

3 Sustainable Development



Practicing sound corporate governance is the top priority of sustainability management. Therefore, we continue to develop and improve countermeasures for problems and actively improve the management system to create more fruitful results.

(GRI 2-2、2-9 ~ 2-21、2-26、2-27、201-1、201-4、307-1、418-1、419-1) SDGs ▶



Information on awards received

◆ Corporate Governance Evaluation



◆ 2025 Resilient Taiwan Regional Joint Defense Excellence Award



◆ 2024 Sustainability Supplier Award



◆ 2025 TCSA



◆ Recognized by the (OSHA) of the Ministry of Labor



◆ TRCA Excellence Award



◆ 2025 TSAA



◆ Outstanding Green Procurement



◆ Kaohsiung City Air Quality Purification Zone Management Plan



◆ 2025 CDP-Dual Management (B) level



◆ 2025 Low-Carbon Partner Leadership Award



◆ Outstanding Energy-Saving Enterprise



3.1 Corporate Governance (GRI 2-16)

CGPC values the rights and interests of shareholders, and strictly abides by the relevant regulations on information disclosure, and provides information to shareholders on the Company's financial, business, insider shareholding and corporate governance conditions through the Market Observation Post System or the Company's website. We have established a corporate governance system in order to protect the rights and interests of shareholders and implement equal treatment of shareholders. A corporate governance system in which the shareholders have full rights to know, participate in and decide on material topics. (Please refer to [2025 Board of Directors' Resolutions](#)).

3.1.1 Transparent information disclosure (GRI 2-9)

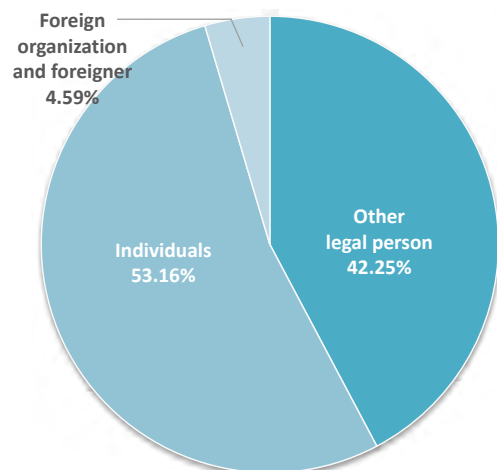
We adhere to the business philosophy of ethics, care, discipline, innovation and trustworthy corporate governance principles. Through [our website](#), [the Market Observation Post System](#), [annual report](#), [ESG report](#), [investor conference](#) and other diverse information channels, we disclose the information related to corporate governance, operations, financial statements, institutional investor conferences, the Group's current information, etc. to improve the communication with stakeholders and the speed, quality and credibility of information disclosure.

In 2025, the 4 sessions of institutional investor conferences, annual general meeting and the abovementioned diverse information disclosure channels helped us collect shareholders' opinions which are given to the management team as reference for decision-making. In addition, we value the rights and interests of foreign investors and the globalization of enterprises, and have followed corporate governance evaluation standards to improve the annual report, update information on the MOPS and the Company's website and disclose information in English. We actively establish good two-way communication channels with shareholders through various ways to realize the protection of shareholders' rights and interests.

3.1.2 Information on appointment of the Board and the status of operation (GRI 2-9~2-21)

The Board of Directors is the highest governance body of the Company. CGPC strictly requires all board members to comply with laws and regulations, and to act in accordance with the law as the highest operational principle GRI 2-17. The term of office of the directors is 3 years and they may be re-elected. In 2025, the Board of Directors was fully re-elected and is now composed of nine senior directors from diverse professional fields, bringing extensive experience in operations, finance, law, environmental protection, and other areas. Among them, four are independent directors, including one female director, accounting for 44% and 11% respectively, thereby enhancing gender diversity within the board. To strengthen directors' professional competencies, the company arranges annual training programs. In 2025, internal training courses totaled 6 hours, while combined internal and external training reached 66 hours, with sustainability-related courses exceeding 59% (39 hours). Following the full re-election in 2025, the training content and hours for new directors complied with Article 14, Paragraph 3 of the "Directions for the Implementation of Board of Directors by TWSE Listed Companies" and the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE/TPEx Listed Companies," contributing broader perspectives and improving the quality of decision-making. (For details on director training, please refer to [the Company's official website](#))

CGPC's composition of shareholders



As of the closing date of the shareholders' meeting on March 28, 2026

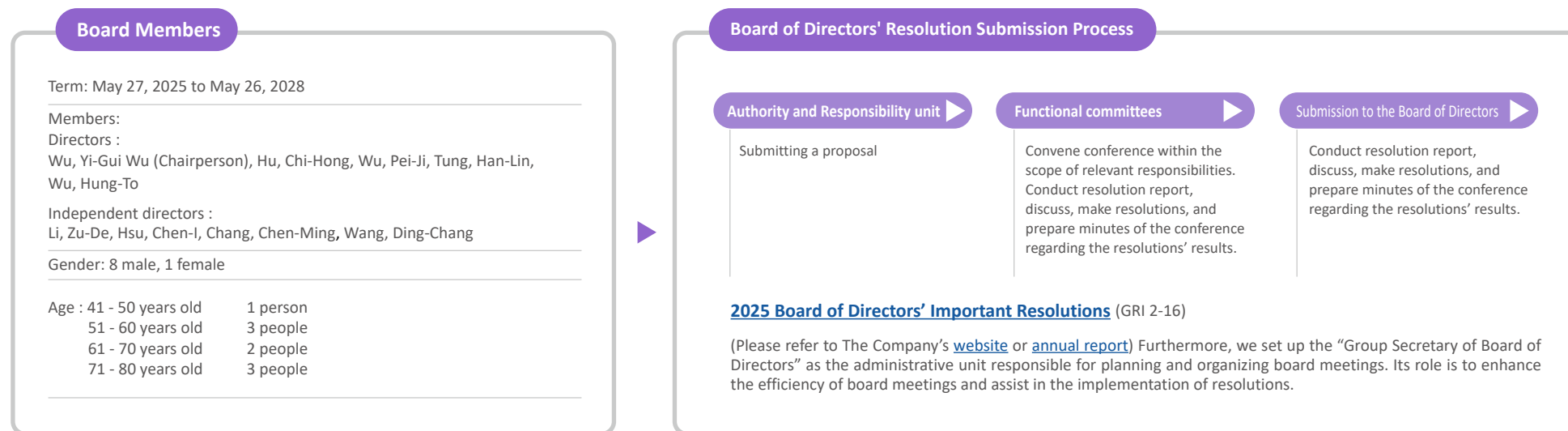


On July 29, 2025, Professor Chien Chen-Fu, former Vice President of National Tsing Hua University and General Manager of Zhen Ding Technology Group, delivered a three-hour training course titled "Industrial Practices in Smart Manufacturing and Digital Decision-Making."



On October 16, 2025, Dr. Wang, Jiann-Chyuan, Vice President of the Chung-Hua Institution for Economic Research, delivered a three-hour training course titled "U.S.-China Economic Outlook and Taiwan's Industry Prospects after the U.S. Election."

With a diverse Board of Directors, the Company is able to assess various proposals from a broader perspective. A total of 6 board meetings were held in 2025, with an in-person attendance rate of 92.59% (100% including proxy attendance). The decisions made covered areas such as business strategies, financial reporting, and internal regulation amendments. Please refer to the Company's website or Annual Report for more information. Please refer to the Company's [website](#) or [Annual Report](#). Regarding the process for submitting board meeting proposals, the responsible units, and key resolutions in 2025, please refer to the table below.



In response to the growing global emphasis on corporate sustainability, the Company aims to further diversify its board by adding members with expertise in relevant fields. This will enhance the Company's sustainability competitiveness and strengthen the overall function of the Board of Directors. Implementation Status of Diversity Policy for Board Members: Please refer to the Company's [website](#) or [annual report](#).

3.1.3 Recusal of directors from conflict of interests (GRI 2-9、2-10、2-11、2-15)

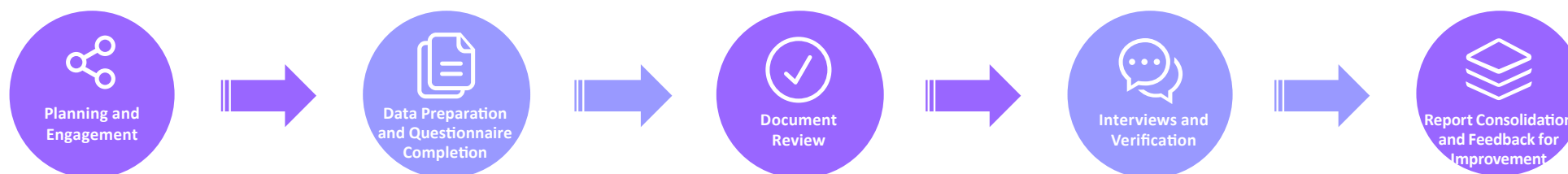
The company places great emphasis on corporate governance. To ensure the independence and objectivity of board decisions, a comprehensive conflict-of-interest avoidance mechanism has been established, as outlined below:

- 1. Institutional Regulations:** The company has adopted rules of procedure for board meetings, codes of ethical conduct for directors and managers, guidelines for integrity management, and operating procedures and behavioral standards for integrity management. These clearly stipulate the measures directors must take when facing conflicts of interest. (Please refer to the company's [website](#))
- 2. Meeting Procedures:** When the board discusses proposals involving directors' interests, strict recusal procedures are enforced. The chairperson reminds the relevant directors to leave the meeting, and if the chairperson has a conflict of interest, another director is designated to preside.
- 3. Information Disclosure:** The Secretariat of the Board records in detail the recusal situations of directors in each meeting and includes the information in the minutes.
- 4. Annual Report:** The company has duly completed the board's conflict-of-interest avoidance procedures. Relevant details can be found in the annual report under "[Board Operations](#)." Information regarding directors' conflicts of interest with stakeholders is disclosed in the 2025 annual report under "Board Member Information," "Top Ten Shareholders by Shareholding Percentage," and in the 2025 financial report under "Related Party Transactions." (Links will be provided once the annual report is published)
- 5. Continuous Improvement:** The company will continue to review and enhance its conflict-of-interest avoidance mechanisms to ensure transparency and fairness in corporate governance.

3.1.4 Status of performance evaluation of committees (GRI 2-18)

To continuously strengthen the effectiveness and functionality of the Board of Directors, the company revised the “Board Performance Evaluation Measures” in 2025, stipulating that every three years the board’s performance evaluation must be conducted by an external professional independent institution or expert team. In accordance with the aforementioned regulations, the company engaged an external professional institution in 2025 to conduct an external evaluation of the Board of Directors’ performance. The evaluation results were reported to the Board in November of the same year, serving as a reference for enhancing board operations and improving decision-making quality. In addition to external evaluations, the company also conducts annual internal self-assessments covering the overall board, individual directors, and functional committees. The 2025 internal performance evaluation was completed in early 2026. After consolidating the results, it was confirmed that the Board of Directors’ operations aligned with established governance objectives. Based on recommendations from both external and internal evaluations, the company has planned subsequent improvement and enhancement measures to continuously strengthen board governance effectiveness, reinforce overall operational resilience, and improve risk response capabilities.

External Board Performance Evaluation Process:



For the complete board performance evaluation process, implementation details, and evaluation results, please refer to the company’s official website. ([Board Informatio](#), [Audit Committee](#), [Remenuration Committee](#), [ESG Committee](#))

3.1.5 Corporate Governance Officer (GRI 2-9 、 2-17)

In order to protect shareholders’ rights and interests of and strengthen the professional competence of the board, the board resolution on May 9, 2019 approved the appointment of the director Yung-Chih Chen of legal affairs holding the concurrent position as the corporate governance officer in charge of corporate governance-related affairs. Director Yung-Chih Chen has over 20 years of experience as a practicing attorney and nearly 10 years of experience as the head of legal affairs for a publicly listed company. His primary responsibilities include handling matters related to Board and shareholders’ meetings in accordance with the law, preparing minutes for both meetings, assisting directors with onboarding and continuing education, providing necessary information for directors to carry out their duties, supporting directors in legal compliance, reporting to the Board on the qualification review of independent directors during nomination, appointment, and tenure, as well as managing matters related to changes in Board membership. In 2025, the company’s Chief Corporate Governance Officer, Mr. Chen Yung-Chih, completed a total of 50 hours of professional training. (For details, please see the description on the [website](#)).

3.1.6 Functional committees (GRI 2-9)

We have established three functional committees under the Board of Directors, the Audit Committee, Salary and Remuneration Committee, and ESG Committee. For details, please visit the website of the respective committees.

Job Title	Name	<u>Audit Committee</u>	<u>Remuneration Committee</u>	<u>ESG Committee</u>
Chairman	Wu, Yi-Gui	-	-	Committee Members
Independent director	Li, Zu-De	Convenor	Committee Members	-
Independent director	Hsu, Chen-I	Committee Members	Convenor	Committee Members
Independent director	Chang, Chen-Ming	Committee Members	-	Committee Members
Independent director	Wang, Ding-Chang	Committee Members	Committee Members	Committee Chairperson
President	Hu, Chi-Hong	-	-	Vice Committee Chairperson

Note 1: The statistics in this table are as of December 31, 2025.

3.1.7 Responsibilities and Operations of Functional Committees (GRI 2-10、2-19~2-21)

CGPC has established three functional committees to strengthen corporate governance and decision-making transparency (summary as follows). For detailed information, please refer to the provided [LINK](#).

- ◆ **Audit Committee:** Oversees the effectiveness of financial statements, internal controls, and risk management, and communicates independently with external auditors and the head of internal audit at least once a year.
- ◆ **Remuneration Committee:** In accordance with laws and corporate governance guidelines, reviews compensation policies for directors and senior executives, incorporating sustainability performance into evaluations. The General Manager's sustainability performance indicators carry a weighting of 45%, including: talent development programs (10%), energy conservation and carbon reduction performance (10%), green product development (15%), and occupational safety and health (10%). For other senior managers, the sustainability performance indicators carry a weighting of 20%.
- ◆ **ESG Committee:** Coordinates ESG strategy implementation and target tracking, reviews the sustainability report and materiality assessments, and strengthens the board's sustainability governance functions.

All of the above committees are composed of independent directors with professional backgrounds and independence. Meetings are convened in accordance with regulations, and operational results are disclosed, demonstrating the company's continuous improvement in governance and sustainability development. For detailed information, please refer to the [ESG website](#) and [independent director appointment information](#).

3.1.8 Implement ethical management (GRI 2-13、2-14、2-15)

Integrity is a core value of CGPC's corporate culture. To promote ethical conduct among employees, the Company has established the "Ethical Corporate Management Best Practice Principles" and the "Business Integrity Procedures and Behavioral Guidelines" in accordance with the "Ethical Corporate Management Best Practice Principles for TWSE/TPEx Listed Companies," prohibiting dishonest conduct. These regulations apply to directors, managers, employees, and actual controllers, and prohibit offering, promising, soliciting, or accepting any improper benefits, as well as any other acts that are dishonest, illegal, or in breach of fiduciary duties. Forms of benefits include money, gifts, commissions, positions, services, privileges, and rebates. Both directors and the President have signed declarations, and employees are required to comply with the Company's business integrity policy.

To strengthen ethical management practices, the Company has assigned the Corporate Governance Team to formulate and oversee the implementation of the ethical management policy and preventive measures. The Corporate Governance officer reports to the Board of Directors on a regular basis (at least once a year), with the most recent report on ethical management delivered on November 4, 2025. (For detailed information, please refer to [the official website](#))

Code of Conduct – Complaint Mechanism and Implementation

Establish systems

CGPC has established the business philosophy of ethics, care, discipline and innovation, and formulated code of conduct for business activities, such as the "[Ethical Corporate Management Best Practice Principles](#)", the "[Procedures for Business Integrity Practices and Guidelines for Conduct](#)", the "[Directors and Managerial Officers' Ethical Behavior Guidelines](#)", and the "[Part-Time Employee Code of Conduct](#)". These standards apply to everyone who conduct business activities on behalf of the Company, including the employees, management, directors and members of subsidiaries. The contents include the prohibition of unethical behaviors and conducting bribery or receiving bribery, recusal from conflict of interests, the prohibition of leaking business opportunities, insider trading, improper charitable donations or sponsorships or illegal political contributions.

Grievance Unit

CGPC has established several reporting and complaint channels on its official website, including "[Contact Us](#)," "[Audit Committee's Email](#)," and "[Employee Complaint Channel](#)," to receive reports and complaints. The Company has also enacted the "Procedures for Handling Reports of Illegal, Unethical, or Dishonest Conduct," which clearly define the process for whistleblowing. The procedures and confidentiality mechanisms are clearly defined. A designated unit is responsible for handling reports, ensuring strict confidentiality and protection for whistleblowers, investigators, and the content of the reports. The Company guarantees that whistleblowing employees will not be subject to any improper treatment. External stakeholders may also file complaints via the official website's email channels, which are handled by designated personnel in accordance with established procedures.

Implementation Status

CGPC adheres to the Ethical Corporate Management Best Practice Principles, and all employees are required to comply with the relevant rules and policies. Through the ERP system, relevant personnel can access necessary information in real time, allowing for the reflection of operational performance. Based on risk assessments, the Company formulates standard operating procedures in line with its policies. Internal control self-assessments are conducted to review regulatory compliance, employee ethics, and risk evaluation, thereby reinforcing self-monitoring. In 2025, the Company's Audit Office received an anonymous report concerning an employee's improper handling of supplier evaluations. After verification, the case was confirmed and disciplinary action was taken in accordance with employee work regulations. Continuous awareness campaigns and training programs have since been implemented. Note: ERP (Enterprise Resource Planning).

Promotion education

To ensure employees gain a thorough understanding of the Code of Conduct, Huaxia Company not only publishes relevant regulations on its corporate website but also continuously invites renowned scholars, experts, or lawyers to conduct training and awareness sessions for directors, managers, employees, and actual controllers. These sessions emphasize the company's commitment to integrity management, its policies, preventive measures, and the consequences of violating ethical standards.

To enhance employees' awareness of integrity and to foster a culture of honesty, the Company organized multiple integrity seminars in 2025. A total of 1,692 participants, including employees and directors, attended, with total training hours amounting to 2,048. Detailed information is provided as follows:

Category	Course	Total Participants	Total Training Hours
Integrity Management and Compliance	2025 First Group Code of Conduct Awareness Test	723	723
	2025 Second Group Code of Conduct Awareness Test	740	740
	Courses Focused on Legal Risk Prevention (e.g., Breach of Trust Offenses)	229	585
Total		1,692	2,048

Note: This table presents statistics for CGPC, TVCM, CGPCP, and GGTC. It does not include training hours for directors and corporate governance officers.

Integrity Seminar Training Activity - AI Trends and Legal Risk Guide



3.1.9 Intellectual property rights management plan

In order to enhance the Company's industrial status and maintain the existing technological achievements, we integrate intellectual property rights with operations objectives and R&D resources. It is expected that the establishment of the Company's intellectual property management system can improve the Company's competitive advantage in the industry and obtain higher benefits through high-value products and services (using the PDCA cycle to construct an intellectual property management system).

Report on the annual implementation status of intellectual property rights:

The "2025 Intellectual Property Management Implementation Status and 2026 R&D Plan" was submitted to the Board of Directors for approval on November 4, 2025. (For details, please see the description on the [website](#))

3.1.10 CDP Climate and Water Disclosure (GRI 2-9、2-12、2-13、2-22)

Active Participation and Governance Commitment

CGPC firmly believes that climate change and water security have become critical governance issues affecting long-term corporate value. To demonstrate its highest level of sustainability commitment, the Company actively participates in CDP's two major international disclosure projects: "Climate Change" and "Water Security." Each year, the results of CDP disclosures are regularly reported to the ESG Committee, ensuring that climate and water risk information reaches the highest governance level and is incorporated into decision-making. This participation model is fully aligned with the four core pillars of TCFD (Governance, Strategy, Risk Management, and Metrics & Targets), further strengthening the Company's environmental management system and governance effectiveness.

Latest Achievements and Management Performance

In the latest CDP assessment, Huaxia Company received a grade of B (Management Level) in both core environmental issues. This achievement demonstrates that the Company has established a sound governance framework and management processes, and has been recognized by international rating organizations.

Assessment Year	Questionnaire Type	Level	Executive Summary	Response Section
2025	Climate Change	B (Management Level)	Demonstrates that climate risk management and strategies have been incorporated into the company's governance and action framework.	Please refer to CH5.2 Climate Change and Energy Management .
	Water Security	B (Management Level)	Affirms the effectiveness of the company's water risk assessment, management performance, and target setting.	Please refer to CH5.3 Water Resource Management .

Continuous Improvement and International Alignment

Through the mutual verification of governance structures, management systems, and CDP external evaluation results, CGPC will continue to deepen climate and water resource management. By aligning with higher standards and international sustainability frameworks, the Company will further enhance the maturity of its environmental governance.

2025 CDP Results

Scores

China General Plastics Corporation
2025

Overall scores

Score visibility

Private:
If you were requested by any Supply Chain members or Capital Markets Signatories, they can see these scores.

Public:
Visible on your organization's profile on the CDP website.

Climate change: **B**

Forests: **-**

Water security: **B**

◆ Climate Change Score : B

◆ Water Security Score : B

2024 CDP Results



We are excited to share with you the 2024 CDP Topic Scores :

- Climate B
- Water Security B

◆ Climate Change Score : B

◆ Water Security Score : B

2023 CDP Results

^ Scores and Responses

Responses	Year	Response Type	Status	Score
Climate Change 2023	2023	Confidential	Filing	B-
Water Security 2023	2023	Confidential	Filing	B

◆ Climate Change Score : B-

◆ Water Security Score : B

3.2 Operating Performance (GRI 2-2、201-1、201-4、3-3)

In order to enable shareholders and investors to obtain more on-time and accurate information of CGPC when carrying out investment decisions, the information on the monthly revenue release, quarterly financial reports, annual general meetings and institutional investor conference, is made available in the "Investor Services" section of the Company's website or the [MOPS](#). Shareholders and investors can also contact the spokesperson or acting spokesperson by phone, or use the "Contact Us" on the Company's website and the USI Group's "Contact Us" on its website to submit any questions and suggestions, and all opinions will be handled by dedicated personnel.

Material issue: Economic performance		Main target : SDG 8.2, Secondary target : SDG 9.2
The Significance and Impact of CGPC It is the foundation of the Company's sustainable development, enabling shareholders to obtain reasonable return on investment and the Company to have sufficient resources to take care of employees. The Company also creates mutually beneficial and win-win relationships with clients, suppliers, and collaborating partners to facilitate the growth of both the society and the Company. Affected Parties: Directly impacts the Company and its employees; indirectly affects investors, customers, and suppliers.		
Develop Strategy Improve product value, provide customers with satisfactory service quality, and maintain stable profits and sustainable development of the enterprise.	Policy Commitment Implement corporate governance and environmental protection measures for energy conservation and carbon reduction to create a workplace of wellness.	
Grievance Unit Office of the General Plant Manager	SASB Indicator --	
Major issues in 2025 Poor market conditions - oversupply and low demand. Please refer to the explanation of Responding to Stakeholders.		

Indicator Item	Short-, Mid-, and Long-Term Goal Planning	Achievement Status 
Risk management	Short-term: Focus on immediate financial risks and market volatility to ensure liquidity. Mid-term: Adjust business models to maintain competitive advantage and ensure agility in responding to challenges. Long-term: Continuously monitor changes in laws and regulations to ensure corporate compliance, and assess the potential impact of policy changes on business operations.	Our company continues to conduct risk assessments and control measures in accordance with established risk management mechanisms. In response to market changes, we regularly review and adjust relevant measures to strengthen operational stability.

Note: The global petrochemical industry has been impacted by price-cutting competition from China. In coordination with the Group's overall indicator integration, CGPC has adjusted its material topic indicators based on practical operational considerations. (For details, please refer to [Sections 3.2 and 3.3](#))



Exceeded Target



Achievement



Partially achieved



Not met

Operational performance:

CGPC faces challenges such as slowing global economic growth, weak demand in China, and industry overcapacity, compounded by fluctuations in raw material and energy prices, which have put pressure on PVC/VCM product sales. In 2025, to respond to market changes, the company continuously adjusted its operating strategies, focusing on the development of high-value-added products and eco-friendly materials. Through process optimization and smart applications, CGPC improved operational efficiency and reduced costs, thereby strengthening overall competitiveness. At the same time, the company actively expanded into emerging markets including India, Southeast Asia, Africa, and Latin America, diversifying market risks while capturing regional growth opportunities. Furthermore, CGPC continued to promote corporate transformation and structural optimization, implementing environmental protection and social responsibility practices to achieve sustainable management goals and create long-term value together with stakeholders. For detailed information, please refer to the 2025 [Annual Report](#): Message to Shareholders and Business Report.

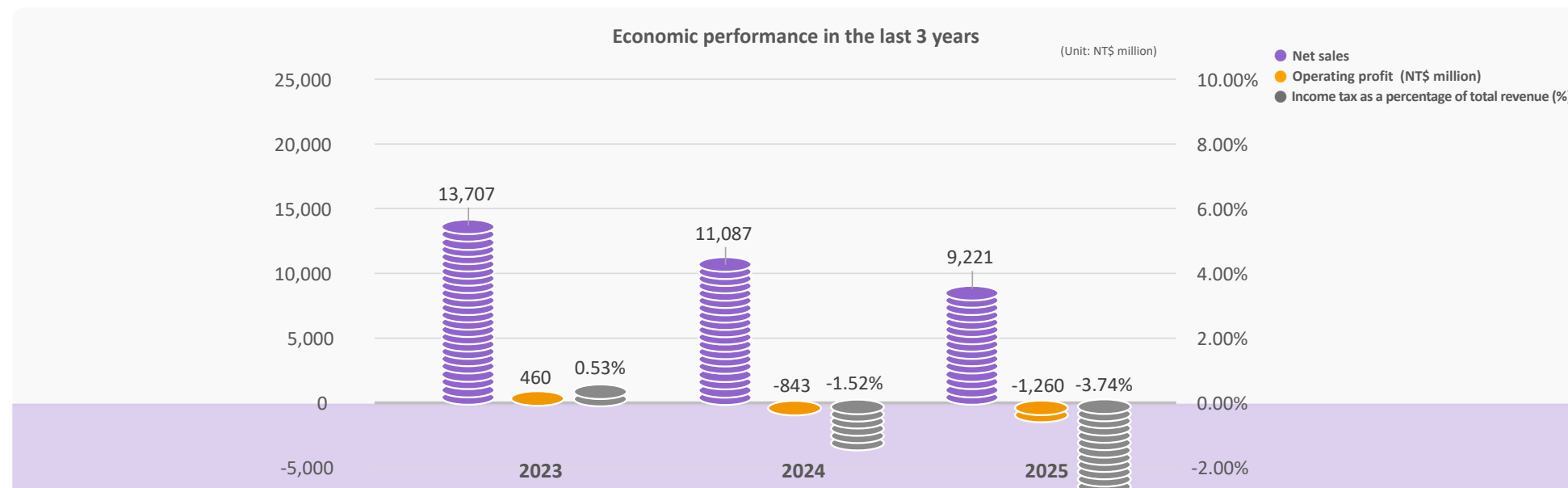
2025 earnings per share

(Unit: NT\$)			
Item	2025 Amount (NTD million)	2024 Amount (NTD million)	Compared to the same period last year (NTD million)
Consolidated Net sales	9,221	11,087	-1,866
Consolidated net operating profit (loss)	-1,260	-843	-417
Consolidated profit (loss) after tax	-982	-751	-231
Consolidated net loss after tax attributable to the Company's owners	-919	-710	-209
(EPS) (Unit: NT\$)	-1.58	-1.22	-0.36

Sales volume of each product in 2025 (10,000 tons)

Product	Production volume (10,000 tons)	Sales volume (10,000 tons)	Budget Achievement Rate
VCM	29.0	28.4	85%
PVC resin	23.8	25.1	77%
Chemicals(100% concentration meter)	6.4	5.8	97%
Fabricated products			
Building materials products	1.4	1.4	76%
Tape products	1.1	1.1	104%
Rubber Products (10,000 yards)	438.7	450.7	91%

3.2.1 Economic performance (net sales and operating profit)



Note 1: Adopted the International Financial Reporting Standards (IFRS) recognized by the Financial Supervisory Commission starting 2014.

Note 2: The relevant financial information can be found at the [MOPS](#).

Note 3: The operational performance is expressed based on the consolidated financial statements.

3.2.2 Profit distribution

1. Dividend policy stipulated in the Company's Articles of Incorporation: please refer to the explanation [in Article 33](#).
2. Proposal to distribute cash dividends at the Shareholders' Meeting:
 - ◆ Regarding the 2025 earnings distribution plan, the Board of Directors has proposed a cash dividend of NT\$0.1 per share. This proposal is subject to approval at the Annual Shareholders' Meeting scheduled for May 26, 2026, after which it will be implemented in accordance with relevant regulations. (For details, see the official website - [Material Information](#))
 - ◆ In deciding on profit distribution, given that the company's industry is in a mature stage, and considering the need for R&D and diversified operations, shareholder dividends shall not be less than 10% of the distributable earnings for the year, of which cash dividends shall not be less than 10% of the total dividends. However, if the distributable earnings per share for the year are less than NT\$0.1, no distribution may be made.



3.2.3 The revenue and dividend distribution in the last 3 years are as follows (excluding subsidiaries)

(Unit: NT\$ million)

Item	2023	2024	2025
Operating revenue	13,707	11,087	9,221
Earnings after tax	342	-710	-919
Earnings after tax per share (NT\$/Share)	0.59	-1.22	-1.58
Dividends distribution (Including cash and stock dividends)	203	87	58
Cash dividends per share (NT\$/Share)	0.35	0.15	0.1
Stock dividends per share (NT\$/Share)	0	0	0
Total Dividends distribution (%)	59	-12	-6
Price/Earnings Ratio	41.75	-14.22	-7.26
Price/Dividends Ratio	70.37	115.67	114.70
Cash Dividends Yield(%)	1.42	0.86	0.87

Note: 1 Price-Earnings ratio = Average closing price per share / Earnings per share of the year

Note: 2 Price-Dividends ratio = Average closing price per share / Cash dividends per share of the year

Note: 3 Cash dividends yield = Cash dividend per share / Average closing price per share of the year

3.2.4 Description of direct economic value generated and distributed by the organization

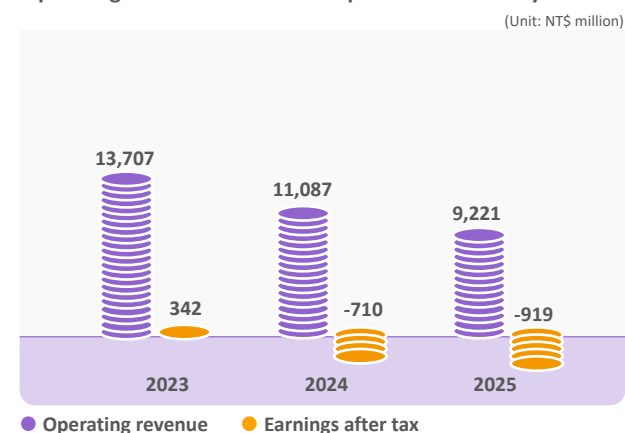
(Unit: NT\$ million)

Item	2023	2024	2025
Direct economic value generated			
Net sales revenue	13,707	11,087	9,221
Service revenue	3	1	0
Financial investment revenue	58	69	75
Asset sales revenue	17	38	8
Total	13,785	11,195	9,304
Economic value distributed			
Operating costs	12,091	10,929	9,489
Employee salary and benefits	1,130	1,060	997
Payments to funders	273	181	168
Payments to the government			
Income tax	73	-169	-345
Land value tax/House tax/Others	26	26	28
Community investment (including charitable giving)	2	7	7
Total	13,595	12,034	10,344
Economic value retained	190	-839	-1,040

Note 1: Adopted the International Financial Reporting Standards (IFRS) recognized by the Financial Supervisory Commission starting 2014.

Note 2: The relevant financial information can be found at the [MOPS](#).

Operating revenue and after-tax profit in the last 3 years



3.2.5 2024 Government subsidies

(Unit: NT\$ thousand)

Abstract	Amount
Domestic Investment Interest Subsidies	11,142
Bureau of Labor Insurance, Ministry of Labor	62
Taoyuan-Hsinchu-Miaoli Branch of the Workforce Development Agency, Ministry of Labor	60
Occupational safety and Health Administration, Ministry of Labor	154
Smart Petrochemical Safety Upgrade Subsidy	2,400
Energy Administration, Ministry of Economic Affairs	6,324
International Trade Administration, Ministry of Economic Affairs	577
Industrial Technology Research Institute (ITRI)	1,920
Total	22,639

3.3 Risk Management (GRI 2-9、2-11、2-12、418-1)

CGPC identifies potential risks from daily operations that may affect corporate sustainability and formulates corresponding management strategies and response measures to reduce the likelihood of operational disruptions. The Company's risk management assessment boundary is primarily based on Huaxia Company itself. For specific matters or significant risks, each responsible unit conducts identification, evaluation, and screening, and develops relevant response measures and management plans. The Audit Department carries out inspections according to its internal audit cycle to provide improvement recommendations, thereby implementing the PDCA management cycle and continuously strengthening the risk management mechanism. At this stage, the challenges and corresponding responses to the Company's major risks are as follows:

3.3.1 Risk types and countermeasures (GRI 2-9、2-11、2-12)

In order to establish sound risk management within the company, our board of directors ensures effective evaluation and oversight of various existing or potential risks. In December 2020, the board approved the "[Risk Management Policies and Procedures](#)." The Office of the General Plant Manager assists in collecting and consolidating information from each unit, while the Secretary of the Audit Committee reports at least once a year to the Board of Directors on CGPC's risk management operations. This enables them to provide more specific recommendations regarding the company's operating strategies in a timely manner.

◆ Description of risk management

The ESG Committee conducts analysis based on the principle of materiality of the ESG Report to communicate with internal and external stakeholders, and reviews domestic and foreign research reports and literature and consolidates the evaluation data of various segments and subsidiaries to evaluate the materiality of ESG issues, formulate risk management policies for effective identification, measurement, monitoring and control, and take specific action plans to reduce the impact of related risks. The Audit Committee and the board approved the "Risk Management Policy and Procedures" in 2020. The main contents include risk management policies, risk management organization, risk management process, categories and practices, etc., to effectively control the risks arising from business activities. The status of the current year's risk management operations is reported to the Audit Committee and the board at least once a year. Comply with the relevant laws and regulations of the competent authority, formulate the operating standards of each risk management unit, and carry out risk management and control of daily operations. Follow the development of international and domestic risk management systems at all time, review and improve risk management policies accordingly, and continuously adjust and improve the risk management methods in response to changes in the internal and external environment, so as to reinforce the effectiveness of the Company's risk management implementation, and protect the interests of the Company, employees, shareholders and stakeholders.

◆ Risk management identification process

The risk identification process involves each responsible functional department assessing and identifying significant risks based on recent international economic developments, the latest ESG regulations, and risk and opportunity assessment management methods. This ongoing evaluation and rolling revision process ensures that risks are promptly assessed and appropriate adjustments are made. Finally, the results of the identification of significant risks from each department are compiled by the Audit Committee Secretary reports to the members and submits it to the Board of Directors.

◆ Implementation of risk management

The major risks faced in 2025 include:

***Capacity and Market Risks:** Continuous capacity expansion in China, weak macroeconomic conditions, and low-price dumping, combined with the impact of U.S. countervailing tariffs, have led to global supply-demand imbalances, shrinking demand, and suppressed commodity prices.

***International Trade and Geopolitical Risks:** U.S.-China confrontation, tariff wars promoted by the U.S., supply chain restructuring, and rising trade barriers, together with geopolitical conflicts, have increased inflationary pressures and concerns over economic growth.

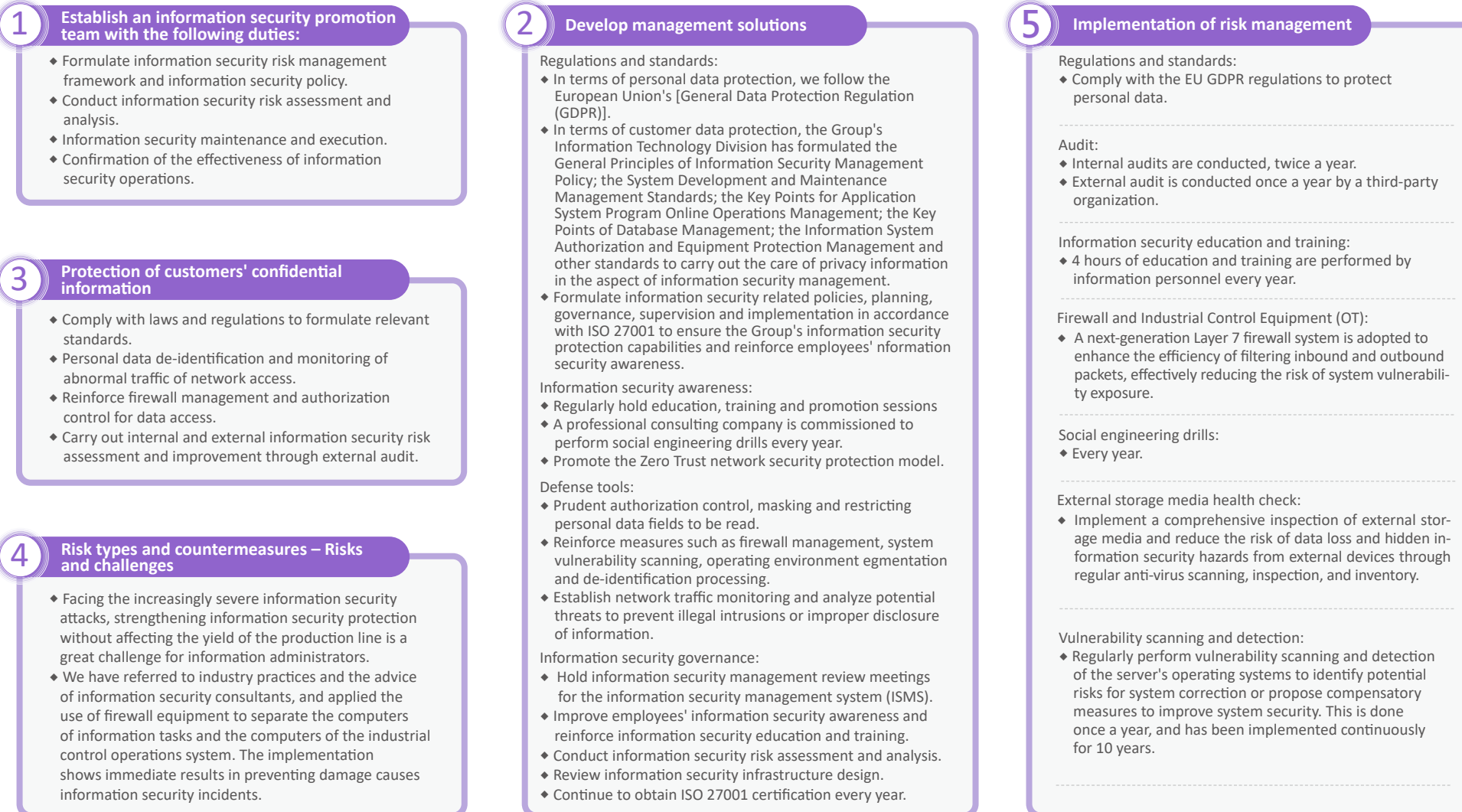
***Climate and Regulatory Risks:** Climate change, energy price fluctuations, and adjustments to policies and regulations related to greenhouse gases may all affect operations.

Upon reviewing operational conditions, all risks have been identified and monitored in accordance with management processes, with appropriate response measures adopted. Overall, risks remain controllable within a tolerable range., please refer to [the Sustainability \(ESG\) section - Risk Management Operations](#).

Risk Governance and Management Units	Operational Oversight Model	Risk Management Categories
The Company's risk management is jointly promoted by the Board of Directors, the Audit Committee, the highest-ranking officers directly responsible for the daily operations of each risk management unit (hereinafter referred to as "senior officers"), the Audit Office, various risk management units, and subsidiaries.	◆ The risk management process includes: risk identification, risk assessment, risk monitoring, risk reporting and disclosure, and risk response. ◆ Each risk management unit must have a thorough understanding of the risks associated with its respective area of responsibility, analyze relevant risks within its scope, and incorporate risk management mechanisms when establishing operational management regulations. Each unit is also responsible for monitoring the risks within its area to ensure that the risk control mechanisms and procedures are effectively implemented. ◆ Supervisory Unit: Senior officers are responsible for overseeing the implementation and coordination of risk management. At least once a year, they must report the status of risk management operations to the Audit Committee's project secretary for review. The Audit Committee is responsible for evaluating the effectiveness of the Company's internal control system to ensure proper implementation and to oversee the management of existing or potential risks. The Board of Directors approves the overall risk management policy and major decisions. ◆ Audit Unit: The Audit Office is responsible for auditing the Company's risk management practices and providing management with timely insights into existing or potential internal control risks, ensuring compliance with established regulations and control procedures.	The risk management policies of the Company and its subsidiaries are aligned with overall business strategies and define various risk categories based on the nature of their operations. The following categories of risk are comprehensively managed: ◆ Financial Risk ◆ Strategic and Operational Risk ◆ Raw Material Price and Supply Chain Risk ◆ Occupational Safety Risk ◆ Information Security Risk ◆ Legal Risk ◆ Human Resources Risk ◆ R&D Risk ◆ Climate Change and Environmental Risk ◆ Disaster and Accident Risk ◆ Technology Risk ◆ Other Risks

3.3.2 Cybersecurity risk management (GRI 2-9, 2-11, 2-12)

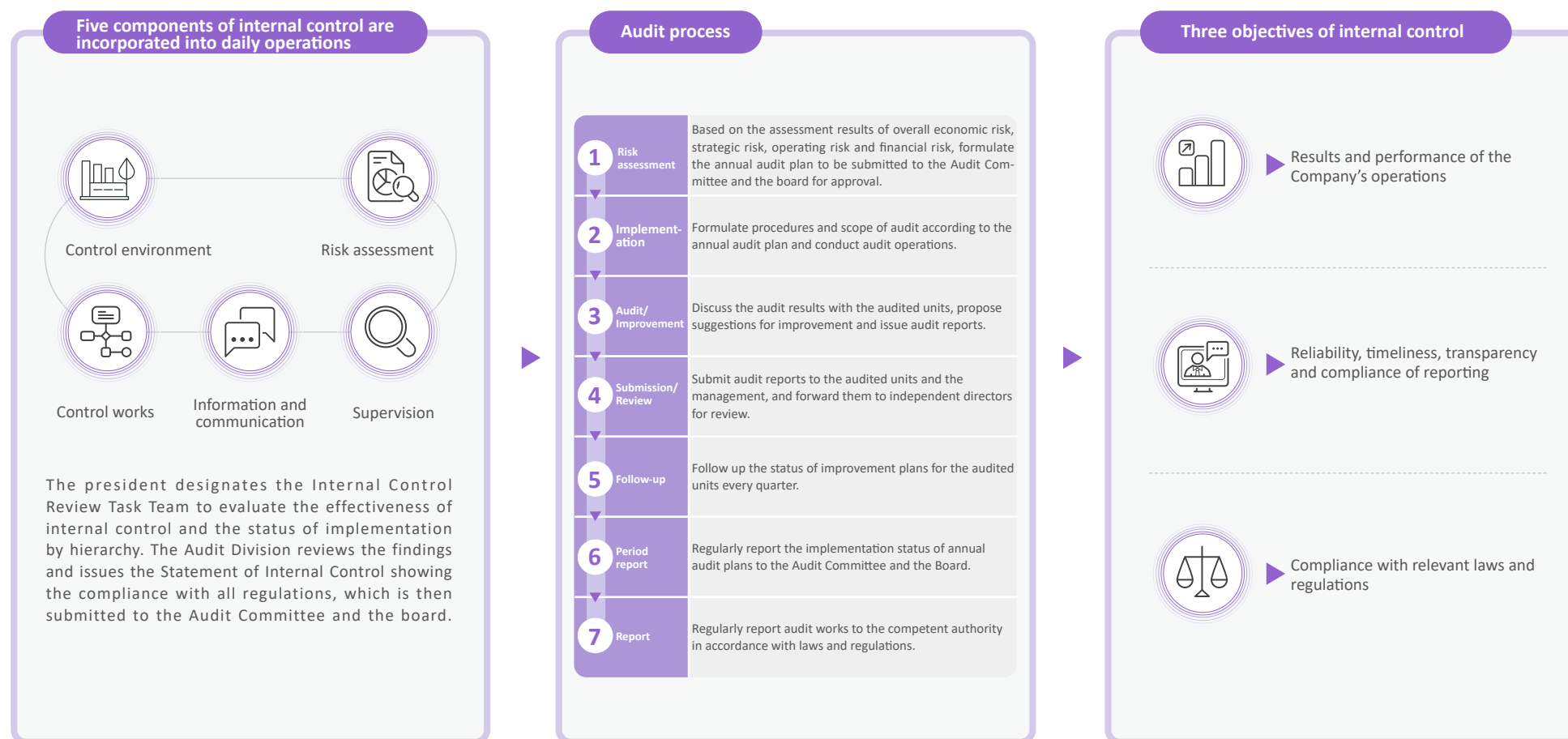
We adopt the 「[Risk Management Policies and Procedures](#)」 as the standards for the establishment and development, operation, review and continuous improvement of the overall information security management system. We also establish information policies and objectives according to our operating activities and risks to carry out information security management and effectively control risks. For the 2025 security project implementation results, please refer to [4.1.3 Customer Confidential Information Protection](#), for the personal information protection of education and training, please refer to the company's official website "[Integrity Management Operation and Annual Implementation Status](#)"



3.3.3 Internal control (GRI 2-26)

Internal audit system

An independent Internal Audit unit has been established under the Board of Directors to assist management in reviewing and evaluating the internal control system and measuring operational effectiveness and efficiency. Based on identified risks, the unit formulates and implements an annual audit plan. The Head of Internal Audit holds a Certified Internal Auditor (CIA) credential and carries out duties with objectivity and integrity. The Head regularly attends Audit Committee and Board meetings to report significant audit findings and follow up on the progress of corrective actions. The Internal Audit unit is the designated department responsible for handling submissions [to the Audit Committee's email](#) and reports made through the whistleblower hotline for illegal, unethical, or dishonest conduct. In 2025, the Audit Committee's mailbox did not receive any complaint cases. In 2025, the Internal Audit unit carried out its duties in accordance with the annual audit plan, completing 49 audit reports and 7 follow-up reports. All findings and recommended improvements have been addressed. In compliance with the Financial Supervisory Commission's directive (Jin Guan Jheng Shen Zih No. 1130381962, dated April 22, 2024), the Company revised its internal control system to include sustainability information management. The revision was approved by the Audit Committee and the Board of Directors on November 4, 2024, and will take effect starting in 2025.



3.4 Regulatory Compliance (GRI 2-27、307-1、419-1)

CGPC complies with government requirements and relevant regulations to ensure that the impact of operations on the environment and community is minimized. The Company continues to monitor regulatory changes both domestically and internationally, and strengthens compliance through internal and external training and awareness programs. The identification of material events is conducted in accordance with the “Procedures for Verification and Public Disclosure of Material Information of Listed Companies,” and disclosures are provided in the relevant sections of the report. Stakeholders may express opinions through the grievance mechanism’s communication channels ([Section 2.1.3](#)), and relevant feedback will be incorporated by the responsible units into subsequent improvements and management reviews.

Environmental Aspect

From an Environmental protection perspective

CGPC complies with government and international regulations on industrial safety, labor health, and environmental protection, and promotes the ISO 14001 Environmental management system to reduce the impact of operations on the community. The Company also responds to stakeholder concerns through communication.

In 2025, neither CGPC nor CGPCP had any penalty cases, while TVCM incurred three penalty incidents, with a total fine amounting to NT\$1.87 million. Among these, the third penalty, amounting to NT\$220,000, was issued due to elevated VOC concentrations at a process equipment drain. Taiwan Chlorine Chemical (TCCC) has completed improvements to seal and collect emissions from the drain, and has integrated this into weekly VOC concentration tracking and management.

For the corrective actions regarding the first and second penalties, please refer to the ‘Significant Events in the Past Two Years’ section on the following page. These events have been incorporated into the existing environmental management system for continuous tracking; for further details, please refer to CH5 Environmental Management.

In response to these penalties, Taiwan Chlorine has initiated internal improvement procedures, completed relevant process enhancements, and incorporated them into the existing environmental management system. Please refer to the following page (Explanation of Major Events in the Past Two Years) for details; other related information can be found in [CH-5 Environmental Management](#).



Social Aspect

From an Occupational safety perspective

CGPC has established the ISO 45001 Occupational Health and Safety Management System in compliance with legal requirements, and actively reviews the causes of incidents to reduce risk factors and prevent recurrence, while promptly implementing countermeasures and providing care for employees. In 2025, TVCM had no violation cases resulting in fines; CGPC experienced one occupational accident, for which the competent authority imposed a fine of NT\$100,000 under the Occupational Safety and Health Act; CGPCP was fined NT\$50,000 by the Kaohsiung Economic Development Bureau under the Factory Counseling and Management Act due to discrepancies between reported data and on-site verification regarding the manufacturing and processing of hazardous materials. For related measures and explanations, please refer to [CH-5.1.3 SASB Chemical Safety and Environmental Management](#), and [CH-6.4 Safe and Healthy Workplace](#).

From a labor and human rights perspective

The Company complies with relevant labor laws to safeguard employees’ legal rights and respects internationally recognized fundamental human rights principles. At the same time, relevant standards and work policies have been established to protect workers’ basic labor rights. In 2025, no complaints were received, nor were there any violations of relevant labor laws. For further details, please refer to the [official website](#) or [CH-6.2.3 Human Rights and Protection](#).



Governance Aspect

From a supply chain perspective

The Company strives to provide customers with satisfactory services and aims to establish long-term partnerships with them. In 2025, Huaxia Company had no complaints related to violations of customer privacy or loss of customer data, nor were there any product or service-related violations, fines, or penalties. For further details, please refer to [CH-4.1 Customer Service Management](#) and [CH-4.3 Supply Chain Management](#).

From an integrity governance perspective

To strengthen the management of integrity operations, the Company’s Corporate Governance Team is responsible for formulating and supervising the implementation of integrity management policies and preventive measures. The Corporate Governance Officer reports to the Board of Directors on a regular basis (at least once a year). In 2025, the Company’s Audit Department received one anonymous whistleblowing case concerning an employee’s improper handling of supplier evaluations. After verification, the allegation was confirmed, and disciplinary action was taken in accordance with the employee work rules. Please refer to the following sections for details. Please refer to [CH-3.1.8 Implementation of Integrity](#).

From an internal control perspective

The Company has established an independent internal audit unit that reports directly to the Board of Directors and serves as the dedicated unit for receiving and handling submissions to the Audit Committee mailbox, as well as reports of illegal, unethical, or dishonest conduct. In 2025, the Audit Committee did not receive any complaints. Please refer to [CH-3.3.3 Internal Control](#).



Summary of Complaints

In 2025, a total of one complaint case was recorded. Please refer to the Governance Dimension or [CH-3.1.8 Implementation of Integrity](#).

Number of Violations and Penalties in the Past Two Years

In view of increasingly stringent regulatory compliance and penalty standards, the Company continues to promote improvement measures to further reduce the number of violations and the amount of fines (as outlined below).

◆ Social Dimension:

2024: 2 cases — CGPC, 2 cases totaling NT\$900,000.

2025: 2 cases — CGPC, 1 case NT\$100,000; CGPCP, 1 case NT\$50,000 (total NT\$150,000).

◆ Environmental Dimension:

2024: 6 cases — CGPC, 1 case NT\$450,000; TVCM, 2 cases NT\$200,000; CGPCP, 3 cases NT\$610,000 (total NT\$1,260,000).

2025: 3 cases — TVCM, 3 cases totaling NT\$1,870,000.

Explanation of Major Events in the Past Two Years (GRI 2-25 · 2-27)

- ◆ 2024 : At CGPC's Toufen main plant, two fire incidents occurred in 2024. Case closure summary: The Company completed improvement works for the two fire accidents (refer to 2024 Sustainability Report, pp. 49, 130) on October 13, 2025. For detailed explanations, please refer to Chapter [6.4 Safe and Healthy Workplace](#) — Closure of Previous Year's Incidents.
- ◆ 2025 : At TVCM's Linyuan plant, two air pollution incidents that occurred in 2023 were reviewed and confirmed by the competent authority, resulting in a fine of NT\$1.65 million imposed in January 2025.

【Explanation of Two Air Pollution Incidents at TVCM】

On December 23, 2023, the Kaohsiung Environmental Protection Bureau conducted sampling at the downwind perimeter of Taiwan Chlorine's plant site. The concentrations of chloroform and 1,2-dichloroethane were found to exceed permissible limits. The competent authority determined that this constituted a violation of the Air Pollution Control Act and imposed a fine of NT\$1.65 million. The related penalty announcement was published on the Company's official [website](#) on January 13, 2025.

【Response Measures】

In response to this environmental penalty incident, the Company has adopted proactive measures, addressing both technical improvements and management systems to ensure regulatory compliance and the implementation of sustainable management:

1. Implement technical improvements based on the root causes of the incident

To thoroughly resolve the fugitive emission issue, TVCM has planned and implemented improvement projects such as "Enhancing the efficiency of the stripping tower for wastewater pretreatment" and "Cooling raw wastewater to reduce VOC emissions." Through hardware upgrades and optimization, pollutant treatment efficiency has been strengthened at the source, while cooling measures effectively suppress the release of volatile organic compounds, thereby fundamentally addressing environmental impacts from the production process.

2. Incorporate into the environmental management system for control

The relevant improvement operations have been formally initiated by the responsible environmental authority, fully aligned with the existing ISO 14001 Environmental Management System. From planning and execution to post-completion performance review, all improvement measures are regularly assessed and tracked through internal management mechanisms. Continuous monitoring of related processes and equipment operations is conducted to verify the effectiveness of the improvement measures, serving as the basis for ongoing enhancement and preventive management.

3. Establish long-term mechanisms for prevention and continuous improvement

After the completion of improvement measures, the operating status of relevant equipment will be incorporated into daily operations management and audit processes in accordance with existing management procedures, to ensure the long-term effectiveness of the improvements. The Company has transformed the experience gained from this improvement into a foundation for ongoing enhancement and preventive management. Through the institutionalization of Standard Operating Procedures (SOPs), the risk of similar incidents recurring is reduced, thereby achieving the goals of stable operations and environmental friendliness.

3.5 Technology Research and Development (GRI 3-3)

Guided by the principles of sustainable materials, green manufacturing, circular economy, net-zero emissions, and continuous innovation, CGPC's R&D department is committed to optimizing production processes to reduce energy consumption and greenhouse gas emissions. The Company promotes green manufacturing by ensuring that environmentally friendly plastics meet market demands for durability, safety, and functionality, thereby achieving a balance between environmental responsibility and practical application.

Material issue: Technological R & D						
Main target : SDG 12.4, Secondary target : SDG 9.5, 12.5						
 The Significance and Impact of CGPC With a focus on innovation and resource optimization, CGPC is dedicated to developing a green supply chain, prioritizing environmental safety and energy conservation. Innovation extends beyond products to include upgrades in technology and service models, with R&D efforts closely aligned with market demands and customer feedback. Affected Parties: Government agencies, employees, investors, and suppliers.						
 Develop Strategy R&D vision is no longer limited to product innovation, but is centered on continuous technological innovation and optimization. It progressively responds to market trends and customer feedback, driving relevant R&D initiatives in practice to support the Company's sustainable development and organizational competitiveness.			 Policy Commitment Adhere to legal and ethical standards by carefully evaluating the social, environmental, and consumer impacts of each new product and technology. Provide a better working environment to retain talent and maintain organizational vitality.			
 Grievance Unit Processing Technology Section, Processing R&D Department			 SASB Indicator ◆ RT-CH-410a.1			
Indicator items	Unit	2025 goal	2025 result	2026 goal	2027 goal	2030 goal
New Product development	Number of development projects	10	11 	10	10	12

Note: In 2024, the actual data was mistakenly recorded as 15 cases. After re-confirmation, it was corrected to 11 cases, which still met the annual target.



Exceeded Target



Achievement



Partially achieved



Not met

3.5.1 R&D expenditure in the last 3 years

(Unit: NT\$ thousand)

Year	Funding
2023	72,928
2024	50,590
2025	34,697

Note: The amount of R&D expenditure includes Taiwan and overseas subsidiaries.

Project Implementation

◆ New Patent Application:

Description	Number	Patent Term
Method for Manufacturing Polyolefin Elastomer Artificial Leather and Its Products	I277680	2007/04/01~2026/05/22
Fully Recyclable Artificial Leather Layer Structure	M630391	2022/08/01~2032/04/12
iPcool Artificial Leather Layer Structure	M631078	2022/08/01~2032/04/12
Antiviral Coating Structure	M630340	2023/01/11~2032/07/11
Leather Layer Structure with Scratch Resistance and Stain Protection	M636680	2023/01/21~2032/05/01
Antibacterial and Anti-Mold Layer Structure	M645877	2023/09/01~2033/06/26
Translucent Layer Structure and Its Application in Lumino us Decorative Articles	M657916	2024/07/11~2034/04/08

- ◆ In the past two years, a total of 22 new product developments have been completed, including obtaining ISO 14021 certification for recycled eco-friendly pipes, the development of antiviral door panels, and the advancement of solvent-free technology for PVC and TPE coated fabrics.
- ◆ Intellectual Property Rights Management Operations · please refer to the [website](#).

3.5.2 New products to be developed

- ◆ Solvent-Free PVC Coated Fabric Development
- ◆ Solvent-Free TPE Coated Fabric Development
- ◆ PVC Water-Based Adhesive for Electrical Film
- ◆ PVC Conductive Leather
- ◆ PP Board for Mechanical Shielding
- ◆ Transparent Leather/Fabric Products
- ◆ Eco-Friendly Plasticizer Conversion for Film
- ◆ Low-VOC PVC/TPE Series Coated Fabrics
- ◆ ISO 14021 Certified Recycled Material Eco-Friendly Pipes
- ◆ TPO Apron Coated Film
- ◆ Single-Material TPO Slippers
- ◆ PVC Cooling Release Leather
- ◆ PVC Low-Smoke Flame-Retardant Leather
- ◆ TPU Running Belts/Conveyor Belts
- ◆ Non-PVC film and sheet
- ◆ TPO Release Leather
- ◆ TPO Anti-Static Transparent Film
- ◆ PVC Printing Canvas
- ◆ Non-PVC Printing Canvas
- ◆ Oyster Shell Powder Door Panels (Antibacterial & Mildew-Resistant)
- ◆ Oyster Shell Powder Pipes (Antibacterial & Mildew-Resistant)
- ◆ Third-Generation PVC Anti-Fouling Coated Film
- ◆ Casting-Like Soft Leather for Furniture
- ◆ SEMI PU Semi-Finished Products Development
- ◆ Semi-Rigid Printing Products Development
- ◆ Solvent-Free Surface Treatment for PVC/TPE Coated Film
- ◆ PP Rigid Fabric for Home Furnishings
- ◆ TPO Vacuum Cushion Leather
- ◆ 30L Pilot Tank – New Formulation Testing

3.5.3 Overview of technology and research and development

Newly-developed technologies or products

1. Successfully Developed Technologies

- 1.1 ISO 14021 Certification for Recycled Eco-Friendly Pipes
- 1.2 30L PVC Polymerization Experiment
- 1.3 AI Monitoring of Moisture Content in PVC Resin
- 1.4 Research and Analysis of Color Variation in PVC Resin



2. Newly-developed products

2.1 TPO Cutting Board	2.7 GRS-Certified TPU Foam Material	2.13 Solvent-Free PVC Coated Fabric Development	2.19 Eco-Friendly Plasticizer Conversion for Adhesive Tape
2.2 TPO Automotive Console / Floor Mat	2.8 TPO Infant Safety Seat Cover	2.14 Solvent-Free TPE Coated Fabric Development	2.20 Low-VOC PVC/TPE Series Rubber Sheets
2.3 POE Aquaculture–Solar Coexistence Pond Liner	2.9 TPE Automotive Seat Cover	2.15 PVC Water-Based Adhesive for Electrical Tape	2.21 TPO Apron
2.4 Silicone Coating / Film-Laminated Composite Products	2.10 TPO Anti-Slip Sheet	2.16 PVC Conductive Leather	2.22 TPO Single-Material (Slippers)
2.5 POE waterproof membrane/pool liner	2.11 TPO Fully Recycled Shoe Sole Sheet	2.17 PP Board for Mechanical Shielding	
2.6 Antiviral Rubber Sheet (Medical Bed)	2.12 ISO 14021 Recycled Eco-Friendly Pipe Material	2.18 Translucent Leather / Film & Sheet Products	



Sales of Newly Developed Products

In response to climate change and diverse functional market demands, efforts have been made to enhance product added value and increase market share, while developing non-PVC leather alternatives. These initiatives aim to promote compliance with environmental regulations and meet the urgent needs of domestic and international manufacturers embracing the concept of greening, thereby opening up new markets in the field of high-value products.

Product Categories		PVC Leather Products in 2024		Total Sales of Newly Developed Products in 2024	PVC Leather Products in 2025		Total Sales of Newly Developed Products in 2025
Product Items		PVC Leather	Eco-Friendly TPE Materials		PVC Leather	Eco-Friendly TPE Materials	
Sales Target	(tons/ thousand yards)	200	120	320	200	120	320
Sales Volume	(tons/ thousand yards)	282.5	30	312.5	323	46	369
Sales Revenue	(NT\$ thousand)	33,994	5,297	39,291	43,226	7,792	51,018
Achievement Status		Yes	No	—	Yes	No	—
Revenue Ratio (%) of New Products within the Major Product Category		4.60%	0.80%	5.40%	6.2%	1.1%	7.3%

Note 1: The definition of new products: any product is considered new within two years after successful development.

Note 2: Reason for TPE not being achieved: Due to rising import costs and sluggish market demand, coupled with consumers' conservative attitude toward green materials, the promotion of eco-friendly resources has encountered bottlenecks, making it difficult for sales performance to achieve substantial breakthroughs.



R&D plans in recent years

(NT\$ thousand)

2026 R&D plans	R&D expenses needed to be committed again
1. Carbon-Negative Materials (Biochar Products)	1,000
2. Non-PVC Tape Fabric	500
3. TPO Anti-Static Transparent Film	500
4. PVC Special Medical Tape (Pacific Medical Supplies)	500
5. PVC Four-Way Agricultural Leather (Anti-Mildew Tape)	500
6. PVC Pipe Weather-Resistant Coating Product	500
7. Antimony-Free Alternative Formula (Tape Products)	500
8. Biodegradable Leather	500
9. Low-Amine Foamed Soft Leather	500
10. TPO Peelable Leather	400
11. PVC Cooling Peelable Leather	300
12. PVC Low-Smoke Flame-Retardant Leather	300
13. TPE Single-Material (Sports Shoes)	300
14. Inkjet-Printed Leather	300
15. Imported Cooling Pigment Substitute	300
16. Antimony-Free Alternative Formula (PVC Leather)	300
17. TPO Gardening Hose	300
18. Integrated Cushion Leather (Water-Repellent Fabric Surface)	300
19. 30L Test Tank – New Formula	300
Total	8,100

Green products

Facing concerns about environmental hormones and heavy metals in traditional PVC materials, our R&D department regards this challenge as an opportunity to drive innovation in green products. We are committed to ensuring that PVC applications meet the highest environmental safety standards. At the same time, we actively expand the application scope of non-PVC green materials such as TPE and TPU, leading the processing industry toward comprehensive upgrades. Furthermore, we have successfully promoted innovative products with environmental advantages into key areas of everyday life, fully demonstrating our company's steadfast commitment to environmental responsibility and health safety.

PVC products meeting new regulatory requirements

CGPC adheres to a green R&D mindset, fully implementing and surpassing the world's most stringent standards, including the EU RoHS Directive, REACH Substances of Very High Concern (SVHC) regulations, EN-71-3 Toy Safety Directive, as well as California Proposition 65 and U.S. consumer product safety regulations. Our company ensures that all products comply with the highest environmental and health safety specifications, and has successfully developed new market products that significantly reduce environmental impact. This further consolidates our leadership position within the global green supply chain.

Non-PVC products

Our company's R&D focuses on environmental sustainability, actively engaging in independent development of non-PVC plastic-coated fabrics. We are dedicated to creating and continuously promoting alternative materials that comply with global environmental regulations. By introducing advanced plastics such as POE, TPE, and TPU, we produce non-PVC coated fabrics that combine outstanding physical properties with eco-friendliness, while simultaneously opening new markets in high-value product sectors. As product designs and application scopes continue to expand, we showcase our firm commitment to green material innovation and market leadership through concrete product cases.

The product examples are as follows:

- ◆ Eco-friendly waterproof materials (no phthalate, no heavy metals, for breeding and water storage purposes)
- ◆ Eco-friendly exhaust pipe (heat-resistant, conductive)
- ◆ Eco-friendly furniture (used in sofas, seats, bicycle seat cushions)
- ◆ Eco-friendly shoe materials (applied to functional sneakers)
- ◆ Eco-friendly bags (applied to various slip-resistant functional parts)

2025 Objective

Parallel Deployment of Intelligent AI Projects

- ◆ Utilizing intelligent models to provide optimal process operating condition settings (SP), and applying intelligent model-based optimization control to quickly achieve optimal energy consumption conditions. This enhances process stability and energy-saving benefits. The system has been implemented in Taiwan VCM's distillation towers, with Phase III of C-6102 and Phase II of C-6101 completed in 2025, and Phase I extended to the hydrochloric acid tower.
- ◆ Establishing models to monitor the usage of cracking furnaces, providing natural gas safety monitoring points. This enables low-level natural gas alarms during reduced consumption, preventing flameout incidents caused by insufficient usage, thereby improving safety and stability.
- ◆ Through industry-academia collaboration, intelligent models have been introduced into dryer operations. These models provide optimal process operating condition settings (SP) and enable processes to quickly reach optimal energy consumption conditions, enhancing stability and energy efficiency. The CGPC Main Plant has taken the lead in implementation.
- ◆ CGPCP Linyuan Plant provides historical data and operating parameters to the CGPC Main Plant AI team for model calibration.
- ◆ Six major smart technologies have been introduced to establish a safe operating environment and management system.

2025 Performance

Intelligent monitoring to create a safe operating environment for energy conservation and carbon reduction

- ◆ CGPC and CGPCP applied intelligent models to calculate parameters for operations, reducing the frequency of manual adjustments. Considering current operational conditions and unfavorable market demand leading to reduced production capacity, the intelligent model has limited data. The project will be relaunched once production levels recover.
- ◆ Intelligent models are used to provide optimal process operating condition settings (SP), and intelligent model-based optimization control enables processes to quickly reach optimal energy consumption conditions. This enhances process stability and energy-saving benefits. The system has been implemented in TVCM's distillation towers, with Phase III of C-6102 and Phase II of C-6101 completed in 2025, and Phase I extended to the hydrochloric acid tower.
- ◆ Models have been established to monitor cracking furnace usage, providing natural gas safety monitoring points. This enables low-level natural gas alarms during reduced consumption, preventing flameout incidents caused by insufficient usage, thereby improving safety and stability.
- ◆ Out of six major smart technologies, five have been completed: gas detection management, personnel and vehicle positioning, equipment monitoring systems, plant operation management, and intelligent inspection systems. These are gradually building an integrated plant management platform.

2026 Objective

Establishing Smart Factories and the Learning and Application of Generative AI

- ◆ Cooling tower fan motors are optimized using generative AI combined with real-time atmospheric data to generate operating temperature setpoints, achieving automation and maximum efficiency.
- ◆ Phase I of intelligent adjustment for cracking furnace natural gas (data collection and forecasting) has been implemented.
- ◆ VCM tank truck filling and VCM pump area safety image recognition systems have been installed. The VCM filling island detection system is integrated with the safety interlock system to achieve real-time monitoring and proactive emergency response, reducing disaster escalation risks and enhancing overall process safety.
- ◆ An intelligent monitoring and status analysis system for ethylene underground pipelines has been established, adopting the Smart LDS system developed by ITRI. This system enables real-time anomaly detection and signal analysis, with immediate data transmission and edge computing to support real-time early warning and decision-making assistance.
- ◆ A generative AI platform has been introduced to manage catalyst quantities within the plant, ensuring compliance with current regulations and controlling catalyst storage timing.
- ◆ Among the six major smart technologies, the AI-based safety image system continues to be optimized.
- ◆ CGPC's Processing R&D Department uses generative AI to create embossed printing patterns and simulate final products for customer confirmation, reducing trial-and-error costs and saving significant development expenses.

2027 Objective

Accelerating the Application of Generative AI

- ◆ Enhance the application of generative AI by extending it to utility processes and performance evaluation.
- ◆ Phase II of intelligent adjustment for cracking furnace natural gas (testing and execution) has been implemented, utilizing data feedback from tail gas oxygen analyzers and establishing basic operating curves to achieve performance improvement.
- ◆ Integrate various in-plant platform information, visualize data, and build a dedicated war room.

2030 Objective

Enhanced intelligence

- ◆ In the future, with the introduction of intelligent systems and smart learning control, AIoT technology will bring new vitality to traditional industries. In terms of hardware and software, technological integration enables intelligent monitoring and automated control, effectively improving production efficiency. Through energy management systems, energy use can be maximized while minimizing environmental impact. For safety enhancement, intelligent monitoring systems provide real-time hazard detection and offer rapid and accurate emergency responses.
- ◆ The upgrade to smart manufacturing not only strengthens hardware-software integration and enhances safety protection, but also accelerates the transformation of traditional industries toward a low-carbon future, supporting energy conservation and carbon reduction goals and contributing to environmental sustainability.

Various projects towards the promotion of smart factories

Establishment of a intelligent factory

1. Process optimization & safety monitoring

- ◆ Distillation Column Systems of TVCM.
- ◆ Wireless vibration spectrum analysis for refrigeration units.
- ◆ Intelligent monitoring and leak detection system for underground ethylene pipelines.
- ◆ PVC drying systems at cgpc and cgpc plants.
- ◆ Absorption tower process safety monitoring.
- ◆ CGPC Alkali-chlorine evaporation tank system.
- ◆ Gas detection data analysis and management.
- ◆ Equipment and pipeline monitoring systems.
- ◆ Intelligent inspection systems.
- ◆ Personnel anomaly recognition and personnel positioning.



2. AOI image recognition

- ◆ Electrical Panel AOI with Thermal Imaging.
- ◆ intelligent Safety System for Stackers.
- ◆ Safety image recognition for tank truck filling and VCM pump areas.
- ◆ Personnel and vehicle positioning system.
- ◆ AI-based safety image system.
- ◆ Fabricated plant product defect identification system
- ◆ Pipe AOI Image Detection System
- ◆ Intelligent weighbridge system and license plate AOI image recognition



3. Intelligence factory

- ◆ Situation Room at Main Plant.
- ◆ Polymerization production management system.
- ◆ Alkali-Chlorine Manufacturing Management System.
- ◆ CGPC Automatic Warehousing System.
- ◆ Energy Efficiency Performance Management Platform.
- ◆ Situation room instrumentation at TVCM Linyuan Plant.
- ◆ PSM (Process Safety Management) intelligent management platform.
- ◆ Operation management platform at CGPC Linyuan Plant.



Sustainable Management through Industry-Academia Collaboration

- ◆ Providing Intelligent Education Scholarships
- ◆ Sharing Practical Experiences in Industry- Academia Collaboration



ESG Benefits

- ◆ Energy Conservation, Carbon Reduction, Environmental Protection
- ◆ Stable Quality, Economic Prosperity
- ◆ Reducing the Probability of occupational Accidents



Digitalized PSM Management and Integrated Intelligent Systems

TVCM actively participated in the “Smart Petrochemical Safety Upgrade Subsidy Program” promoted by the Industrial Development Administration, Ministry of Economic Affairs. The company successfully established a digitalized Process Safety Management (PSM) system and integrated multiple intelligent technologies, comprehensively enhancing process safety and smart management effectiveness.

The achievements of this implementation include:

◆ 10 PSM management modules:

Contractor management, hot work permits, incident investigation, emergency response, operating procedures, equipment integrity, compliance audits, pre-startup safety review, training, and management of change.

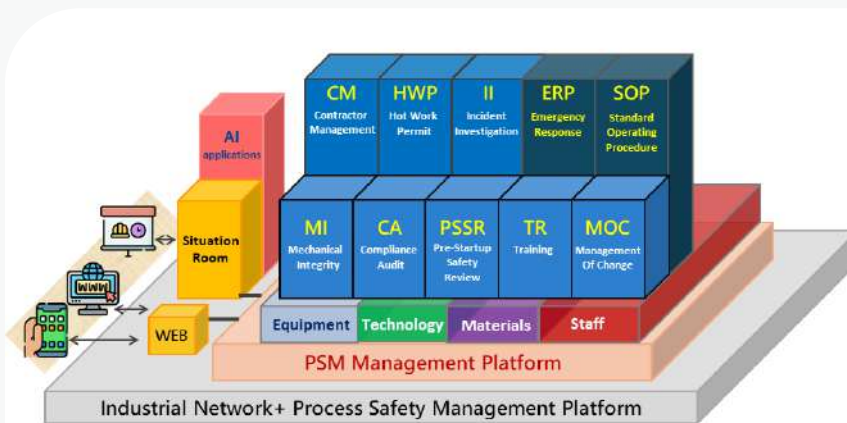
◆ 6 intelligent technologies:

Intelligent inspection, gas detection data analysis, personnel and vehicle image recognition, personnel positioning, plant operation management, and equipment/pipeline monitoring.

◆ Situation room establishment:

Building a real-time monitoring mechanism to construct a comprehensive smart process safety management system.

During the review meeting, Kaohsiung City Labor Bureau Director Deng-Chun Chou expressed recognition of the project's achievements.



For a complete explanation, please refer to the latest news: [Digitalized PSM Management and Integrated Intelligent Systems](#).

Low-Carbon Demonstration Plant in the Manufacturing Sector

TVCM Linyuan Plant (a subsidiary of CGPC) has been designated by the Industrial Development Administration, Ministry of Economic Affairs, as a demonstration plant under the “Low-Carbon Guidance Program for Small and Medium-Sized Manufacturers,” showcasing achievements in transformation and smart upgrades. By upgrading two cracking furnaces (F-6201 and F-6202), the plant addressed issues of refractory material aging and combustion efficiency, significantly improving energy performance. At the same time, it actively promoted smart upgrades, including:

- ◆ Establishing a PSM platform to integrate equipment management, permits, and audit processes.
- ◆ Introducing AI for distillation column optimization and early-warning operations.
- ◆ Implementing a VOCs concentration monitoring system to strengthen safety and environmental management.

Through continuous investment and technology adoption, TVCM Linyuan Plant achieved an average annual electricity savings rate of 1.58% between 2015 and 2024. These efforts positioned the plant at the forefront of environmental protection and sustainable development, making it a benchmark demonstration site for the “2025 Low-Carbon Guidance Program for the Manufacturing Sector.” For detailed information on equipment upgrades, smart management mechanisms, and quantified results, please refer to the supplementary materials: [“Green Transformation and Smart Upgrades – TVCM Linyuan Plant.”](#)



Smart Manufacturing and Low-Carbon Transition

Ming-Kuang Tsai, General Plant Manager of TVCM Linyuan Plant, was invited to deliver a keynote speech at the “2026 TAISE Sustainability Trends Seminar.” His presentation, titled “Smart Manufacturing and a Sustainable Future: How Enterprises Can Leverage Technological Innovation to Achieve Resilience and Low-Carbon Competitiveness,” shared practical experiences of the petrochemical industry in driving low-carbon transition through AI and smart manufacturing.

Mr. Tsai highlighted that, in the face of carbon tariff trends such as the EU CBAM, enterprises must actively reduce product carbon footprints and transform carbon reduction capabilities into competitive advantages in international markets. TVCM Linyuan Plant has introduced AI technologies to build a smart factory management system, including personnel positioning, intelligent inspection, safety monitoring through image recognition, VOCs intelligent monitoring, and AI-based real-time leak detection for underground pipelines. These applications strengthen workplace safety and predictive maintenance, enabling a shift from traditional reactive repairs to proactive early warning and resilience management.

In addition, in response to global geopolitical challenges, overcapacity in mainland China, and domestic net-zero carbon pressures, the plant has adopted AI-driven process optimization and energy management to improve energy efficiency and reduce carbon emissions. Taiwan VCM Linyuan Plant continues to implement autonomous carbon fee reduction programs and multiple energy-saving projects, achieving an average annual electricity savings rate of 1.58%. It has been selected by the Industrial Development Administration, Ministry of Economic Affairs, as a demonstration plant under the “Low-Carbon Guidance Program for the Manufacturing Sector,” showcasing the petrochemical industry’s practical achievements in smart upgrades and low-carbon transition.



For a complete explanation, please refer to the [Video Section: “Smart Manufacturing and Low-Carbon Transition”](#) and [“Achievements of Smart Manufacturing and Low-Carbon Transition at TVCM and CGPC Linyuan Plants.”](#)