records of diesel, Liquefied petroleum gas, and natural gas.
3. The conversion factors for various energy heat values are based on the Energy Common Units Conversion Table by the Energy Administration, Ministry of Economic Affairs.
4. 1 liter Diesel = 8,400 kcal; 1 kg liquefied petroleum gas = 1.786 liters, 1 liter = 6,635 kcal; 1 cubic meter Natural gas = 9,000 kcal; 1 kWh Electricity = 860 kcal, 1 kcal = 4.187 kilojoules (KJ).

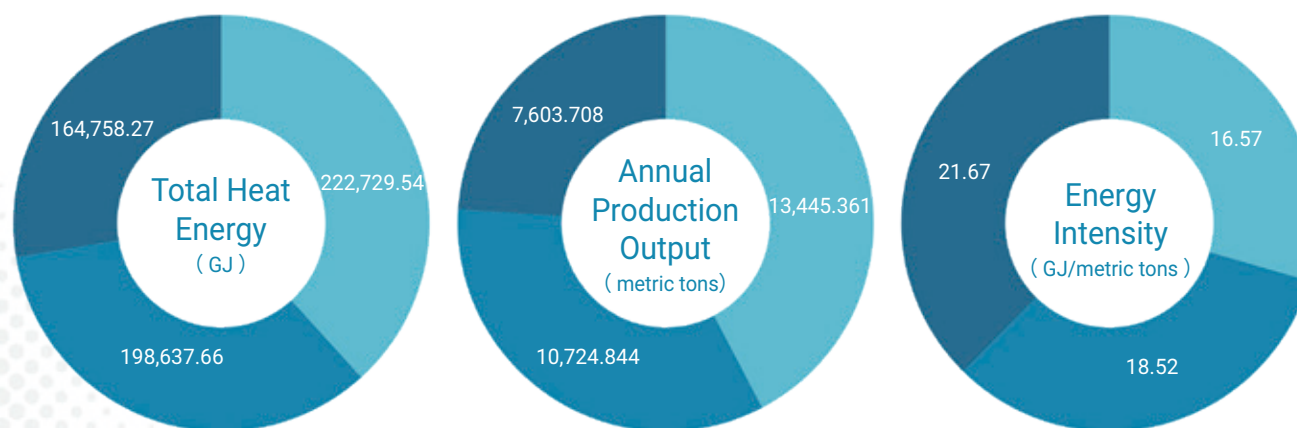
Total Heat Value of Energy Resources Consumption (GJ)

2021 2022 2023



Energy Intensity (GJ/metric tons)

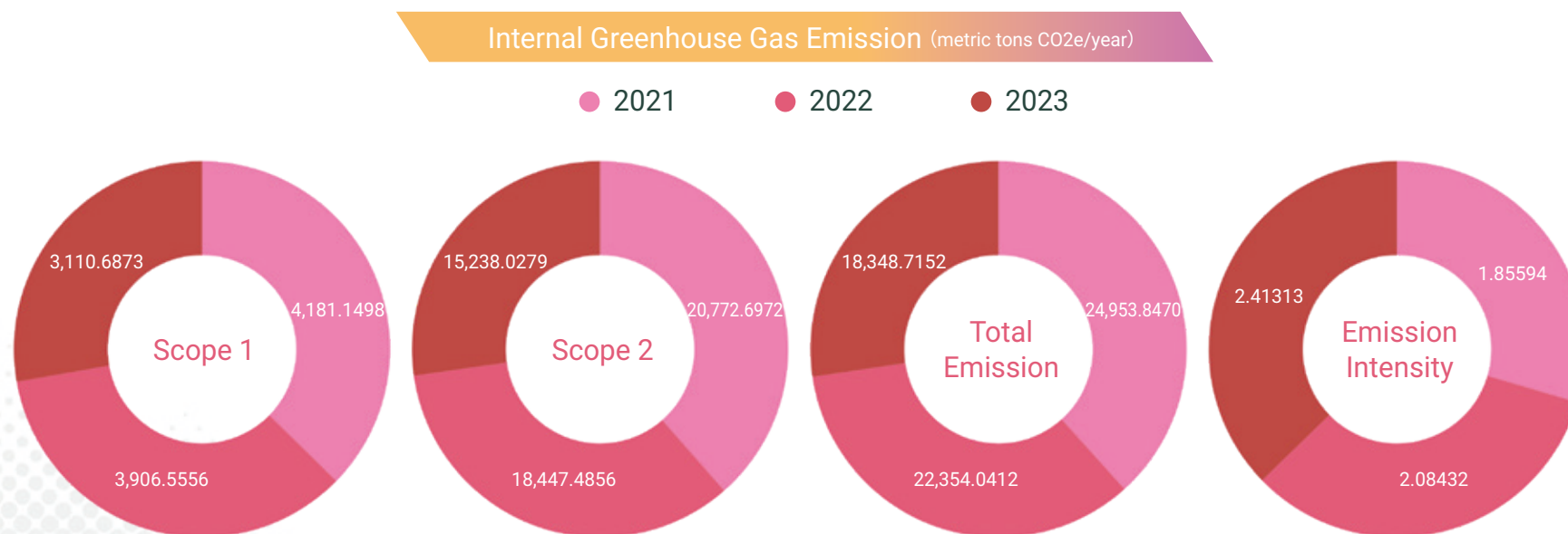
2021 2022 2023



Greenhouse Gas and Carbon Inventory

As the global shift towards a low-carbon economy progresses, corporations are increasingly pivotal in managing environmental risks. To implemented rigorous carbon management practices, an ISO14064-1 greenhouse gas inventory system of FCC was established in 2022, making sure that the emissions data from all units are regularly collected. The greenhouse gas inventory report of 2022 was completed with internal and external verification, ensuring precise tracking of annual greenhouse gas emissions and supports continuous improvements in energy efficiency. Currently, approximately 99% of total factory emissions is under control.

The greenhouse gas inventory report of 2023 underwent external verification by KPMG from March 19th to March 20th. The emission intensity was 2.41313 (18348.7152 metric tons CO₂e/Annual production output 7,603.708 metric tons), with ongoing plans to implement incremental energy-saving and carbon reduction measures annually.



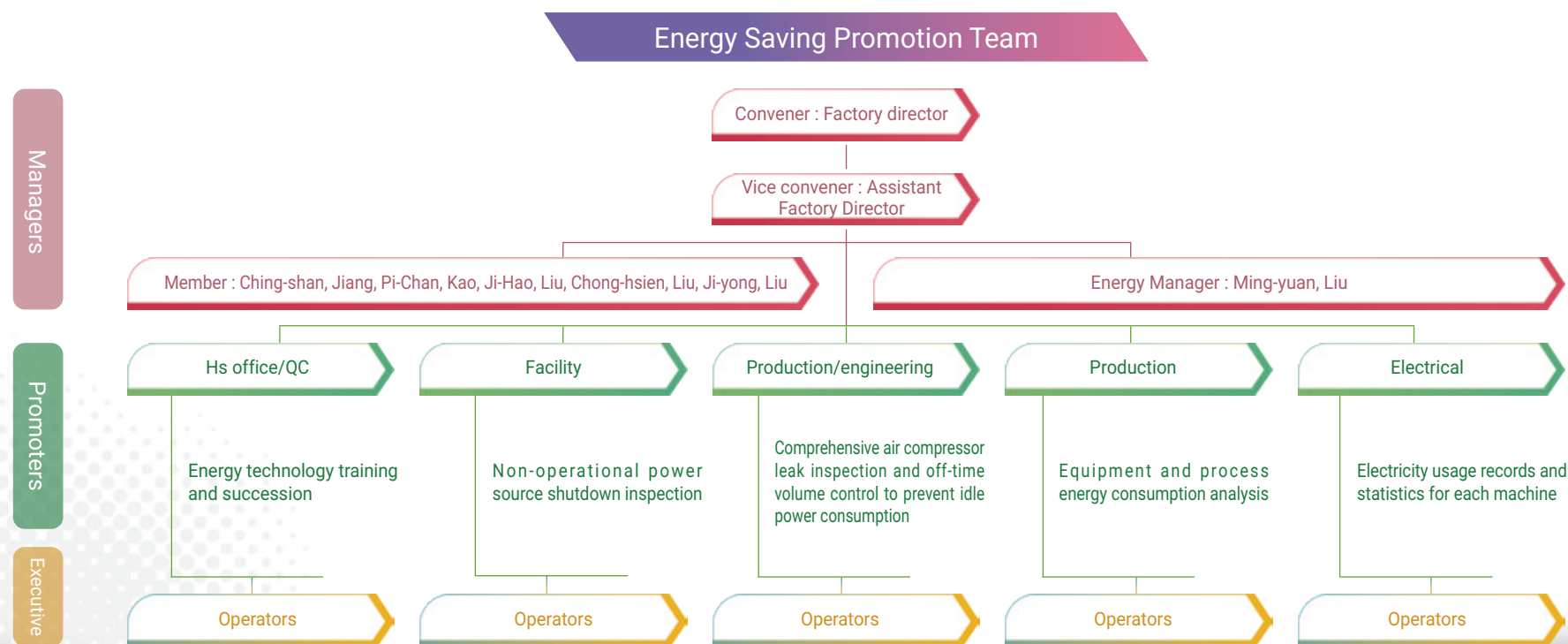
*Note:

1. The greenhouse gas emissions for 2023 are initially calculated using the 2022 electricity carbon emission factor.
2. Greenhouse gas emission intensity is calculated as total greenhouse gas emissions (metric tons CO₂e) divided by annual production output (metric tons).
3. The greenhouse gas emissions for 2021 only included emissions from the Lin-hai factory (unverified). From 2022 onwards, emissions are calculated for the entire FCC, including the head office, Lin-hai factory, Taipei branch, and Taichung office.

Energy Saving and Carbon Reduction Program

To enhance environmental sustainability and reduce greenhouse gas emissions effectively, FCC's Lin-hai factory has established an Energy Saving Promotion Team, convened by the factory director, led by managers, assistant managers from departments and energy manager with assistance from team leaders of departments such as Production, Engineering, Electrical, Facilities, Safety, and Quality Assurance.

The team convenes regular quarterly meetings to review progress, assess energy consumption, and identify areas for improvement and set up annual energy-saving objectives and goals for the following year are set at the end of each year. Monthly reviews ensure that these goals are met through engineering controls and administrative management principles. Strategies include reducing electricity consumption, minimizing waste, improving energy efficiency, and implementing recycling practices to reduce overall energy consumption. Additionally, the introduction of solar power generation supplements energy supply, reducing reliance on fossil fuels.



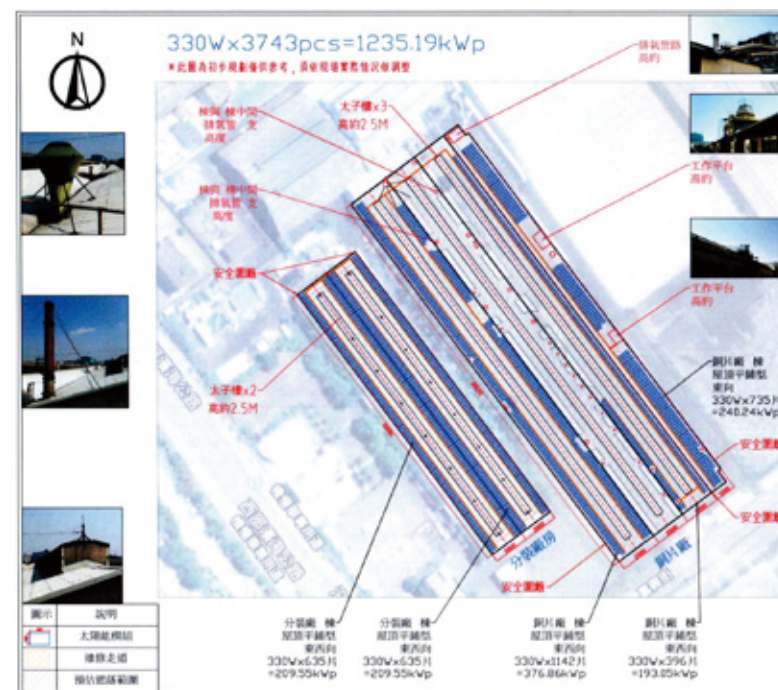
On-going energy-saving and carbon reduction initiatives are currently underway. Mercury lamps are progressively replaced with LED lights throughout the facility and dated air compressors and mechanical equipment, such as pumps, motors, air compressors, transformers, etc., are planned to be converted to variable-frequency control or upgrade to high-efficiency equipment.

Year	Item(Unit)	Items and Objectives	Execution Detail	Saved Energy	Investment Amount (NT\$ thousand)
2022		Lighting improvement and replace dated air compressor. Saved 1% of electricity	Installed 80 Led lights, replaced a 200HP air compressor	Save electricity in lighting about 7,791 KWH/month Save electricity in air compressor about 358,442.3KWH/year.	1,675
2023		Replace dated air compressor. Saved 1% of electricity	replaced a 200HP air compressor	Save electricity in air compressor about 316,990.674KWH/year	2,150
2024		Replace dated air compressor. Saved 1% of electricity	Planned to replace a 270HP air compressor	Save electricity in air compressor about 201,300.107KWH/year	About 2,420

Solar Energy

In accordance with government green energy policies, FCC plans to install solar panels on the roof of Lin-hai factory. The planned installed capacity is 1,235 KW, approximately 10% of the factory's contracted electricity capacity. Future adjustments to the plan will depend on operational conditions. The investment amount is approximately NT \$55 million.

Project Task	Expected Completion Date
Plan Installation of Renewable Energy Generation Equipment	September 30, 2024
Grid Connection Review Opinion letter issued by Taiwan Power	November 15, 2024
Approval of Construction	December 31, 2024
Construction	June 30, 2025
Completion of Grid Connection	August 15, 2025
Power Generation License, Self-Use Power Generation Equipment Registration Certificate or Equipment Registration Documents	September 30, 2025

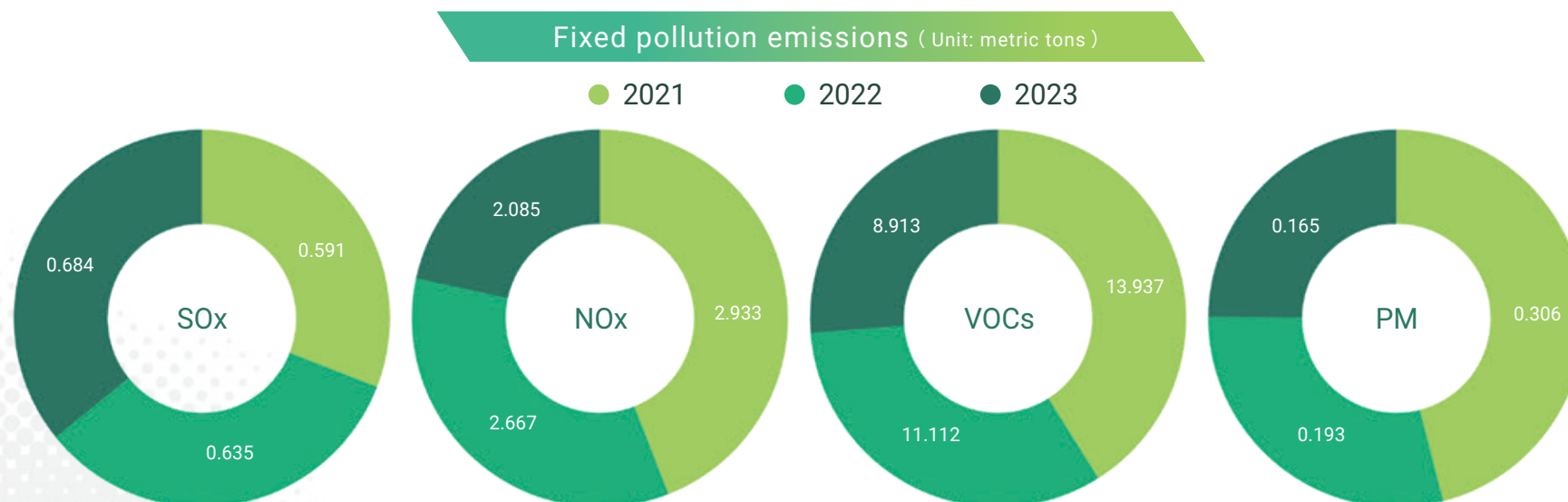


Pollution Prevention

As a specialized manufacturer of copper alloy strips and plates, FCC has aimed for sustainable development since its establishment. In response to global warming and environmental changes, we strive for harmonious and sustainable growth, effectively managing and controlling hazardous substances in our processes to prevent environmental pollution. No toxic chemicals are used in the Lin-hai factory, ensuring employees safety and health.

Air Pollution Management and Emissions

For 2023, the emissions of various air pollutants are detailed in the table below. Fixed pollution sources are equipped with pollution control devices, targeting pollutants such as volatile organic compounds (VOCs), particulate matter (PM), sulfur oxides (SOx), and nitrogen oxides (NOx). The pollution control devices include baghouse dust collectors, scrubbers, and various filters. We comply with the Air Pollution Control Act, conducting regular testing and reporting of fixed source emissions. All processes and facilities have obtained the necessary operating permits, and emissions are properly treated before release. The detected values of air pollutants are below the regulatory limits, and no additional control equipment is currently required.



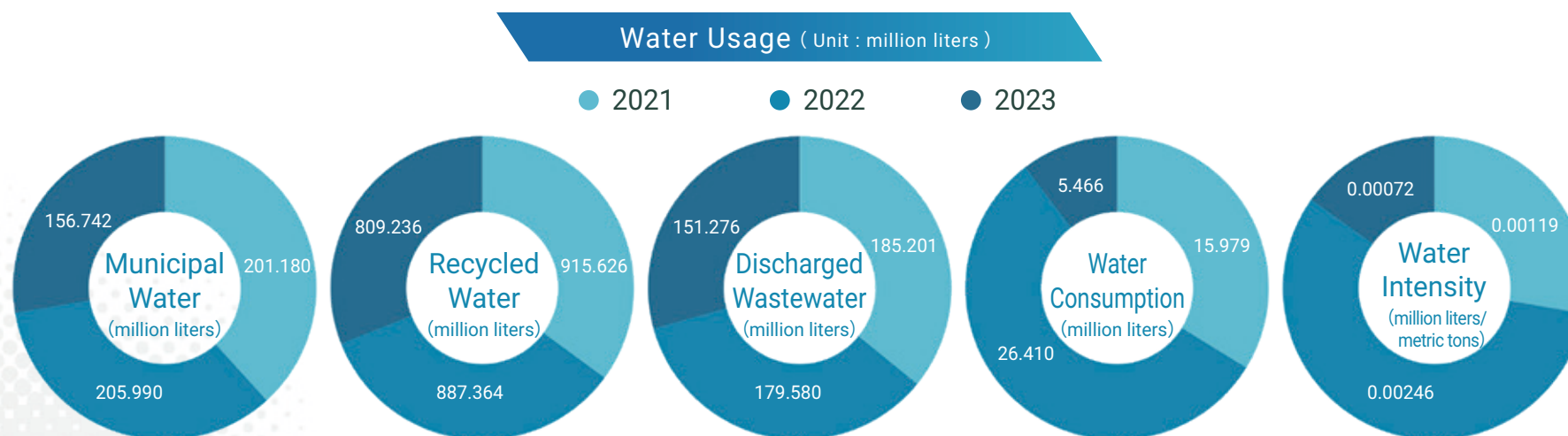
*Note:

1. All data are rounded up to three decimal places.
2. Data sources: Stationary Pollution Sources of Information Disclosure Management Platform
3. The data reported on the Stationary Pollution Sources of Information Disclosure Management Platform by the Ministry of Environment is in the "Report Completed" status.

Water and Wastewater Management

FCC's Lin-hai factory sources its water from municipal supplies and adheres to all regulatory requirements for water pollution control, including semi-annual inspections and regular wastewater testing. The factory operates two wastewater treatment facilities to handle both industrial and domestic wastewater. Daily wastewater treatments are thoroughly recorded, and emergency responses are executed as per approved documents to prevent contamination of external water bodies. Treated industrial wastewater is primarily recycled through softening processes for reuse in production, with excess discharged into dedicated sewers for treatment at the Kaohsiung Lin-hai Industrial Park's wastewater facility, meeting all regulatory standards.

In 2023, two instances of copper content in wastewater discharge exceeded regulatory limits, totaling approximately 1.12 kilograms. Corrective actions were promptly implemented, and all remaining discharges met compliance standards. The factory has enhanced its water recycling capabilities in recent years, increasing reuse frequency in production processes. Ongoing efforts focus on water conservation and reducing municipal water consumption.



※Note:

1. 1 million liters = 1 thousand cubic meters. Water consumption intensity (million liters/metric tons) = Water consumption (million liters) / Annual production output (metric tons).
2. Water usage increased in 2022 due to damage to the Pickling Equipment Pipeline.

Discharged Wastewater Quality Inspection

Inspection Item		pH	COD	SS	Copper	Zinc
Average in 2021	D01 Discharge Wastewater	8.05	7.35	6.85	0.445	0.115
	R01 Recycled Water	8.20	6.60	6.10	0.510	0.075
	R02 Recycled Water	7.20	8.55	4.60	1.440	0.385
Average in 2022	D01 Discharge Wastewater	8.30	27.85	4.55	0.715	0.050
	R01 Recycled Water	8.30	27.90	10.70	1.170	0.075
	R02 Recycled Water	8.55	23.15	7.20	1.890	0.110
Average in 2023	D01 Discharge Wastewater	8.35	15.50	11.40	0.420	0.070
	R01 Recycled Water	8.60	9.85	12.30	0.245	0.030
	R02 Recycled Water	8.60	8.45	11.25	0.850	0.110



Wastewater Discharged Outlet ▲

Waste Management

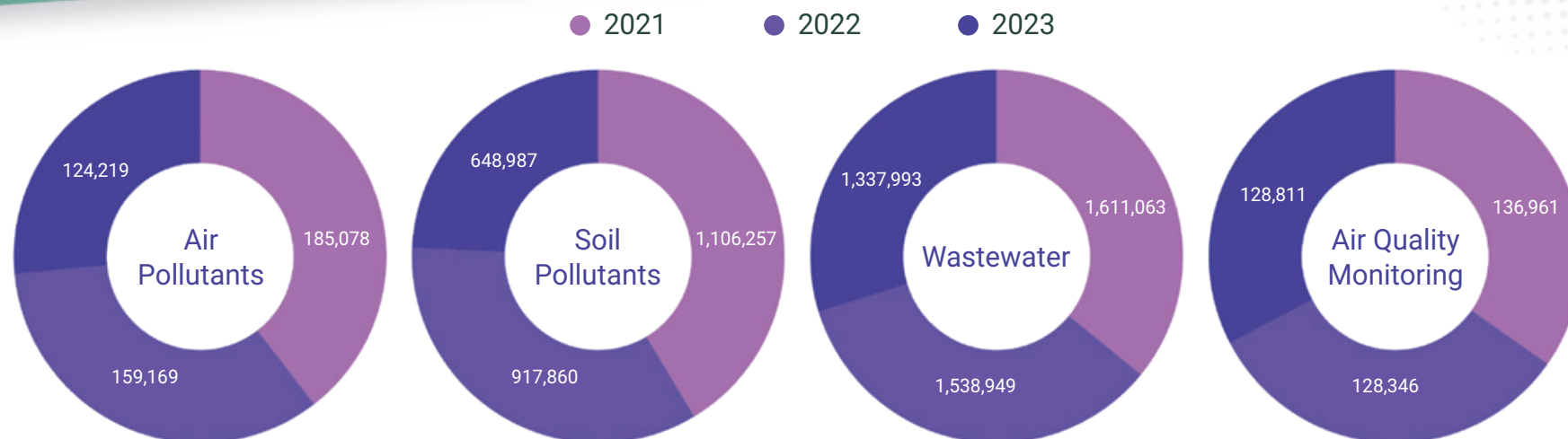
Industrial Waste Management

To effectively manage waste storage, FCC categorizes and stores waste at appropriate locations in the factory according to the Waste Disposal Act. Reusable waste is processed using existing in-house equipment and suitable technology to convert it into usable raw materials. Non-reusable waste is handled by certified waste disposal agencies approved by environmental authorities, with options for external recycling or processing. We carefully select waste disposal and recycling contractors to ensure all waste is legally and properly managed. Hazardous waste is exclusively handled by qualified domestic disposal companies to ensure legal compliance.

Waste Treatment and Recycling

Promoting waste classification and resource recycling is one of our annual objectives, encouraging departments to classify waste properly, reducing environmental pollution and enhancing resource reuse. Waste is categorized as general industrial waste or hazardous industrial waste and stored according to the Waste Disposal Act before being processed by certified agencies. Waste is reported online using triplicate forms (except for certain R-code wastes exempted by authorities). Upon completion, disposal agencies report the processed waste online, confirming legal handling. FCC is committed to environmentally friendly waste management policies. We prioritize mitigating the impact of hazardous substances and ensure all waste is handled by certified companies, strictly controlling the disposal of harmful waste to protect environment from pollution.

Expenditure on Environmental Protection (Unit: NT\$)



Waste Disposal Volume

In 2022, we enhanced pallet recycling to reduce the output of waste wooden pallets and extended the operation time of the frame-type sludge dewatering machine to lower the moisture content and weight of wastewater sludge. In 2024, we plan to purchase a new frame-type sludge dewatering machine to replace the belt-type sludge dewatering machine, further reducing wastewater sludge production.

Industrial Waste Disposal Volume (Unit: metric ton)

Waste Category	Waste Type	Final Treatment	2021	2022	2023
General Industrial Waste	Waste Wood Pallets	Incineration	57.970	42.660	58.970
	Household Waste	Incineration	97.770	92.010	84.960
	Waste Oil Mix-ture	Recycling	121.180	129.800	131.210
	Waste Lubricat-ing Oil	Recycling	68.930	59.320	38.560
	Waste Refracto-ries	Recycling	24.930	11.600	51.130
Total General Industrial Waste			370.780	335.390	364.830
Hazardous Industrial Waste	Wastewater Sludge	Recycling	821.296	685.868	396.680
	Cop-per-Containing Waste	Landfill	33.790	89.372	56.920
	Asbestos Tiles	Landfill	11.200	16.040	0.000
	Dust Collector Ash	Recycling	3.790	5.055	4.580
Total Hazardous Industrial Waste			870.076	796.335	458.180
Total Waste			1,240.856	1,131.725	823.010
Waste per Metric tons of Copper Strips			0.092	0.106	0.108

Regulatory Compliance

To ensure timely and accurate verification, acquisition, identification, registration, and communication of relevant legal and regulatory requirements, FCC has established a comprehensive system for collecting and managing documents related to environmental, labor safety, and other requirements. This system covers various environmental considerations, including air pollution control, water pollution control, waste disposal, toxic chemical management, noise control, labor safety and health management, and fire safety regulations.

Non-compliance Issues and Improvement Measures in 2023:

Case	Item	Description of Violation	Improvement Measures	Fine Amount
Case 1		An employee was injured when using a cloth to wipe equipment by hand, contrary to regulations, and got the fingers caught in the machinery.	✦ Reinforce the requirement to follow the standard operating procedure for wiping guide rollers on all machines. ✦ Conduct annual training sessions.	NT\$120,000
Case 2		An employee operating a crane collided with a metal guardrail, resulting in another employee being injured by the guardrail.	✦ Immediately emphasize crane operation safety: ◦ Ensure the hook and cable are positioned directly above the load's center of gravity to prevent swinging. ◦ Maintain a safe distance from surrounding personnel. ◦ Reinforce safety protocols for crane operations. ✦ Mandatory 3-hour in-service training every 3 years.	NT\$100,000



04

Healthy and Friendly Workplace

健康與友善的職場

4-1 FCC Employees

4-2 Talent Cultivation

4-3 Happy Workplace

4-4 Occupational Health and Safety

Healthy and Friendly Workplace

Maintaining harmonious labor relations is a fundamental and crucial issue when it comes to corporation development. At FCC, employees are regarded as the company's most valuable assets. We strive to create a pleasant and harmonious work environment to boost employee productivity and competitiveness, forming the foundation of our sustainable development. The average age of our employees is 46.57 years. Their loyalty and dedication are vital in promoting a win-win workplace.

FCC Employees (Talent Structure)

As of 2023, FCC employed a total of 228 individuals, all in full-time positions to ensure job security. Salaries are determined based on the "Labor Standards Act" and are aligned with meritocracy principles. We uphold equality in recruitment, irrespective of race, gender, age, religion, nationality, or political stance, and conduct recruitment through open and fair selection processes. Promotions, transfers, and talent development measures are based on individual capabilities and performance evaluations. The average employee tenure is 15.2 years, with an employee turnover rate of 13.6%. Due to the high temperature working environment and physically demanding nature of the job, which requires physical labor and shift work, recruiting new employees can be challenging. We address this by improving company benefits, enhancing the work environment, and encouraging current employees to refer new hires, which helps increase recruitment and retention rates. Our workforce is predominantly male with 3.7% of our supervisors being female. FCC supports and ensures employment opportunities for the disabilities. As of the end of 2023, we employed three individuals with disabilities, exceeding the legal requirement. Additionally, we employed one indigenous person and 41 foreign workers.

2023 Employee Composition (Employment Contract and Type / Gender / Age)

Employment Contract and Type		Gerder	Age	Headcount	%
Employment Contract	Permanent	Male	Under 30	5	2.19
			30~50	63	27.63
			Over 50	96	42.11
		Female	Under 30	4	1.75
			30~50	11	4.82
	Over 50		8	3.51	
Temporary (All are foreign workers)	Male	Under 30	19	8.34	
30~50		22	9.65		
Employment Type	Full-time	Male	Under 30	24	10.53
			30~50	85	37.28
			Over 50	96	42.11
		Female	Under 30	4	1.75
			30~50	11	4.82
			Over 50	8	3.51
	Part-time	Male	-	0	-
		Female	-	0	-
Total Employees			-	228	100

2023 Employee Turnover

Employee Turnover	Gender	Age	Headcount	%
New Employees	Male	Under 30	12	5.26
		30~50	9	3.95
		Over 50	0	0
	Female	Under 30	1	0.44
		30~50	0	0
		Over 50	1	0.44
Departed Employees	Male	Under 30	9	3.95
		30~50	13	5.7
		Over 50	4	1.75
	Female	Under 30	0	0
		30~50	0	0
		Over 50	1	0.44

*Note: Employees who joined during the year are considered new employees. New employee ratio = Number of new employees / Number of employees at year-end. Departed employee ratio = Number of departed employees / Number of employees at year-end. Due to the physically demanding nature of our work environment, recruiting new employees is challenging, and some current employees find it difficult to adapt to our work style. As a result, the number of departed employees is higher than the number of new hires. To address this, we have improved company benefits and the work environment to retain existing employees and attract new ones.

Employee Diversity

Expected hiring indigenous person	0
Actual hired indigenous person	1
Foreign workers	41

*Note: Foreign workers include 40 Indonesians and one Thai

Gender Ratio in Management

Title	Gender	Headcount	%
Section (Deputy) Chief	Male	13	48.15
	Female	0	0
Manager (Deputy)	Male	8	29.63
	Female	1	3.7
Assistant Factory Director	Male	2	7.41
	Female	0	0
Vice President and above	Male	3	11.11
	Female	0	0
Total		27	100

*Due to the nature of our operations, which are primarily production-based, the number of male supervisors exceeds that of female supervisors.

Employee with disabilities

Expected hiring employee with disabilities	2
Actual hired employee with disabilities	3

Talent Cultivation

Education and Training

Talent is the foundation of sustainable business operations, and the growth of the company is inseparable from the learning and development of its employees. Establishing employee development programs and learning channels to provide space for self-development and growth is a key driver for continuously advancing FCC. FCC embrace a philosophy of all-inclusive participation, promoting gender and age-neutral talent cultivation and training resource allocation. We plan annual education and training based on strategic needs and policies, encouraging our employees to absorb new knowledge and expertise externally, as well as to learn from experienced professionals internally. This approach enhances learning effectiveness and integrates learned skills directly into the work, thereby improving work quality and efficiency. Education and training system at FCC is divided into ‘new employee training’ and ‘on-the-job training’ :

New Employee Training

- ✦ Focuses on company history, HR regulations, introduction to work environment, occupational safety, labor health and safety, quality and environmental policies, and practical on-site training. Pre-employment training helps new employees quickly adapt to company environments, management regulations, including understanding human rights standards. Operational procedures are guided by senior employees to ensure new employees familiarize with co-workers, working environment and enhance their professional skills.
- ✦ In 2023, 20 new employees have been trained to have a better understanding of our management systems and job functions, enhancing their sense of belonging and work efficiency.

On-the-Job Training

- ✦ Training content is differentiated based on job functions into external and internal training. External training includes participation in educational programs hosted by external organizations, relevant certification courses, seminars, observations, or overseas visits. Internal training refers to educational programs organized within the company, taught by either external or internal instructors.



New hire Training ▲



Internal On-the-Job Training ▲

External Training

Total external training hours in 2023 amounted to 594 hours, detailed in the table:

Type of Training	Numbers of Training	Participant headcounts	Total hours
Health and Safety Management	17	17	350
Emergency First Aid Training	5	5	80
Radiation Protection Training	12	17	66
Health and Safety Training of Lifting Equipment Operation	6	6	98
Total	40	45	594

Internal Training

Based on job requirements, competency development needs, and performance results, a suitable training plan is reviewed before the start of each year. Budgets are allocated according to the plan to arrange employee development courses. Internal training is conducted according to the annual plan, with internal instructors generally or external instructors as needed. In 2023, there were a total of 45 internal training sessions with a 100% execution rate, meeting KPI targets. The implementation details of the training are as follows:

Type of Training	Numbers of Training	Participant headcounts	Total hours
Production Process Operations	11	91	12
Quality Inspection and Control	12	42	22
Production Equipment Maintenance	2	5	2
Environmental and Occupational Safety	8	145	11
Emergency First Aid Training	1	11	1
Fire Safety Training	2	23	8
New Employee Training	8	20	32
Quality Management	1	2	3
Total	45	339	91

In addition to the training programs, FCC provides diverse learning opportunities, including job coaching, where supervisors demonstrate and explain essential job skills, and job rotation evaluation, providing opportunities to gain experience in different areas. This multifunctional training equips employees with a broad set of skills and knowledge, fostering a mutually beneficial environment for both the company and its employees.

Performance Appraisal

- ✦ FCC has established an Employee Performance Evaluation Management Procedure to fairly and reasonably assess the performance and contributions of employees and supervisors at all levels over a given period. Initial evaluations are conducted by direct supervisors and then reviewed by higher-level supervisors to ensure accuracy and avoid bias.
- ✦ The company's year-end bonuses are linked to individual annual performance evaluations. Performance results influence the adjustment of year-end bonuses, salaries, and promotions. Promotion criteria include tenure, education, performance evaluations, and professional skills.
- ✦ Eligible employees can be nominated for promotion by their unit supervisors. Promotions are finalized upon approval by the factory's personnel evaluation committee and the company's review process.

Evaluation Targets	Applicable Personnel	Evaluation Items	Frequency
Supervisory Personnel	Assistant managers and above	Planning ability, Management ability, Personnel management, Leadership ability, Responsibility and loyalty	Annually
	Section and team leaders	Execution and control, Teamwork, Initiative, Work improvement ability, Loyalty	Monthly
Indirect Support Personnel	Senior staffs, staffs, guards, and temporary or contract personnel in supporting position	Work skills, Work performance, Work attitude, Teamwork, Cooperation	Monthly
Direct Production Personnel	On-site production staff and contract personnel	Workload, Work quality, Work attitude, Cooperation, Environmental awareness	Monthly
Sales Personnel	Non-supervisory sales staff and contract personnel	Sales performance, Work efficiency, Cooperation, Work quality, Work attitude	Quarterly

In 2023, following the performance evaluation criteria, eight employees were promoted, including two team leaders, one engineer, and five assistant engineers, recognizing their exemplary performance and serving as a model for other employees striving for career advancement.

Happy Workplace

Labor Relations Management - Harmonious Labor Relations

Believing harmonious labor relations are the cornerstone of FCC's continuous growth, the company establishes various personnel management regulations in accordance with labor laws and implements humane management practices. During employee training sessions, information about employee rights and regulations is disseminated. Additionally, a grievance hotline and mailbox are provided to facilitate communication on labor issues. FCC proactively implements various employee welfare measures and respects the voice of labor unions. Regular labor-management meetings are held to coordinate labor relations, promote cooperation and a grievance system is in place to integrate differing opinions through open communication channels and to reduce and resolve potential labor disputes.

FCC held regular labor-management meetings in 2023, focusing on strengthening recruitment and retaining talent. Discussions on the key topic had led to recruiting through job banks and employee referrals. The Compensation Committee discussed and approved salary increases for 2023, recognizing employees' hard work and contributions to retain talent. On July 11, 2023, the FCC Union held a general assembly of union representatives. Discussions with management focused on adjusting employee cash supplements, aiming to build a harmonious working environment based on solid labor relations.

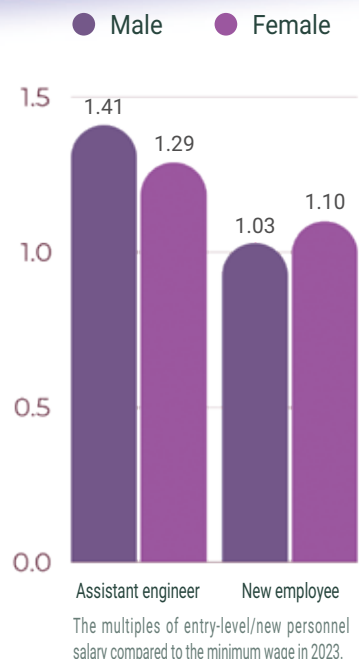
Salary, Welfare, and Care

FCC's compensation package includes a base salary and various allowances, determined by position, individual qualifications, professional skills, and job performance. Salaries are adjusted with position changes and are not influenced by gender. The company offers a competitive remuneration system with salaries above the national starting salaries to attract and retain outstanding talent, as well as to reward grassroots employees. Salary adjustments have been made for three consecutive years.

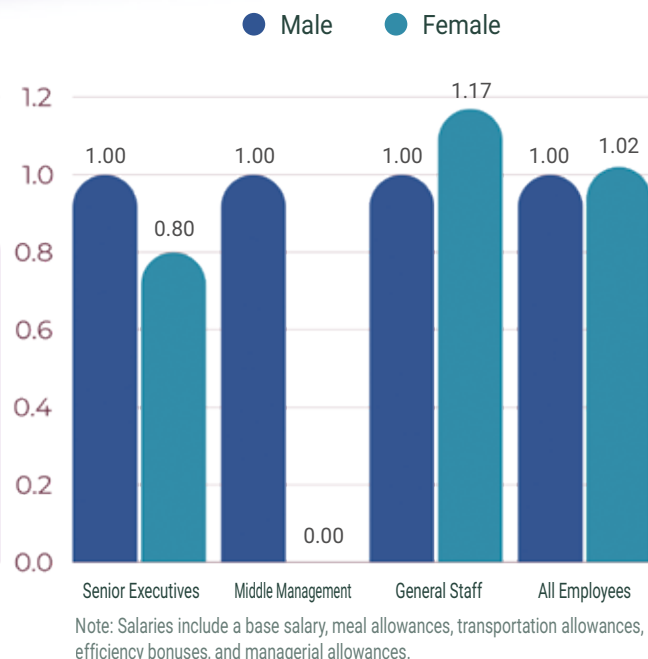
FCC emphasizes gender equality, eliminating workplace gender discrimination and adhering to the "Gender Equality in Employment Act" to ensure equal pay for equal work and create a friendly and equal working environment. Equal starting salaries are made for both genders, ensuring no significant difference in average salaries between men and women. Salary differences across positions result from tenure and performance variations.

FCC values employee feedback and conducts satisfaction surveys annually, focusing on the employee satisfaction with the company environment, professional standards, company policies, goals, training, and welfare systems. Survey result averages are above 95%. For employees with lower satisfaction scores, individual interviews and communications are conducted to understand and address their concerns.

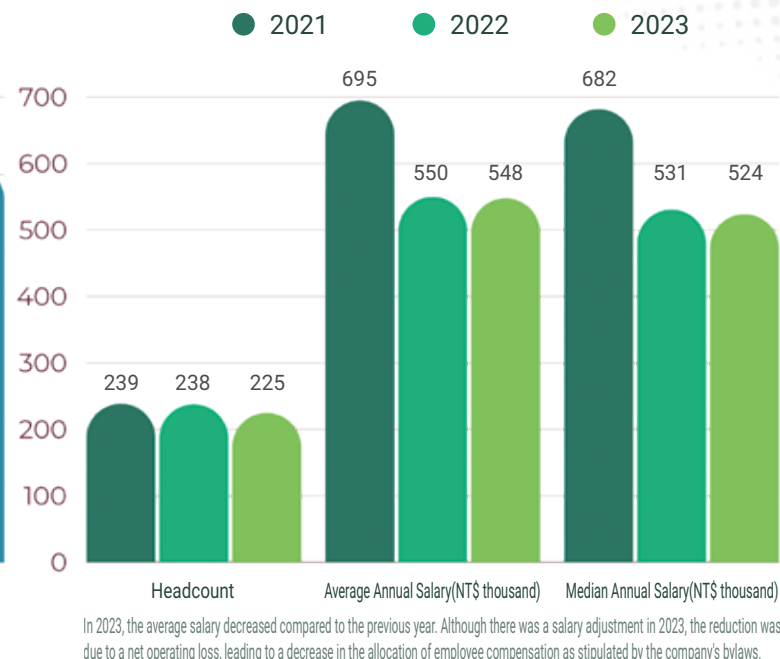
Entry-level personnel salaries were higher than the minimum wage in 2023
New entry-level personnel salaries were higher than the minimum wage in 2023.



The Gender Pay Ratio
The gender pay ratio among different levels of management and staff



Salary information for full-time employees not holding managerial positions



Employee Welfares

For the implementation of employee benefits policies, Hua Eng Wire & Cable Co., Ltd. and FCC jointly established the ‘Hua Eng Joint Employee Welfare Committee.’ This committee is responsible for reviewing, promoting, and supervising employee welfare matters, planning, managing, and utilizing employee welfare funds, allocating and auditing welfare expenses, reporting income and expenditure, and managing other related employee welfare issues. Consists of 11 welfare representatives, the committee includes one ex-officio member appointed by the management, two elected by Hua Eng employees, five by the Hua Eng union, and three by the FCC union. The committee members elect one person to serve as the chairman. Except for the ex-officio member, all terms are two years, with the possibility of re-election. The committee meets quarterly to promote proper leisure activities, help employees relieve work stress, foster interaction and camaraderie among staff from different plants, enhance their cooperation spirit, maintain physical health, and enrich cultural life. Beyond the existing welfare policies, the company will occasionally organize various recreational activities, aiming to create a higher quality of life for employees.

FCC provides several benefits to our employees:

Safety and Health Care

- ♦ Regular health check-ups for employees
- ♦ Doctor consultation services
- ♦ Health promotion seminars
- ♦ On-site medical station
- ♦ Uniforms and safety shoes



Bonuses and Holiday Benefits

- ♦ Employee compensation
- ♦ Special contribution bonuses
- ♦ Year-end bonuses
- ♦ Labor Day gifts
- ♦ Mid-Autumn Festival bonus
- ♦ Employee birthday bonus



Recreation

- ♦ Employee cafeteria and meal programs
- ♦ Employee travel subsidies
- ♦ Employee recreational activity subsidies
- ♦ Year-end celebration events



Family Care

- ♦ Wedding gifts, congratulatory banners, and flower arrangements for employees' children
- ♦ Condolence money, mourning banners, and flower arrangements for employees, their spouses or children
- ♦ Scholarships for employees and their children
- ♦ Childbirth bonus for employees and their spouses
- ♦ Parental leave
- ♦ Breastfeeding rooms
- ♦ Partnership agreements with nearby kindergartens for childcare services



Security and Assurance

- ♦ Labor insurance
- ♦ National health insurance
- ♦ Group accident insurance for employees
- ♦ Severance pays for retired employees
- ♦ Retirement plaques for long-serving employees



* In 2023, to show appreciation for employees' hard work and to boost staff morale, Mid-Autumn Festival bonuses were issued by the Welfare Committee.

Expenditures on Employees Welfare

Item \ Year	2021	2022	2023
Meal subsidy (NT\$)	2,517,000	2,237,408	2,165,072
Average daily dining headcount	188	188	163
Birthday and retirement bonuses (NT\$)	285,408	671,640	381,444
Marriage, funeral, and childbirth subsidies (NT\$)	151,000	214,000	150,000
Travel subsidies (NT\$)	240,000	450,000	422,500
Children's scholarships (NT\$)	106,500	126,500	109,500
Event subsidies (NT\$)	500,000	492,000	472,000
Total (NT\$)	3,799,908	4,191,548	3,700,516

Retirement Pension Contribution and Allocation

To secure employees' livelihood while working for the company and after retirement, FCC has established employee retirement procedures in accordance with the Labor Standards Act and the Labor Pension Act, which includes providing stable retirement pension contributions and payments. Under the Labor Standards Act, labor pension reserve funds (referred to as the old mechanism) are contributed monthly at 6% of the total employee salary, deposited into the designated account at the Bank of Taiwan supervised by the Labor Pension Fund Supervisory Committee. Annually, the estimated retirement benefits required for eligible employees are supplemented to make up the difference in the reserve fund, ensuring employees receive their entitled retirement benefits upon retirement.

Under the Labor Pension Act, retirement pensions (referred to as the new mechanism) are contributed monthly at 6% of the insured salary to the individual retirement pension account at the Bureau of Labor Insurance. In 2023, one employee retired under the old mechanism and four under the new mechanism. In accordance with labor regulations, the company provides retirement pensions to retired employees based on their entitlements.

Healthcare

FCC employs hires a part-time on-site occupational medicine physician and a full-time nurse in accordance with Article 3 of the Labor Health Protection Regulations to manage on-site health services, ensuring a friendly and healthy workplace environment for all employees. Their main responsibilities include:

- ✦ Implementation of health education, promotion, and sanitation guidance for employees.
- ✦ Prevention and treatment of work-related injuries and illnesses, health counseling, and emergency care.
- ✦ Advising employers on suitable job assignments for employees.
- ✦ Analysis, evaluation, management, and storage of employees' physical and health examination records, and health management.
- ✦ Research reports on occupational health, and preservation of injury and disease records.
- ✦ Assisting employers and occupational safety and health personnel in preventing work-related diseases and improving the work environment.

Due to the busy work schedules of employees, which may lead to irregular routines, imbalanced nutrition and insufficient physical training, First Stretch Copper proactively offers the following care programs to our employees:

- ✦ Colon cancer screening.
- ✦ Health promotion through regular blood pressure measurements at fixed times daily to facilitate early detection and treatment.
- ✦ Healthy diet initiatives: Apart from the employee cafeteria providing lunch and dinner, cold drinks are intermittently provided during summer.

Employees in need of healthcare will receive specialized consultations and advice from the occupational physician on dietary improvements and overall health enhancements.

Human Rights Protection

FCC strictly complies with human rights-related regulations, striving to protect employees' basic human rights and ensuring their legal rights and interests. We support the Universal Declaration of Human Rights and the International Labor Organization Conventions, advocating for fair treatment and respect for every employee. We commit to:

1. Human Rights Protection

- ✦ Support and respect the protection of human rights, ensuring our business partners and suppliers also adhere to the same human rights standards.

2. Prohibition of Child Labor and Forced Labor

- ✦ Ensure that neither we nor our business partners and suppliers employ child labor or use coercion, threats, or any illegal methods to force labor or administer corporal punishment.

3. Respect for Freedom of Association

- ✦ Respect employees' rights to form unions and participate in collective bargaining according to laws and customs.

4. Elimination of Discrimination and Ensuring Equal Employment Opportunities

- ✦ Embrace the diversity of all employees and prohibit discrimination against anyone because of their protected characteristic, including race, class, language, ideology, religion, political affiliation, origin, birthplace, gender, sexual orientation, age, marital status, appearance, physical and mental disability, or union membership in the past.

5. Establishing a Safe and Healthy Work Environment

- ✦ Comply with occupational safety and health policies, promptly correct or report any potential threats, and promote environmentally friendly technologies.
- ✦ Prohibit any behavior that is rude, hostile, violent, intimidating, threatening, or harassing, and oppose corruption, including extortion and bribery.

6. Prevention of Harassment

- ✦ Promote the Gender Equality in Employment Act, creating a harassment-free work environment; no tolerance on sexual harassment, including unwelcome sexual advances, requests for sexual favors, or other unwelcome verbal or physical conduct of a sexual nature.

7. Confidentiality of Personal Information

- ✦ Protect the personal information of employees, board members, customers, job applicants, and partners; acquire and use personal information only for legitimate business purposes.



To implement gender equality in the workplace, FCC has established the Measures for the Preventing, Correcting Workplace Sexual Harassment, Related Complaint Procedures and Disciplinary Policy, and regularly conducts related awareness activities. Work-life balance is one of FCC's core values. In creating a female-friendly workplace, employees are entitled to menstrual leave, maternity leave, prenatal checkup leave and paternity leave. For employees dealing with personal matters, in addition to personal and sick leave, and family care leave under the Labor Standards Act, they can also apply for unpaid leave in cases of childcare, military service, serious illness, or injury, with the option to apply for reinstatement after the leave period to balance personal and family needs.

To protect the rights and interests of all employees, FCC ensures compliance with government regulations and provides prior notice within the stipulated time frame in the event of significant operational changes that may affect labor rights. In the 4 Major Labor Health Protection Plans investigation result, 45 employees with concerns were individually interviewed and counseled to ensure proper human rights treatment.

The implementation of the 4 Major Labor Health Protection Plans investigations is as follow:

Ergonomic Hazard Prevention Plan:

Based on the analyzing data from employee-completed musculoskeletal symptom surveys, this plan involves on-site visits by physical therapist and occupational medicine physician, focusing on ergonomic hazards in various departments, providing appropriate improvement suggestions and conducting regular follow-ups.

01

Abnormal Workload-triggered Diseases Prevention Plan:

Based on the abnormal workload-triggered diseases risk identification and assessment form, categorize employees into low, medium, and high-risk levels. Further assessment on every indicator determines if an interview is necessary or merely recommended. On-site healthcare personnel then arrange interviews and provide health guidance and communicate the interview results to the employees' supervisors to assist in adjusting work assignments appropriately. After conducting the prevention screening of abnormal workload-triggered diseases, no high-risk conditions were identified among FCC's employees, and no adjustments to work assignments were required.

02

Prevention Plan Against Unlawful Infringements on Job Duties:

Based on the potential unlawful infringements in the workplace risk identification and assessment forms, arrange safe working environments, adjust personnel as necessary, and provide training courses on preventing unlawful infringements in the workplace. Information on reporting and complaint channels is posted in the workplace to implement the prevention plan and reduce the likelihood of unlawful infringements. In 2023, no cases of employees being subjected to unlawful infringements were reported, nor were any complaints of such incidents received.

03

Maternity Health Protection Plan:

The plan involves educating and informing about maternity health hazards. Pregnant employees complete a workplace hazard assessment form to evaluate the impact of their work on maternal health, creating a supportive environment for maternity protection. In 2023, two employees participated in maternity health protection plan interviews, providing excellent maternity protection measures for female employees.

04

Occupational Health and Safety(OHS)

OHS Management Policy

FCC' s occupational health and safety policy is 'Respect life, safety first'

Due to the high complexity of equipment at Lin-hai factory and numerous potential dangers in the work environment, FCC' s equipment operators and maintenance personnel are all under various dangerous conditions. Under such circumstance, industrial safety, health, and operational maintenance are

equally crucial to ensure the safety of all colleagues.

Based on this philosophy, we are dedicated to promoting safety and health practices to ensure a good working environment for all employees. Our goal is to integrate safety and production management, reducing production process accidents and ultimately achieving zero incidents. We are committed to:

1. Promoting safety and health responsibilities for everyone, establishing a framework and achieving safety and health management goals and performance through continuous improvement.
2. Respecting life, valuing safety of all personnel and preventing injuries and health effected issues. The safety and health of contractors are as important as those of our employees.
3. Educating employees on proper safety principles and promoting physical health care, enhancing the safety and health awareness and responsibility of all employees to fully implement safety and health duties.
4. Adhering to relevant safety and health regulations and stipulating the safety and health requirements with contractors.
5. Adopting proper management measures to control risks associated with confined spaces, falls, cranes, forklifts, vehicles, chemical hazards, and injuries or electric shocks from non-isolated power sources.
6. Establishing effective communication channels with contractors and regulatory authorities to ensure they understand FCC' s safety and health practices.
7. Conducting regular reviews of safety and health management to ensure the appropriateness and effective implementation of this policy.

OHS and Accident Prevention

● OHS Management Implementation Overview

In 2020, FCC implemented the ISO 45001 Occupational Health and Safety Management System. Through utilizing the PDCA (plan-do-check-act) cycle, the company enforces comprehensive health and safety management to create a healthy working environment. Safety production management is carried out in an institutionalized, documented, and systematic manner, actively conducting education and training, regulatory audits, hazard identification, and risk assessments. High-risk items are included in emergency response plans or designated as special control standards.

Depending on the factory's technical capabilities, costs, and impact levels, OHS consideration is established as management plans and prioritized improvement goals, which are followed and reviewed by the safety and health unit biannually. The plans and goals will be discussed at the quarterly safety, health, and environmental meetings to ensure the completion of improvement projects on schedule. This continuous cycle of hazard identification and risk assessment is integrated into the annual operations, thereby establishing a more comprehensive safety and health management system.

The meetings of the Occupational Safety and Health Committee primarily focus on reviewing the items stipulated by occupational safety and health regulations. Committee members discuss proposals based on the implementation of occupational safety and health, reviewing workplace injury incidents happened in the most recent 3 months and track the annual health examination results. They propose review and improvement measures to other units to reduce accidents and enhance employee safety. The committee also promotes relevant safety and health regulations to improve safety and health awareness and ensure workers comply with safety and health regulations and the proper use of protective equipment in the work environment. Safety and health personnel conduct ad-hoc audits to make sure the implementation status.

● Labor Safety and Health Committee

FCC has established an Occupational Safety and Health Committee, which functions to deliberate, coordinate, and recommend matters related to labor safety and health. The organizational structure includes:

- ✦ Chairperson: Director of the Lin-hai factory
- ✦ Four members: Assistant Factory Director and managers/ assistant managers from departments including Processing, Facility, and Technology
- ✦ Four labor Representatives: The President of the Corporate Union and representatives elected by the union
- ✦ Occupational Safety Personnel: Head of the Safety and Health Office
- ✦ Medical Personnel: Medical staff from the Facility Department

Summary of the 2023 OHS Committee Meeting

Resolutions	Execution status
Have new team leader/section chiefs trained for class-3 manager of Occupational Health and Safety Affairs.	In 2023, 9 people completed the training, and the training will continue in 2024.
Have foreign workers trained for overhead crane operation certification.	In the second batch, 15 migrant workers completed the training on Sep 26, 2023. On Nov 13, 2023, 14 passed the practical test, yet all failed the written test in March 2024.
Occupational safety personnel cannot concurrently serve as fire safety managers.	Liu Zhi-yong, assistant manager of the Facility Department, completed the training for fire safety managers on Jan 18, 2024, and was appointed as fire safety managers on Feb 20, 2024.
Inform all units through factory operations notifications to implement preventive measures against dengue fever.	The Facility Department has issued notifications to all units. Supervisors are to promote daily practices among colleagues for clearing and cleaning water containers and the environment, and to implement preventive measures - Inspect, Reach, Clean, Scrub.



Foreign Workers During Overhead Crane Operation Training ▲

Occupational Hazards Prevention

General Work Environment Maintenance

- For the safety of the work environment and the health of the employees, smoking is completely prohibited inside the factory. The air conditioning systems and cooling towers in the office are regularly maintained to ensure the health of office staff. The office lighting system is regularly maintained and measured, ensuring an illumination level above 300 lumens to facilitate office work.

Employee Health Check-ups and Maintenance

- According to labor health protection regulations and the actual conditions in the factory, regular health check-ups are conducted for both general and special operations employees, with continuous tracking and management by nursing staff.

In November 2023, general labor health check-ups were conducted, along with special health check-ups for employees working under conditions involving high temperatures, noise, ionizing radiation, and nickel. Medical personnel performed statistical analysis on the health check-up results and reports, then interviewed employees with abnormal results and provided health consultations. In 2023, the contract occupational medicine physician had six on-site service visits. Dedicated medical personnel provided 115 health consultation services, enhancing the prevention of occupational disease and the promotion of health among employees.



Regular Health Check-ups ▲



Health Consultations with On-site Service Physician ▲

Key Work Environment Maintenance

For chemical substances used in production activities, safety reference sheets are provided for on-site workers, ensuring they understand how to prevent harm. The usage and discharge amounts of regulated chemicals are recorded and inspected, with control of operating area. In areas where dust is generated during the smelting process, dust collection equipment is installed. In areas where noise exceeds the permissible standards, warning signs are posted, and earplugs are provided to staff for protection. The safety and health unit also conducts ad-hoc inspections to ensure compliance and the use of earplugs, thereby protecting the health of on-site workers.

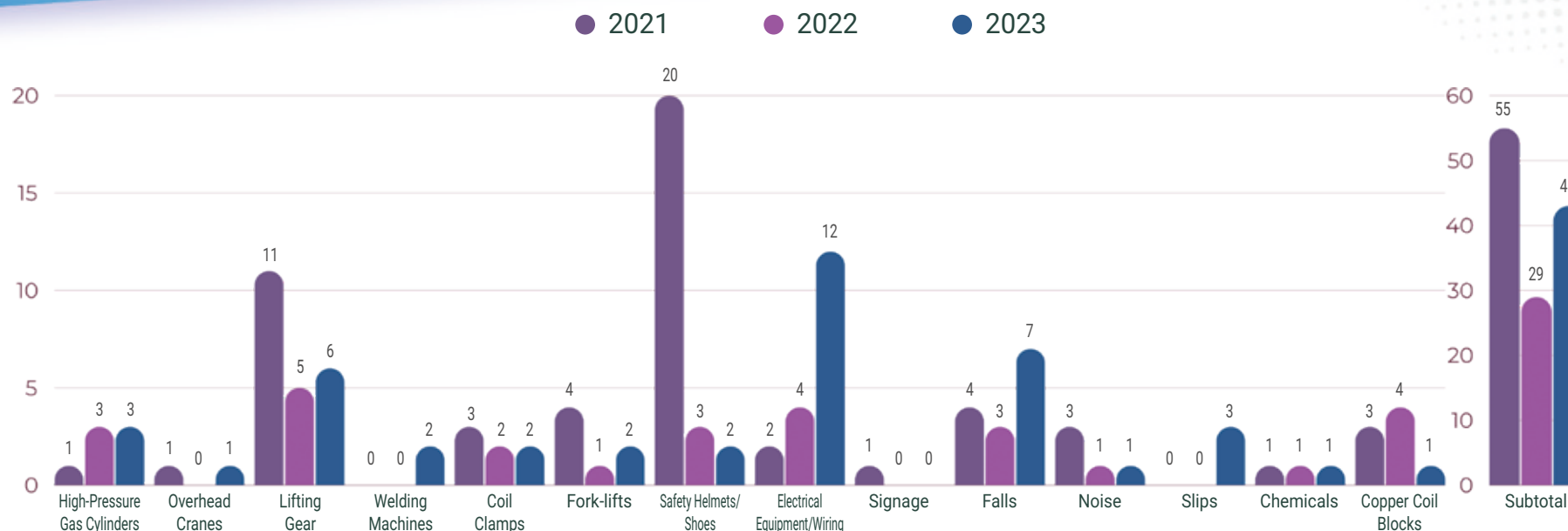
Work Environment Measurement Items and Results

Measurement Item	Noise	Sulfuric Acid	Nickel (Metal and Insoluble Compounds)	CO ₂ Concentration	Wet Bulb Globe Temperature (WBGT)
Permissible Exposure Limits	85 dB	1 mg/m ³	1 mg/m ³	5000 ppm	Moderate Work Standard: 28° C
Feb 10, 2023	<85 dB (12 people) >85 dB (1 person)	<0.002 mg/m ³	<0.003 mg/m ³	461-547 ppm	21.7-31.7° C
May 23, 2023	---	---	---	---	27.5-29.3° C
Aug 11, 2023	<85 dB (12 people) >85 dB (1 person)	<0.003 mg/m ³	<0.003 mg/m ³	452-659 ppm	27.2-29.1° C
Nov 23, 2023	---	---	---	---	21.9-23.7° C

Employee Safety Protection

To ensure the safety and health of employees and to prevent accidents, the factory has a dedicated safety and health management unit. In addition to reviewing matters related to the work environment, safety, and health during the quarterly Safety and Health Committee meetings, they also conducts ad-hoc on-site safety inspections. They identify and report safety concerns with equipment, near accidents and abnormal items that could harm employees, issuing deficiency improvement notices. Supervisors are required to propose corrective measures, and the issue is closed only after follow-up verification is completed.

On-Site Safety Deficiency Inspections Table



The number of deficiencies has gradually decreased each year after conducting safety inspections and requesting improvements. Given that non-compliance issues are still occasionally found, the Safety and Health Office will continue to enforce improvements to ensure that the work environment meets safety and health regulations and requirements.

Employee Hazards Reduction

Statistics show that the most common injuries among employees in the factory are cuts, abrasions, and crush injuries. Cuts mainly occur during copper strip rolling and slitting operations, while abrasions and crush injuries are caused by copper strips, machinery or objects hitting or crushing employees. The primary cause is the failure to fully implement standard operating procedures and work processes. To prevent such accidents from reoccurring, in addition to requiring regular inspections by on-site engineers and unit supervisors, regular safety education and training will be conducted to ensure that employees remember the precautions and how to protect themselves and enhances their awareness of hazards. To further improve the work environment and safety, FCC has established a dedicated Environmental, Safety, and Health unit. In addition to reviewing work environment, safety, and health-related matters at the quarterly Safety, Health, and Environmental Protection meetings, they also organize safety and health training and disaster drills. In 2023, the Safety and Health Office conducted 14 sessions of safety and health training, new employees training, first aid training, and fire safety training.

Employee Hazard Reduction Training

Date	Training Session	Training topics
August 9~11, August 16~18	Safety and Health Training	1. General Hazard Awareness Training; 2. Occupational Accident Case Analysis; 3. Introduction to RoHS Regulations; 4. Internal RoHS Standard Limits; 5. Handling Methods for Non-compliant RoHS Items; 6. Explanation of Special Customer Re-quirements for Hazardous Substances; 7. CPR and AED Usage Training
Jan 9, Feb 20, Mar 3, July 12, Aug 3	New Employees Training	1. work rules; 2. Safety and health regulations; 3. Environmental policies
Mar 15	First Aid Training	1. CPR and AED usage training; 2. First aid medication usage training; 3. Personal health management
Mar 23, Sep 21	Fire Safety Training	1. Fire safety awareness; 2. Operation of fire safety equipment



Fire Water System Operation Drill ▲



Emergency Response Drill ▲



Fire Extinguisher Instruction ▲



Post-Fire Drill Evaluation ▲



Occupational Accident Key Indicators

Item Year	Disabling Injury Frequency Rate F.R.	Disabling Injury Severity Rate S.R.	Injury Incidence Rate I.R.
2021	7.34	130.24	0.98
2022	17.66	959.56	4.12
2023	18.98	635.87	3.52

Disabling Injury Frequency Rate (abbreviated as "Injury Frequency", FR) refers to the total number of disabling injuries per million work hours. The total number of disabling injuries includes fatalities, permanent total disabilities, permanent partial disabilities, and temporary total disabilities.

$$FR = \frac{\text{Total number of disabling injuries} \times 10^6}{\text{Total work hours}}$$

Disabling Injury Severity Rate (abbreviated as "Injury Severity", SR)

$$SR = \frac{\text{Total days lost due to disabling injuries} \times 10^6}{\text{Total work hours}}$$

Injury Incidence Rate (abbreviated as I.R)

$$\text{Injury Incidence Rate IR} = \sqrt{\frac{FR \times SR}{1000}}$$

Occupational Accident Prevention and Improvement

To achieve occupational accident prevention and improvement, the Lin-hai factory implemented several safety and health improvement measures in 2023, aiming to prevent workplace accidents among employees. The main improvement initiatives outlined as follows:

(1) Furnace Improvement Measures:

- During the update of the furnace electrical control system, monitoring equipment for coil cooling water temperature and leakage current was added. Use instrumentation to monitor the service life information of the furnace body, serving as the basis for safe shutdown procedures.

- Training was implemented to control the feeding process when the lifespan of the furnace material reaches the final fifth. It mandates the use of soft material as the impact absorption, and this procedure is included in the SOP for regular educational training. Signs and warnings are posted in the operational areas.

(2) Install non-slip mats around rolling machines to prevent colleagues from slipping and getting injured.



Monitoring Equipment for Coil Cooling Water Temperature and Leakage Current ▲



Installation of Non-Slip Mats Around Rolling Machines ▲

FCC's Chairman and senior executives place great emphasis on the prevention and improvement safety and health. In addition to requiring all units to enhance facility safety measures and raise employee safety awareness, they personally conduct inspections at manufacturing sites to verify the status of safety improvements, making sure the compliance with safety and health regulations.

Contractor Safety Management



In addition to our commitment to sustainable development, we extend our requirements to contractors within the factory. We rigorously control the inspection of personnel, vehicles, and construction tools upon contractor entry, ensuring that engaged contractors' qualifications are verified by supervisory personnel before implementation. Safety personnel will inform contractors of safety and environmental requirements and potential risks at the pre-construction safety meetings and conduct ad-hoc inspections during construction. In addition to coordinating construction electricity, supervisors will keep monitoring the construction progress. Environmental arrangements must be made in advance, with on-site personnel separated and safety signs posted to protect everyone and the environment.

To ensure contractor operations are conducted in accordance with FCC's safety and health policy, the company has established the Contractor Safety and Health Management Procedures, which is implemented when construction contractors enter the site. Our company's supervisory personnel will oversee and manage the contractors according to these regulations to ensure safety of the construction.



Photos of Chairman's on-site Inspection ▲



05

Social Care and Giving Back

社會關懷與回饋

5-1 Social Care and Giving Back

Social Care and Giving Back

Taking From Society, Giving Back to Society

Embracing our corporate philosophy of “Taking from society, giving back to society”, FCC is dedicated to implementing sustainable operations and caring for our employees and actively assist and participate in community charity activities. We continuously improve our equipment the has neighboring communities, including adopting silent cooling towers and improving the sound insulation of dust collection equipment to reduce noise impacts on community residents. We also occasionally express our gratitude to hardworking firefighters and police officers.

In 2023, we sponsored and participated in public charity activities such as the maintenance and cleaning of local school green spaces, strengthening community relations. We pay close attention to environmental noise, conduct regular noise monitoring, and maintain the living quality of surrounding communities. All monitoring results comply with regulatory requirements.





06

Appendix

APP. 附錄

GRI Index

SASB Index

KPMG' s Limited Assurance Statement

GRI Content Index (GRI Content Index)



GRI 2 General Disclosures

GRI Standard	GRI Code	Disclosure Topics	Chapter	Page No.	Remarks
The Organization and Its Reporting Practices	2-1	Organizational details	About FCC	16	
	2-2	Entities included in the organization's sustainability reporting	About FCC	16	
	2-3	Reporting period, frequency and contact	About the Report	1	
	2-4	Restatements of information	About the Report	1	
	2-5	External assurance	-	-	No information has been restated. In case of any errors, they will be noted in the relevant sections.
Activities and workers	2-6	Activities, value chain and other business relationships	Products and Services	48-59	
	2-7	Employees	FCC Employees	74-75	
	2-8	Workers who are not employees	Supply Chain Management	44-46	
Governance	2-9	Governance structure and composition	Corporate Governance	31	
	2-10	Nomination and selection of the highest governance body	Corporate Governance	31	
	2-11	Chair of the highest governance body	Letter from the Chairman	2	
	2-12	Role of the highest governance body in overseeing the management of impacts	Corporate Governance	31	
	2-13	Delegation of responsibility for managing impacts	Corporate Governance	31	
	2-14	Role of the highest governance body in sustainability reporting	Corporate Governance	32	
	2-15	Conflicts of interest	Business Ethics	37	
	2-16	Communication of critical concerns	Stakeholder Communication	7-13	
	2-17	Collective knowledge of the highest governance body	Corporate Governance	31	
	2-18	Evaluation of the performance of the highest governance body	Financial Performance	28-29	
	2-19	Remuneration policies	Corporate Governance	35	
Strategy, Policies and Practices	2-20	Process to determine remuneration	Corporate Governance	30-35	
	2-21	Annual total compensation ratio	-	-	The policy on disclosing the ratio of the highest-paid individual's total annual compensation to the median employee compensation is under review and will not be disclosed this year.
	2-22	Statement on sustainable development strategy	Letter from the Chairman	2	
	2-23	Policy commitments	Business Ethics	37	
	2-24	Embedding policy commitments	Business Ethics	37	
	2-25	Processes to remediate negative impacts	Operational Risk Management	38-39	
	2-26	Mechanisms for seeking advice and raising concerns	Operational Risk Management	38-39	
Stakeholder Engagement	2-27	Compliance with laws and regulations	Regulatory Compliance	72	
	2-28	Membership associations	Participation in External Organization	27	
	2-29	Approach to stakeholder engagement	Stakeholder Communication	5-13	
	2-30	Collective bargaining agreements	-	-	No collective bargaining agreement was made in 2023

GRI 3 Material Topics

GRI Standard	GRI Code	Disclosure Topics	Chapter	Page No.	Remarks
Material Topics	3-1	Process to determine material topics	Stakeholder Communication	5-13	
	3-2	List of material topics	Stakeholder Communication	5-13	
	3-3	Management of material topics	Stakeholder Communication	5-13	

GRI 3 重大主題

GRI Standard	GRI Code	Disclosure Topics	Chapter	Page No.	Remarks
Economic Performance	201-1	Direct economic value generated and distributed	Financial Performance	28	
	201-2	Financial implications and other risks and opportunities due to climate change	Climate-related Risk Management(TCFD)	42-43	
	201-3	Defined benefit plan obligations and other retirement plans	FCC Employees	80-83	
	201-4	Financial assistance received from government	Financial Performance	28	
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Happy Workplace	79-80	
	202-2	Proportion of senior management hired from the local community	Happy Workplace	75	
	204-1	Proportion of spending on local suppliers	Supply Chain Management	44-46	
	205-2	Communication and training about anti-corruption policies and train	Business Ethics	37	
	207-1	Approach to tax	-	-	Not applicable to FCC
	207-2	Tax governance, control, and risk management	-	-	Not applicable to FCC
Environmental Topics	301-1	Materials used by weight or volume	Green Production and Environmental Protection	62	
	301-2	Recycled input materials used	Green Production and Environmental Protection	61	
	301-3	Reclaimed products and their packaging materials	Green Production and Environmental Protection	61-62	
	302-1	Energy consumption within the organization	Energy Saving and Carbon Reduction	63-64	
	302-3	Energy intensity	Energy Saving and Carbon Reduction	63-64	
	302-4	Reduction of energy consumption	Energy Saving and Carbon Reduction	66-67	
	303-3	Water withdrawal	Pollution Prevention	69	
	303-4	Water discharge	Pollution Prevention	69	
	303-5	Water consumption	Pollution Prevention	69	
	305-1	Direct (Scope 1) GHG emissions	Energy Saving and Carbon Reduction	65	
	305-2	Energy indirect (Scope 2) GHG emissions	Energy Saving and Carbon Reduction	65	
	305-4	GHG emissions intensity	Energy Saving and Carbon Reduction	65	
	305-5	Reduction of GHG emissions	Energy Saving and Carbon Reduction	65	

GRI Standard	GRI Code	Disclosure Topics	Chapter	Page No.	Remarks
Environmental Topics	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Pollution Prevention	68	
	306-3	Significant spills	Waste Management	70-71	
	306-4	Transport of hazardous waste	Waste Management	71	
	306-5	Water bodies affected by water dis-charges and/or runoff	Waste Management	71	
	308-1	New suppliers that were screened us-ing environmental criteria	Supply Chain Management	44-46	
	308-2	Negative environmental impacts in the supply chain and actions taken	Supply Chain Management	44-46	
Social Topics	401-1	New employee hires and employee turnover	FCC Employees	75	
	401-2	Benefits provided to full-time employ-ees that are not provided to temporary or part-time employees	FCC Employees	80-81	
	401-3	Parental leave	Happy Workplace	85	
	403-1	Occupational health and safety man-agement system	Occupational Health and Safety	87-88	
	403-2	Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety	88 , 94	
	403-3	Occupational health services	Occupational Health and Safety	90	
	403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety	88 , 89	
	403-5	Worker training on occupational health and safety	Occupational Health and Safety	89 , 93	
	403-6	Promotion of worker health	Occupational Health and Safety	83 , 85 , 86 , 90	
	403-7	Prevention and mitigation of occupa-tional health and safety impacts directly linked by business relationships	Occupational Health and Safety	91-93	
	403-8	Workers covered by an occupational health and safety management system	Occupational Health and Safety	88	
	403-9	Work-related injuries	Occupational Health and Safety	94	
	403-10	Work-related ill health	Occupational Health and Safety	94	
	404-1	Average hours of training per year per employee	Talent Cultivation	76-77	
	404-2	Programs for upgrading employee skills and transition assistance programs	Talent Cultivation	77	
	404-3	Percentage of employees receiving regular performance and career development reviews	Talent Cultivation	77-78	
	405-1	Diversity of governance bodies and employees	FCC Employees	74-75	
	405-2	Ratio of basic salary and remuneration of women to men	Happy Workplace	80	
	406-1	Incidents of discrimination and correc-tive actions taken	Happy Workplace	79-80	
	416-1	Assessment of the health and safety impacts of product and service categories	R&D and Innovation	55-57	
	416-2	Incidents of non-compliance concern-ing the health and safety impacts of products and services	-		No report on such incidents in 2023
	417-1	Requirements for product and service information and labeling	Quality Management and Cus-tomer Service	49	
	417-2	Incidents of non-compliance concern-ing product and service information and labeling	-		No report on such incidents in 2023
	417-3	Incidents of non-compliance concern-ing marketing communications	-		No report on such incidents in 2023
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-		No report on such incidents in 2023
	-	Promotion, employee happiness and privacy	Happy Workplace	78-79 , 84-85	
	-	Social activities, social relation and community engagement	Social Care and Giving Back	97	

Appendix (SASBContent Index)

Topics	SASB Code	Metric	Page No.
Greenhouse Gas Emissions	EM-MM-110a.1	Gross global Scope 1 emissions, percentage covered under emissions limiting regulations	65
	EM-MM-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	66 、 67
Air Quality	EM-MM-120a.1	Emissions of the following air pollutants(metric tons): (1) CO (2) NOx (excluding N ₂ O) (3) SOx (4) Suspended Particulates (PM ₁₀) (5) mercury (Hg) (6) lead (Pb) (7) volatile organic compounds (VOCs)	(2) 2.085 metric tons (3) 0.684 metric tons (4) 0.165 metric tons, This is the data for Total Suspended Particulates (TSP); there is no data for PM10. (7) 8.913 metric tons Other items are not required by regulations for testing and reporting; therefore, there is no relevant data. For more information, please refer to page 68.
Energy Management	EM-MM-130a.1	(1) Total energy consumption (2) percentage grid electricity (3) percentage renewable	(1) 164,758.27GJ (2) 67.17% (3) 0%
Water Management	EM-MM-140a.1	(1) Total water withdrawal (thousand cubic meters) (2) Total water consumption (thousand cubic meters) (3) Proportion of water withdrawal and proportion of water consumption from high (40–80%) or very high (>80%) baseline water-stressed areas relative to total water withdrawn (%), and total water consumption (%)	(1) 156.742 thousand cubic meters, (2) 5.466 thousand cubic meters, (3) According to the "Aqueduct Water Risk Atlas" by the World Resources In-stitute, Kaohsiung is classified as Low to Medium (1-2), so there is no water withdrawal from high or very high baseline water-stressed areas.For more information, please refer to page 69.
	EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	No such incidents happened in 2023
Waste & Hazardous Materials Management	EM-MM-150a.1	Total weight of mineral processing waste, percentage recycled	Not applicable. FCC uses electrolytic copper plates, zinc and tin ingots for melting and casting processes, without direct extraction from ores.
	EM-MM-150a.2	Total weight of mineral processing waste, percentage recycled	Not applicable. FCC uses electrolytic copper plates, zinc and tin ingots for melting and casting processes, without direct extraction from ores.
	EM-MM-150a.3	Number of tailings impoundments, broken down by MSHA hazard potential	Not applicable. FCC uses electrolytic copper plates, zinc and tin ingots for melting and casting processes, without direct extraction from ores.
Biodiversity Impacts	EM-MM-160a.1	Description of environmental management policies and practices for active sites	61 - 72

Topics	SASB Code	Metric	Page No.
Biodiversity Impacts	EM-MM-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	Not applicable to FCC
	EM-MM-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Not applicable to FCC
Human Rights & Community Relations	EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Not applicable to FCC
	EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land	Not applicable to FCC
	EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Prohibit conflict minerals from regions like Congo.
	EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	5 - 13
	EM-MM-210b.2	(1) Number and (2) duration of nontechnical delays	5 - 13
Labor Practices	EM-MM-310a.1	Percentage of active workforce employed under collective agreements	74 - 75
	EM-MM-310a.2	(1) Number and (2) duration of strikes and lockouts	No strikes and lockouts happened in 2023
Workforce Health & Safety	EM-MM-320a.1	(1) All-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) direct employees and (b) contract employees	(1) No mining activities, not applicable (2) No mining activities, not applicable (3) No mining activities, not applicable (4) 68 , 69 , 76-84
Business Ethics	EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain	30 - 46
	EM-MM-510a.2	Production in countries that have the 20 lowest rankings in Transparency International' s Corruption Perception Index	FCC products are made in Taiwan, which ranks 28 in the Corruption Perception Index





安侯建業聯合會計師事務所

KPMG

高雄市前金區801301中正四路211號12樓之6
12th FL., 6, No. 211, Chung Cheng 4th Road,
Kachung, 801301, Taiwan (R.O.C.)

電話 Tel + 886 7 213 0808
傳真 Fax + 886 7 271 3721
網址 Web kpmg.com/tw

會計師有限確信報告

第一伸銅科技股份有限公司 公鑒：

本會計師接受第一伸銅科技股份有限公司（以下簡稱「第一伸銅公司」）之委託，對第一伸銅公司民國一一二年度（2023年度）永續報告書（以下簡稱「報告書」）中所揭露之特定績效指標（以下簡稱「確信標的資訊」）執行有限確信程序並出具報告。

確信標的資訊與適用基準

第一伸銅公司依據永續會計準則理事會（Sustainability Accounting Standards Board, 「SASB」）發布之金屬與採礦（Metals & Mining）行業指引所揭露之確信標的資訊及其適用基準詳列於附件一。

管理階層之責任

第一伸銅公司應釐定其永續績效和報導目標，包括辨識利害關係人及重大性議題，並依前述適用基準編製及允當表達民國一一二年度（2023年度）報告書內所涵蓋之確信標的資訊，且負責建立及維持與報告書編製有關之必要內部控制，以確保報告書所報導之確信標的資訊未存有導因於舞弊或錯誤之重大不實表達。

會計師之責任

本會計師係依據財團法人中華民國會計研究發展基金會所發布之確信準則3000號「非屬歷史性財務資訊查核或核閱之確信案件」規劃並執行工作，以對第二段所述之確信標的資訊是否存有重大不實表達出具有限確信報告。另，本會計師執行有限確信時，對與有限確信相關之內部控制取得必要之瞭解，以設計當時情況下適當之有限確信程序，惟其目的並非對第一伸銅公司民國一一二年度（2023年度）永續報告書之相關內部控制設計或執行之有效性提供任何確信。

獨立性及品質管理規範

本會計師及所隸屬會計師事務所已遵循會計師職業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密及專業行為。此外，本會計師所隸屬會計師事務所遵循品質管理準則，維持完備之品質管理制度，包含與遵循職業道德規範、專業準則及所適用法令相關之書面政策及程序。

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KPMG, a Taiwan partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International (London), a private English company limited by guarantee.



所執行程序之彙總說明

本會計師係針對第二段所述之確信標的資訊執行有限確信工作，主要執行之確信程序包括：

- 取得第一伸銅公司民國一一二年度（2023年度）報告書，並閱讀其內容；
- 訪談第一伸銅公司管理階層及相關員工，以瞭解用以蒐集及產出確信標的資訊之相關作業流程與資訊系統；
- 基於對上述事項所取得之瞭解，就報告書揭露之特定資訊執行分析性程序，或於必要時檢視核對相關文件，以獲取足夠及適切之有限確信證據。

上述確信程序係基於本會計師之專業判斷，包括辨識確信標的資訊可能存有重大錯誤或不實表達之範圍並評估其潛在風險，設計足夠且適切之確信程序暨評估確信標的資訊之表達。本會計師相信此項確信工作可對本確信報告之結論提供合理之依據，惟本會計師對於有限確信案件風險之瞭解及考量低於對合理確信案件者，所執行程序之性質及時間與適用於合理確信案件者不同，其範圍亦較小，因此有限確信案件中取得之確信程度明顯低於合理確信案件中取得者。

先天限制

第一伸銅公司民國一一二年度（2023年度）報告書內容涵蓋非財務資訊，對於該等資訊之揭露內容可能涉及第一伸銅公司管理階層之重大判斷、假設與解釋，故不同利害關係人可能對於該等資訊有不同之解釋。

結論

依據所執行之程序及所獲取之證據，本會計師並未發現第二段所述確信標的資訊有未依適用之適用基準編製而須作重大修正之情事。

其他事項

本確信報告出具後，第一伸銅公司對任何確信標的資訊或適用基準之變更，本會計師將不負責就該等資訊重新執行確信工作之責任。

安侯建業聯合會計師事務所

會計師：張永祥



事務所地址：高雄市前金區中正四路211號12樓之6
民國一一三年八月五日

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附件一：確信標的資訊彙總表

編號	報告書對應章節	確信標的資訊	適用標準
1	附錄 (SASB 索引表) - 空氣品質	揭露以下空氣污染物的排放量(公噸): - NOx (不包括 N₂O): 2.085公噸 - SOx: 0.684公噸 - 懸浮微粒(PM10): 0.165公噸,此為總懸浮微粒(TSP)的數據,無 PM10檢測的數據。 - 揮發性有機化合物(VOCs): 8.913公噸 - 其他項目非屬法規要求檢測及申報項目,故無相關數據。	EM-MM-120a.1 Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N₂O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)
2	附錄 (SASB 索引表) - 能源管理	(1) 總能源消耗: 164,758.27 GJ (2) 電網電量百分比: 67.17 % (3) 可再生能源百分比: 0 %	EM-MM-130a.1 (1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable
3	附錄 (SASB 索引表) - 水資源管理	總取水量: 156,742 千立方呎 總耗水量: 5,466 千立方呎 經世界資源研究所的「環境水風險地圖」,顯示高雄為 Low to Medium (1-2),故並無在高或極高區域水壓力地區取水。	EM-MN-140a.1 (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress
4	附錄 (SASB 索引表) - 水資源管理	違反廢水排放的法規及數量: 請參考69頁 (P.69頁資訊) 2023年有2次廢水排放水質中之「銅」含量大於銅管標準合計約1.12公斤,已立即進行改善,檢核放廢污水水質皆符合法規之銅管標準。	EM-MM-140a.2 Number of incidents of non-compliance associated with water quality permits, standards and regulations
5	附錄 (SASB 索引表) - 勞動實踐	罷工和停工的次數和持續時間: 2023年報告期間無發生罷工和停工事件。	EM-MM-310a.2 (1) Number and (2) duration of strikes and lockouts





第一伸銅科技股份有限公司
FIRST COPPER TECHNOLOGY CO., LTD.

07-2814161 | fs100@hegroup.com.tw

No. 170, Zhongzheng 4th Rd., Qianjin Dist., Kaohsiung City 801, Taiwan (R.O.C.)