Chapter 2

Corporate Governance and Operational Performance

Operational Highlights

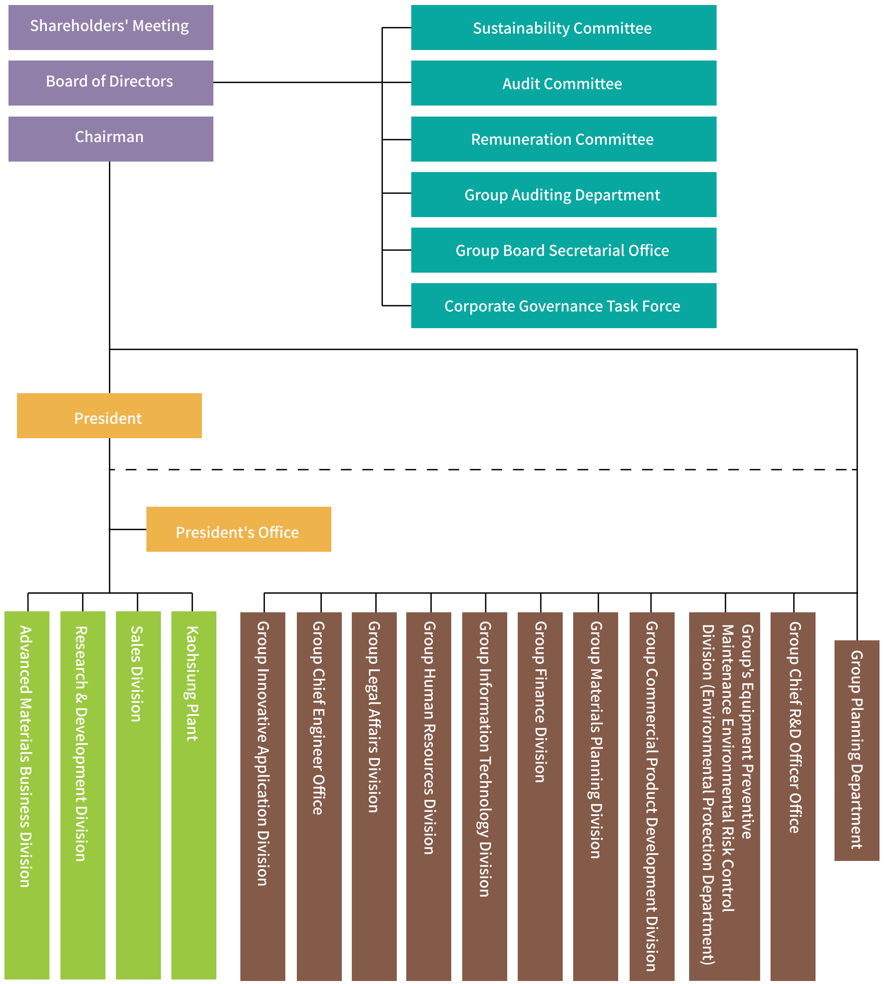
- Invested NT$906 million in the Kaohsiung Inter-continental Container Terminal (ICT) Project Phase 2. The new plant was completed and commissioned in Q3 2025.
- Invested approximately NT$276 million in 2025 for various production processes, environmental protection, and industrial safety equipment improvement projects.
- Completed the small-scale Compounding processing line.

Material topics in this chapter

Economic Performance

2.1 Corporate Governance

USI Management Organizational Structure GRI 2-9、2-11、2-12、2-19、2-23、2-24



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Board of Directors GRI 2-9、2-10、2-12、2-17

Board of Directors Operations

The Board of Directors is the highest governance unit of the Company. The Company strictly requires Board members to comply with laws and regulations, acting in accordance with the law as the highest operational guideline.

The election of the Company's directors (including independent directors) adopts a candidate nomination system. Shareholders holding 1% or more of the total number of issued shares and the Board of Directors may propose a list of director candidates. After the Board approves that the candidates meet the required qualifications for directors, the list is proposed to the Shareholders' Meeting, where shareholders elect the directors from the candidate list.

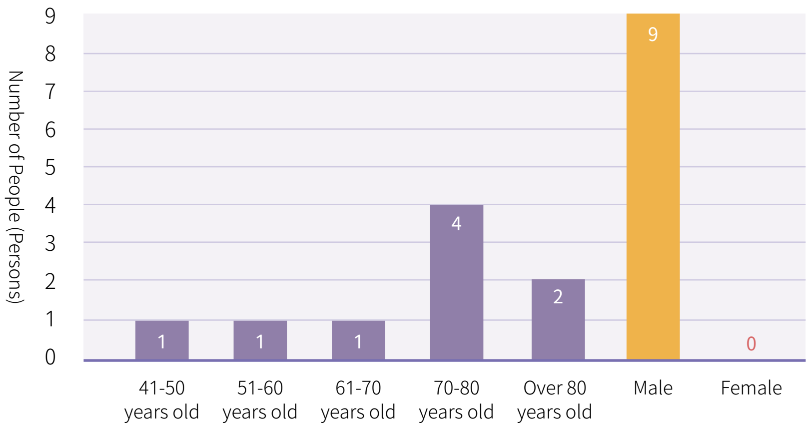
The current Board of Directors was elected in 2023 and consists of 9 directors with rich experience in professional fields. Among the director quotas, 4 independent directors were established, accounting for 44% of the Board's seats.

The term of office for the Company's directors is 3 years, and they are eligible for re-election. (Director Election Regulations)

Board Composition

Current Term	May 31, 2023 to May 30, 2026
Members	Directors: Quintin Wu (Chairman), Jing-Sho Yu, Zhe-I Gao, Pei-Ji Wu (President), Hong-Ting Wu Independent Directors: Sean Chen, Woody Duh, Yancy Hai, and Sun-Te Chen
Gender of Members	All male

Age and Gender Distribution of Board Members



In 2025, the Company held 4 Board of Directors meetings, with an in-person attendance rate of 94.44% (100% including proxy attendance) for all directors (including independent directors). The Board of Directors is led by the Chairman. For detailed operational situations, please refer to the USI 2025 Annual Report: III. Corporate Governance Report _ Corporate Governance Operations.

1 **Responsible Business Unit**

Submits proposal

2 **Functional Committees**

Convenes meetings according to relevant scopes of authority to report, discuss, and resolve proposals, and prepares meeting minutes of the resolution results.

3 **Submits to the Board of Directors**

Reports, discusses, and resolves proposals, and prepares meeting minutes of the resolution results.

For material resolutions of the Board of Directors in 2025, GRI 2-16, please refer to the USI 2025 Annual Report: III. Corporate Governance Report _ Corporate Governance Operations _ Information on Board Operations, and the Board of Directors' resolutions on the Company's official website.

Additionally, the Company has established a "Board Secretarial Department" as the administrative unit for Board operations, responsible for planning and managing Board affairs to enhance meeting efficiency and assist in promoting the execution of resolutions.

Implementation Status of Board Member Diversity Policy GRI 2-10

I. Board Member Diversity Policy and Implementation Status

According to Article 20 of the Company's "Corporate Governance Best Practice Principles," the composition of Board members should consider diversity and possess the knowledge, skills, and literacy necessary to perform their duties.

To achieve the ideal goals of corporate governance, the Board of Directors as a whole should possess the following capabilities:

Ability to make operational judgments	**Industry knowledge**
Ability to perform management and administration	**Leadership skills**
Ability to conduct accounting and financial analysis	**International market perspective**
Ability to conduct crisis management	**Decision-making ability**

In addition to possessing the above eight professional capabilities necessary to perform their duties, the current Board members have responded to the growing global emphasis on issues related to corporate governance and environmental protection. Three directors possess professional capabilities in "law" or "environmental protection." Currently, all serving members possess the knowledge, skills, and literacy needed to perform their duties, holding specialties in accounting/finance, international markets, law, and environmental protection.

For detailed diversity implementation status, please refer to page 41 of the Annual Report. Directors with employee status account for 22% of the Company's Board, and independent directors account for 44%.

II. Specific Management Objectives for Board Member Diversity GRI 2-17

The diversity goal for Board members is to add one female director to achieve gender diversity.

Additionally, to respond to the growing global trend of emphasizing corporate sustainable development, the Company plans to add Board members familiar with and specialized in relevant fields to enhance the Company's sustainable competitiveness and perfect the Board's functions.

(Implementation Status of Board Member Diversity Policy: Page 44 of the USI 2025 Annual Report and the Company's official website).

Avoidance of Conflicts of Interest among Directors GRI 2-11、2-15

The Company attaches great importance to corporate governance. To ensure the independence and objectivity of Board decisions, a comprehensive conflict of interest avoidance mechanism has been established, as explained below:

1. **Institutional Norms:** The Company has established Rules of Procedure for Board of Directors Meetings, Ethical Corporate Management Best Practice Principles for Directors and Managers, Ethical Corporate Management Best Practice Principles, and Procedures and Guidelines for Ethical Corporate Management, explicitly stipulating the recusal measures directors should take when facing conflicts of interest.
2. **Meeting Procedures:** When the Board of Directors discusses proposals in which a director has a vested interest, recusal procedures are strictly enforced. The meeting chair will remind relevant directors to leave the room and will designate another director to act as chair if the chair has a conflict of interest.
3. **Information Disclosure:** The Board Secretarial Department details directors' recusal situations in each meeting and incorporates relevant information into the meeting minutes.
4. **Annual Report:** The Company has legally completed the Board's conflict of interest recusal procedures; please refer to the Company's Annual Report - Board of Directors Operations for relevant details.
5. **Continuous Improvement:** The Company will continuously review and perfect the conflict of interest avoidance mechanism to ensure the transparency and fairness of corporate governance.

Implementation Status of Performance Evaluations for the Board of Directors and Functional Committees GRI 2-18

To continuously strengthen the operational effectiveness and functional performance of the Board of Directors, the Company revised the "Board of Directors Performance Evaluation Regulations" in 2025, clearly stating that an external professional independent institution or expert team should be commissioned every three years to conduct the Board's performance evaluation.

The Company immediately commissioned the "Taiwan Institute for Ethical Business" to conduct the 2025 external evaluation of Board performance, and the evaluation results were reported to the Board of Directors in November of the same year.

Based on the evaluation recommendations, the Company has planned improvement measures to refine the Board's decision-making quality and enhance the Company's overall operational resilience and risk response capabilities, committing to promoting the Company's long-term sound operations and sustainable development.

In addition to regular external evaluations, the Company conducts annual internal self-evaluations for the Board as a whole, individual Board members, and functional committees.

The internal performance evaluation for 2025 was completed in early 2026. After self-evaluation by Board members, the results showed that the Board operated well and its operational effectiveness was highly recognized.

The evaluation results confirmed that the Board's operations demonstrated high effectiveness. In the future, we will continue to use this as a foundation to pursue higher benchmarks in corporate governance performance.

The external Board of Directors performance evaluation workflow includes:

1. Planning and Commissioning
2. Data Preparation and Questionnaire Completion
3. Document Review
4. Interview and Verification
5. Report Compilation and Feedback for Improvement

For the Board of Directors Performance Evaluation Regulations, please refer to the Company's official website: For the complete workflow and description, implementation status, and evaluation results of the Board of Directors Performance Evaluation, please refer to the Company's official website: Board of Directors Performance Evaluation.

Implementation Status of Enhancing Directors' Professional Capabilities GRI 2-17

To strengthen the professional capabilities of directors (including independent directors), the Company regularly provides relevant continuing education course information to assist directors in continuous learning.

Additionally, internal continuing education courses totaling 6 hours were planned. On July 29, 2025, Professor Chen-Fu Chien, Vice President of Tsing Hua University and General Manager of Zhen Ding Technology Group, was arranged to deliver a 3-hour lecture on "Industrial Empirical Evidence of Smart Manufacturing and Digital Decision Making";

and on October 16, 2025, Dr. Jiann-Chyuan Wang, Vice President of the Chung-Hua Institution for Economic Research, was arranged to deliver a 3-hour continuing education course on "US-China Economy and Taiwan Industry Outlook After the US Election."

To enhance directors' professional capabilities, the Company arranges various continuing education courses and hours for directors each year. In 2025, internal continuing education courses totaled 6 hours, and the total hours for internal and external continuing education courses were 64 hours, with sustainability-related courses accounting for over 57.81% (37 hours in total).

The continuing education hours of all directors complied with the provisions of the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE/TPEx Listed Companies." For detailed continuing education courses and hours, please refer to page x of the USI 2025 Annual Report.

▲ On July 29, 2025, arranged a 3-hour continuing education course featuring a lecture on "Industrial Empirical Evidence of Smart Manufacturing and Digital Decision Making" by Professor Chen-Fu Chien, former Vice President of Tsing Hua University and General Manager of Zhen Ding Technology Group.

▲ On October 16, 2025, arranged a 3-hour continuing education course featuring a lecture on "US-China Economy and Taiwan Industry Outlook After the US Election" by Dr. Jiann-Chyuan Wang, Vice President of the Chung-Hua Institution for Economic Research.

Corporate Governance Officer

To protect shareholders' equity and strengthen the functions of the Board of Directors, the Company resolved at the Board meeting on May 13, 2019, to appoint the legal affairs executive, Division Director Yung-Chih Chen, to concurrently serve as the Corporate Governance Officer, acting as the highest executive responsible for corporate governance-related affairs.

Division Director Yung-Chih Chen has over 20 years of experience as a practicing lawyer and over 10 years as a legal affairs executive for listed companies. His main responsibilities include legally handling matters related to Board of Directors and Shareholders' meetings, preparing minutes for Board and Shareholders' meetings, assisting directors in onboarding and continuing education, providing materials required for directors to execute their duties, assisting directors in complying with laws and regulations, reporting to the Board the review results regarding whether independent directors' qualifications comply with relevant laws and regulations during nomination, election, and their term of office, and handling matters related to director changes.

In 2025, Corporate Governance Officer Yung-Chih Chen's continuing education hours totaled 50 hours.

For detailed annual key business execution and continuing education, please refer to Corporate Governance on the Company's official website.

Functional Committees

Subordinate to the Board of Directors, the Company has established three functional committees based on their functions: the Audit Committee, Remuneration Committee, and Sustainability Committee. They are responsible for formulating and reviewing policies related to the committees' scope of duties to strengthen corporate governance.

Title	Name	Audit Committee	Remuneration Committee	Sustainability Committee
Chairman	Quintin Wu	—	—	Member
Director and President	Pei-Ji Wu	—	—	Vice Chairman
Independent Director	Sean Chen	Convener	✓	—
Independent Director	Woody Duh	✓	✓	Chairman
Independent Director	Yancy Hai	✓	Convener	✓
Independent Director	Sun-Te Chen	✓	✓	✓

Audit Committee

1 Current term: May 31, 2023 ~ May 30, 2026. The committee consists of 4 members, comprising all independent directors of the Company.

2 The Committee convenes at least once a quarter and may convene at any time as needed. A total of 4 meetings were held in 2025. The attendance of independent directors is as follows:

Title (Note 3)	Name	Actual Attendance (B)	Proxy Attendance	Actual Attendance Rate (%) (B/A)	Remarks
Independent Director (Convener)	Sean Chen	4	0	100.00	Re-elected
Independent Director	Woody Duh	4	0	100.00	Re-elected
Independent Director	Yancy Hai	3	1	75.00	Re-elected
Independent Director	Sun-Te Chen	4	0	100.00	Re-elected

Remuneration Committee GRI 2-19、2-20、2-21

1 Current term: June 6, 2023 ~ May 30, 2026. The committee consists of 4 members, all of whom are independent directors.

2 The Committee convenes at least twice a year. In 2025, a total of 3 meetings were held, with an in-person attendance rate of 92% for members. Regarding the operations of this Committee, please refer to the Company's official website, annual report, or link to the Market Observation Post System (MOPS) for inquiry.

3 The Committee regularly reviews the (1) policies, systems, standards, and structures of remuneration for directors and managers, and (2) performance evaluations. It sets and evaluates the remuneration of directors and managers by referencing the median payment levels of peers, the time invested by individuals, responsibilities assumed, achievement of personal goals, remuneration of individuals in equivalent positions, achievement of the Company's short-term and long-term business goals, and the Company's financial condition, which are then approved by the Board of Directors. GRI 2-20

Remuneration: Director remuneration items include compensation, director profit-sharing remuneration, and business execution expenses. Senior manager remuneration items include monthly salary, fixed bonuses, year-end bonuses, employee compensation, annual special bonuses, legally contributed pensions, and welfare funds. Among these, director profit-sharing remuneration and employee compensation are handled in accordance with Article 34 of the Company's Articles of Incorporation. GRI 2-19

In 2025, the annual total compensation ratio was 11.33:1, and the percentage increase in annual total compensation ratio was -163.58%. GRI 2-21

Performance Evaluation:

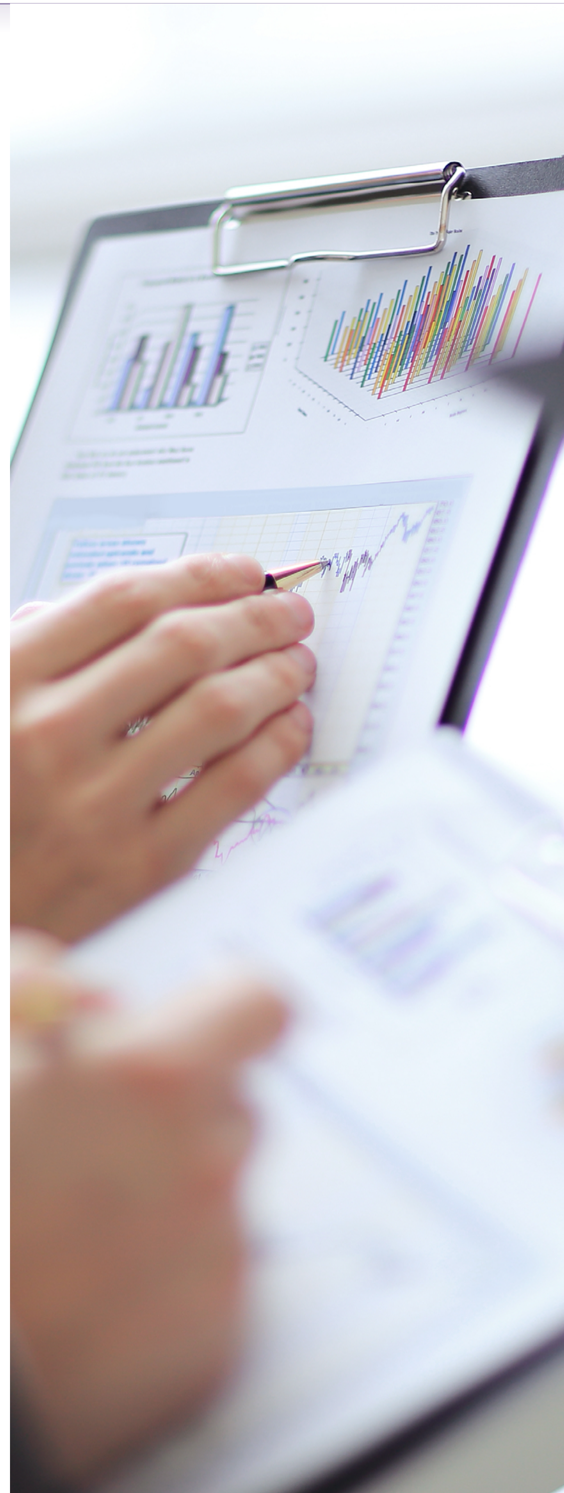
(1) The dimensions for director performance evaluation cover mastery of company goals and missions, awareness of duties, degree of participation in company operations, management of internal relationships and communication, professional and continuing education, and internal controls. Additionally, there are separate performance evaluations targeting the Sustainability Committee.

(2) The performance evaluation for senior managers covers financial aspects (operating revenue, operating profit, and net profit before tax), customer aspects (customer satisfaction, service quality, key market expansion, etc.), product aspects (brand management, quality innovation, etc.), talent aspects (talent cultivation, potential development, etc.), safety aspects (zero pollution, zero emissions, zero occupational injuries, zero accidents, zero breakdowns), and project aspects (digital transformation, energy saving and carbon reduction, circular economy, net-zero emissions, etc.).

(3) For related indicators linked to sustainability performance, the President must plan at least a 40% weight, which should also include at least 15% for climate-related items. Other senior managers should plan no less than 5% for related sustainability performance indicators.

Target	Performance Indicators	Execution Method (Weight)
President	Financial Performance (30%)	-
	Market and Customers (30%)	-
	Sustainable Development Performance (40%)	Talent Cultivation Plan (15%) Energy Saving and Carbon Reduction Effectiveness (15%) Occupational Health and Safety (10%)
Senior Managers	Sustainable Development Performance (40%)	Talent Cultivation Plan (10%) Cross-Company Product Integration (10%) Sustainable Product Innovation (20%)

Note 1: Annual total compensation ratio: Annual total compensation for the organization's highest-paid individual / median annual total compensation for all employees (excluding the highest-paid individual).
Note 2: Percentage increase in annual total compensation ratio: Percentage increase in annual total compensation for the organization's highest-paid individual / percentage increase in median annual total compensation for all employees (excluding the highest-paid individual).



Sustainability Development Committee GRI 2-10、2-14

1. The Committee is composed of the Chairman, the President, and at least two independent directors resolved by the Board of Directors. One of the independent directors shall serve as the chairperson, and the President shall serve as the vice chairperson.
2. There are 5 members in the current term, with the tenure spanning from June 6, 2023, to May 30, 2026.
3. Functional Responsibilities of the Committee:
   - Discussion and resolution of sustainability development policies.
   - Discussion and resolution of strategic planning, annual plans, and special project plans for sustainability development.
   - Supervising the implementation of strategic planning, annual plans, and special project plans for sustainability development, and evaluating their execution status.
   - Review and approval of the Sustainability Report (ESG Report).
   - Reporting annual sustainability development execution achievements to the Board of Directors every year.
   - Other matters to be handled by the Committee as instructed by resolutions of the Board of Directors.
4. The Committee shall convene at least twice a year. A total of 2 meetings were held in 2025, with an in-person attendance rate of 100% among the committee members. For historical committee meeting records, please refer to the Corporate Governance section on the ESG website.
5. Three working groups have been established: Corporate Governance, Environmental Protection, and Social Relations, as shown in the diagram below:

ESG Committee

Chairperson: Independent Director Woody Duh

Vice Chairperson: President Pei-Chi Wu

Member: Chairman Quintin Wu

Project Secretary

Corporate Governance Group

The company engages in discussions with stakeholders such as investors, customers, suppliers, and government agencies to address issues related to achieving sustainable operations. Through these discussions, the company aims to maintain trust relationships with relevant stakeholders.

Lead Unit: Kaohsiung Plant
Collaborating Units: Sales & Marketing Division, R&D Division, Legal Division, Audit Division, Finance Division, Accounting Division, Planning Department, Materials Department, Information Technology Department, Group Secretary Office of BOD

Environmental Protection Group

Integrate associated measures and planning programs executed internally for environmental protection, energy saving/carbon reduction, and occupational health and safety. Track and review implementation achievements, and study environmental protection topics that must be considered to strive to meet stakeholder expectations.

Lead Unit: Kaohsiung Plant Occupational Health and Environmental Protection Office
Collaborating Units: Kaohsiung Plant Technical Department, Manufacturing Department I, Manufacturing Department II, Manufacturing Department III

Social Relations Group

Target company employees, community residents, and non-profit organizations as communication objects to study and discuss relevant topics such as employee care, community care, and social participation, thereby contributing to creating a fair, just, safe, and harmonious society.

Lead Unit: Kaohsiung Plant Human Resources Department
Collaborating Units: Taipei - USI Education Foundation, Kaohsiung Plant - General Affairs Section

Annual Key Work Highlights and Next Year's Plans of the Sustainability Development Committee Working Groups:

2025 Sustainability Development Implementation Achievements

I. Accomplishments

1. Continuously advanced USI's five-year operational plan.
2. Completed various tasks under the "Gudeng Supply Chain Low-carbon Transition Coaching Program," achieving an accumulated carbon reduction of 13,113 metric tons of CO_2e over two years in collaboration with the customer and its supply chain.
3. Completed the phase II and phase III construction of solar power facilities, and continuously assessed investments in solar power plants and geothermal power.

II. Certifications and Awards

1. The Kaohsiung Intercontinental Container Terminal (ICT) Project Phase 2, with an investment of NT$906 million, was completed and commissioned in the third quarter.
2. Ranked in the top 6-20% tier among TWSE-listed companies in the 2025 Corporate Governance Evaluation.
3. Achieved dual "B" scores for Climate Change and Water Security in the CDP evaluation.
4. Accumulated grid-connected capacity of solar energy farms reached 9MW.
5. Adopted 5 hectares of newly afforested land.
6. Electricity saving rate of 1.7%, water saving rate of 6.6%, water recycling rate of 91.4%, and raw material recycling rate of 13.9%.
7. Recovered a total of 10.5 metric tons of plastic pellets.
8. Green procurement expenditure totaled approximately NT$51 million.
9. Zero occupational safety incidents and zero process safety incidents occurred in 2025.

III. Report Planning

1. Published the Chinese edition of the ESG Report and TCFD Report in August.
2. Published the English edition of the 2024 ESG Report in September.

IV. Philanthropic Activities

1. Made the donation for the fifth phase of the afforestation adoption project.
2. Donated NT$3,000,000 to the Alliance Cultural Foundation.
3. Sustained the adoption of the air quality purification zone base at Kaohsiung Municipal Renwu Special Education School for eight consecutive years.
4. Participated in the Neihu Science and Technology Park Thousand-Person Blood Donation Event.
5. Participated in the 2025 Taipei Tech Cup Charity Road Run.

2026 Work Plan

1. Continuously drive USI's five-year operational plan.
2. Cooperate with ESG evaluations to promote strategies and measures for biodiversity and natural carbon sinks.
3. Seek collaboration opportunities with external vendors to promote green power development and carbon neutrality responses. The estimated green power procurement is 3,100,000 kWh.
4. Continuously participate in sustainability-related evaluation activities.
5. Participate in social philanthropic activities.
6. Publish the Chinese edition of the 2025 ESG Report and TCFD Report in August.
7. Publish the English edition of the 2025 ESG Report in September.
8. Execute tasks associated with the introduction and implementation of IFRS Sustainability Disclosure Standards.
9. Advance workflows related to internal controls for sustainability information.

The Board's supervision of sustainability performance-related actions: please refer to page 58 of the USI 2025 Annual Report.

Protection of Shareholder Rights and Information Transparency

As of the book closure date of March 31 for the 2026 Annual General Shareholder Meeting, USI's shareholder structure consists primarily of individuals, other corporate entities, and foreign institutions/investors. For the shareholder structure and major shareholder list (Note), please refer to the Shareholder Structure section on the official company website.

Note: Shareholders with a shareholding ratio of 5% or more, or shareholders ranking in the top ten by shareholding ratio.

The company is committed to providing shareholders with transparent and real-time corporate information. We hold institutional investor briefings and shareholder general meetings periodically every year, publish annual reports and ESG reports, upload operational performance, financial information, and material messages to the Taiwan Stock Exchange's Market Observation Post System (MOPS), and set up traditional Chinese and English versions of the "Investor Services" webpage to instantly disclose corporate governance status, operational announcements, financial statements, institutional investor briefings, and group dynamic news. We also continuously gather shareholder opinions to feed back to the management team as decision-making references.

Furthermore, our company attaches great importance to the rights of foreign investors and the trend of corporate internationalization. Since fiscal year 2018, we have reinforced the disclosure of various English information across info channels such as the annual report, MOPS, and company website, proactively building excellent two-way communication channels with shareholders via multiple means to put the protection of shareholder rights into practice.

Data as of the book closure date on March 31, 2026 is shown in the table below:

USI Shareholder Structure	Government Agencies	Financial Institutions	Other Corporate Entities	Individuals	Foreign Institutions & Foreign Investors
Shareholding Ratio (%)	0	0.03	20.80	50.91	28.26

USI Shareholder Structure

- Individuals 50.91%
- Foreign Institutions & Foreign Investors 28.26%
- Other Corporate Entities 20.80%

Risk Management Organizational Structure

To effectively execute the company's risk management mechanism, the Board of Directors, Audit Committee, President's Office, Internal Audit Division, various risk management units, and subsidiaries jointly participate in pushing it forward. For details on the organizational structure, please see the Risk Management section on the ESG website.

For risk management policies, processes, and implementation status, please refer to Section 2.3 Risk Management in this report.

2.2 Economic Performance

GRI 2-25、3-3 SDGs 8

Impact Topics

Overcapacity, plastic reduction policies restricting industrial development

2025 Key Achievements

1. Invested approximately NT$276 million in equipment enhancements.
2. Completed construction of the first Compounding processing line.
3. Completed the new factory of Kaohsiung Intercontinental Container Terminal (ICT) Project Phase 2.
4. Advanced phase II of solar power generation facilities.
5. Developed B2C markets.

2026 Targets

1. Complete the second Compounding processing line.
2. Complete construction for phase II and phase III projects of solar power generation facilities.
3. Schedule an investment of NT$176 million for equipment enhancements.

Medium- to Long-Term Planning

1. Complete and commission two processing lines.
2. Focus on green energy, environmental protection, and B2C product development to drive industrial updating and transformation.
3. Continuously promote the circular economy.

USI Corporation recorded a loss per share of NT$2.6 for fiscal year 2025. This year, the global petrochemical industry continued to face severe challenges. Influenced by the US reciprocal tariff policy, supply chain restructuring pressures intensified, and the US shale gas ethane advantage compressed the profit margins of naphtha crackers, causing ethylene prices to slide downward. However, the supply side of petrochemical products expanded due to Mainland China's petrochemical industry continuously rolling out large-scale capacity expansions, leading to an oversupply of products. Compounded by continuous price-slashing competition triggered by the US-China trade war, overall plastics and chemical market prices in Asia were depressed.

At the beginning of the year, due to market apprehensions regarding the shock brought by Mainland China's new EVA capacity, downstream customers were overly bearish about the future and continuously pushed down their inventory levels. Meanwhile, on the demand side, a solar grid-connection deadline policy stimulated module factories to rush orders ahead of schedule, which pushed first-quarter EVA prices to stop falling and rebound. In early April, the US announced its reciprocal tariff policy, bringing a serious shock to downstream PE and EVA customers; in particular, certain brand shoe factories with North America as their primary market saw their supply chains virtually grind to a halt at that time. It was not until after mid-June, with the outbreak of the Israel-Iran war and the gradual finalization of US tariff policies for various nations, that the downstream market gradually recovered momentum after several months of adjustments, allowing EVA prices to stop falling and stabilize. From early August to late September, due to a recovery in solar demand, EVA initiated another round of rebounding market conditions, until the fourth quarter when it turned downward again due to the commissioning of new capacities in Mainland China and South Korea. In sum, this year's EVA sales volume reached 123,000 metric tons, an increase of 7% compared to last year, while selling prices dropped by 7%. In comparison, HD/LLD market price fluctuations were smaller, yet some downstream customers were impacted by US tariffs, causing orders to decline; total HD/LLD sales volume reached 78,000 metric tons, a decrease of 5% compared to last year, with selling prices sliding down by 7%. The annual production volume of EVA/PE stood at 200,000 metric tons, an increase of 6% compared to the previous year.

Regarding R&D, we continue to develop high-VA EVA products applied in markets such as inks, high-end shoe material foaming, and wires/cables, among which special-grade EVA has achieved a major breakthrough in the wire and cable market. In addition, we continuously conduct manufacturing process optimization and specification updates for optical-grade cyclic block copolymers, targeting electronic industrial applications with high heat-resistance requirements, high-added-value optical lenses, and high-end transparent flexible tubes. In terms of CBC business promotion, major customers in new energy power applications and optical lenses have completed preliminary testing. Food packaging film applications have established a solid foothold and continue to expand toward European and American markets. Semiconductor carriers have achieved customer certification and are being stably delivered. Due to the outstanding performance of CBC materials in deep UV sterilization applications, they have successfully entered Mainland China's first-tier brand auto manufacturers and medical applications. Concurrently, we are proactively collaborating with internationally renowned brand manufacturers to develop products applied in sterilization water filter pitchers. In sum, due to continuously and actively expanding EVA product sales volume increases and a slide in ethylene costs, operating losses for this year have decreased compared to the previous fiscal year.

USI's Financial Performance from 2023 to 2025 GRI 201-1

(Unit: NT$ thousand)

Item	Basic Element	2023		2024		2025	
Direct economic value generated	Operating revenues (Note 1)		11,449,372		8,821,441		8,376,427
Economic value distributed	Operating costs (Note 2)		10,420,578		9,552,710		8,973,189
	Employee wages and benefits (Note 3)		627,636		546,451		529,696
	Payments to providers of capital (Note 4)	2023 cash dividends distributed in 2024 at NT$0.35 per share	416,067	2024 cash dividends distributed in 2025 at NT$0.2 per share	237,753	The Board approved the distribution of 2025 cash dividends in 2026 at an estimated NT$0.15 per share	178,315
		Interest expenses	58,644	Interest expenses	52,477	Interest expenses	60,941
	Payments to government (Note 5)		777,756		223,116		(8,136)
	Community investments (Note 6)		5,000		3,000		3,000
Economic value retained (Note 7)			(207,006)		(2,147,470)		(2,790,962)

Note 1: Operational revenue refers to sales revenue.
Note 2: Operational costs refer to cost of goods sold + operating expenses.
Note 3: Employee salaries and benefits are already included within the aforementioned operational costs.
Note 4: Interest expenses are already included within the aforementioned operational costs.
Note 5: Payments to government refer to corporate income tax paid (refunded).
Note 6: Community investments include feedback to local communities and donations to the USI Education Foundation, which are already included within the aforementioned operational costs.
Note 7: Retained economic value refers to net loss after tax.
Note 8: The 2023 operational costs included sales profits with subsidiaries, whereas 2024 only contains cost of goods sold and operating expenses; hence the 2024 data has been corrected. (GRI 2-4)

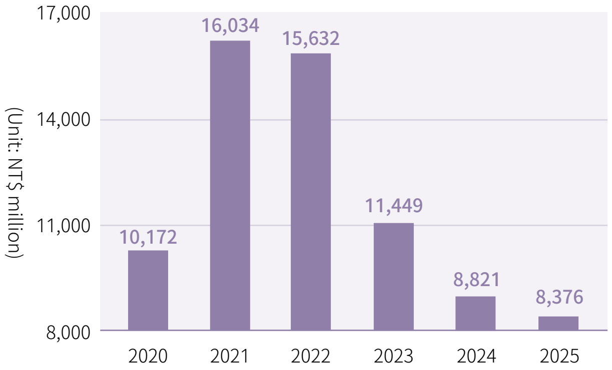
Surplus Distribution

For fiscal year 2025, operating revenue was NT$8.4 billion, net loss after tax stood at NT$2.791 billion, and a cash dividend of NT$0.15 per share was allocated. This surplus distribution proposal was approved by the Shareholder General Meeting on May 29, 2026.

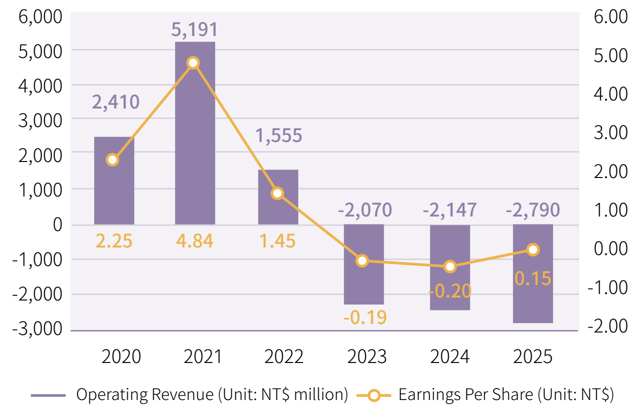
Dividend distribution over the years
www.usife.com.tw/zh-tw/dirInvestor/frmInvestor4.aspx

Financial statements over the years
www.usife.com.tw/zh-tw/dirInvestor/frmInvestor2.aspx

Operating Revenue



Net Profit After Tax



Innovative Operation and Management

USI invests large amounts of R&D budgets every year, actively recruiting and cultivating professional talent. The R&D expenditures for both 2024 and 2025 were NT$130 million.

Major Investments

Major Local Investments

I. Kaohsiung Plant High-Value Processing Line

USI Corporation invested approximately NT$400 million to set up two compounding processing lines, one large and one small, at the Renwu Plant to progressively ramp up the proportion of high-value output. Among them, the small-scale facility was completed and put into manufacturing by the end of 2025, while the large-scale line is mainly imported from abroad and projected for completion by the end of 2026.

Follow-up steps will promote products to applications such as medical materials, shoe materials, and wire and cable materials depending on market trends.

II. Kaohsiung Intercontinental Container Terminal Ethylene Storage Tank Project

To secure an abundant supply of raw materials for multiplying multi-directional imported ethylene sources, boosting future competitiveness, and sustainable operations, USI Group constructed the new factory of Kaohsiung Intercontinental Container Terminal (ICT) Project Phase 2 at Pier S14, with a total investment of NT$5.221 billion across a construction period spanning from 2017 to 2025.

Groundbreaking for the new factory of Kaohsiung Intercontinental Container Terminal (ICT) Project Phase 2 took place on July 31, 2019. USI invested NT$906 million to participate in the construction of the $80,000 M^3$ ethylene storage tank and auxiliary systems, which achieved commercial operations following completion in the third quarter of 2025, and will continuously provide stable ethylene sources to serve existing customers in the future.

III. Phase II Solar Power Generation Facilities

To step up energy self-sufficiency and implement the energy transition, USI completed the phase I solar power generation facilities in 2019, and allocated a budget of NT$31 million in 2025 to build phase II solar power generation facilities, scheduled for completion in early 2026.

The system capacities of the two phases stand at 443.775 kW for phase I and 478.8 kW for phase II.

Follow-up steps will consecutively set up and invest in solar PV and geothermal power generation to trim reliance on conventional fossil energy, effectively evading the impact of escalating carbon fee costs in the future, while uplifting corporate green competitiveness and brand value.

IV. Kaohsiung Plant Equipment Enhancement Investments

USI continuously carries out various production process, environmental protection, and industrial safety equipment enhancement projects, investing approximately NT$224 million in 2024 and approximately NT$276 million in 2025.

The estimated total investment for 2026 is NT$176 million. In the future, we will continuously invest in various energy-saving, carbon reduction, and new product development programs to provide high-quality and customized products.

Energy & Water Conservation
- Steam condensate recovery enhancement
- Wastewater pond improvement project

Yield & Quality Uplifting
- New catalyst systems
- Automatic filter screen replacement system
- Foreign matter screening machines
- Delivery pipeline updates

Pollution Prevention & Control
- TO/RTO furnace improvement projects
- Environmental protection/process monitoring system updates
- Compressor cylinder updates
- Control valve retrofits and updates

Efficiency & Reliability
- Ultra-high-voltage cable update engineering
- Motor maintenance/updates
- Low, medium, and high voltage switchboard updates
- Synchronous motor coil maintenance/updates

Refinement
- Inverter motor/high-efficiency motor updates
- Refrigerator/chiller updates
- Nitrogen compressor updates
- Air compressor updates
- Cooling tower fan blade enhancements
- Process operational adjustments
- High-efficiency transformer updates

Major Overseas Investment - Fujian Gulei Petrochemical Project

Corporate Profile

As the largest petrochemical joint venture across the Taiwan Strait, Fujian Gulei Petrochemical Co.,Ltd.v is located on the Gulei Peninsula on the southeastern coast of Mainland China. Established on November 3, 2016, it was founded as a 50%:50% joint venture by Dynamic Ever Investments Limited (Taiwan party) and Fujian Petrochemical Co., Ltd (Mainland party), primarily handling the operational activities of the Gulei refining-chemical integration project.

Investment Projects

Possesses 9 chemical installations including a 1-million-ton/year capacity ethylene cracker, capable of providing customers with products such as monoethylene glycol, ethylene oxide, styrene, polypropylene, ethylene-vinyl acetate copolymer resin, raffinate C4, thermoplastic elastomers, alongside ethylene, C5, C9, toluene, mixed xylenes, aromatics raffinate oil, butadiene, diethylene glycol, triethylene glycol, propylene, and cracked naphthalene fractions.

Investment Volume and Benefits

- Following approvals from relevant competent authorities, indirect investments are channeled via a third region into the Zhangzhou Gulei Park in Fujian Province, Mainland China, with cumulative investments not exceeding NT$8 billion.
- Stabilizes upstream raw material supplies, vertically integrates steam cracking, petrochemical intermediate raw materials, and plastics products, drops transport costs, and upgrades competitive advantages to optimize positioning across the Greater China market and compete within international market sales.

Investment Project Milestones

2016 Nov	2018 Aug	2019 May	2019 Jun	2020 Sep	2021 Mar	2021 Aug	2021 Dec	2022 Oct	2023 May
Established Fujian Gulei Petrochemical Co., Ltd.	Official approval was granted to the Gulei Refining & Chemical Plant Project.	Approval of the land for project planning by the Gulei Committee.	Project construction started.	Intermediate delivery of the PP processing units.	PP commissioning succeeded.	Smooth commissioning of steam crackers, SM, EO/EG.	Fujian Gulei Petrochemical Co., Ltd. started commercial operations.	Mid-term delivery of EVA facility (Note).	Gulei Integrated Refinery Project was completed and fully operational.

Note: "Mechanical completion" (原文中交) refers to the intermediate handover of a construction project, indicating that the construction contractor has finished all build works along the process workflow route. The process route is entirely linked to execute system pressure tests, water-power joint runs, etc., and the remaining minor tasks do not impact the rollout of trial manufacturing.

2.3 Risk Management

GRI 2-13

Grounded in a robust and honest corporate management philosophy, to secure our company's steady operations and sustainable development while lowering operational risks, we proactively promote the implementation of a risk management mechanism. Following a Board resolution in 2020, we formulated the "Risk Management Policy and SOP." The comprehensive policy incorporates risk management organization, risk management processes, and risk management categories and mechanisms. The President's Office is responsible for supervising the operations of various risk management units, evaluating risks periodically every year.

Scope of Risk Management

Our company integrates primary risk sources across business operations while taking practical operational feasibility into account to determine risk categories, executing identification on the probability of risk occurrence and the degree of impact for each risk. Depending on modifications in internal (and external) operating environments, each risk management unit adjusts control mechanisms every year.

Risk Management Matrix Chart

Degree of Impact ↓ / Probability of Occurrence →	Low		High
High	Financial risks Occupational safety risks	Strategic and operational risks	Raw material price and supply chain risks
	Information security risks Legal risks Human resource risks R&D risks Hazard and accident risks	Environmental and energy/ resource risks Climate change risks	
Low	Technology risks Other risks (Environmental protection events) Other risks (Transport safety - Underground pipelines)		

For detailed operational situations, please see the Risk Management section within our company's ESG zone; for climate change financial impact opportunities and risks, please refer to Section 4.5 Climate Change and Energy Management for details.

Cybersecurity management

I. Strategy and framework of cybersecurity risk management

Framework of cybersecurity risk management:

(1) Information Security Governance Organization: Convenes the "Information Security Management Review Meeting" periodically every year to rule on the 6 major input items of the information security management framework (processing status of previous management review proposals, changes in internal and external topics associated with the information security management framework, information security performance feedback, stakeholder feedback, risk assessment results and the status of risk treatment plans, and continuous improvement opportunities) and resolve the 2 major output items of the information security management system (decisions related to continuous improvement opportunities, and any need for modifications to the information security management system) to fulfill the targets of the information security management system.

(2) Information Security Organizational Framework: According to the company's internal standard operating procedure "Information Security Implementation Organization Regulations," the "Information Security Implementation Team" has been established to supervise the group's information security management operations and clearly prescribe the roles and functions of each implementation organization. A meeting is regularly convened once a year, and can be held immediately if the group encounters major information security events. The director of the Information Technology Division serves as the team convener, responsible for convening the Information Security Implementation Team meetings, as well as resolving and arbitrating meeting opinions; managers of departments under the Information Technology Division serve as team members. Upon the occurrence of a major information security incident, the director of the IT Division will execute notifications to the President or relevant department managers. See Risk Management / Cyber Security Risks for details.

(3) Establishment of Chief Information Security Officer and Dedicated Cyber Security Unit: In accordance with the amended provisions of Article 9-1 of the "Regulations Governing the Establishment of Internal Control Systems by Public Companies" issued by the Financial Supervisory Commission, our company accomplished the assignment of a Chief Information Security Officer, a dedicated information security unit, supervisors, and personnel in 2022.

II. Cyber Security Policies

(1) ISO 27001 Cyber Security System: Since 2014, we have established and continuously driven the operation of the ISO/IEC 27001:2013 information security management system, appointing BSI as the external independent certification body to conduct reviews. In 2025, we successfully passed the validation update to ISO/IEC 27001:2022. To date, we have successfully passed certification checks for 11 consecutive years (the current certificate's validation period is from July 4, 2023, to July 3, 2026).

(2) NIST CSF Cyber Security Management Framework: Incorporates the Cybersecurity Framework (CSF) developed by the National Institute of Standards and Technology (NIST).

(3) Centered around the ISO 27001 information security management system and supplemented by the NIST CSF cybersecurity framework, we strengthen control over risks, uplift cybersecurity resilience, and build capabilities to withstand, contain, and quickly recover from cybersecurity incidents to continuously deliver key operational services.

III. For concrete management schemes and responses to cyber security risks, please see the link: Risk Management / Cyber Security Risks for details.

IV. Resources Invested in Information and Communication Management:

(1) Dedicated Personnel: We have set up a full-time corporate unit, the "Information Security Network Section," composed of a dedicated information security supervisor and dedicated information security personnel, responsible for corporate information security planning, technology introduction, and associated audit matters to maintain and continuously reinforce info security.

(2) Certification: Passed ISO/IEC 27001 info security certification for 11 consecutive years, with zero major non-conformities found across relevant cybersecurity audits.

(3) Customer Satisfaction: Zero major cyber security events occurred, and zero complaint cases violating or leading to the loss of customer statistics were filed.

(4) Educational Training: All information personnel completed two cyber security educational training courses and assessments for the year. All group employees executed one social engineering anti-phishing email exercise per year, totaling 2,077 person-times.

(5) Cybersecurity Investment Budget: Totaled approximately NT$7,320 thousand.

(6) Cybersecurity Bulletins: Published a total of 8 bulletins.

Audit Operations and Whistleblowing Channels

Audit Operations

An independent internal audit unit is established directly under the Board of Directors to assist the management tier in checking and reviewing internal control systems and measuring operational effectiveness and efficiency, formulating and executing annual audit plans based on identified risks.

The audit director possesses an international certified internal auditor certificate, executing business with objectivity and integrity, and regularly attends Audit Committee and Board of Directors meetings to report on major audit findings and track follow-up improvements.

Internal audit serves as the dedicated unit for handling the Audit Committee Email and the whistleblowing hotline for illegal, unethical, or dishonest conduct.

In 2025, the internal audit unit executed tasks in accordance with the annual audit plan, including the audit of sustainability information management operations, completing a total of 54 audit reports and 5 follow-up reports; all recommended improvements have been completed.

In coordination with the Financial Supervisory Commission's Order Jin-Guan-Zheng-Shen-Zi No. 1130381962 dated April 22, 2024, the company passed amendments to the internal control system for sustainability info management via the Audit Committee and Board of Directors on November 7, 2024, and will continue to make timely adjustments to match relevant laws or operations.

Whistleblowing Channels GRI 2-25、2-26

Enacted via approval from the Board of Directors and Audit Committee on August 10, 2017, USI formulated the "Handling Measures for Whistleblowing Cases of Illegal, Unethical, or Dishonest Conduct," clearly prescribing reporting procedures and associated confidentiality mechanisms. Reporting channels incorporate personal reports, whistleblowing hotlines, and written reports, with a designated dedicated unit.

The company puts its full effort into maintaining strict confidentiality and protecting whistleblowers, personnel participating in investigations, and associated content, shielding them from unfair treatment or retaliation. If the whistleblower is an employee, the company guarantees that the colleague will not face inappropriate treatment due to whistleblowing. To date, zero whistleblowing matters have been received.

1. **Personal report: Face-to-face explanation**
2. **Whistleblowing Hotline: 02-26503783**
3. **Written report: Internal Audit Division, 7F, No. 37, Jihu Rd., Neihu Dist., Taipei City**

2.4 Ethical Corporate Management and Legal Compliance

GRI 2-16、2-17、2-27 SDGs16

Ethical Management

To strengthen the management of ethical operations, the company has enacted codes of ethical conduct for directors and officers, integrity management codes, and integrity management operating procedures and conduct guides. This forms integrity-based policies and establishes excellent corporate governance alongside risk control mechanisms. For more details regarding anti-corruption policies, codes of ethical conduct for directors and officers, and integrity management codes, see the Corporate Governance section on our official website.

Beyond shop rules and group measures, new hire orientation incorporates sexual harassment prevention, anti-discrimination, anti-harassment, working hour management promotion, safeguarding humane treatment, healthy and safe working environments, and integrity/honesty policy advocacy; furthermore, commitment statements are signed to pledge compliance with relevant specifications.

Regulatory Compliance SDGs16

Meaning

Honest management and strict compliance with regulations constitute USI's core philosophy for sustainable operations.

Continuous Target

Zero violations of laws and/or regulations.

2025 Projects

1. Participation in regulatory promotions by government agencies
2. Process safety and environmental regulatory identification.

2025 Key Achievements

1. Zero incidents of violating relevant regulations for product labeling and associated fines.
2. Zero violations of laws and regulations in the economic domain.
3. 7 incidents of violating environmental laws and/or regulations.
4. Zero incidents of fines violating occupational health and safety regulations.

Management Approach Description

Implementing ethical management serves as a critical core for USI. Meanwhile, we emphasize regulatory compliance across domains, conducting periodic regulatory checks via internal units based on their functions to secure USI's compliance with laws and statutory rules. We consistently monitor regulatory movements to prepare in advance for impacts brought by variations. See the Ethical Management and Regulatory Compliance section on the ESG website for details.

Management Method RT-CH-140a.2、RT-CH-530a.1

Educational Training: To ensure all employees understand regulatory compliance topics, the company utilizes employee training and routine meetings to advocate the latest regulatory information and trends, providing colleagues with updates on newly added or amended rules. Concurrently, the Legal Affairs Division offers legal consulting recommendations. Furthermore, beyond internal training or irregular participation in external training courses, outside legal experts are invited to host lectures, reinforcing employees' operational policy and regulatory knowledge alongside capability.

Corrective Actions: Regarding items of regulatory non-compliance, investigations and identifications are immediately carried out to understand root causes, and measures are taken for control and correction, minimizing negative impacts and preventing recurrence. Additionally, to urge employees to strictly comply with statutory rules, USI incorporates environmental protection and occupational health and safety events into production bonus appraisal elements; if an administrative penalty occurs, bonus distributions to associated employees will be withheld.

Materiality Determination: According to the company's "Internal Material Information Processing Operating Procedures," the criteria for determining materiality are whether it causes significant damage or impact to the company, triggers administrative penalties such as suspension of work or business ordered by relevant authorities, or involves a cumulative fine for a single event reaching NT$1 million or above.

Implementation Status: In 2024 and 2025, USI had zero incidents of violating product labeling regulations and fines or laws and regulations in the economic domain, as well as zero situations violating occupational health and safety regulations. Other items of regulatory non-compliance are detailed below:

Year 2024: 5 incidents of violating environmental laws and/or regulations, with a total fine amount of NT$412,000

Year 2025: 7 incidents of violating environmental laws and/or regulations, with a total fine amount of NT$1,398,180

Note: In coordination with public disclosure, the recognition method for penalty tickets was changed from the mailing date to the issue date, and the 2024 data has been revised. For details, see the Ministry of the Environment's Regulated Pollution Source Data (including Penalty Information) System. (GRI 2-4)

Regarding items of regulatory non-compliance, the company has immediately taken improvement measures, which passed review and filing by competent authorities. In the future, USI will continuously drive reinforced environmental, health, and safety management, aiming to meet the "Five Zero Goals" of zero pollution, zero emissions, zero accidents, zero occupational injuries, and zero failures.

Note: The processing workflow for material illegal acts follows the stipulations of the Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities.

2025 Penalty Events and Improvement Descriptions

Incidents of violating environmental laws and/or regulations - Air pollution: 7 cases
* Annual penalties are based on the dispatch date of the administrative penalty letter.
Root Causes and Improvement Measures

Deficiencies of Penalty Tickets

1. Odor testing at the boiler emission stack failed to comply with emission standards. Fine of NT$135 thousand.
2. Operated newly added installations without following the approved contents of the stationary pollution source operation permit. Fine of NT$160 thousand.
3. The timing of flare utilization failed to match the approved contents of the plan. Fine of NT$220 thousand.
4. Failed to complete the installation of "Volatile Organic Compounds" monitoring facilities for the flare. Fine of NT$400 thousand.
5. Process components of manufacturing line B in Manufacturing Department I exceeded standards across inspection. Fine of NT$225.4 thousand.
6. Process components in Manufacturing Department II exceeded standards across inspection. Fine of NT$100 thousand.
7. Process components in Manufacturing Department I exceeded standards across inspection. Fine of NT$157,780.

Improvement Measures

1. Raised furnace temperature to lift destruction removal efficiency.
2. Modified modification data to comply with regulations.
3. Routed most process waste gas to the TO furnace for disposal during plant startup/shutdown and equipment overhauls.
4. Established continuous monitoring for flare composition/calorific value analysis.
5. Reinforced VOCs leakage measurements at valve stems and following valve open/close operations.
6. Added dedicated measurement components, routinely overhauling and replacing gaskets.
7. Strengthened component leakage training and patrols for every shift. Reinforced VOCs leakage measurements at valve stems and following valve open/close operations.

Intellectual Property Management

USI adopts an intellectual property governance principle of "quality over quantity," securing that R&D resources are precisely converted into sustainable assets with commercial value.

Dynamic IP Management

Over the years, applied and passed patents accumulated to 144 items. Based on operational requirements, patent resource optimization and exit management are executed, effectively concentrating resources on the maintenance of core sustainable technologies.

Strategic Core

Focusing on three major transformation domains: "high-value calculation, circular economy, and medical applications," securing that R&D outputs are highly aligned with the company's long-term strategy.

Perfecting Governance Mechanisms

The company has enacted an "Intellectual Property Management Plan," which reported the implementation status for fiscal year 2025 and the R&D plan for fiscal year 2026 to the Board of Directors on November 10, 2025, materializing the executive tier's supervisory responsibilities over technological assets.

USI's Core Technology Patent Layout Matrix

Core Technology Category	Operational Goal Linkage	Representative Patent Name (Surviving Essence)	Deployment Countries
(CBC/ViviOn ™) High value-added polymers (Cyclic Block Copolymer/ViviOn ™)	Environmental and Social Responsibility: Target semiconductor carriers, optical lenses, and biomedical markets to strengthen global competitiveness.	Hydrogenated block copolymers and their compositions (TWI660975/US10450455B2)	Taiwan, USA
Circular Economy and Sustainable Materials	Source Reduction and Circulation: Develop recyclable foaming technologies, align with indicator E-6, and realize the vision of resource circulation.	Hydrogenated block copolymers and their compositions (TWI660975/US10450455B2)	Taiwan, China, USA, Europe
Fireproof Materials (FREVAT ™)	Safety Protection and Green Alternatives: Develop halogen-free green fireproof products to provide safer protective materials.	Fireproof composite structure (TWM597795)	Taiwan
High-end Medical Applications	Social Well-being and Biocompatibility: Realize the application value of medical materials. The products have passed multiple ISO 10993 biocompatibility standards and obtained US FDA DMF registration, protecting public health.	Multi-layer sheet for dental applications (US11344386B2)	USA

Patent Management - Innovative Patent Invention Application Platform

USI established an application platform on its internal intranet. After logging in, colleagues from the R&D Division can thoroughly record innovative ideas and experimental results generated during work and store them in confidential folders. Once info is complete and reviewed by relevant managers, patent applications can be pursued according to procedures.

Trade Secret Management

Reports, documents, or associated intellectual property generated by each R&D project in the R&D Division are separately stored in encrypted website folders within USI's network. Access permissions are set for control, and the system proactively audits abnormal access situations and issues real-time warnings to responsible managers for checking, securing the proper management of trade secrets.

2.5 Smart Management

GRI 2-25、3-3

Impact Topics

Introducing automated processes to improve efficiency, manpower downsizing impacting the right to work

2024 Key Achievements

1. Promoted six projects:
2. DCS + localized data system installation, high-pressure reactor vibration real-time status monitoring and development, AI quality prediction, black smoke identification system, digitized graphic and text management system, white smoke and open flame identification system, and energy dashboard systems, etc.

2025 Key Achievements

Promoted two new projects: Employee face recognition system / Contractor personnel identification manage-ment system.

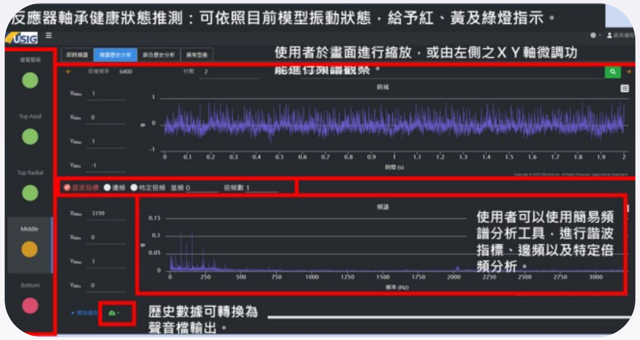
Medium- to Long-Term Planning

1. Promote two AI projects every year.
2. Projected to execute the finished goods warehouse high-temperature ignition identification system in 2026.
3. Strengthen colleagues' data management knowledge, increase analysis efficiency, and optimize execution strategies.
4. Invest in the development and application of smart management to uplift production management effi-ciency.

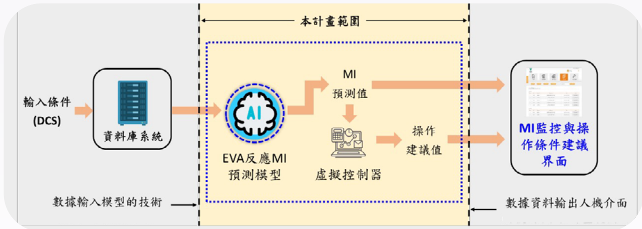
In recent years, USI has proactively promoted various smart management systems, applying them to critical equipment smart predictive maintenance, production data integrated analysis, AI model analysis predictive maintenance, quality prediction, factory safety preservation, energy management, and carbon platforms, etc.

High-Pressure Reactor Vibration Real-Time Status Monitoring and Development of AI Model Analysis Predictive Maintenance

Introduced real-time monitoring of high-pressure reactor vibrations, integrating process operational parameters, and developing AI models to analyze the real-time operational status of the high-pressure reactor. Utilizing a visualized system interface, the health status of high-pressure reactors is monitored at any time, predicting operational lifespan and determining the timing for high-pressure reactor shutdowns, lowering the probability of process out-of-control, reducing the risk of process safety events, and uplifting operational safety. Currently, the AI model continuously undergoes training optimization to step up predictive accuracy.

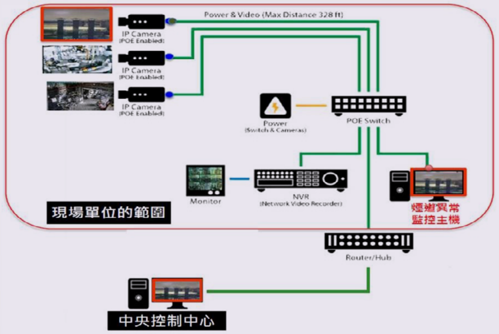


▲ Schematic Diagram of Visualized Operational Status System



Black Smoke Identification System

In the past, chimneys were monitored manually via operation screens to judge whether stack emissions were abnormal, but field personnel were occupied with heavy work and unable to watch the screens 24 hours a day. By introducing the black smoke identification system, human burdens are alleviated, and field personnel can be immediately notified to make adjustments when the chimney emits black smoke, preventing its continuous occurrence. Following a year and a half of machine learning, this AI system has reached an identification rate of 90%, controlling in a timely manner to evade black smoke emissions and lower production losses. Currently, model training and learning are being pursued to elevate model predictive accuracy.

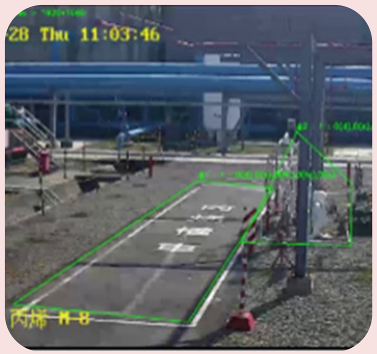


Contractor Personnel Identification Management System

Through the contractor face recognition system combined with the contractor management system, the status of qualified contractors entering the plant (insurance, affidavits, agreement organizations, training, etc.) is quickly controlled. Furthermore, upon the occurrence of an accident, the count of personnel within the plant and evacuation status can be grasped immediately at the first instance.

White smoke and open flame identification system

Introducing model learning. In the past, human monitoring of operation screens was utilized to judge whether anomalies occurred, but field personnel were occupied with heavy work and unable to watch screens 24 hours a day. By introducing this identification system, human burdens are alleviated, and personnel can be immediately alerted to make adjustments. Currently, model training and learning are being pursued to elevate model predictive accuracy.



Employee Face Recognition System

Through the employee face recognition system combined with the attendance system, employee entry/exit situations and attendance records are quickly controlled, which is beneficial for grasping the status of employees within the plant.