



USI Corporation  
台灣聚合化學品股份有限公司

# 2022 ESG REPORT





**USI  
ESG Report**

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\* = 2022 material topics

## 0.1 Message from the Chairman GRI 2-23



Quintin Wu, Chairman

The impact of COVID-19 and the Russo-Ukrainian (Russia-Ukraine) War has caused a European energy crisis, which has also led to food supply disruption and global inflation. Additionally, the threats of climate change have also become a new global normal. Facing these risks, we uphold our vision to “create sustainable value for a sustainable society” and to be proactive in environmental, social, and governance (ESG), aiming to balance operational performance improvements and sustainable development practices.

### Deployment for active carbon reduction

In 2020, apart from establishing the Green Power Team to proactively address and make plans for the national net-zero policy, we also continued to build solar PV installations and combined with the local agricultural economy to bring more possibilities for combining green power and industry. In 2022, the accumulative on-grid connection of solar PV installations reached 5.9MW to generate over 7 GWh of green power in estimation. In 2025 and 2027 we will complete solar PV installations with an installed capacity of 15MW and 20MW, respectively. In response to the 27% reduction target for 2030, we have mapped out the carbon reduction path towards 2030 and set annual targets and plans to review accomplishments each year.

### Enhancing ESG implementation and human rights risk assessment

ESG implementation is promoted by the ESG Committee chaired by independent directors. It reviews the Company’s ESG performance every six months. The in-depth ESG engagement of directors can enhance the promotion of ESG goals. Human rights risk is also our concern. By reviewing the risk condition of human rights issues in this report, we aim to ensure the perfect maintenance of human rights.

### Building a safe production environment

We request a high-standard of safety during production from all plants. Apart from continuously promoting the goal of safety and the environmental five zeros: zero pollution, zero emissions, zero occupational hazards, zero accidents, and zero failures, and implementing the process management system (PSM), we also hold plant technology exchange meetings and unannounced fire drills to optimize production environment safety so as to make all-round emergency responses and minimize hazards and damage.

### ESG achievements 2022

Benefited from the demand for the green economy, the 2022 sales performance of the EVA products for PV module packaging was great as witnessed by the individual revenues of NT\$15.6 billion, the second highest in USI history. The commercial operations of the Gulei Project started in December 2021, and the mid-term delivery of EVA facility was completed in October 2022 to maintain continuous vertical integration of the up-, mid-, and down-stream. In 2022 we developed and improved four products to continuously transit towards energy conservation and high-value products. In energy conservation and carbon reduction, we saved electricity by 1.31% (achieved the conservation target by 10% during 2015-2024 in advance) and water by 5.65%, and the wastewater recycling rate was 268% of the target. We also continued to implement the Resin Pellet Recycling Project with contractors to reduce microbeads and dust from contaminating the marine environment at the source.

Promoting ESG makes our operations more steady while bettering the overall environment and society at the same time. We progressively integrate ESG targets into business operations, set various project targets and goals, and achieve them systemically with artificial intelligence (AI). On the road to sustainability, we need new concepts, new technologies, and the full collaboration of all employees to ensure smooth implementation. We also intend to do things the right way before we can extend our experience to others for the common good of the whole industry, supply chain, and society.

## 0.2 About this Report

### Reference Guidelines GRI 2-2, GRI 2-3

For all stakeholders to understand our performance in relation to corporate social responsibility, we, USI Corporation (USI), have prepared this report in accordance with the GRI Sustainability Reporting Standards 2021 (GRI Standards:2021) published by the Global Reporting Initiative (GRI), disclosed the contents of the related sustainable issues with respect to the Sustainability Accounting Standards-Chemicals published by the Sustainability Accounting Standards Board (SASB), and the "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TWSE Listed Companies". We have also referenced the United Nations Global Compact (UNGC), ISO 26000 Guidance on Social Responsibility, and recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) to establish the reporting framework.

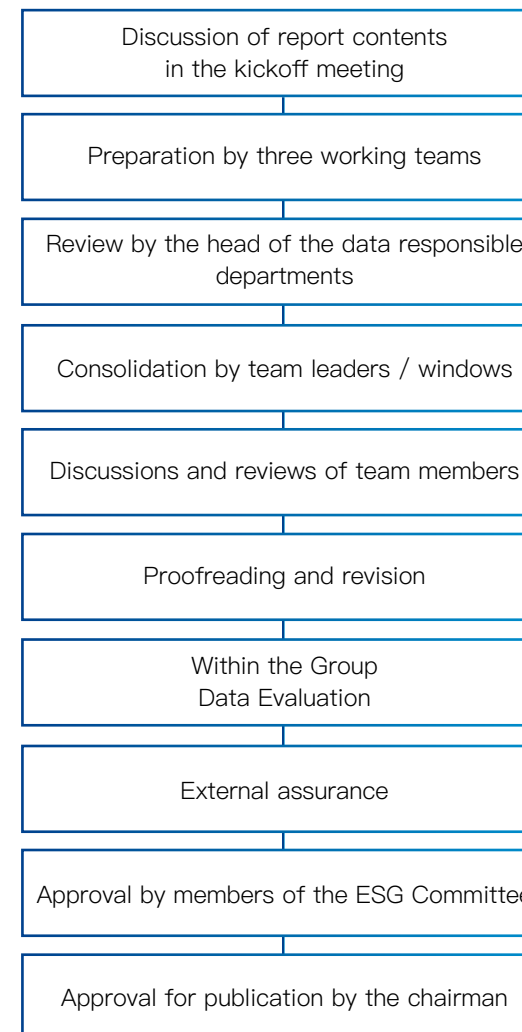
### Scope and Boundaries of Report GRI 2-2, GRI 2-3

This report covers USI, including the Taipei HQ, Guishan R&D Division, Kaohsiung Plant, and USI Education Foundation. Other subsidiaries presented in the consolidated financial statements are not covered in this report. Environmental performance is based on the data of Kaohsiung Plant, while other related information is disclosed separately in the report. The reporting period is 1 January 2022 to 31 December 2022. The report presents the management and performance of USI in terms of governance, environment, and social aspects. The financial information and financial data certified by accountants in the financial statements are consistent. Some statistical data is sourced from the USI annual report, government agencies, and relevant websites. Unless otherwise specified, the currency used throughout the report is New Taiwan Dollar.

### External Assurance GRI 2-5

Report compliance with the GRI Standards: 2021 has been verified and assured by third-party certification body AFNOR Asia Ltd. with reference to the assurance standard of AA1000 V3 and the Moderate Assurance in Type 1 in the appendix to version 2018.

### Editing Process GRI 14

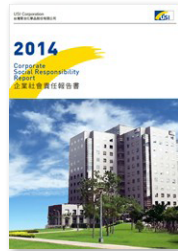


## History and Time of Publication GRI 2-3



2014 / 12

First release:  
CSR Report



2015 / 06

Second release:  
CSR Report



2016 / 06

First third-party verification  
(BSI AA1000)



2017 / 06

CPA Firm Limited Assurance  
(Deloitte Taiwan AS No. 1)



2018 / 06

CPA Firm Limited Assurance  
(Deloitte Taiwan AS No. 1)



2019 / 06

CPA Firm Limited Assurance  
(Deloitte Taiwan AS No. 1)



2020 / 06

Third-Party Verification  
(SGS AA1000)



2021 / 06

Third-Party Verification  
(BSI AA1000 AS v.3)



2022 / 06

Third-Party Verification  
(BSI AA1000 AS v3)



2023 / 06

Third-Party Verification  
(AFNOR Asia AA1000 AS v3)



2023  
Coming Soon

2024 / 06

Next issue  
(GRI 102-52)

## Contact Information GRI 2-3

You can download report-related information from the “ESG” section of our corporate website at <https://www.usife.com/ESG/zh-tw/ESG72.aspx>. Should you have any comment or suggestion for our report, please feel free to contact us.

📍 Address: No. 330, Fengren Road, Renwu District, Kaohsiung City.

👤 Contact: Miss Tsao

☎ Phone: (07) 735-9998 ext.: 2258

📠 Fax: (07) 371-8294

✉ ESG email: [esg-usi@usig.com](mailto:esg-usi@usig.com)



## 0.3 2022 Sustainability Performance

### Business performance

- ✓ Profit from operations: **NT\$3.47 billion, second highest in USI history.**
  - ✓ EPS **NT\$1.45. Individual revenues: NT\$15.6 billion, second highest in USI history.**
  - ✓ Ranked in the top 6-20% of listed companies in the Corporate Governance Evaluation **2022.**
  - ✓ Same rating by Taiwan Ratings at twA/twA-1 with a “steady” outlook.
  - ✓ Started the commercial operations of Gulei Project in December 2021 and completed the mid-term delivery of EVA facility in October 2022.
  - ✓ Innovation and R&D accumulated **143** patents.
  - ✓ **UE4055 annual sales accumulated 5,894MT, the highest in USI history.**
- 
- ✓ 2022 employee turnover (excluding retirement) was 4.8%, significantly lower than the 12.6% average of traditional manufacturing industries.
  - ✓ The rate of full-time employees and local employment was 98.9% and 77.31%, respectively.
  - ✓ Organized **4,545** hours of HSE education and training for a total of **1,502** persons. Organized **32** sessions of emergency fire drills, project training, and physical/mental training with a total **1,046** participants.
  - ✓ Implemented **2,725** hours of training on process safety management (PSM) for a total of **746** persons.
  - ✓ Led the pipeline maintenance and function team of the underground pipeline joint defense organization in 2022, rated excellent in pipeline joint defense operation by the Industrial Development Bureau of the MOEA.
- 
- ✓ The accumulated on-grid capacity from solar power projects has reached 5.9 MW to generate green power of about 7.3 GWh and reduce carbon emissions by about 3,700 tCO<sub>2</sub>e each year.
  - ✓ Adopted forestation of 5 hectares for 20 years through promotion of the Forestation Adoption Program **Phase II** in collaboration with the Experimental Forest, College of Bio-Resources and Agriculture, National Taiwan University.
  - ✓ The **2022** environmental expenditure was about **NT\$160** million in total.
  - ✓ Annual reduction: Electricity by **1.31%** (2015-2022 average 1.37%) and water by **5.65%**.
  - ✓ **Recycled wastewater by 32,153MT, accomplished 268% of the target for 2022.**
  - ✓ Continuously implemented ISO 14064-1 Greenhouse Gases Inventory and Verification, including Scopes 1, 2, and 4.
  - ✓ Implementation of the ISO 46001:2019 Water Efficiency Management System and completion of verification.
  - ✓ Implementation of ISO 14067:2018 Carbon Footprint of Products and verification.
  - ✓ Recovered **11.89MT** of plastics through promotion of the plastic resin pellet leakage prevention and management program in 2022.
  - ✓ Increased materials recycling rate to **13.1%**.
  - ✓ **Increased green purchase expenditure by 120% over 2021 to NT\$9.62 million.**

## Certification and Awards



Won the 2022 TCSA awards for information transparency and integrity and ESG integrated performance



Passed the certification of Taiwan i-Sports certification for 2022



Awarded the Model of Excellent Pipeline Management by the IDB



EVA, one of our major product, was awarded the Carbon Footprint Verification Opinion Statement



Obtained the ISO certificate for registration or extension



Awarded the Award for International Trade Outstanding Exporter/Importer Certificate in 2021

公司治理100指數成分股 (按證券代碼排序)

證券代號	公司名稱	證券代號	公司名稱	證券代號	公司名稱		
1102	亞細	2207	裕豐車	2615	寶通	3665	聚新-KY
1216	第一	2303	聯電	2618	義華航	3702	大新大
1301	台塑	2308	台積電	2880	華新金	3706	神達
1303	南亞	2317	鴻海	2881	富邦金	3711	日月光控
1304	台聚	2330	台積電	2882	豐泰金	4004	博隆
1305	華夏	2337	亞德	2883	開發金	4927	鴻鼎-KY
1308	亞聚	2344	華新電	2884	江山金	4958	遠鑫-KY
1309	台達化	2352	住世達	2885	元大金	5434	華冠
1314	中石化	2357	益達	2886	兆豐金	5871	中炬-KY
1326	怡化	2362	藍天	2887	裕新金	5880	合豐金
1402	遠東新	2377	奇星	2888	新光金	6005	新益達
1476	聯瑞	2379	洲晶	2890	永豐金	6239	力威
1477	聯瑞	2382	寶達	2891	中遠金	6409	冠華
1504	東元	2395	研華	2892	第一金	6491	晶研
1605	華新	2408	尚亞科	3006	鼎泰科	6505	台塑化
1710	東聯	2409	友達	3034	聯勝	6592	裕隆企業
1723	中研	2412	中華電	3035	智達	6669	建聯
1904	正隆	2441	裕華	3036	文輝	8046	南隆
1907	永豐餘	2454	聯發科	3037	欣晟	8150	南茂
2002	中興	2458	聯發	3042	裕茂	8163	瑞芳
2006	華南紡織	2492	亞新科	3045	裕隆大	8454	富新煤
2014	中環	2603	英商	3189	聯新	9907	統一實
2015	義興	2606	福興	3231	聯創	9933	中鼎
2049	上經	2609	聯新	3481	群創	9940	德豐
2103	台權	2610	聯新	3545	敦泰	9941	拉威

Selected as the constituent of the 2022 TWSE Corporate Governance 100 Index



### Charity Events



Sketch of the 6th Neihu Technology Park Blood Donation of the Thousand



Sketch of blood donation



Organization of the 3rd USI Cup Charity Softball Competition 2022



2022 CPC Taiwan Occupational Safety Cup and the 12th Kaohsiung City Petrochemical Cup Labor-Management Harmony Softball Competition.



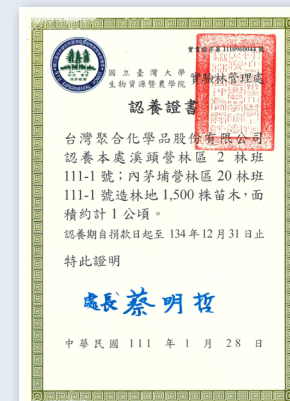
A happy ending to the 2022 USI Education Foundation Scholarship presentation banquet.



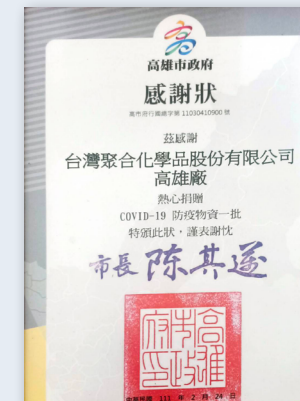
Fieldtrip to Guishan R&D Division for the 2022 Renda Cooperation Program.



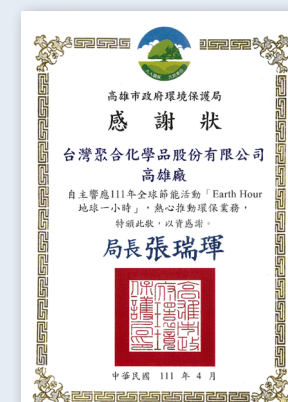
Neighborly activities and pandemic concerns



Promoted the Forestation Adoption Program in collaboration with the Experimental Forest, College of Bio-Resources and Agriculture, National Taiwan University.



Sponsored the hazmat suits for the Environmental Protection Bureau of Kaohsiung City.



Supported "Earth Hour" to reduce carbon emissions.



Adopted the air quality purification base of Kaohsiung Municipal Renwu Special Education School for the fifth year.

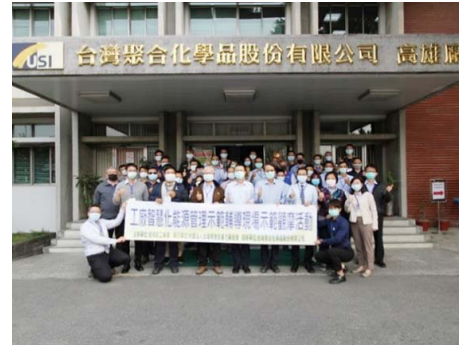


Awarded the Excellent Contribution Trophy for continuous adoption of air quality purification area

## Media Reports and External Recognition



Subsidiary USI Green Energy Corporation (USIGE) and HSBC (Taiwan) signed the two-year term green loan of NT\$300 million.



Implemented the ISO 50001 international standards to transform into a low-emission smart factory.



Active engagement in green savings to support the government's Green Finance Action Plan



Discussed and signed agreement on the sustainability-linked loans and green loans

**製造業總排名**

排名	2021	2020	2019	公司名稱
54	59	61		
55	61	59		
56	49	47		
57	79	73		台灣聚合化學品
58	42	51		
59	60	55		

**製造業最會賺錢公司**

排名	公司名稱	獲利率 (%)	製造業排名
17		32.69	483
18		32.47	1042
19	亞洲聯合	32.42	352
20		31.34	746
21		31.24	179

List of "Taiwan Top 2000" announced by Commonwealth magazine in 2022

上市產業	企業	2021年營收 (百萬元)	碳生產力 (百萬噸/噸)	碳排增加率 (%)	減碳作為	股價表現優於同業
水電	台泥	23,878	0.005	5.69	首創AI智能系統減碳、減碳管理計畫與年度考績與季會結合	★
	福懋	32,799	0.084	-11.59	回收廢熱、蒸氣、使用汽電共生提升發電總效率	★
	聯華	28,931	0.802	5.51	每年依業永續或永續的Higg Index進行自评	★
鋼鐵	宏遠	10,007	0.044	-2.39	積極使用潔淨煉鐵技術的設備，並打造綠色智慧工廠	★
	中鋼	468,328	0.018	1.71	成立能源調度中心，進行動態調度，減少副產品轉售放	★
鋼鐵工業	新光鋼	14,103	2.615	4.39	加速汰換老舊設備，各廠興建太陽能板，以減少溫室氣體排放	★
	正興	44,986	0.029	1.39	工業用紙回收率高，廢棄物資源化、製程用水回收率優越	★
塑膠工業	聯成	81,942	0.863	-33.95	定期維護設備維持總排升部能操維、優先購買具耐摩產品	★
	台聚	71,756	0.391	-3.76	透過設備汰換更新，並更改操作方式等，使淨化裝置產量+33%	★
塑膠工業	台達化	20,771	0.198	0.89	由各廠進行制程經濟化與產量、廢熱回收再利用、設備效率提升改善	★
	永裕	3,798	0.258	-2.17	精製產品週期，更換高能效設備，開發綠色包材產品	★

Ranked within the top 100 in the Carbon Competitiveness Ratings of Business Weekly.

**TCIA 台灣商業產業淨零宣言**  
Taiwan Commercial Industry Net Zero Emissions Declaration

TCIA 台灣商業產業淨零宣言，以達成淨零目標為宗旨，旨在推動台灣商業產業淨零轉型，並引領全球淨零轉型。宣言內容如下：

TCIA 成員企業將致力於淨零目標，並承諾在 2050 年前實現淨零排放。宣言內容如下：

TCIA 成員企業將致力於淨零目標，並承諾在 2050 年前實現淨零排放。宣言內容如下：

TCIA 成員企業將致力於淨零目標，並承諾在 2050 年前實現淨零排放。宣言內容如下：

Signed the Taiwan Commercial Industry Association (TCIA) Net Zero Emissions Declaration



Joined the Carbon Neutrality Alliance towards Net Zero 2050 together with other industries.

## Chapter 1

# Sustainable Development



# 1.1 Goals and Visions for Sustainable Development GRI 2-22

## Vision

Based on the vision to “create and cohere sustainable value for a sustainable society,” we hope to constantly create and cohere sustainable value to contribute to social sustainability.

Based on the sustainable vision, we have developed three core strategies: “R&D and innovation,” “steady operations,” and “social inclusion,” hoping to create value with stakeholders together. We extend the contents of the core strategies into seven key topics as the foundation for honest and reasonable partners to build visions.







As a member of the USI Group, we have developed three sustainable principles: unity governance (U), sustainable development (S), and innovative technology (I) based on the group vision. Every year, we review the results of analysis of material topics and their consistency with the company’s sustainable principles, and evaluate and discuss the achievement of the annual performance to achieve the UN Sustainable Development Goals (SDGs).

## SDGs

Enterprise sustainable development begins with the core value. To pursue sustainable development, we identify the relevance to SDGs in three phases and set related goals in the business plan to combine with SDGs.



## UN SDGs

SDG/goals	 <p><b>3.5</b> ∨ <b>3.8</b> ∨ <b>3.a</b> ∨ <b>3.d</b>  <b>Maintain factory workplace environment safety and employee health</b>            Corresponding Section: Chapter 5</p>	 <p><b>4.4</b> ∨ <b>4.7</b>  <b>Professional division of labor Education for employment</b>            Corresponding Section: Chapter 3, 4, 5</p>	 <p><b>6.4</b> ∨ <b>6.a</b>  <b>“Save water by 1%” annually Improved effluent water quality (COD&lt;60 mg/L)</b>            Corresponding Section: Chapter 4</p>
Actions in 2022	<p><b>3.5 Substance abuse and alcoholism prevention:</b>            Plant access sobriety test and body temperature measurement tests for contractors and employees</p> <p><b>3.8 Healthcare:</b>            National Health Insurance for all employees and additional employee insurance</p> <p><b>3.a Tobacco control:</b>            No smoking or tobacco sales on the plant site.</p> <p><b>3.d Health risk management:</b>            Arranged special checkups for 269 employees and implemented health management based on assessed risk level.</p>	<p><b>4.4 Technology and vocational skills</b></p> <ul style="list-style-type: none"> <li>• Process safety training for 746 persons with a total of 2,725 hours.</li> <li>• ESH education and training for 1,502 persons with a total of 4,545 hours.</li> </ul> <p><b>4.7 Sustainable development of employee knowledge and skills</b>            Maintained the validity of the professional licenses and certificates of employees through in-service education and training.</p>	<p><b>6.4 Enhancement of water efficiency:</b>            Recycled 32,153MT of water, saved 3,403MT of water.</p> <p><b>6.a Effluent quality in 2022H1 and 2022H2:</b>            COD 26.4 mg/L and COD 19.7 mg/L respectively.</p>
SDG/goals	 <p><b>7.2</b> ∨ <b>7.3</b> ∨ <b>7.a</b>  <b>Continue to increase utilization of high-efficiency products and invest in clean energy</b>            Corresponding Section: Chapter 3, 4</p>	 <p><b>8.3</b> ∨ <b>8.5</b> ∨ <b>8.7</b> ∨ <b>8.8</b>  <b>Expand the scope of operations to constant increase revenue / Ensure equal job opportunities / Safe work environment / Harmonious labor-management relations</b>            Corresponding Section: Chapter 2, 3, 5</p>	 <p><b>9.5</b> ∨ <b>9.b</b>  <b>Annual R&amp;D fund NT\$100 million minimum / New product development and improvement: 4 pcs/year.</b>            Corresponding Section: Chapter 3</p>
Actions in 2022	<p><b>7.2 Renewables:</b>            Investment in green power generation capacity at 5.9MW.</p> <p><b>7.3 Enhancement of energy efficiency:</b></p> <ul style="list-style-type: none"> <li>• Green purchase expenditure: NT\$9.62 million.</li> <li>• Invested NT\$4.5 million in energy-efficient equipment to save electricity by 1,972,419 kWh and reduced carbon by about 1,004 tCO<sub>2</sub>e</li> </ul> <p><b>7.a Clean energy acquisition:</b>            Assessed geothermal and wind power generation projects</p>	<p><b>8.3 Business innovation:</b>            Established the high-value R&amp;D center</p> <p><b>8.5 Equal pay for equal work:</b>            Promoted various gender equality measures. The men-to-women pay ratio of general employees was 0.86:1 and supervisors was 1.06:1</p> <p><b>8.7 No child labor:</b>            No child labor was hired throughout the Group</p> <p><b>8.8 Protection of labor rights and workplace safety:</b></p> <ul style="list-style-type: none"> <li>• Established the labor union and held periodic labor-management meetings</li> <li>• Provided well-designed group insurance plans and contributed pension by law to protect the later life of employees</li> <li>• Implementation of PSM</li> </ul>	<p><b>9.5 Improvement of scientific research and increase in R&amp;D expenditure for high success rate:</b>            Developed 4 new products with an R&amp;D investment of NT\$150 million.</p> <p><b>9.b Support for customer technology innovation:</b>            Provided worldwide customers with technical services and green products</p>

SDG/Goals	<b>11.6 ∙ 11.a</b> <b>Underground Pipelines / Complete urban industrial pipeline management</b> Corresponding Section: Chapter 4, 5	<b>12.2 ∙ 12.5 ∙ 12.6</b> <b>Complete the execution of the CSR Commitment by all suppliers in 5 years</b> Corresponding Section: Chapter 3	<b>13.2 ∙ 13.3</b> <b>Constantly develop and promote eco-friendly products / Every year: Electricity less by 1%, Energy less by 1.2%, Carbon less by 1.5%, Water less by 1%</b> Corresponding Section: Chapter 2, 4
	<b>Actions in 2022</b> <b>11.6 Reduction of hazardous environmental impacts:</b> VOCs reduction and waste management <b>11.a Transportation safety:</b> Implemented the Kaohsiung City Underground Pipeline Operation Safety and Management Project to protect the public safety of nearby underground industrial pipelines, citizens, and workers. Participated in the underground pipeline joint defense organization and implemented routine pipeline tour inspections	<b>12.2 Sustainable purchase of resources:</b> Built the green procurement mechanisms and implemented green supply chain management. <b>12.5 Raw material recovery by 13.1% to reduce resource waste</b> <b>12.6 Methods to encourage sustainable development:</b> Requested suppliers to sign the CSR Commitment	<b>13.2 Climate change countermeasures:</b> Annual targets: electricity conservation by 1.31%, energy conservation by 5.84%, carbon reduction by 3.08%, water conservation by 5.65%; implemented ISO 14064-1, ISO 46001, and ISO 14067 <b>13.3 Enhancement of climate change adaptability:</b> Environmental protection expenditure at NT\$9.62 million, promotion of green heat-shielding coatings, organization of technology exchanges and observations with various affiliates <ul style="list-style-type: none"> <li>• Built the cooling water energy-conservation system by advising the optimal operational model with AI.</li> <li>• Promoted IDB's Factory Intelligent Energy Management System Project and became a demonstration factory.</li> </ul>
SDG/Goals	<b>15.2</b> <b>Increase forestation area</b> Corresponding Section: Chapter 4	<b>16.2 ∙ 16.3 ∙ 16.5 ∙ 16.6 ∙ 16.b</b> <b>Legal compliance</b> Corresponding Section: Chapter 2, 5	<b>17.17</b> <b>Encourage sponsorship and participation in social welfare</b> Corresponding Section: Chapter 5
	<b>Actions in 2022</b> <b>15.2 Forest sustainable management:</b> Sponsored 5 hectares of forestation for 20 years	<b>16.2 No child labor</b> <b>16.3 Legal compliance:</b> No legal and regulatory non-compliance in the economic aspect <b>16.5 No corruption or bribery:</b> Employee Code of Conduct and Ethical Corporate Management Best Practice Principles <b>16.6 Built a fair promotion and transfer system</b> <b>16.b Implementation of non-discrimination policy:</b> Promoted the human rights policy.	<b>17.17 Encouragement of social cooperation:</b> <ul style="list-style-type: none"> <li>• Supported "Earth Hour", a global energy conservation activity.</li> <li>• Organized the 3rd USI Cup Charity Softball Competition 2022 to integrate sports with charity.</li> <li>• Implemented community charitable activities and sponsored epidemic control equipment for hospitals and schools.</li> </ul>

## Sustainable Development Goals

With respect to the SDGs, we establish the 5-year business plan for each department to establish own management by objectives (MBOs) and then for the HR system to set key performance indicators (KPIs) of employees for the reference of performance evaluation, promotion, and raises.

### Five-Year Business Plan



#### Governance

##### Long-term (5 years)

- Planning of and investment in the downstream development projects of the Gulei Integrated Refinery Project.
- Cultivate Taiwan, continue local investments, and implement the circular economy
- Constant R&D of green/high value-added products

##### Medium-term (3 years)

- Planning of and investment in the downstream development projects of the Gulei Integrated Refinery Project.
- Continuous promotion of green power development and carbon reduction paths
- AI/Intelligent Management Implementation
- Planning and implementing the circular economy.
- Constant R&D of high value-added products
- Completion and operation of the Kaohsiung Intercontinental Container Terminal.

##### Short-term (1 year)

- Mass production of the Gulei EVA Project
- Investment in solar power plants and assessment of geothermal generation.
- HV R&D Center started operations
- Construction of the Kaohsiung Intercontinental Container Terminal Project
- AI/Intelligent Management Program implementation
- Assessing energy conservation and carbon reduction performance of equipment and equipment replacement.



#### Industrial safety and environmental protection

##### Long-term (5 years)

- Continuing the medium-term plan
- Implementing intelligent management of operation safety.
- Planning climate change address
- Promoting the circular economy for green energy development.
- Promoting 2030 carbon reduction target at 27% (base year 2017)

##### Medium-term (3 years)

- Continuing short-term plans
- Furthering energy conservation, carbon reduction, and water conservation.
- Completing GHG inventories for the consolidated statements
- Enhancing the audit, control, and reduction three types of waste
- Constantly monitoring underground pipeline safety and ensuring preventive maintenance.
- Promoting the circular economy to plan resource recycling and reuse.

##### Short-term (1 year)

- Enforcing the "Five Zeroes Goal": Implement projects including electricity conservation, carbon reduction, watery conservation, water recycling and reuse, and others.
- Promoting the process safety management system.
- Implementing the underground pipeline maintenance and operation program.
- Promoting transportation safety audit.
- Promoting the prevention and management of plastic resin pellet leakage.
- Promoting the audit, control, and reduction three types of waste
- Continuously implementing various ISO systems.



#### Social relations

##### Long-term (5 years)

- Optimizing the supplier/contractor assessment systems.
- Increasing the sources and energy for social participation to expand the scale of social contributions.

##### Medium-term (3 years)

- Constantly sponsoring various charitable activities to optimize the corporate image.
- Enhancing industry-academia-government collaboration to cultivate excellent workforces.
- Strengthen the services and effectiveness of USI Education Foundation
- Encouraging and sponsoring employees to engage in public interest activities.
- Implementing the supplier/contractor evaluation systems

##### Short-term (1 year)

- Constant care for employee health and providing a safe workplace
- Maintaining harmonious labor-management relations and protecting labor rights and interests.
- Being a good neighbor to local communities and maintaining sound interaction with them.
- Encouraging and sponsoring employees to engage in charitable activities.
- Constantly cultivating educational and environmental protection activities in remote areas.

## 1.2 Company Profile

### About USI

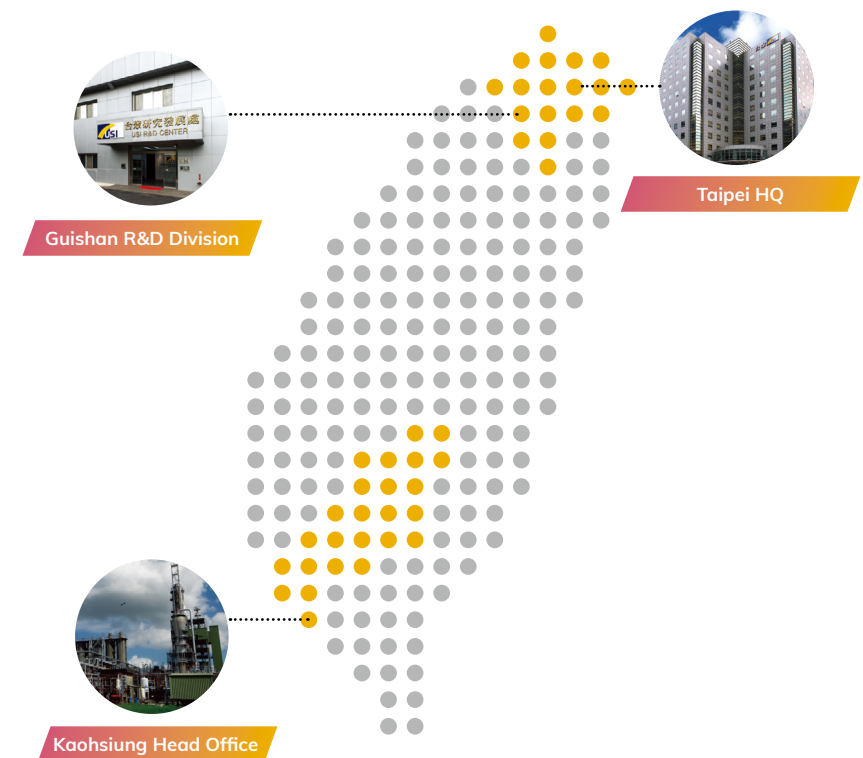
USI Corporation (TWSE: 1304) was established on May 26, 1965 and established Taiwan's first LDPE plant. We primarily develop, produce, and sell polyethylene (PE) resins at our complex in Renwu District, Kaohsiung City, Taiwan.

### Basic data GRI 2-1, 2-6, 2-7

<b>Name of Company</b>	USI Corporation
<b>Industry</b>	Plastics industry
<b>Head Office</b>	No. 330, Fengren Road, Renwu District, Kaohsiung City
<b>Taipei HQ</b>	12F, No. 37, Jihu Road, Neihu District, Taipei City
<b>Capital</b>	Over NTD11.88 billion (by December 31, 2022)
<b>Production</b>	207,413MT (2022)
<b>Major Products</b>	<ul style="list-style-type: none"> <li>Ethylene Vinyl Acetate Copolymer (EVA)</li> <li>Low Density Polyethylene (LDPE)</li> <li>High Density Polyethylene (HDPE)</li> <li>Linear Low-Density Polyethylene (LLDPE)</li> </ul> <p>PE resins become all kinds of plastic products in daily life after processing by downstream manufacturers.</p>
<b>Numbers of employees</b>	453 persons (by December 31, 2022) *Employees include 448 persons on a non-fixed-term contract and 5 on a fixed-term contract

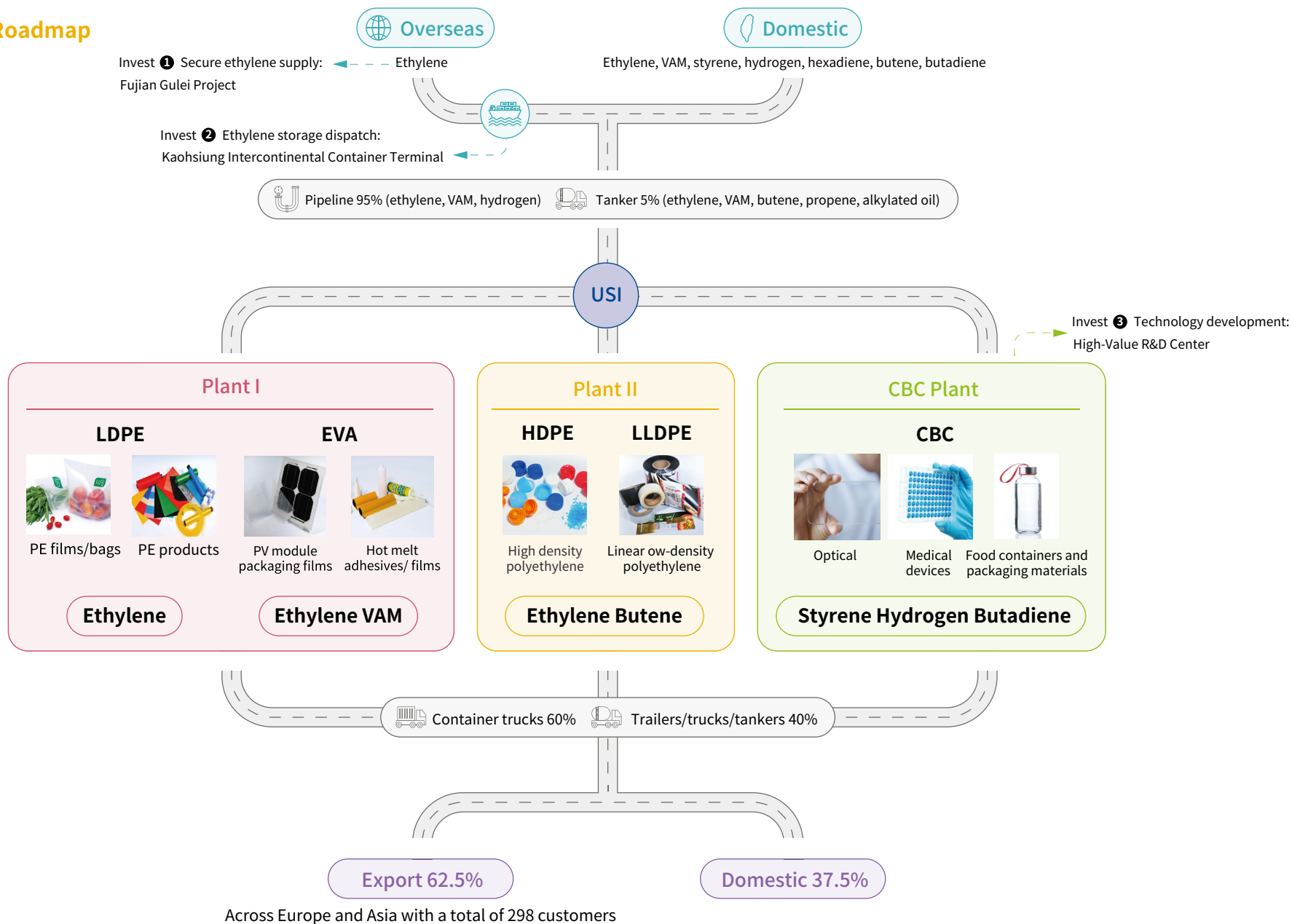
### Locations

Major USI locations are located in Taiwan, including Taipei HQ, Guishan R&D Division, and Kaohsiung Plant. Taipei HQ takes charge of product sales; Guishan R&D Division engages in product R&D and technical service; and Kaohsiung Plant comprises Plant I for producing LDPE and EVA products, Plant II for producing HDPE and LLDPE products, and the CBC Plant for producing cyclic block copolymers.





## Product Roadmap



## Products GRI 2-6

### Major Products

As a key PE manufacturer in Taiwan, we make continual improvement to improve product quality, increase product quantity, and supply excellent products to numerous downstream processors to raise the standard of processed products and cultivate markets with them. Our PE range covers the following four products: Our PE range covers the following four products:

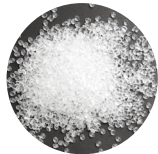
#### List of Major USI Products and Labels in 2022



**Low Density Polyethylene (LDPE)**  
PAXOTHENE®



**High Density Polyethylene (HDPE)**  
UNITHENE®



**Ethylene Vinyl Acetate Copolymer (EVA)**  
EVATHENE®



**Linear Low-Density Polyethylene (LLDPE)**  
LINATHENE®

### High-value products



#### ViviOn™ - Cyclic Block Copolymer (CBC)

<https://www.usife.com.tw/zh-tw/dirProduct/frmProduct7.aspx>



#### Functional Coatings

<https://www.usife.com/zh-tw/dirProduct/frmProduct8>

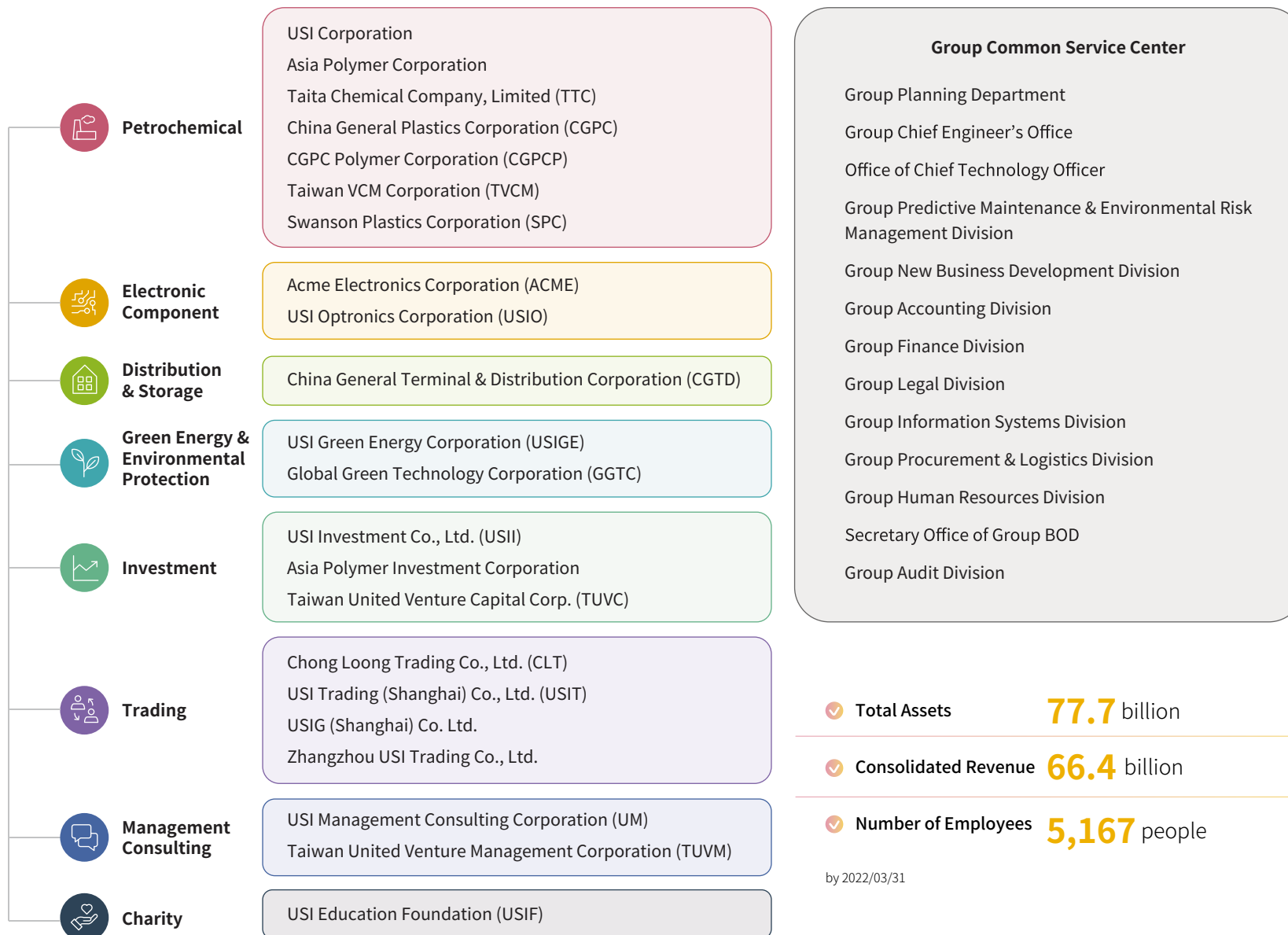
### External initiatives and membership of associations GRI 2-28

We actively participate in technology exchange with professional groups to promote the professional growth of technologies and competencies in various fields through same-industry and cross-industry exchange and cooperation to achieve sustainable development for the industry together.

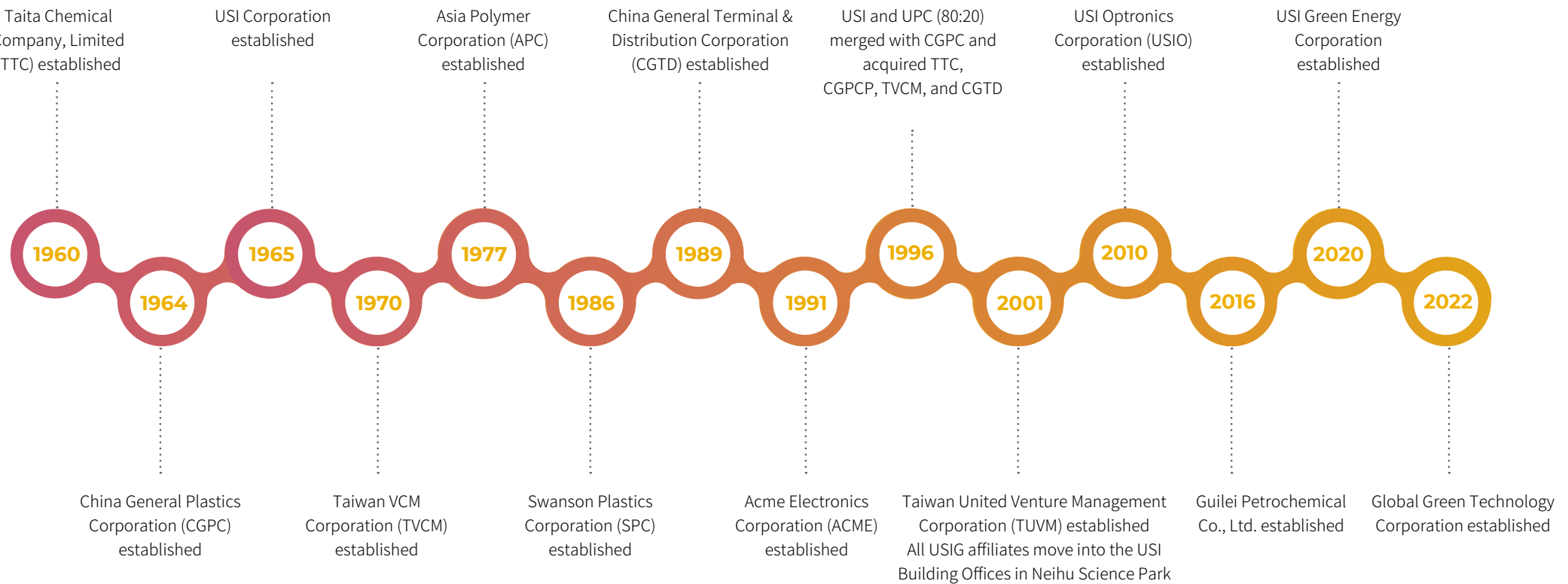
In 2022, we were a member of 16 associations and non-profit organizations, such as the Petrochemical Industry Association of Taiwan, Chinese National Association of Industry and Commerce Taiwan, Chinese National Federation of Industries, and Taiwan Chemical Industry Association. Please visit: <https://www.usife.com/zh-tw/dirAbout/frmAbout9>

In support of external initiatives, apart from becoming one of the 1,846 businesses worldwide supporting TCFD in November 2020, we began by joining Earth Hour in 2018 and also participated in the Carbon Neutrality Alliance of the Chinese National Federation of Industries in April 2022. In August 2022 we signed the Taiwan Commercial Industry Association (TCIA) Net Zero Emissions Declaration.

## About USI Group



## USI Group Overview

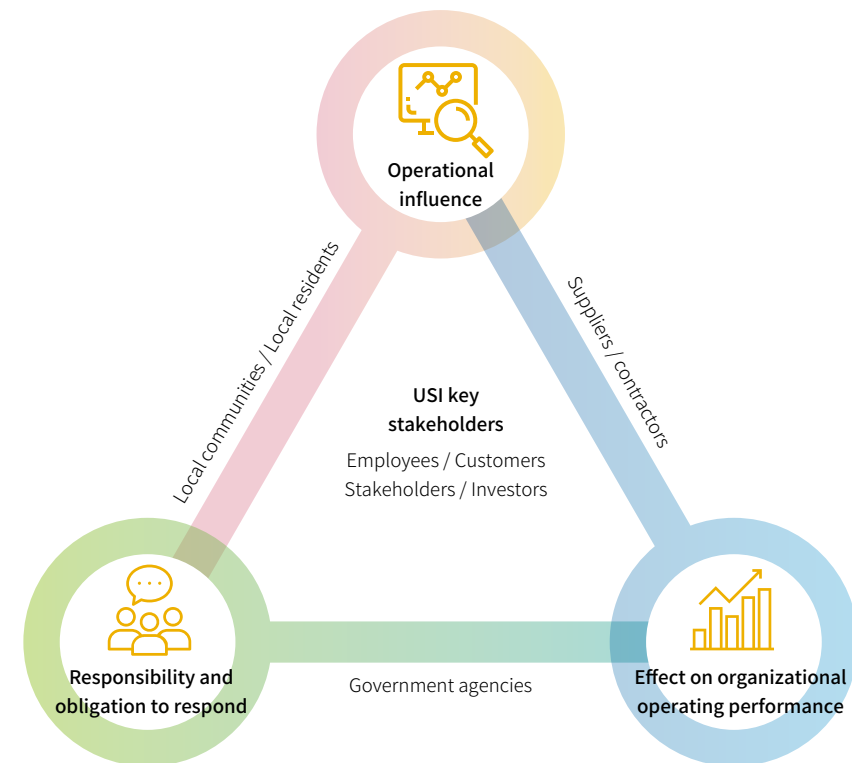


Note 1: Please refer to the USIG website at <https://www.usig.com>

Note 2: Four publicly offered USI subsidiaries, including Asia Polymer Corporation (APC), China General Plastics Corporation (CGPC), Taita Chemical Company, Limited (TTC), Acme Electronics Corporation (ACME), published their own ESG report in 2022.




## 1.3 Stakeholder Engagement GRI 2-29




We believe that in-depth communication with stakeholders is the foundation for sustainable management, and well-planned and effective communication can understand the topics that concern stakeholders. Therefore, apart from constantly establishing communication channels, we focus on and address issues that concern stakeholders, discuss their influence at different types of meetings and include them in the company's short-, medium-, and long-term strategies, such as the five-year plan and risk and opportunity management policies. We also adjust the directions of sustainable operations, and report to the board regularly. Referring to the attributes of stakeholders as specified in AA 1000 SES (2015): dependency, responsibility, influence, diverse perspectives, and tension, we identified 5 major stakeholder groups: employees, customers, government agencies, suppliers/contractors, and shareholders or investors for communication. We also added local communities/residents as the sixth stakeholder group that required communication based on the underground pipeline operation and management plan. Besides gathering stakeholder opinions from various channels, we have also set up the ESG section on the corporate website to enhance communicability.



## Stakeholder Communication Channels and Topics that Concern Them

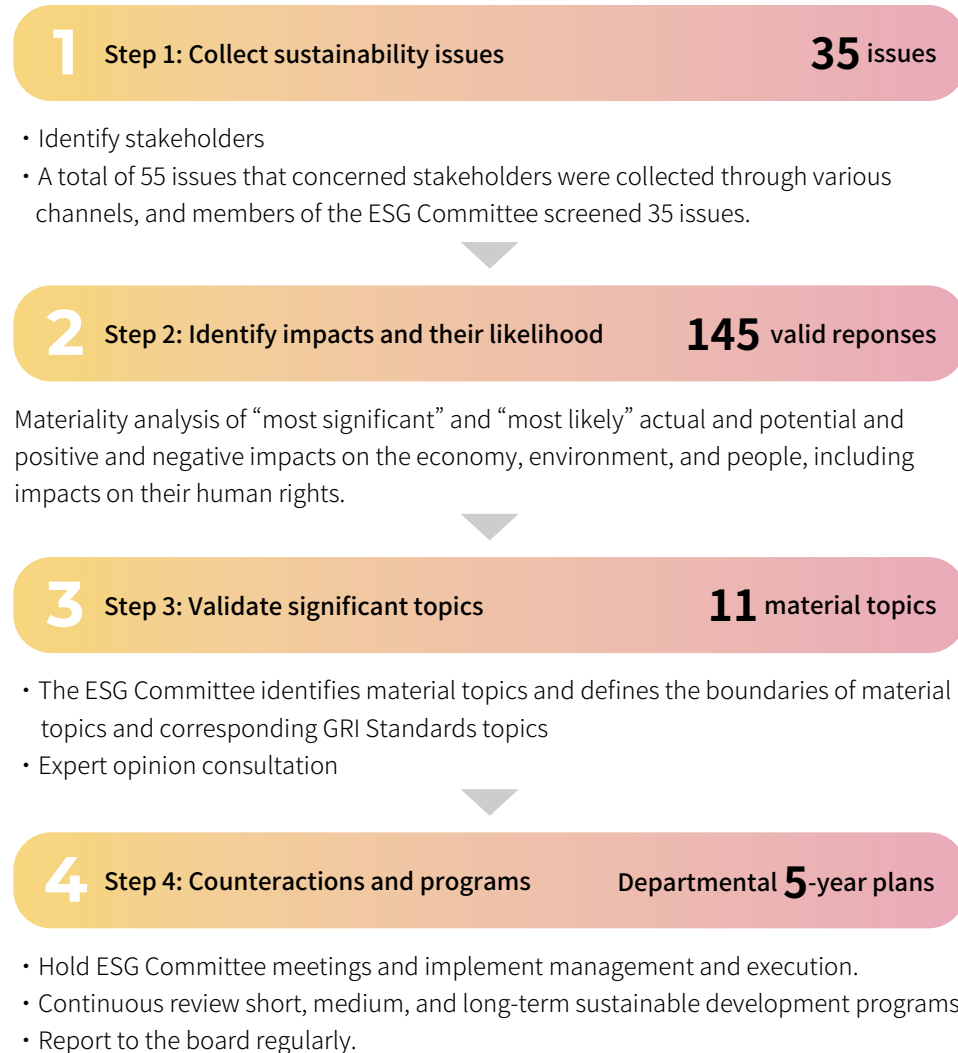
The identity of stakeholders, the topics that concern them and addresses are reported to the Board every year.

Stakeholder	Significance	Concerned Topic	Communication Channel and Frequency	Engagement Results	Summary of Address in 2022
 <b>Employees</b>	Employees are the bedrock of corporate development and the partners of sustainable development. Therefore, we recruit outstanding employees, provide a safe and healthy work environment, develop and retain talents, provide employees with continuous care, and constantly care for their needs.	<ul style="list-style-type: none"> <li>• Operating performance</li> <li>• Employee benefits</li> <li>• Occupational safety and health</li> <li>• Labor-management relations</li> <li>• Recruitment and retention</li> </ul>	<ul style="list-style-type: none"> <li>• New employee interviews (with relevant officers of all levels)</li> <li>• Performance interviews (regularly)</li> <li>• Labor-management meetings (quarterly)</li> <li>• Union board meetings (quarterly)</li> <li>• Union general meetings (annually)</li> <li>• Employee Welfare Committee meeting (biannually)</li> <li>• Occupational Safety &amp; Health Committee meeting (quarterly)</li> <li>• HSE/Emergency Management Committee meeting (quarterly)</li> <li>• Labor Pension Fund Supervisory Committee meeting (biannually)</li> <li>• Employee engagement survey (irregularly)</li> <li>• Internal health forums (five times a year minimum)</li> <li>• Education/training (as planned)</li> <li>• On-site tour inspections (irregularly)</li> </ul>	<ul style="list-style-type: none"> <li>• Adjustment of the remuneration and reward systems.</li> <li>• Preferential distribution of year-end bonuses.</li> <li>• Enhancement of care for employee health.</li> </ul>	<ul style="list-style-type: none"> <li>• Through the annual raise and performance evaluation systems, we give employees a raise and promotion each year corresponding to their annual work performance.</li> <li>• The reward differentiation system was implemented to link the year-end bonus to reward and punishment. The employee year-end bonus was distributed in accordance with the Employee Performance Evaluation Regulations.</li> <li>• To screen the high-risk group for special care, we ask night-shift employees and employees working shift to answer the overwork questionnaire and Framingham Risk Score questionnaire, arrange health checkups and EKG tests for them, and review their past history.</li> <li>• Contact: Mr. Chen, Personnel Section (07) 735-9998 #2261</li> </ul>
 <b>Customers</b>	Customers are the main source of USI's income. Valuing technology innovation, we are committed to providing customers with the best service to create a win-win situation for both customers and the Company.	<ul style="list-style-type: none"> <li>• Technology R&amp;D</li> <li>• Customer privacy</li> <li>• Transportation safety management</li> <li>• Industrial and public safety</li> <li>• Customer satisfaction survey</li> </ul>	<ul style="list-style-type: none"> <li>• Customer satisfaction survey (biannually)</li> <li>• Participation in trade fairs (once a year minimum)</li> <li>• Sales visits (once a year minimum)</li> <li>• "Contact us" on the corporate website (irregularly)</li> <li>• Contact by phone/email (irregularly)</li> </ul>	Communication with customers through various methods and constant provision of quality products and services for customers.	<ul style="list-style-type: none"> <li>• Provided 36 rounds of customer technical service</li> <li>• Commissioned projects:43</li> <li>• Resolution of all 9 customer complaints.</li> <li>• We conduct customer satisfaction surveys twice a year, with over 97.1% responses falling in the "satisfied" and "highly satisfied" options.</li> <li>• Contact: Mr. Shen, Sales Department (02) 8751-6888 #3213</li> </ul>
 <b>Stakeholders /Investors</b>	Each shareholder is an important corporate asset. We constantly pursue excellence to maximize profit for shareholders.	<ul style="list-style-type: none"> <li>• Local major investments</li> <li>• Technology R&amp;D</li> <li>• Operating performance</li> <li>• Customer privacy</li> <li>• Supplier management</li> </ul>	<ul style="list-style-type: none"> <li>• Annual general meeting of shareholders (annually)</li> <li>• Investment conference (biannually, minimum)</li> <li>• Market Observation Post System (as prescribed by law)</li> <li>• Contact information of spokespersons (irregularly)</li> <li>• Annual report (annually)</li> <li>• Published the ESG report (annually)</li> <li>• Financial statements (quarterly)</li> <li>• "Investor Service" section on the corporate website (irregularly)</li> <li>• USIG Stock Home website on the corporate website (irregularly)</li> <li>• "Audit Committee Email" on the corporate website (irregularly)</li> </ul>	<ul style="list-style-type: none"> <li>• Progress of Fujian Gulei Petrochemical Project</li> <li>• Investment in the construction of ethylene storage tanks</li> <li>• Status of corporate operations</li> </ul>	<ul style="list-style-type: none"> <li>• AGM on May 31</li> <li>• Investor conferences on March 23, May 20, August 25, and November 17</li> <li>• Contact: VP Wu, Spokesperson (02) 2627-4745 Ms. Hung/Ms. Wu, Stock Service (02) 2650-3773</li> </ul>

Stakeholder	Significance	Concerned Topic	Communication Channel and Frequency	Engagement Results	Summary of Address in 2022
 <p><b>Government agencies</b></p>	<p>Government policies and environmental protection laws and regulations have far-reaching influences on USI operations. Therefore, we maintain practicality and stability in professional operations.</p>	<ul style="list-style-type: none"> <li>Market presence</li> <li>Legal compliance</li> <li>GHG emissions</li> <li>Air pollution control</li> <li>Waste management</li> <li>Worker safety</li> <li>Water resources management</li> </ul>	<ul style="list-style-type: none"> <li>Participation in law and regulation outreaches or public hearings (irregularly)</li> <li>Participation in forums or seminars (irregularly)</li> <li>Official documents, material information (as prescribed by law)</li> <li>Market Observation Post System (as prescribed by law)</li> </ul>	<ul style="list-style-type: none"> <li>The Kaohsiung Labor Standards Inspection Office conducted the on-site PSM performance check.</li> <li>The Kaohsiung Labor Standards Inspection Office conducted an on-site inspection of the compliance with the Category C hazardous workplace.</li> <li>The Kaohsiung Labor Standards Inspection Office conducted an on-site review on the recordation of priority management chemicals, in-service training, and special health checkups.</li> <li>On-site publicity and audit of the correct use of PPE by the Kaohsiung Labor Standards Inspection Office.</li> <li>Dashe Industrial Park degradation</li> <li>The Kaohsiung Environmental Protection Bureau requested USI plant to perform the OP-FTIR monitoring and analysis around the boundary of Dashe Industrial Park.</li> <li>Renwu sanitation team audited the prevention and management of dengue fever.</li> <li>The Kaohsiung City Government implemented industry water rationing phase I at 7% and phase II at 11% in response to severe water shortages.</li> </ul>	<ul style="list-style-type: none"> <li>Implemented PSM to enforce equipment self-management by risk level.</li> <li>Completed the re-evaluation of B-line in April 2021 for the process 5-year re-evaluation report for Category C hazardous workplaces and revised the CBC plant report for 2021-2022.</li> <li>Implemented the periodic recordation of priority management chemicals, in-service training for the supervisors of processes using organic solvents and specific chemical substances, and organized special health checkups.</li> <li>Enhancing on-site inspection and PPE education/training for employees.</li> <li>Participated in various discussion meetings against land degradation to maintain the rights and interests of manufacturers and workers at Dashe Industrial Park.</li> <li>Set up the FTIR surveillance station in the plant.</li> <li>Periodically performed dengue fever walk-through inspections and records.</li> <li>Implemented the water conservation control plan in coordination with the government's industry water conservation and passed the certification of the ISO 46001 Water Efficiency Management Systems.</li> <li>Implemented ISO 14064-1 (GHG inventory) and ISO 14067 (carbon footprint verification, CFV) in coordination with the government's net zero emissions and international trends.</li> <li>Contact: Mr. Li, Industrial Safety Section (07) 735-9998 #2311 Mr. Hsieh, Environmental Protection Section (07) 735-9998 #2314</li> </ul>
 <p><b>Suppliers/Contractors</b></p>	<p>Ethical corporate management is USI's corporate culture. We carefully select suppliers and contractors to provide customers with quality products and employees with a safe work environment.</p>	<ul style="list-style-type: none"> <li>Operating performance</li> <li>Local major investments</li> <li>Market presence</li> <li>Legal compliance</li> <li>Procurement practices</li> </ul>	<ul style="list-style-type: none"> <li>Purchase procedures (on-demand)</li> <li>Supplier questionnaire survey (annually/new supplier)</li> <li>Performance review meeting (on-demand)</li> <li>Face-to-face review meeting (by product type)</li> <li>Purchaser visit (irregularly)</li> <li>Market survey (weekly)</li> <li>Contractor consultative organization meeting (irregularly)</li> </ul>	<p>Communication of the need to comply with labor human rights, OH&amp;S, environmental protection, and code of ethics. Supplier evaluation results: All pass.</p>	<ul style="list-style-type: none"> <li>To enforce USI's ethical corporate management policy and discern suppliers' needs, we communicate with and address suppliers through the following methods: <ul style="list-style-type: none"> <li>Supplier evaluation results, once a year</li> <li>Topics concerned suppliers questionnaire, once a year</li> </ul> </li> <li>Purchaser visits (1-2 times/quarter)</li> <li>Contact: Mr. Chen, Procurement I Department (02) 8751-6888 ext. 3771 Mr. Li, Procurement I Department (02) 8751-6888 ext. 3786</li> </ul>
 <p><b>Local communities/residents</b></p>	<p>Local residents are the most important partners growing with USI. Social inclusion is our core strategy.</p>	<ul style="list-style-type: none"> <li>Noise control</li> <li>Air pollution control</li> <li>Involvement with local communities and philanthropy</li> <li>GHG emissions</li> <li>Underground pipeline maintenance</li> </ul>	<ul style="list-style-type: none"> <li>"Contact us" on the corporate website (irregularly)</li> <li>Visits on local groups (three time a year minimum)</li> <li>Participation in community activities (irregularly)</li> <li>Interview or phone contact (irregularly)</li> </ul>	<ul style="list-style-type: none"> <li>Provision of learning sources for local schools to develop quality talents.</li> <li>Enhancement of neighborly activities.</li> <li>Implementation of the underground pipeline maintenance and operation program.</li> </ul>	<ul style="list-style-type: none"> <li>Constant adoption of the air quality purification zone of Renwu Special Education School</li> <li>Donated epidemic control materials such as facemasks and bleach to schools in local communities to fight COVID-19 together with residents.</li> <li>One independent scenario planning (2022.08.04) and one drill (2022.08.24) for underground pipelines, and one alert drill (2022.06.15) the Economic Development Bureau.</li> <li>Contact: Mr. Hsueh, General Affairs Section (07) 735-9998 #2262 Mr. Chen, Personnel Section (07) 735-9998 #2261</li> </ul>

## 1.4 Management of Material Topics GRI 2-14, 3-1

### Analysis and identification of material topics



To ensure the completeness of topic inclusiveness, apart from referring to the requirements of the revised GRI Universal Standards 2021, the metrics of SASB Standards-Chemicals, domestic and overseas industry sustainability trends, and the SDGs, we also collected issues of “high stakeholder concerns” through various communication channels. Based on the responses collected through the “Stakeholder Questionnaire” posted on the corporate website, we identified the impact of individual issues, with the working groups of the ESG Committee and directors identifying the likelihood of issues. In 2022, we collected a total of 145 responses, including 92 external responses and 53 internal responses (from members of the ESG working groups).

After collecting the responses, the ESG working group identified material topics and defined their boundaries and the corresponding GRI Standards topics. After the Group’s ESG expert discussion, they were reported to the ESG Committee and lastly to the Board for approval.

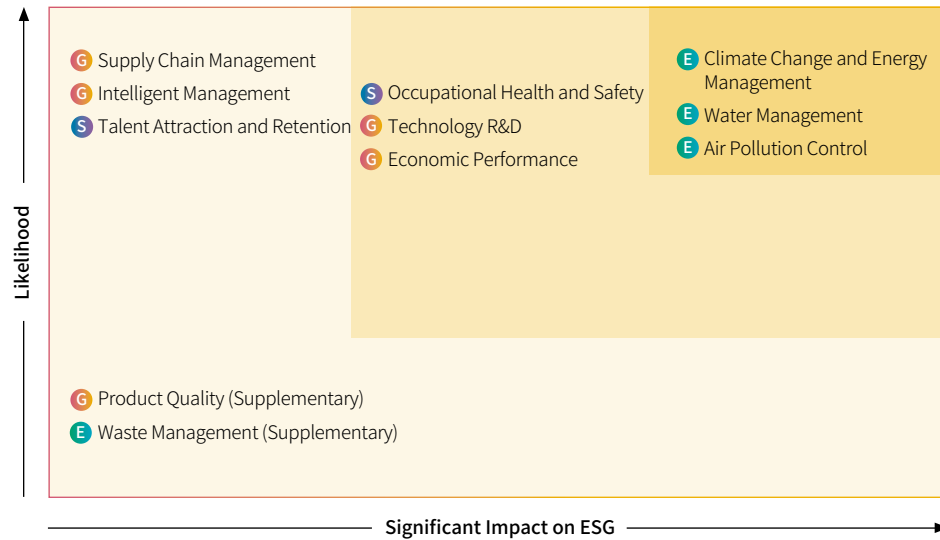
In response to the improvement and long-term progress follow-up of ESG issues, we began to identify material issues biennially in 2019. In 2022, we identified material issues again in response to the revision of GRI Standards. The next identification will be in 2024. In 2020, we began to include the metrics of the SASB Standards-Chemicals, and the details of metrics are listed in Appendix [6.2 SASB-Chemicals Index](#).

### Identification of Material Topics GRI 3-2

Based on the abovementioned 35 issues, we analyzed the “likelihood” and “significance” of their actual and potential positive and negative impacts. Based on the significance and likelihood of impacts., the ESG working group set thresholds (significance over 3.42 and likelihood over 3.4) and selected 15 ESG issues as “significant issues” and categorized them in terms of the environmental, social, and governance (ESG) aspects. Referring to the GRI Standards, these issues were converged into 9 material impacts. Through resolution the ESG working group decided to include the two topics: product quality and waste management in the material topics, making up to a total of 11 material topics. The effectiveness and actions of other previous material topics are also followed up in this report. Please refer to [Appendix 6.1 GRI Content Index](#) for details.



### Convergence of 15 impacts into 11 material topics



### Changes in material topics in 2022 GRI 2-6

Compared to 2021, the changes in material topics are tabulated below. The responsible units proposed implementation plans and short-, medium-, and long-term targets for each material topic and reviewed their effectiveness periodically. The value chain concept has been included in the topic boundaries to expand the scope of consideration of the impacts of each material topic.

Status	Material Topics	Descriptions
Added	<ul style="list-style-type: none"> <li>Supply Chain Management</li> <li>Intelligent Management</li> </ul>	NA
Supplementary	<ul style="list-style-type: none"> <li>Product Quality</li> <li>Waste Management</li> </ul>	Included in the material topics after the discussion of the ESG working group
Not included	Ethical Corporate Management and Legal Compliance	Follow-up continued in Section 2.4, Ethical corporate management and legal compliance
	Transportation Safety Management	Combined to "Occupational Health and Safety."

Environmental	Significance	Material Topic
	<b>Negative Actual</b> - Increased energy prices - Insufficient power supply	<b>Climate Change and Energy Management</b> (GRI 302 Energy) (GRI 305:2016 Emissions)
	<b>Negative Potential</b> Carbon tax collection	
	<b>Positive Actual</b> Investment in renewables	
	<b>Negative Actual</b> Insufficient reservoir water	<b>Water Resources Management</b> (GRI 303 Water and Effluents)
<b>Negative Actual</b> Improper air pollution control	<b>Air Pollution Control</b> (GRI 305 Emissions)	
<b>Negative Actual</b> Improper waste disposal	<b>Waste Management</b> (GRI 306: 2020 Waste)	

Social	Significance	Material Topic
	<b>Positive Actual</b> Building a friendly workplace environment	<b>OH&amp;S</b> (GRI 403 Occupational Health and Safety) <b>Talent Attraction and Retention</b> (GRI 401 Employment) (GRI 404:2016 Training and Education)
<b>Negative Actual</b> Improper process safety management	<b>OH&amp;S</b> (GRI 403 Occupational Health and Safety)	

Governance	Significance	Material Topic
	<b>Positive Potential</b> Manufacturing transformation--Extrication from industry burdens Success in the development of sustainable materials	
	<b>Positive Actual</b> New product development and product diversity	<b>Technology R&amp;D</b>
	<b>Negative Potential</b> Tightened regulatory limitation on industry development	
	<b>Positive Actual</b> Proper supply chain management	<b>SCM</b> (GRI 308: Supplier Environmental Assessment) (GRI 414 Supplier Social Assessment)
	<b>Positive Actual</b> Steady growth in financial performance	<b>Economic Performance</b> (GRI 201 Economic Performance)
<b>Positive Actual</b> Implementation of automated processes and systems	<b>Intelligent Management</b>	
<b>Positive Negative</b> Manufacturing transformation--Extrication from industry burdens and development towards a high-value and low-pollution industry.	<b>Product Quality</b>	

## Progress of implementation of material topics.

Aspects		Material Topics		2021	2022
Governance	Economic Performance	<ol style="list-style-type: none"> <li>Earnings per share (EPS): NT\$4.84, a new high in history.</li> <li>EVA sales: 147,000 MT, a new high in history.</li> <li>Annual net income at NT\$3.52 billion, also a new high in USI history.</li> <li>Development of high-liquidity injection HDPE products.</li> <li>Started commercial operations of the Fujian Gulei Petrochemical Project in December 2021.</li> </ol>	<ol style="list-style-type: none"> <li>Individual revenues: NT\$15.6 billion, second highest in USI history.</li> <li>UE4055 annual sales accumulated 5,894MT, the highest in USI history.</li> <li>Annual net income at NT\$3.47 billion, also the second highest in USI history.</li> <li>The High-Value R&amp;D Center started operations in 2022Q3.</li> <li>The mid-term delivery of EVA facility of the Gulei Project was completed in October 2022.</li> </ol>		
	Technology R&D	New product development: 4 pcs/year, achievement 100%.	New product development: 4 pcs/year, achievement 100%.		
	Product Quality	<b>Targets:</b> <ol style="list-style-type: none"> <li>Customer complaints of plants I/II: &lt;6 cases/&lt;8 cases</li> <li>Controllable defect rate of plants I/II: &lt;0.3/&lt;0.8%</li> </ol> <b>Actual:</b> <ol style="list-style-type: none"> <li>Confirmed customer complaints of plants I/II: 6 cases /3 cases</li> <li>Controllable defect rate of plants I/II: 0.12 / 0.5%</li> </ol>	<b>Targets:</b> <ol style="list-style-type: none"> <li>Customer complaints of plants I/II: &lt;6 cases/&lt;7 cases</li> <li>Controllable defect rate of plants I/II: &lt;0.3/&lt;0.7%</li> </ol> <b>Actual:</b> <ol style="list-style-type: none"> <li>Confirmed customer complaints of plants I/II: 2 cases /5 cases</li> <li>Controllable defect rate of plants I/II: 0.21 / 0.55%</li> </ol>		
	Supply Chain Management (new)	-	Added the Supplier CSR Commitment as a requirement for new supplier evaluation.		
	Intelligent Management (new)	-	<ol style="list-style-type: none"> <li>Smart predictive maintenance for related equipment</li> <li>AI quality prediction</li> <li>Energy management system</li> <li>AI industrial safety image recognition</li> <li>Facial recognition for the access control of contractor personnel</li> <li>Virtual reality (VR)-Tank car leakage emergency response training</li> </ol>		
Environmental	Water Resources Management	<ol style="list-style-type: none"> <li>Water conservation: 4.26%</li> <li>Reclaimed water: 10,986MT</li> <li>Coordination with the government's industry water conservation (phase I: 7% and phase II: 11%) from April-May.</li> <li>Implementation of water conservation to control consumption.</li> <li>Implemented the ISO 46001 Water Efficiency Management Systems</li> </ol>	<ol style="list-style-type: none"> <li>Water conservation: 5.65%</li> <li>Water recycling: 32,153MT</li> <li>Implementation of water conservation to control consumption.</li> <li>Passed the certification of the ISO 46001 Water Efficiency Management System.</li> </ol>		
	Air Pollution Control	<ol style="list-style-type: none"> <li>VOCs equipment component leakage: 0.038%</li> <li>Completed the equipment pipeline improvement of lines B and D to reduce the fugitive emissions of VOCs.</li> <li>Added 3 tanker unloading arms and completed the improvement of 6 catalyst mixing tanks to effectively reduce the fugitive emissions of VOCs.</li> <li>Completed the cooler renewal to prevent the organic substance leakage due to equipment corrosion.</li> </ol>	<ol style="list-style-type: none"> <li>VOCs equipment component leakage: 0.036 %</li> <li>Pump replacement project progress at 25% due to the pandemic.</li> <li>The pipeline improvement plan to reduce emissions of VOCs was completed.</li> </ol>		
	Waste Management	<ol style="list-style-type: none"> <li>Monthly industrial waste storage audit: Compliance with the regulations.</li> <li>Enhancement of the flow control of waste cleanup and disposal by performing spot checks on 10 waste cleanup contractors and 7 waste disposal contractors in 2021, and no nonconformity was found.</li> </ol>	<ol style="list-style-type: none"> <li>Monthly industrial waste storage audit: Compliance with the regulations.</li> <li>Enhanced the flow control of waste cleanup and disposal and performed spot checks on 9 waste cleanup contractors and 7 waste disposal contractors in 2022, with no nonconformity found.</li> </ol>		

Aspects	Material Topics	2021	2022
Environmental	Climate Change and Energy Management	<ol style="list-style-type: none"> <li>Product energy consumption increased from 4.79 GJ/MT in 2020 to 4.8GJ/MT in 2021.</li> <li>Implemented 5 energy improvement projects to reduce power consumption by 0.75%, with an annual conservation rate (2015-2021) of 1.38%.</li> </ol>	<ol style="list-style-type: none"> <li>Product energy consumption increased from 4.8 GJ/MT in 2021 to 5.5GJ/MT in 2022. (With the energy consumption of the CBC plant)</li> <li>Implemented 6 energy improvement projects to reduce power consumption by 1.31% (average of 2015-2022 was 1.37%).</li> </ol>
Social	OH&S	<ol style="list-style-type: none"> <li>Incident rate=0, Frequency-Severity Indicator (FSI)=0, Number of environmental monitoring non-conformities=0.</li> <li>Downtime caused by key equipment=1, machinery maintenance by the engineering department = 5,048 units.</li> <li>Replacement of pipelines with leakage points, procurement of new reactors, and completion of the pipeline vibration improvement project.</li> <li>Addition of the swivel arm unloading system to enhance materials unloading safety.</li> <li>Replacement of the D1 train cooler and recycle train cooler.</li> <li>Completion of the visual inspection and thickness check of the overground pipeline sections and education and training.</li> </ol>	<ol style="list-style-type: none"> <li>Incident rate=0, Frequency-Severity Indicator (FSI)=0, Number of environmental monitoring non-conformities=0.</li> <li>Downtime caused by key equipment = 4, machinery maintenance by the engineering department = 5,025 units.</li> <li>Proposition of 65 ECs to reduce operating risks.</li> <li>Completion of steam inlet check of 66 points and replacement of the recycle train cooler.</li> <li>Replacement of the B-301A fume stack and addition of an operating platform at silo Y-6015 to enhance the operation safety of staff.</li> <li>Installation of the heat insulation net in the purification zone and demolition of the EDC pipelines and foundations in the catalyst zone (enhance operation safety for employees)</li> </ol>
	Talent attraction and retention	<ol style="list-style-type: none"> <li>Turnover (excluding retirement) of all employees: 3.4%.</li> <li>Employment of full-quota (4) of persons with disabilities by law.</li> <li>Provision of well-designed group insurance plans and contribution of pension by law to protect the later life of employees.</li> <li>Annual employee health checkup.</li> <li>Completion of labor-management meetings.</li> </ol>	<ol style="list-style-type: none"> <li>Turnover (excluding retirement) of all employees: 4.8%.</li> <li>Provided well-designed group insurance plans and contributed pension by law to protect the later life of employees.</li> <li>Annual employee health checkup</li> <li>Completion of labor-management meetings.</li> </ol>

## Material topics and value chain GRI 103-1, 2-6

● Direct impact ○ Indirect impact

Aspects	Material Topics	GRI Standards Topic	SASB Standards	Value Chain				SDGs	Response
				SCM	Operational	Product	Social		
Governance	Economic Performance	GRI 201:2016 Economic Performance	N.A.	○	●	●			<a href="#">2.2 Economic Performance</a>
	Technology R&D	N.A.	RT-CH-410a.1		●	●	●	 	<a href="#">3.1 Technology R&amp;D</a>
	Product Quality	N.A.	N.A.	●	●	●			<a href="#">3.2 Product Quality</a>
	SCM	(GRI 308:2016 Supplier Environmental Assessment) (GRI 414:2016 Supplier Social Assessment)	N.A.	●	●	●	○		<a href="#">3.3 Supply Chain Management</a>
	Intelligent Management	N.A.	N.A.	○	●	●	○		<a href="#">2.5 Intelligent Management</a>
Environmental	Water Resources Management	GRI 303:2018 Water and Effluents	RT-CH-140a.1 RT-CH-140a.2 RT-CH-140a.3	○	●	●	●		<a href="#">4.2 Water Resources Management</a>
	Air Pollution Control	GRI 305:2016: Emissions	RT-CH-110a.1 RT-CH-110a.2 RT-CH-120a.1	○	●		●		<a href="#">4.3 Air Pollution Control</a>
	Waste Management	GRI 306: 2020 Waste	RT-CH-150a.1	○	●	○	●	 	<a href="#">4.4 Waste Management</a>
	Climate Change and Energy Management	GRI 302:2016 Energy GRI 305:2016: Emissions	RT-CH-110a.1 RT-CH-110a.2 RT-CH-130a.1	○	●	●	○	 	<a href="#">4.5 Climate Change and Energy Management</a>
Social	OH&S	GRI 403:2018 Occupational Health and Safety	RT-CH-320a.1 RT-CH-320a.2 RT-CH-540a.1 RT-CH-540a.2	○	●	○	○	 	<a href="#">5.2 Occupational Health and Safety</a>
	Talent Attraction and Retention	GRI 401:2016 Employment GRI 404:2016 Training and Education	N.A.		●	○	○	  	<a href="#">5.3 Talent Attraction and Retention</a>

# Chapter 2

## Corporate Governance and Operational Performance



### Material topics in this chapter

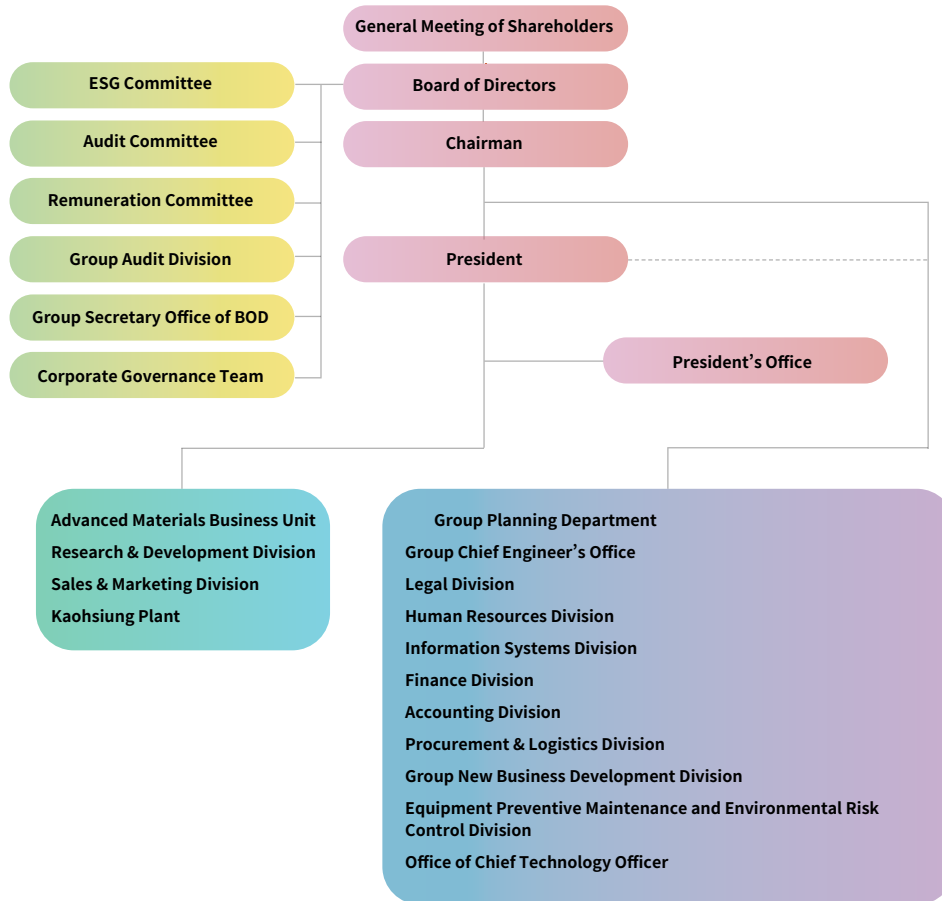
Economic performance

### Performance Highlights

- ✓ Individual revenues: **NT\$15.6 billion**, second highest in USI history.
- ✓ UE4055 annual sales accumulated **5,894MT**, the highest in USI history.
- ✓ **Top 6-20%** at the 9th Corporate Governance Evaluation
- ✓ Same rating by Taiwan Ratings at **twA/twA-1** with a “**steady**” outlook.

## 2.1 Corporate Governance

### USI management organization framework GRI 2-9, 2-11, 2-12, 2-19, 2-23, 2-24



About USI

<https://www.usife.com.tw/en-us/dirAbout/frmAbout>



### Board of Directors

#### Selection and operation of the Board GRI 2-9, 2-10, 2-12

The board of directors (Board) is formed by nine directors with rich experience in each professional field. There are four independent directors, accounting for 44% of all directors. The term of each director is three years, and each director is entitled to a second term. We adopt the candidate nomination system for the directorial (including independent directors) election. The Board along with shareholders holding over one percent of the total issued shares may propose the candidates to add to the List of Candidates for Directors and Independent Directors. After candidate qualification by the Board, the List of Candidates for Directors and Independent Directors is presented at the AGM for shareholders to vote on. In 2022, we held a total of five Board meetings, and the attendance of directors (including independent directors) was 91.11% (or 100% including proxy attendance).

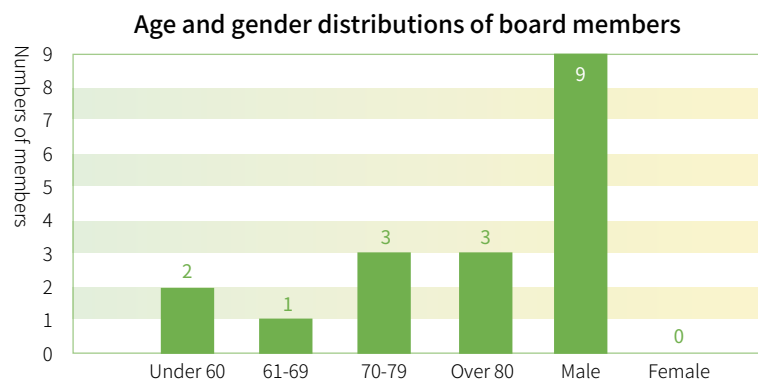
For details regarding Board operation, please refer to (p.31) of the USI Annual Report 2022.



For information regarding the Board Election Regulations, please visit our corporate website at:

[https://www.usife.com.tw/USIWebFiles/Others/USI\\_DirectorElection.pdf](https://www.usife.com.tw/USIWebFiles/Others/USI_DirectorElection.pdf)

<b>Current team</b>	June 12, 2020-June 11, 2023	
<b>Member</b>	Directors: Quintin Wu (chairman), Jing-sho Yu, Zhe-Yi Gao, Guang-zhe Huang, Pei-Ji Wu (president), Hong-Ting Wu Independent directors: Sean Chen, Woody Duh, and Yancey Hai	
<b>Gender of members</b>	All male	
<b>Age of members</b>	60 years old and below: 2	70-79 years old: 3
	61-69 years old: 1	80 years and older: 3



The chairman convenes and chairs at least one board meeting each quarter (please refer to the [Rules of Procedure of Meetings of Board of Directors](#)). Under the Board there are functional meetings including the Remuneration Committee, Audit Committee, and ESG Committee. Each committee holds committee meetings to report, discuss, and resolve proposals before referring them to the Board for reporting, discussion, and resolution.

Board proposal submission process flow: → Proposal by business responsible units → Report, discussion, and resolution of respective functional committees → Submission to the Board for report, discussion, and resolution. After the meeting, functional committees and the Secretary Office of the Board produce the meeting minutes containing the procedure and resolution of meetings. Additionally, we have established the Secretary Office under the Board to plan and prepare matters relating to the Board meeting so as to enhance the efficiency of board meeting and help implement Board resolutions. [GRI 2-12](#)



Important Board resolutions of 2022 (please visit our [corporate website](#) or refer to our [annual report](#)) [GRI 2-16](#)

## Performance of the board member diversity policy [GRI 2-10](#)

### I. Performance of the board diversity policy

Referring to Article 20 of the [USI Corporate Governance Best Practice Principles](#), the composition of the board of directors shall be determined by taking diversity into consideration and board members shall be equipped with the knowledge, skills, and experience required for performing their duties. To achieve the ideal goal of corporate governance, the board of directors shall possess the following abilities:

- ✓ Ability to make operational judgments
- ✓ Ability to perform accounting and financial analysis
- ✓ Ability to conduct management administration
- ✓ Ability to conduct crisis management
- ✓ Industry background knowledge
- ✓ An international market perspective
- ✓ Ability to lead
- ✓ Ability to make policy decisions

In addition to the above eight professional abilities required for carrying out their duties, and in response to the increasing global concerns about issues relating to corporate governance and environmental protection, four directors are also “legal” and “environmental” specialists, some directors also specialize in risk control and sustainable development to supervise the management team and effectively control operational risks and promote various corporate sustainable development plans.

### II. Targets for management of board diversity

Current directors were elected on June 12, 2020. To introduce external outstanding talents into the Board to achieve board diversity, Director Hung-Lin Wu completed a double major in finance and commercial law at the at the School of Business, Boston University, USA, and has been the CLO cum CFO of a high-tech company. Specializing in financial risk control, he helps the Board improve proposal deliberation quality and achieve the policy goal of board diversity. In the future, a director with professional experience in sustainability development will be the next target for board diversity. Such experience can help us realize the carbon reduction goal and implement the green power policy. A director specializing in operational risk control is another target to enhance our corporate competitiveness. With such an establishment, the Board functions will be more complete.

### III. Performance in board diversity

Diversity of board members

Name of Directors		Quintin Wu	Jing-sho Yu	Zhe-Yi Gao	Guang-Zhe Huang	Pei-Ji Wu	Hong-Ting Wu	Sean Chen	Woody Duh	Yancey Hai
Diversity of Core Competence	Gender	Male	Male	Male	Male	Male	Male	Male	Male	Male
	Operational judgments	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Accounting finance	✓	✓				✓	✓		✓
	Management administration	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Crisis management	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Industry background knowledge	✓	✓	✓	✓	✓			✓	
	International market	✓				✓				
	Ability to lead	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Ability to make policy decisions	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Law	✓						✓		
	Eco-friendly								✓	✓

\* Currently, 22% of directors are also employees, and 33% of them are independent directors.

\* Regarding age distribution, 3 directors are aged over 80 years old; 3 directors are aged 70-79 years old; 1 director is aged 60-69 years; and 2 directors are under 60 years old.

\* No independent director is in office for over three terms.





## Avoidance of conflicts of interest of directors GRI 2-11, 2-15

For directors to avoid conflicts of interest (including impact on the economy, environment, and people), the Board has established complete systems and measures, including:

### 1 System for avoidance of interest

(1) To ensure positive governance and for the Board to understand matters causing conflicts of interest with the organization so as to protect the rights and interests of investors, we have specified in Article 16 of the Rules of Procedure for Meetings of Board of Directors: "If a director or a legal person that the director represents is an interested party in relation to an agenda item, the director shall state the important aspects of the interested party relationship at the respective meeting. When the relationship is likely to prejudice the interest of this Corporation, that director may not participate in discussion or voting on that agenda item and shall recuse himself or herself from the discussion and the voting on the item and may not exercise voting rights as proxy for another director."

(2) To reinforce disclosures of directors' involvement in proposals or situations having interests in themselves, we have also specified in paragraph 1, Article 17, the Rules of Procedure for Board of Directors Meetings: "Discussions at a board meeting shall be recorded in detail in the meeting minutes, the name of director(s) involving a conflict of interest, an explanation of the important aspects of the relationship of interest, the reasons why the director was required or not required to avoid the conflict of interest."

2 To develop sound corporate governance and independent director systems so that independent directors may demonstrate their functions on the Board and in corporate operations, we have established the "Rules Governing the Scope of Powers of Independent Directors" to stipulate that: "When an independent director expresses objections or reservations about any of the matters, they shall be recorded in the board meeting minutes", "the Company shall not obstruct, refuse, or avoid the actions of independent directors in business execution," and "as they deem necessary for business execution, independent directors may request the board to appoint relevant personnel or may hire by themselves professionals for assistance" to enable independent directors to carry out their duties so as to effectively enhance the efficiency of Board operation and improve the Company's operational performance.

3 Measures for avoidance of conflicts of interest: When discussing a proposal constituting a conflict of interest for one or more directors, the meeting chair shall remind such directors to recuse themselves from the discussion. If the chair should also be recused, she/he shall assign a director having no conflict of interest with the proposal to act as the chair.

4 The secretary unit of the Board has recorded contents involving conflicts of interest with directors in the board meeting minutes in accordance with Article 17, the Rules of Procedure for Meetings of Board of Directors.

5 To address the avoidance of conflicts of interest, the Board has established complete systems and measures (please refer to the Code of Ethical Conduct for Directors and Managerial Officers, Ethical Corporate Management Best Practice Principles, and Procedures for Ethical Management and Guidelines for Conduct).

Our performance in avoidance of conflicts of interest in proposals in 2022:

Name of Directors	Proposal	Reasons for Avoidance	Participation in voting	Remarks
Quintin Wu Sean Chen Ko-shun Wang	Proposal of abolition of non-compete restriction on directors.	Directors recusing themselves from the proposal were also the directors with non-compete restrictions.	Abstained from voting	The 10 <sup>th</sup> meeting of the 20 <sup>th</sup> Board 2022.3.10
Quintin Wu Ko-shun Wang	Donation to the USI Education Foundation	Directors recusing themselves from the proposal were also the directors of the Foundation.	Abstained from voting	
Quintin Wu	Equipment procurement from related parties.	Directors recusing themselves from the proposal were also the directors of those related parties.	Abstained from voting	The 11 <sup>th</sup> meeting of the 20 <sup>th</sup> term of Board 2022.5.5
Quintin Wu Ko-shun Wang	Endorsement or guarantee for subsidiary Chong Loong Trading Co., Ltd.	Endorsement or guarantee for subsidiary Chong Loong Trading Co., Ltd.	Abstained from voting	The 12 <sup>th</sup> meeting of the 20 <sup>th</sup> Board 2022.8.4
Ko-shun Wang	Non-compete behavior of managerial officers	A conflict of interest with directors.	Abstained from voting	The 12 <sup>th</sup> meeting of the 20 <sup>th</sup> Board 2022.8.4
	Personnel change of the general manager	A conflict of interest with directors.	Abstained from voting	The 13 <sup>th</sup> meeting of the 20 <sup>th</sup> term of Board 2022.9.2
Quintin Wu Pei-Ji Wu	Endorsement or guarantee for subsidiary Chong Loong Trading Co., Ltd.	Endorsement or guarantee for subsidiary Chong Loong Trading Co., Ltd.	Abstained from voting	The 14 <sup>th</sup> meeting of the 20 <sup>th</sup> Board 2022.11.3
Pei-Ji Wu	Non-compete behavior of managerial officers.	A conflict of interest with directors.	Abstained from voting	The 14 <sup>th</sup> meeting of the 20 <sup>th</sup> Board 2022.11.3

## Board performance assessment 2022 GRI 2-18

### I. Results of performance evaluation of the Board and directors in 2022

- 1 In accordance with the “Regulations for Performance Evaluation of the Board of Directors” amended and passed by the Board in November 2019, the performance of the Board and directors Self-Evaluation or Peer Evaluation in the year will be evaluated after the end of each fiscal year.
- 2 The Board Secretary Office conducts the performance evaluation of the Board and individual directors by means of self-assessment. The results of performance evaluation will serve as the reference of corporate reviews and improvements and the reference for the remuneration and nomination for election of individual directors.
- 3 The performance evaluation for the period from 1 January 2022 to 31 December 2022. The results of evaluation are consolidated as follows:

#### (1) Overall board performance

Aspects of evaluation	Score*	Results of evaluation and supplementary notes
Participation in the company’s operations.	4.83	1. The results of the overall Board performance evaluation show that the average score of the five major aspects is 4.6, which means “good”. 2. The unstable international situations and the continuation of the Russo-Ukrainian War and pandemic in the last year all affected corporate operations. Facing the uncertain future political and economic conditions, the Board and management should keep close track on the various challenges and risks that the Company faces and supervise all responsible units to propose countermeasures. Additionally, to achieve corporate sustainable development, we will continue to implement carbon reduction and plan green power solutions to meet the international standards.
Improvement of the decision quality of the board of directors.	5	
Composition and structure of the board of directors.	5	
Selection and continuing education of directors.	4.67	
Internal control	5	

\* Score range: 0-5, 5 is the highest.

#### (2) Director performance

Aspects of evaluation	Score*	Results of evaluation and supplementary notes
Corporate targets and mission control	4.93	The results of director self-assessment show that the average score of all six major aspects is over 4.7, which means “good”.
Duty awareness of directors	4.79	
Participation in the company’s operations.	4.75	
Internal relationship development and communication	4.83	
Expertise and continuing education of directors.	4.81	
Internal control	4.85	

\* Score range: 0-5, 5 is the highest.

- 4 The results of 2022 performance evaluation of the overall Board and individual directors were reported to the 2023 Q1 board meeting.

## II. Results of performance evaluation of functional committees in 2022

1 The performance evaluation for the period from 1 January 2022 to 31 December 2022. The results of evaluation are consolidated as follows:

(1) Performance assessment of the Audit Committee

Aspects of evaluation	Score*	Results of evaluation and supplementary notes
Participation in the company's operations.	5	The results of the performance assessment of Audit Committee show that the average score of the five major aspects is 5, which means "excellent".
Duty awareness of the Audit Committee	5	
Improvement of the decision-making quality of the Audit Committee	5	
Composition and member selection of the Audit Committee	5	
Internal control	5	

\* Score range: 0-5, 5 is the highest.

(2) Performance assessment of the Remuneration Committee

Aspects of evaluation	Score*	Results of evaluation and supplementary notes
Participation in the company's operations.	4.75	The results of performance evaluation of the Remuneration Committee show that the average score of all four major aspects is over 4.7, which means "good".
Duty awareness of the Remuneration Committee	5	
Improvement of the decision-making quality of the Remuneration Committee	5	
Composition and member selection of the Remuneration Committee	5	

\* Score range: 0-5, 5 is the highest.

2 The results of 2022 performance evaluation of functional committees were reported to the 2023 Q1 board meeting.

Recommendation and implementation In view of the increasing global attention to

ESG issues, we have substantively implemented various measures in accordance with the Corporate Governance 3.0 Sustainability Roadmap published by the competent authorities. We have also reported those measures to the ESG Committee meeting and Board meeting to explain to the directors, who have also made valuable suggestions to those measures.

Apart from continuously enhancing corporate governance, we have also planned carbon reduction targets and implemented carbon reduction and planned and implemented green power development strategies to meet the international standards so as to achieve the ultimate goal of corporate sustainable development.

### Professional competence enhancement of directors in 2022 GRI 2-17

To improve the professional competence of directors, we provided information of related further education courses for directors and assisted them with the registration. We arranged a total of six hours of internal continuing education courses, including the 3-hour "Risks on and Opportunities for corporate operations of climate change and the net zero emissions policy" course given by Director Tsai-Yi Wu of Taiwan Research Institute (TRI) on July 14, 2022 and the 3-hour "Takeover and Introduction to the Commercial Case Adjudication Act" course given by Yung-Chin Hsu, attorney-at-law and partner of PwC Legal, on October 13, 2022. In 2022 we arranged 66 hours of external continuing education courses for all directors and independent directors. All 9 directors (including independent directors) completed training for the length (hours) as stipulated in the Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE Listed and TPEX Listed Companies. Please refer to [p. 36](#) of the USI Annual Report 2022 for the details of the courses and their lengths.

### Chief corporate governance officer (CCGO)

To protect the rights and interests of shareholders and improve the competence of the board of directors, the Board made a resolution on May 13, 2019 to assign Director of Legal Division, Erik Chen to be the Chief Corporate Governance Officer (CCGO) as the top officer of USI's corporate governance. Director Erik has been the chief legal officer (CLO) of a public company for over seven years, with handling the affairs of board meetings and meetings of shareholders as the main duty.

Please visit our corporate website at <https://www.usife.com.tw/zh-tw/dirInvestor/fmInvestor1.aspx> for the details regarding the duties and continuing education in 2022.

## Functional Committees

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

Title	Name	Audit Committee	Remuneration Committee	ESG Committee
Chairman	Quintin Wu	—	—	✓
Director	Pei-Ji Wu	—	—	✓ Deputy Chief
Independent Director	Sean Chen	✓ Convener	✓	—
Independent Director	Woody Duh	✓	✓	✓ Chief
Independent Director	Yancey Hai	✓	✓ Convener	✓

### Audit Committee

1 The term of the current committee commenced on June 12, 2020 and will end on June 11, 2023. There are three seats in the committee formed by all independent directors.

2 The Audit Committee holds at least one committee meeting each quarter and extraordinary meetings as necessary. Four committee meetings were held in 2022, and the personal attendance rate of members was 92%.

### Remuneration Committee GRI 2-19, 2-20, 2-21

1 The term of the current committee commenced on June 15, 2020 and will end on June 11, 2023. All three seats of the committee are taken by independent directors.

2 The Remuneration Committee holds at least two committee meetings each year. Three committee meetings were held in 2022, and the personal attendance rate of members was 89%. Please visit our [corporate website](#), refer to our [annual report](#), or visit the Market Observation Post System (MOPS) for the details regarding the operation of this committee.

3 Apart from periodically reviewing the (1) performance evaluation and (2) salary and remuneration policy, system, standard, and structure of directors and managerial officers, the Remuneration Committee also determines and assesses the salary and remuneration of directors and managers with reference to the median earnings in the industry; the duration of engagement, duty, and target accomplishment of each role; the salary and remuneration for the same role; achievement of the Company's short- and long-term sales targets; and the Company's financial condition; and submit the results to the Board for approval.

• **Salary and remuneration:** The remuneration for directors covers remuneration, director profit sharing, and income for professional practice; and the compensation for managerial officers includes the monthly salary, fixed-amount bonuses, year-end bonus, employee profit sharing, annual special bonus, pension contribution and benefit payments by law. The profit sharing for directors and employees are subject to Article 34 of the articles of incorporation.

The total compensation ratio and ratio of the percentage change in total compensation in 2022 were 11.55:1 and 54.86% respectively.

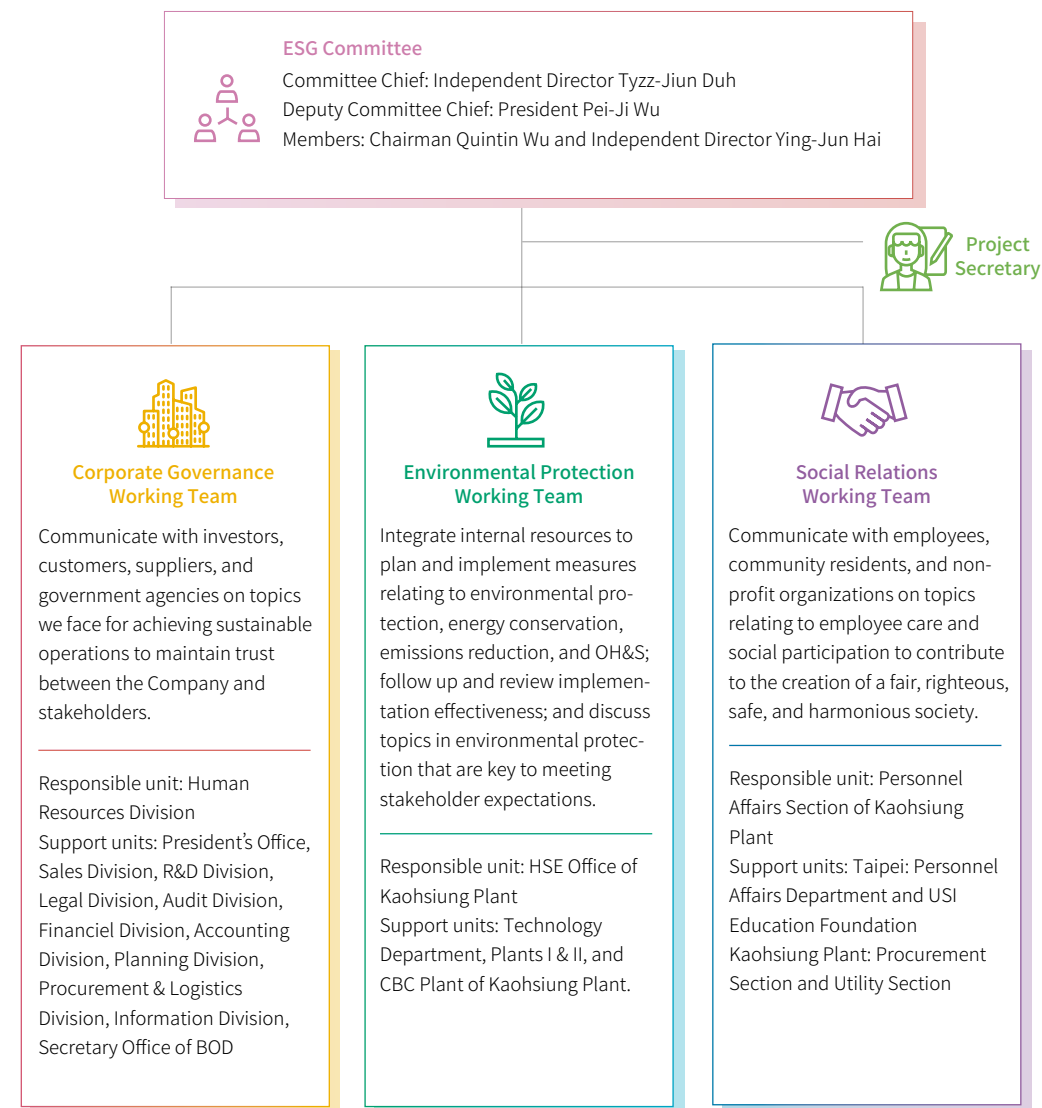
• **Performance evaluation:** The performance evaluation of directors covers the alignment with the corporate goals and missions, awareness of the directorial duties, development and communication of internal relationships, expertise and continuing professional development, and internal controls. The performance evaluation of managerial officers covers the finance (revenues, profits, and net income before tax), customers (customer satisfaction, service quality, and others), products (branding, quality innovation, and others), talents (talents development, potential development, and others), safety and profits (digital transformation, energy conservation and carbon reduction, circular economy, net zero emissions, and others), and medium- and long-term goals for corporate sustainable development.

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

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

## ESG Committee GRI 2-10, 2-14

- 1 This Committee is formed by the chairman, president and two independent directors selected by the Board. One of them will be the committee chief, with the president being the deputy chief.
- 2 The term of the current committee commenced on June 15, 2020 and will end on June 11, 2023. The four members include Chairman Quintin Wu, President Pei-Ji Wu, Independent Director Woody Duh, and Independent Director Yancey Hai.
- 3 Duties of the committee include:
  - Discussion and establishment of the ESG policy.
  - Discussion and establishment of ESG strategy planning, annual plans, and project plans.
  - Supervision of the implementation of ESG strategy planning, annual plans and project plans, and assessment of their performance.
  - Review of the ESG report.
  - Report of the annual ESG results to the Board every year.
  - Other assignments instructed by the Board.
- 4 The committee holds meetings at least two times each year. Two committee meetings were held in 2022, and the personal attendance rate of members was 100%. Minutes of committee meetings over the years: <https://www.usife.com/ESG/zh-tw/ESG21.aspx>
- 5 The three working groups of the Committee include corporate governance, environmental protection, and social relations as shown below:



Note: General Manager Ko-shun Wang resigned on September 2, 2022. In accordance with the Regulations of ESG Committee Organization, new General Manager Pei-Chi Wu took up this deputy chair post of the ESG Committee.

## ESG Committee Annual Tasks and Next-Year Annual Plan:

### Summary of ESG Performance in 2022 reported to the Board of Directors

- 1 Implemented carbon footprint and water management.
- 2 Awards
  - (1) Won the 2022 “Top 100 Sustainability Exemplary Awards” and “Platinum Award of Corporate Sustainability Report Awards” of Taiwan Corporate Social Responsibility Awards (TCSA)
  - (2) Passed the certification of Taiwan i-Sports certification for 2022.
  - (3) Pipeline 6 of Kaohsiung Plant was awarded the Model Pipeline Award by the Industrial Development Bureau, Ministry of Economic Affairs.
- 3 Included CBC Plant in the ISO 9001 quality management system.
- 4 Published the Chinese and English versions of the 2021 ESG Report in June and August respectively.
- 5 Donated for Forestation Adoption Program Phase II.

### 2023 ESG Work Plan

- 1 Constantly implement the USI 5-Year Operational Plan.
- 2 Seek opportunities for cooperation with external suppliers to promote green power development and carbon neutrality response.
- 3 Continuously participate in sustainability-related ratings.
- 4 Participate in social welfare activities.
- 5 Published the Chinese and English versions of the 2022 ESG Report in June and August respectively.
- 6 Donate to Forestation Adoption Program Phase III.

For information relating to the Board’s sustainability performance supervision, please visit pp. 61-62 of the USI Annual Report 2022.

## Maintenance and shareholder rights and interests and information transparency

Individuals and foreign corporate and individual investors are the major shareholders of USI. By April 2, 2023, the closing date of stock transfer for the 2023 AGM, the name and stake of shareholders holding over 5% of USI shares and the top ten shareholders of USI are disclosed in our [annual report](#).

We are committed to providing shareholders with transparent and timely corporate information. Apart from providing information to shareholders through four investor conferences, the AGM, MOPS, Investor Relations section of the corporate website, annual report, and ESG report, we constantly collected opinions from shareholders and sent them to the management team for the reference in decision-making in 2022.

Every year, we hold investor conferences and the AGM regularly to state the company’s financial performance and business status. In addition, we post information regarding our business performance, financial information, and material information on TWSE’s MOPS. We have also set up the “Investors” section on our Chinese and English websites to disclose information relating to the company’s governance, business announcements, financial statements, investor conferences, and latest news. We value the rights and interests of foreign investors and the trend of enterprise internationalization. Therefore, since 2018, we began to enhance information disclosures in English in the annual report and on the MOPS and corporate website. Through various methods, we actively develop unfettered channels for two-way communication with shareholders to maintain their rights and interests.

\* In 2022 we increased the chief information security officer (CISO) to fulfill the need for a responsible unit, officer, and staff for the information security.

## Risk Management Organization Framework

For effective risk management, the Board, Audit Committee, President’s Office, Audit Office, all risk management units, and all subsidiaries participate in and operate the risk management mechanism. Please refer to [Risk Management](#)- USI Corporation (usife.com) for the organizational structure

Please refer to [2.3 Risk Management](#), for the policy, process, and performance of risk management

## 2.2 Economic Performance GRI 2-25, 3-3, SDG 8

### Sustainability Principle: Unity Governance

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Sustainable business operations, legal compliance, pursuit of profit, maintenance of stakeholder rights and interests, and development of high value-added products.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Vertical integration to reduce feedstock and production costs, increase product added value, and enhance custom product development.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Maintain the rights and interests of shareholders and create profit constantly. Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>• Positive actual impact: Develop ESG to raise the investment willingness of investors</li> <li>• Negative potential impact: Customer order transfer due to the plastic reduction policy which limits industry development by regulations.</li> <li>• Short-term positive actual impact: Increased investment willingness of investors due to ESG development.</li> <li>• Short-term negative impact: Excessive capacity.</li> <li>• Medium-term negative impact: Order transfer due to the plastics reduction policy, limited industry development due to legal and regulatory requirements.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>Global customers and investors, USI employees</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Enhance the development of green energy and eco-friendly products and advance industrial transformation</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Commercial operations of the Gulei Integrated Refinery Project</li> <li>2. Completion of the High-Value R&amp;D Center</li> <li>3. Construction of the Kaohsiung Intercontinental Container Terminal Project</li> <li>4. Equipment replacement</li> <li>5. Development of high-value products</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Developed new products and the low VOC-corrosive heat-shielding coating series.</li> <li>2. EPS NT\$1.45. Individual revenues: NT\$15.6 billion, second highest in USI history. Individual annual net income at NT\$3.47 billion, also the second highest in USI history.</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Commercial operations of the Gulei Integrated Refinery Project</li> <li>2. Construction of the Kaohsiung Intercontinental Container Terminal Project</li> <li>3. Development of high-value products and markets.</li> <li>4. Promotion of eco-friendly products</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Completion and operation of the Kaohsiung Intercontinental Container Terminal</li> <li>2. Large equipment replacement</li> <li>3. New product development</li> <li>4. Planning of and investment in the downstream development projects of the Gulei Integrated Refinery Project.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Annual report</li> <li>2. Governance evaluation</li> <li>3. ESG Report</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <ul style="list-style-type: none"> <li>• Meetings of shareholders</li> <li>• “Investor Service” on the corporate website</li> <li>• Investor conferences</li> </ul> <p style="text-align: center;"><b>Chapter Summary</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Financial performance</li> <li>2. Major investments</li> </ol>

\* Short-term: 1-2 years; medium-term: 3-5 years, and long-term: over 5 years. They apply to the impact of materials issues throughout the report.

The 2022 EPS was NT\$1.45. The war between Russia and Ukraine at the beginning of the year, and the oil price surging past US\$100 per barrel around the world also padded the cost of raw materials. The continuing spread of the pandemic slowed down the global economic recovery, and the Federal Reserve Board of the US resolved to have large rate hikes, which further induced global recession concerns. Benefiting from the green economy, the demand for EVA for solar power was strong at the beginning of the year, which pushed up the EVA price. The price reached the highest point in May. Due to the subsequent surge in the price of raw materials, module manufacturers had weaker demand, which in turn affected the demand for packaging films. After shoe manufacturers also had lower demand, the price of EVA in the market had a downturn in June. The price stopped falling in September, but it did not have a significant rebound. The price again went down in October, before stabilizing in December. The annual EVA sales reduced by 14% over the last year to 126,000MT. As HDPE is mainly sold for domestic consumption, COVID-19 significantly reduced the 2022 demand, reducing sales by 22% over the last year to 81,000MT. In production, the rupture of the TO furnace

tube caused the one-month production shutdown in the year, and the annual EVA/PE production thus reduced by 17% over the last year to 207,000MT. In renewables development, the accumulated on-grid capacity from solar power projects has reached 5.9 MW to generate about 7.3 GWh of green power and reduce carbon emissions by about 3,700 tCO<sub>2</sub>e each year, achieving the goals for corporate sustainable development and carbon reduction. In terms of research and development, we have continued to optimize the production process of optical-grade cyclic block copolymers to improve the quality and performance of raw materials, and develop new specifications with high heat resistance to target electronic applications and other applications with high heat resistance requirements. We continued to expand production applications in ink, shoe styrene, and electrical wires/cables for high value-added EVA products. The production of high MI HDPE materials was stabilized, and sales and shipment of products for use in injection molding continued. We also made continual process improvement of existing PE products for quality improvement to promote products to optical application market.

**USI Financial Performance 2020-2022** GRI 201-1

(Unit: NTD thousands)

Item	Basic Element	2020		2021		2022	
Direct economic value	Revenue (Note 1)	10,172,220		16,034,251		15,632,151	
Distributed economic value	Operating cost (Note 2)	9,263,780		12,512,341		12,163,445	
	Employee wages and benefits (Note 3)	665,430		864,134		753,360	
	Payment to investors (Note 4)	2020 cash dividends distributed in 2021	1,188,763	2021 cash dividends distributed in 2022	2,615,280	The 2022 cash dividend to be distributed in 2023 as approved by the Board.	
		Interest expense	105,041	Interest expense	94,746	Interest expense	73,666
	Payment to the government expense (Note 5)	133,648		156,246		739,262	
	Investments in community (Note 6)	3,623		4,000		5,000	
Residual economic value (Note 7)	2,409,778		5,191,394		1,555,097		

Note 1: Revenue refers to sales income.

Note 2: Operating cost refers to sales cost + operating expenses

Note 3: Employee wages and benefits are included in the said operating cost.

Note 4: Interest expense is included in the said operating cost.

Note 5: Payment to the government refers to the business income tax.

Note 6: Investments in community include contributions to local communities and donations to USI Education Foundation. Both are included in the said operating cost.

Note 7: Residual economic value refers to net income after tax.



## Profit distribution

In 2022, the revenue was NT\$15.63 billion, income tax (excluding estimates) was NT\$739 million, accounting for 4.73% of the individual revenue, distributable earnings were NT\$1.48 billion, and estimated cash dividend was NT\$0.7 per share. This profit distribution was approved by the AGM on May 31, 2023.



Dividend distribution over the years:  
<https://www.usife.com.tw/zh-tw/dirInvestor/frmlInvestor4.aspx>



Financial statements over the years:  
<https://www.usife.com/en-us/dirInvestor/frmlInvestor2>



## Innovative Operations and Management

Each year we invest a huge fund in R&D and actively recruit and cultivate professional talents. The R&D investments in 2021 and 2022 were NT\$150 million and NT\$160 million respectively. In 2022, the High-Value R&D Center in Kaohsiung was completed, with an investment of NT\$170 million. It provides services including process and product optimization, material quality and property improvement, added value and production efficiency enhancement, and energy consumption reduction. In 2022 we also invested another NT\$150 million in R&D.

The revenue proportion of new products in recent years accounted for 9.2%.



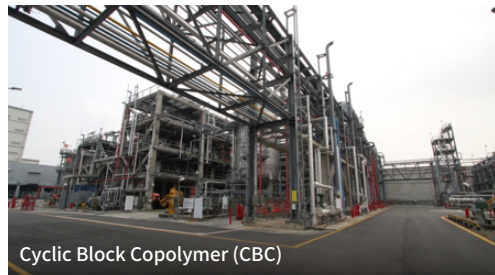
## Major Investments

### Local Major Investments

#### 1 Cyclic Block Copolymer (CBC)

This CBC project can be considered as one of the blueprint items for high-value petrochemical industry promotion and is the first “Process Scale-Up Project to Shorten Gaps in the Supply Chain for Key Chemicals” approved by the Industrial Development Bureau, Ministry of Economic Affairs. After acquiring CBC-related patented technologies in 2011, we have been implementing at full steam the CBC and other relevant projects in order to lead Taiwan’s petrochemical industry to transform toward a high-value petrochemical industry through collaboration among industry, government, academe and research.

The High-Value R&D Center, with an investment of NT\$170 million, started operations in 2022 Q3. So far, it can facilitate and support the process and product optimization of a trial mass production factory and product development of CBC and provides services including process and product optimization, materials quality and property improvement, added value and production efficiency enhancement, and reduction of energy consumption.



Cyclic Block Copolymer (CBC)



HV R&amp;D Center

#### 2 Ethylene Storage Tank Project of Kaohsiung Intercontinental Container Terminal

To increase the import sources of ethylene raw materials to secure sufficient supply, enhance future competitiveness, and ensure sustainable development, we built a new plant for the CGTD Kaohsiung Plant at the Petrochemical Oil Product Center in Kaohsiung Intercontinental Container S14 Terminal phase II with a total investment of NT\$5.221 billion. The project period is 2017-2024.

With an investment of NT\$906 million, the construction of the CGTD Kaohsiung Plant at the Petrochemical Oil Product Center in Kaohsiung Intercontinental Container S14 Terminal phase II started on July 31, 2019. It will be an ethylene storage tank of 80,000m<sup>3</sup> and auxiliary system. The construction is in progress.



Kaohsiung Intercontinental Container Phase II Plant



Ethylene storage zone

#### 3 Investment in Equipment Improvement of the Kaohsiung Plant

USI constantly improves various production processes and HSE equipment. In 2021, we invested in about NT\$617 million. In 2022, we invested in about 418 million.

The estimated total investment in 2023 will be NT\$166 million. to constantly engage in various energy conservation, carbon reduction, and new product development projects to improve product quality and increase custom products.



Invested  
**NT\$1.201**  
billion  
2021-2023

##### Enhance efficiency reliability

- DCS renewal and switch project
- Plastic packaging system renewal
- Motor maintenance/renewal
- MV/HV distributor renewal

##### Enhance efficiency quality

- Purification Catalytic System Replacement
- New catalytic system
- Filter automatic replacement system
- Foreign particles inspection machine

##### Pollution Prevention

- Construction of the thermal oxidizer (TO)
- Installation of material loading arm
- Compressor cylinder renewal
- Control valve replacement

##### Save energy and water

- Improvement of Steam
- Condensate Recovery
- Wastewater Tank Improvement

##### Electricity Saving

- Inverter Motor/High-Efficient Motor
- Freezer/Chiller Replacement/Nitrogen
- Compressor Replacement
- Process Exhaust Recovery
- Process condition adjustment

## Major Overseas Investments

### 1 Gulei Project

#### Investment objective

Many changes have emerged in the global petrochemical industry in recent years. They included the rise of the petrochemical industry in emerging regions and shale oil mining in North America, which have brought not only huge impacts to the energy structure and petrochemical material supply but also significant changes to development of the petrochemical industry across the Taiwan Strait.

To get prepared for future trends and challenges, petrochemical companies of Taiwan and China co-established the Gulei Integrated Refinery Project to achieve the vertical integration of the mid- and down-stream products.

#### Investment Item

The project engages in the production and sales of petrochemical products including ethylene, propylene and butadiene, EVA, ethylene oxide (EO), and ethylene glycol (EG).

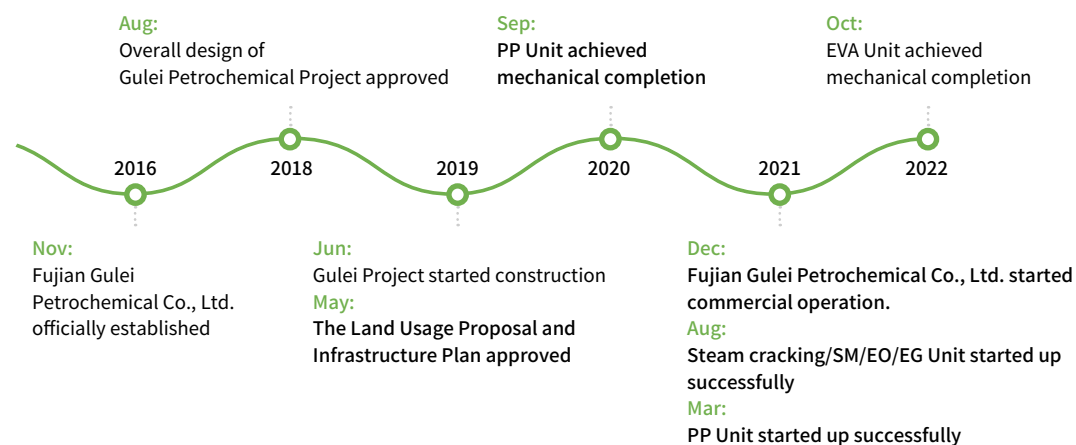
#### Investment amount and efficiency

- After the approval of the relevant competent authorities, re-investment in the Gulei Port Economic Development Zone Project in Zhangzhou, Fujian Province, mainland China, was made through a third region with a maximum amount of NT\$8 billion.
- In the future, the project will stabilize upstream material supplies, vertically integrate steam cracking, petrochemical intermediate materials, and plastic products, reduce transportation costs, and enhance competitive niche to facilitate deployment in the Greater China market and sales competition in the international market.

## Progress of Investment Items

- The steam cracker is the core processing unit, and hot commissioning was completed smoothly in August 2021.
- The first shipment of ethylene monomers from Gulei Petrochemical was already sold to Taiwan in November 2021.
- Fujian Gulei Petrochemical Co., Ltd. started commercial operations in December 2021.
- Eva item of the Gulei Project achieved mechanical completion in October 2022.

## Project Milestones



Panorama of the Gulei Integrated Refinery Project



Aerial view of the steam cracking unit



Mid-term handover of EVA equipment



Panorama of the EVA facility

## 2.3 Risk Management GRI 2-13

Based on ethical corporate management, we actively promote and implement the risk management mechanism to ensure steady operations and sustainable development and lower potential operational risk. In 2020, the Board approved the establishment of the "Risk Management Policy and SOP." Accordingly, the President's Office will supervise the operation and performance of each risk management unit and periodically assess risk every year.

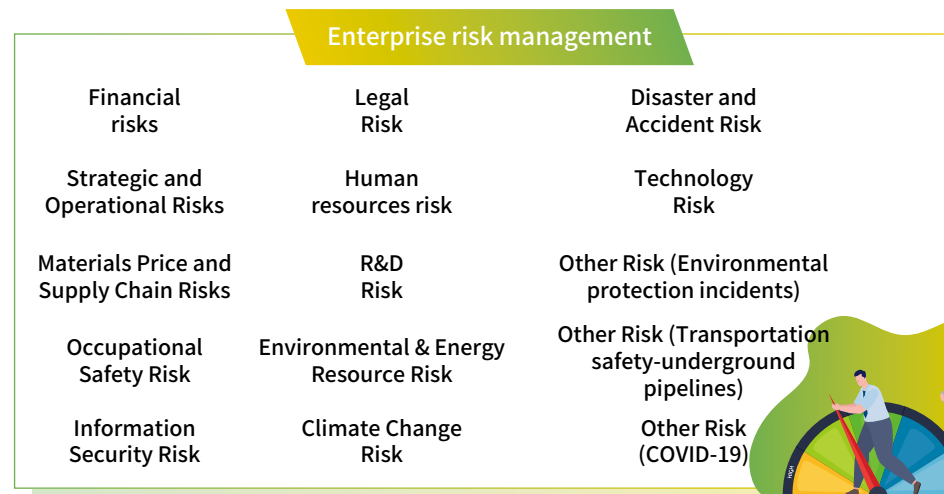
The complete policy includes the risk management organization, risk management process, and risk management category and mechanism. Please refer to [Risk Management-USI Corporation \(usife.com\)](https://www.usife.com) for details.

### Scope of Risk Management

After integrating the major risk sources of business operations and considering the feasibility of operation, we establish the risk categories and periodically identify the likelihood of occurrence of risks and the significance of their impacts, and each risk management unit periodically adjusts the controls with respect to the changes in the internal (external) operational environment

**Risk Management Matrix**

High ↑ Impact Level ↓ Low	Financial Risk Occupational Safety Risk	Strategic and Operational Risks	Materials Price and Supply Chain Risks
	Information Security Risk Legal Risk Human Resource Risk R&D Risk Disaster and Accident Risk	Environmental & Energy Resource Risk Climate Change Risk	
	Technology Risk Other Risks (Environmental protection incidents) Other Risks (Transportation safety-underground pipelines)	Other Risks (COVID-19)	
	Low	Likelihood	High



### Operation of Risk Management

In November 2022, the president reported to the Audit Committee and the Board the risks that USI was facing, mitigating controls, and performance of risk management.

Please refer to the [Risk Management](#) in the ESG section on the USI website for details.

Please refer to [4.5 Climate Change and Energy Management](#) for the financial impacts of climate-related opportunities and risks.

## Cybersecurity management

### Strategy and framework of cybersecurity risk management

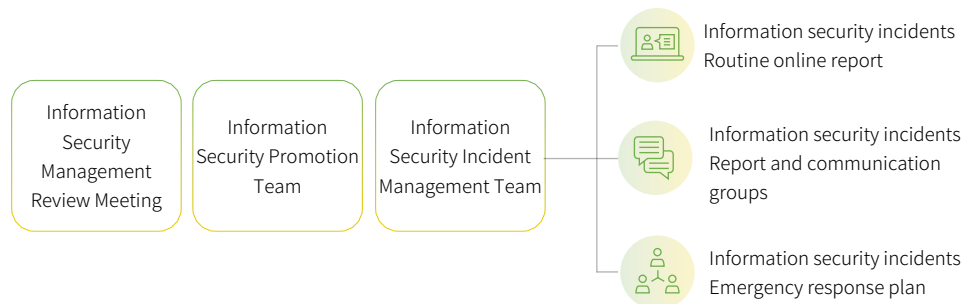
#### 1 Framework of cybersecurity risk management

##### (1) Organization of information security governance

Each year we hold the information security management review meeting to judge the six review inputs (the status of actions from previous management reviews, changes in external and internal issues that are relevant to the information security management system, feedback on the information security performance, results of risk assessment and status of risk treatment plan, and opportunities for continual improvement) and determine the two management review outputs (decisions related to continual improvement opportunities and any needs for changes to the information security management system) to achieve the information security management system.

##### (2) Framework of the information security organization

We have established the Information Security Promotion Team in accordance with the Regulations for Establishment of the Information Security Organization, an internal SOP, to supervise the operation of the group's information security management and stipulate the roles and responsibilities of each promotion organization. The organization holds a regular meeting each year and extraordinary meetings when there are significant information security incidents. The director of the Information Division shall be the convener to convene the information security promotion team meeting and resolve and determine meeting opinions. Under the Information Division, department heads are members. The director of the Information Division shall report significant information security incidents to the president or relevant department heads.



##### (3) Establishment of CISO and the responsible information security unit:

In 2022 we established the CISO and responsible unit, supervisors, and staff for information security in accordance with the addition of Article 9-1 to the Regulations Governing Establishment of Internal Control Systems by Public Companies promulgated by the Financial Supervisory Commission.

#### 2 Information security policy

(1) ISO 27001 information security system: We established the ISO/IEC 27001:2013 information security management system (ISMS) in 2014 and hired BSI Taiwan, an external third-party certification body, to review and audit the system. So far, the system has passed the certification by BSI Taiwan for 8 consecutive years.

(2) NIST Cybersecurity Framework (CSF): We included the Cybersecurity Framework (CSF) developed by the US National Institute of Standards and Technology (NIST).

(3) By integrating ISO 27001 ISMS and NIST CSF, we enhance risk control, improve information security resilience, and equip the Company with the capabilities to tolerate, stop, and quickly recover from information security incidents to maintain business continuity of the supply chain.

#### 3 Please visit (link): [for the details of the management programs and cybersecurity risks.](#)

### Routine Operation and Management Procedures



#### 4 Resources for cybersecurity management

- (1) SOP: Established 16 SOPs.
- (2) Information security standard: Passed the certification of ISO 27001 for 8 consecutive years.
- (3) Number of employees using cloud mail: 2,172 persons.
- (4) Investment in information security: About NT\$13 million.
- (5) Information security notices: Issued 17 notices.
- (6) Social engineering drill: Held 2 drills for a total of 4,344 persons.



## Audit operations and reporting channels

### Audit operations

An independent audit unit is established under the Board to help management inspect and review the internal control system, measure the effectiveness and efficiency of operations, and establish and implement the annual audit plan based on the identified risks. The chief auditor holds the certified internal auditor (CIA) certificate and practices based on objectivity and integrity. The chief auditor attends the Audit Committee and the Board meetings as a guest, reports material findings in the audit, and follows up the subsequent improvement. The internal audit is the unit specializing in accepting reports on illegal acts or unethical or dishonest behavior from the Audit Committee email or hotline.

In 2022, the internal audit unit implemented audits according to the annual audit program and completed 52 audit reports and 17 follow-up reports summarized as follows:

Audit Item	Recommendation	Improvement Status
Purchase and payment cycle and compliance matters	Timely revision was advised and supervision was implemented on basic system data requiring enhanced control and operations non-compliant with the regulations.	Improved as recommended
Production Cycle and Compliance Cycle	Some operations were not implemented as instructed, and some forms were inconsistent with the requirements. Unfailing supervision and revision were recommended.	Improved as recommended
OH&S	Enhanced supervision was advised to the imperfect part of contractor management and permit implementation.	Improved as recommended
Subsidiary audits	Enhanced implementation and supervisions were advised for the non-conforming parts of operation and the imperfect forms and records.	Improved as recommended

### Whistleblower report channels GRI 2-25, 2-26

On August 10, 2017 the Board and the Audit Committee passed the proposal to establish the “Regulations for Handling Reports of Illegal and Unethical or Dishonest Behaviors” specifying the reporting and processing procedures and related protection mechanisms. Grievance channels include personal reports, telephone reports, and correspondence reports. The Regulations also specify the responsible units.

- ✓ **Personal reporting** Face-to-face description.
- ✓ **Phone reporting** (02) 2650-3783.
- ✓ **Correspondence reporting** Audit Division, 7F, No. 37, Jihu Road, Neihu District, Taipei City.

We assure full protection of the confidentiality of informers, investigators and case contents to prevent them from unfair treatment or retaliation. If the informer is a USI employee, we guarantee no discrimination on him as a result of reporting a case.

No report was received so far.

## 2.4 Ethical Corporate Management and Legal Compliance GRI 2-16, 2-17, 2-27, SDG16

### Ethical Corporate Management

To optimize ethical corporate management, we have established the Codes of Ethical Conduct for Directors and Managerial Officers, Ethical Corporate Management Best Practice Principles, and Procedures for Ethical Management and Guidelines for Conduct; planned integrity-based policies; and built a sound mechanism for governance and risk control. Please visit our [corporate website](#) for more about our anti-corruption policies, Codes of Ethical Conduct for Directors and Officers, and Ethical Corporate Management Best Practice Principles.

In addition to the Company's work rules and the Group's regulations, we have also included sexual harassment prevention, no discrimination, no harassment, work hours management, protection for humane treatment, health and safety workplace environment, and the integrity and probity policy in the orientation training for new employees. Additionally, we also request new employees to sign the commitment to comply with the relevant regulations.

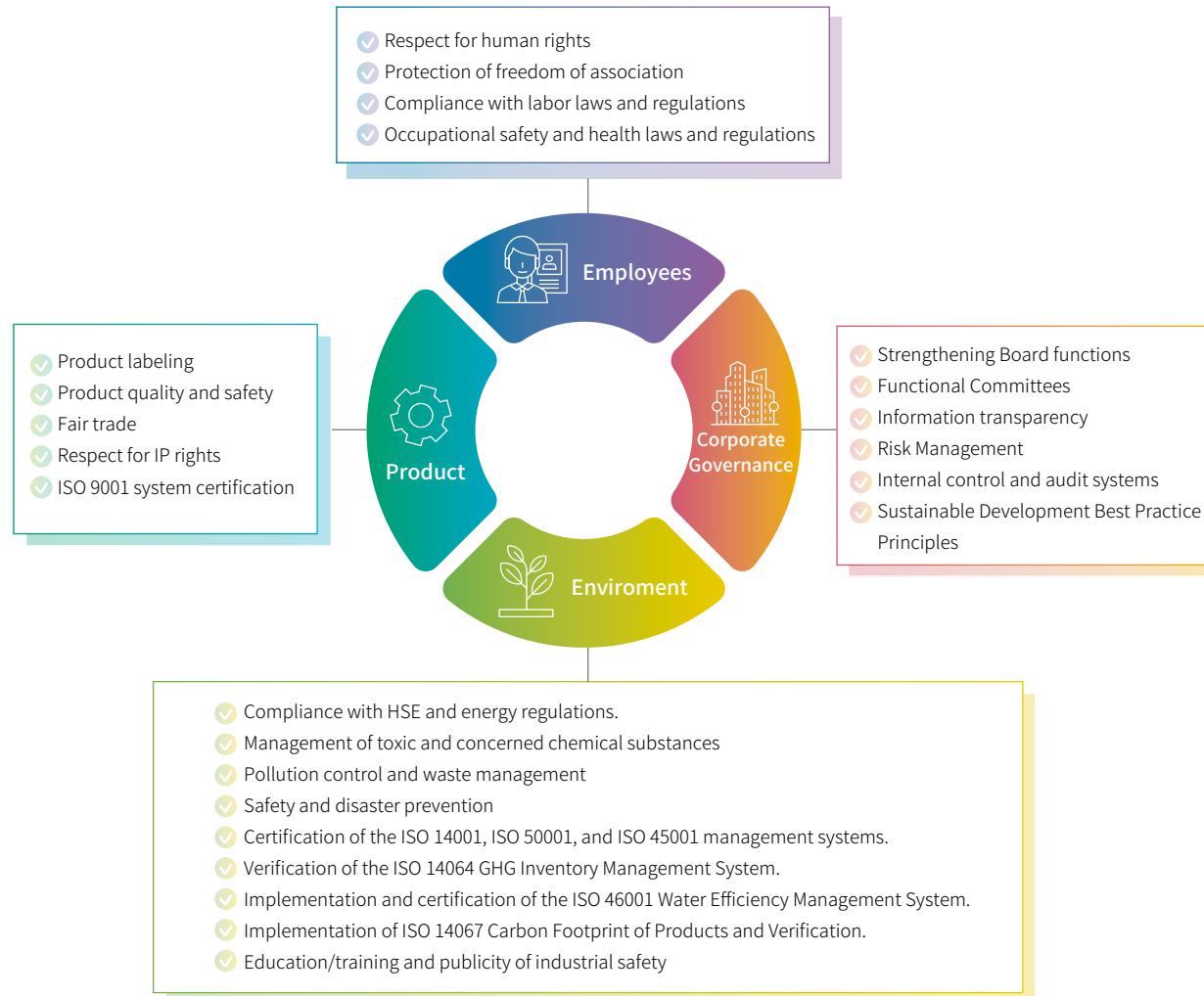
### Legal compliance SDG16 RT-CH-530a.1

#### Sustainability Principle: Unity Governance

Significance and Strategy	Achievement and Goal	Management
<p><b>Significance to USI</b></p> <p>Ethical corporate management and legal compliance are USI's belief in sustainable development.</p> <p><b>Strategy and Approach</b></p> <ol style="list-style-type: none"> <li>1. Periodic compliance audit.</li> <li>2. Keeping up with the direction of legal/regulatory updates and amendments.</li> <li>3. Participation in association discussions on legal acts.</li> <li>4. Internal awareness education, education, and training.</li> </ol> <p><b>Commitment</b></p> <p>Strict legal compliance</p> <p><b>Data scope</b></p> <p>USI coverage 100%</p>	<p><b>Sustainability Goal</b></p> <p>No legal and/or regulatory noncompliance.</p> <p><b>2022 Projects</b></p> <ol style="list-style-type: none"> <li>1. Participation in legal outreach activities organized by government agencies.</li> <li>2. Identification of HSE regulations.</li> </ol> <p><b>2022 Achievements</b></p> <ol style="list-style-type: none"> <li>1. No violation or fine relating to product labeling was reported</li> <li>2. No violation of economic laws and regulations.</li> <li>3. IP management</li> <li>4. Offense of environmental regulations and/or regulations: 3 offenses</li> <li>5. Offense of the Occupational Safety and Health Act: 1 offense</li> </ol>	<p><b>Effectiveness Assessment</b></p> <p>Monetary Fine and Non-Monetary Sanctions</p> <p><b>Grievance Mechanism</b></p> <ul style="list-style-type: none"> <li>• "Contact us" on the corporate website.</li> <li>• Stakeholder contact information</li> <li>• List of HSE Information</li> </ul>

## Management Approach Description

In addition to practicing ethical USI management, we emphasize legal compliance in all areas. Therefore, units within the organization keep track of the trends of statutory and regulatory changes to ensure our compliance with up-to-date legal requirements and to make early planning for their impacts.



## Management Approach

For employees to understand compliance-related topics, we publicize information and trends regarding the latest regulatory and statutory requirements through education/training activities for employees and departmental routine meetings for them to acquire information regarding new laws and regulations and amendments of existing laws and regulations. The Group Division also provides legal consultation and recommendations. Moreover, besides arranging internal training or external training courses, we further invite external legal experts to give talks or seminars to enrich employees' knowledge and competencies in business-related policies and regulations.

We investigate and identify legal noncompliance to find the causes and take action to control and correct it to reduce negative impacts and prevent its recurrence. Additionally, to supervise legal compliance in employees, we have included environmental protection and OH&S incidents as evaluation items for productivity bonuses, and no bonus will be distributed for any monetary fine and non-monetary sanctions caused by environmental protection and OH&S offenses.

In 2022, neither monetary fine nor non-monetary sanctions for legal noncompliance relating to product labeling or for violation of economic laws and regulations was reported. However, we were sanctioned three times in 2022, including three times for violation of environmental protection laws and/or regulations and one time for violation of the Occupational Safety and Health Act. After completing corresponding corrective and preventive actions, we passed the re-inspection by the competent authorities for all violations. In the future, we will continue to implement and enhance HSE management to achieve the goal of five zeros: zero pollution, zero emission, zero accident, zero occupational hazard, and zero failure.

GRI 307-1, 419-1

RT-CH-140a.2, RT-CH-530a.1



## Monetary Fine and Non-Monetary Sanctions for Industrial Safety Incidents in 2022 and Improvement

### Counts/Fine Total Amount

### Causes for Violation and Corrective Action

\*Monetary fine and non-monetary sanctions in the year are based on the date of notice issuance.



**Offense of environmental regulations and/or regulations: Air pollution**  
3 offences/ NT\$600K

#### Ticketed defect

1. In addition to the annual maintenance, we also used the flare tower many days during January and September 2021, thus being sanctioned by the Environmental Protection Bureau in 2022.
2. R-302-TO pipeline cracking of the waste gas treatment equipment.
3. Flame ions of the fan motor at the front-end waste gas inlet of process control equipment RTO (A055) were 1,006.3ppm as detected by the flame ionization detector (FID).

#### Corrective Action

1. Replaced with the GR flowmeter with better accuracy and stability than that of other brands.
2. Added the low-flow interlocking function to low-intensity VOC vents.
3. Added rubber washers and the value of the VOC recheck was zero.



**Offense of the Occupational Safety and Health Act**  
1 case/ NT\$60K

#### Ticketed defect

1. R-302-TO pipeline cracking of the waste gas treatment equipment.

#### Corrective Action

1. Added the low-flow interlocking function to low-intensity VOC vents. Added the pipeline N2 purge procedure and reverified the pipeline VOC intensity value.
2. intensity value.
3. Added the VOC monitoring equipment to monitor VOC intensity.

## 2022 IP Management Performance

### 1 Patent management

#### 1. Innovation patent and invention application platform

We have established an application platform on the employee portal. After registration, R&D personnel can record in detail their innovation ideas and experiment outcomes from work and store them in the encrypted folder. After data is complete and the review and approval of related supervisors, employees may apply for patents according to the procedures.

#### 2. Patent

Title	Project No.	Country	Remarks
HYDROGENATED BLOCK COPOLYMER AND COMPOSITION THEREOF	US 10,450,455 B2 (application no.15/914,878)	USA	Awarded the patent (expired on 2038/03/07) on 2019/10/22.
Hydrogenated block copolymer and composition thereof	I660975	Taiwan	Awarded the patent (expired on 2038/03/05) on 2019/06/01.
MULTILAYER SHEET STRUCTURE FOR DENTAL APPLIANCE (orthodontic materials)	US-2020-0237478	USA	Awarded the patent (expired on 2040/8/10) on 2022/5/31.
Fire retardant composite structure (utility model patent)	M597795	Taiwan	Awarded the patent (expired on 2030/03/12) on 2020/07/01.

### 2 Trade secret management

The R&D Division stores the reports, documents, and related IPs from each R&D project individually in USI's internal encrypted web folders with access control. The system also automatically audits abnormal access and alerts the responsible supervisor to check the access to ensure the proper management of trade secrets.

## 2.5 Intelligent Management GRI 2-25, 3-3

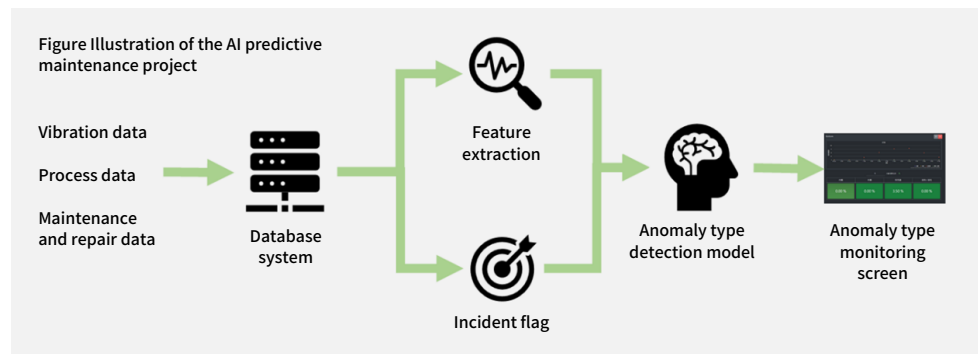
Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Through intelligent management, we have sped up analysis, optimized decision-making, enhanced industrial safety protection, and improved operational performance towards smart petrochemical industry.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Integrate platform resources to break through data silo, and enhance safety, quality, and efficiency with intelligent technology.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Actively introduce intelligent management systems to improve operational performance.</p> <p>Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>• Short-term positive actual impact: Develop AI systems for use in production and industrial safety management</li> <li>• Medium-term positive potential impact: Enhance efficiency with automated processes</li> <li>• Long-term Negative potential impact: Workforce simplification affects the right to work.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>USI employees and contractors</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Enhance employee education and training and assistance for internal transfer to protect the right to work</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Enhance industrial safety protection</li> <li>2. Improve product quality</li> <li>3. Reduce environmental hazards</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Smart predictive maintenance for key equipment</li> <li>2. AI quality prediction</li> <li>3. Energy management system</li> <li>4. AI industrial safety image recognition</li> <li>5. Facial recognition for the access control of contractor personnel.</li> <li>6. Virtual reality (VR)-Tank car leakage emergency response training</li> <li>7. Reverse pipeline scan engineering</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Develop the data integration platform</li> <li>2. Enhance energy conservation and carbon reduction</li> <li>3. Enhance production management efficiency</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Optimize various AI models to enhance prediction accuracy.</li> <li>2. Enrich the data management knowledge of employees to enhance analysis efficiency and optimize strategy implementation.</li> <li>3. Invest in developing Intelligent management applications to enhance production management efficiency.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Hold meetings periodically to follow up the development progress and implementation effectiveness</li> <li>2. Publish patent achievements and share technology</li> </ol> <p style="text-align: center;"><b>Achievements and Directions of Technology</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Engage in interdisciplinary collaboration with external units to accelerate new technology introduction.</li> <li>2. Enhance information security governance to prevent data leakage.</li> </ol>

In recent years, we have been actively promoting the use of various intelligent management systems in the smart predictive maintenance of key equipment, AI industrial safety image recognition system, contractor personnel access facial recognition system, energy management system, VR-tanker leakage emergency response training, cooling water energy conservation system, and quality prediction.

### Predictive maintenance of high pressure reactors reactors to enhance industrial safety.

We continuously promote the reactor predictive maintenance project to predict the operating life of ultrahigh pressure reactors, optimize shutdown timing, and reduce process of control possibility through AI analysis of the vibration data to lower the risk of occurrence of industrial safety incidents and so to enhance operating safety.

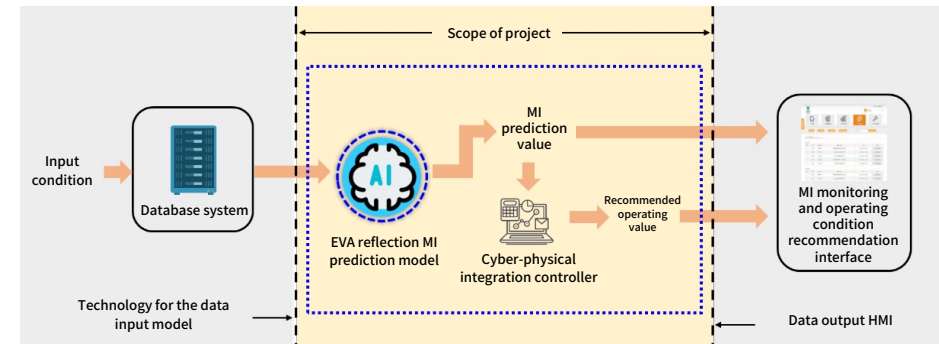
In 2022, we collaborated with investee DataWise to enhance the prediction accuracy of AI models with DataWise's AI model specialization.



### Reduce defective outputs with AI quality prediction

Through collaboration with the National Taiwan University and National Taiwan University of Science and Technology, we implemented the cyber-physical integration technology development industry-academia collaboration project to predict quality with AI.

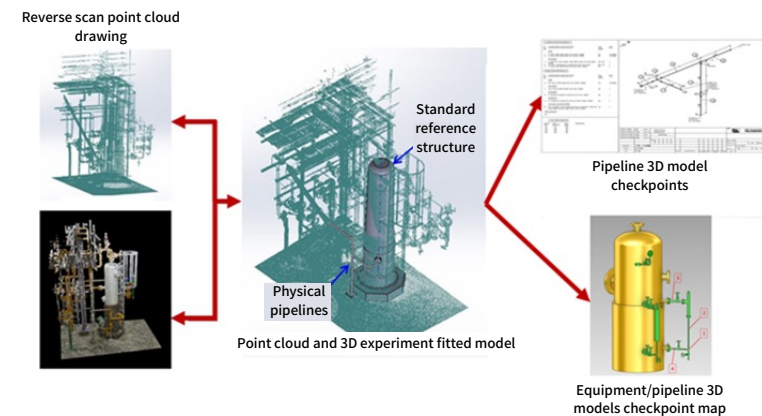
Prediction is run with the process quality prediction model developed with Python, DCS dynamic data, QC data, and product type operation conditions and through GRU sequence neural network model. We also developed the cyber-physical integrated control architecture to make recommendations for factory process operation.



### Building 3D model for pipeline and equipment reverse scan and producing pipeline 3D drawings for risk-based inspection (RBI) analysis to lower the risk in pipeline and equipment use.

A 3D model is produced after scanning the actual condition of key equipment and pipelines with reverse scanning technology to restore the original look of equipment and pipelines.

Based on the parameters of the 3D models of key equipment and pipelines, we assess and analyze the risks of equipment and pipelines in accordance with the API 580 standard. The analysis results and 3D model and pipeline 3D drawings produced by reverse scan engineering are nondestructive testing (NDT). Completing the tests and correcting anomalies with NDT can reduce high-risk equipment and pipelines to medium- or low-risk.



# Chapter 3

## Innovation and Supply Chain Service



### Material topics in this chapter

1. Technology R&D
2. Product Quality
3. Supply chain management

### Performance Highlights

- ✓ New product development & improvement: **4**
- ✓ Innovation and R&D accumulated **143** patents
- ✓ Funds for R&D and innovation: **NT\$150** million
- ✓ Ratio of R&D staff to all employees: **12.8%**
- ✓ Legal noncompliance of products: **0**



## 3.1 Technology R&D

GRI 2-25, 3-3

SDG 8, 9, 13

### Sustainability Principle: Innovative Technology

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Research and development are one of USI's core strategies for sustainable development. Through continual product improvement, customer demand research, and new product development, we achieve co-prosperity for USI and the environment and make continual profit.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Expand R&amp;D scale to include ESG in new product development and improvement, reduce environmental impacts, and achieve sustainable development through fulfilling environmental and social responsibilities.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>We implement the green design concept and engage in source governance to ensure the use safety, energy conservation, and eco-friendliness of products, provide quality products and services, and meet the customer requirements.</p> <p>Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>Short-term positive actual impact: Develop new products to increase revenues</li> <li>Medium- &amp; long-term positive potential impact: Develop towards a high-value low-pollution/energy-efficient industry</li> <li>Long-term negative potential impact: Technology innovation fails to meet the customer needs</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>Global customers, USI employees, Kaohsiung Plant environment, community residents</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>Negative impact remediation: Enhance market survey</li> <li>Preventive measures: Predict and analyze the trend of changes in customer demands</li> </ul>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ul style="list-style-type: none"> <li>New product development and improvement: 4 pcs/year.</li> </ul> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <p>New product developments &amp; improvements: 4</p> <ol style="list-style-type: none"> <li>High-VA grade EVA product: UE3318</li> <li>Cooltact™ products</li> <li>Trial production of high heat-resistance CBC products</li> <li>Trial production of low-gel PE products</li> </ol> <p>*In 2022 no legal noncompliance or fine in relation to product labeling was reported</p> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ul style="list-style-type: none"> <li>New product development and improvement: 4 pcs/year</li> <li>Legal noncompliance of products: 0</li> <li>Constant development and promotion of eco-friendly products</li> </ul> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ul style="list-style-type: none"> <li>New product development and improvement: 5 pcs/year.</li> <li>Legal noncompliance of products: 0</li> <li>Constant development and promotion of eco-friendly products</li> </ul>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>Continuously follow up target achievement in the annual ESG report.</li> <li>Successfully developed technology and R&amp;D outcomes.</li> <li>Reporting the sales of new products at the business meeting.</li> <li>All USI products comply with the Restrictions on Hazardous Substances (RoHS) to reduce environmental impact.</li> </ol> <p style="text-align: center;"><b>Product &amp; Service Development Mechanisms</b></p> <hr/> <ol style="list-style-type: none"> <li>Customers make demands from the sales/R&amp;D units by phone/email/internet; or irregular customer visits.</li> <li>The president holds the product improvement meeting every month to analyze the markets, environment, and users of new projects. After approval, the plant makes product improvement or new product R&amp;D and trial run.</li> <li>2022 customer technical service cases: 79.</li> </ol> <p style="text-align: center;"><b>Product &amp; Service Development Mechanisms</b></p> <hr/> <ol style="list-style-type: none"> <li>Advanced materials development</li> <li>New product development</li> <li>Developing high-value products</li> <li>In recent years the consolidated revenues of newly developed products accounted for 9.245%.</li> <li>Funds for R&amp;D and innovation in 2022: NT\$150 million</li> <li>Ratio of R&amp;D staff to all employees: 12.8%</li> <li>Innovation and R&amp;D in 2022 accumulated 143 patents.</li> </ol>

## Innovative Operations and Management

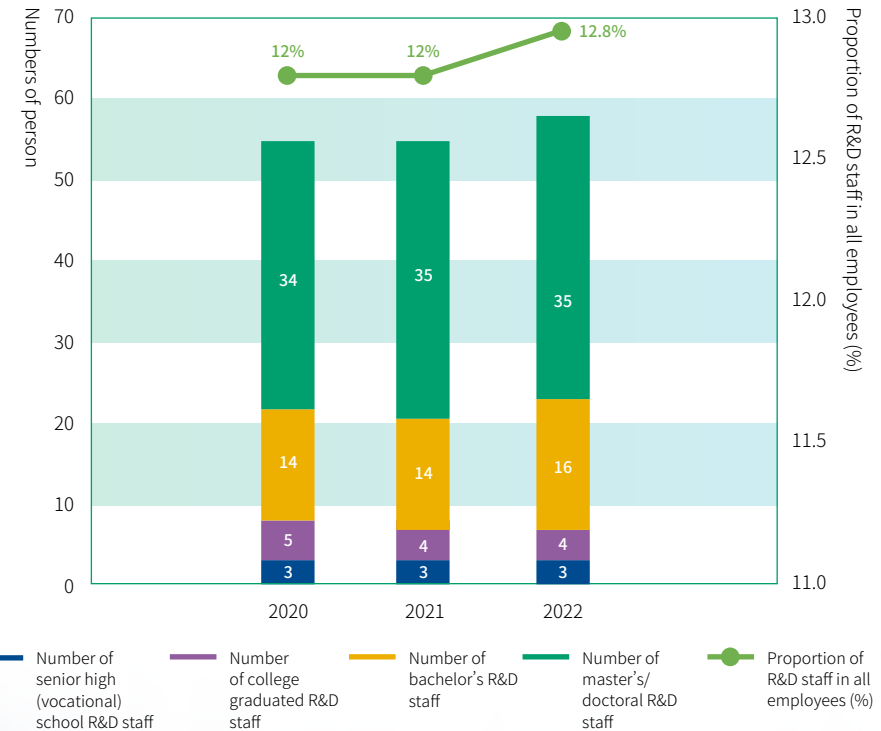
Each year we invest a huge amount in R&D and actively recruit and cultivate professional talents. The R&D investments in 2022 reached NT\$150 million, accounting for 0.97% of the revenues. Additionally, the High-Value R&D Center with an investment of NT\$170 million in 2021 and started operations in 2022.

In 2022 there were 58 R&D staff, accounting for 12.8% of all employees. In terms of education distributions in 2022, 60.3% of R&D staff hold a master's or doctoral degree, and the number of R&D staff is maintained at the specific level.

**Investments in Innovation and R&D** (unit: NTD thousands)

Item	2020	2021	2022
R&D Funds	116,819	160,688	150,870
Number of employees	468	465	453
Number of R&D staff	56	56	58
Proportion of R&D staff in all employees.	12.0%	12.0%	12.8%

**R&D personnel distribution**



## Innovation Value and Culture

We mainly produce ethylene, the raw material for making plastics widely used in the daily life. To balance the ecosystem, we have implemented the green design concept in new product R&D. In recent years, we have developed a range of green products, such as the raw materials for the Solar cell encapsulation, eco-friendly heat-shielding coating, halogen-free fire-retardant materials, and so on to reduce energy consumption and hazardous substance emissions to lower the environmental impact.

Apart from participating in the Key Chemical Materials Shortages Linkage Project of the Industrial Development Bureau, Ministry of Economic Affairs, we were also awarded the 17<sup>th</sup> National Innovation Award with the cyclic block copolymer (CBC).



### ✓ Accumulated 143 patents at home and abroad in 2022

By teaming up with top experts through industry-academia-government collaboration, the R&D Division gathers R&D capacity and acquires patents for global patent deployment. In 2022, we were awarded **10** Taiwan patent and **133** overseas patents.

## Industry-Academia Demonstration and Exchange

In addition to actively engaging in new product R&D, we never forget to encourage students in Taiwan to experience actual field operations. In recent years, we have been co-organizing instruction demonstration with Tatung University, National Tatung University of Science and Technology, and the “Kaohsiung Renda Petrochemical Talent Stream” Cooperation Program of Renwu Senior High School. Apart from enabling businesses to invigorate instruction with business resources, enhancing the competitive strengths of local schools, and developing base-level talents for the future, these activities can attract excellent students so to raise the local employment rate, hoping to create a beneficial situation for businesses, schools, and local communities with this industry-academia collaboration model.

On top of introducing our scope of services to the teachers and students visiting USI, we also arranged R&D instructors to operate and demonstrate extrusion, pelletizing, foaming, injection, and film-blowing machinery in the activity.

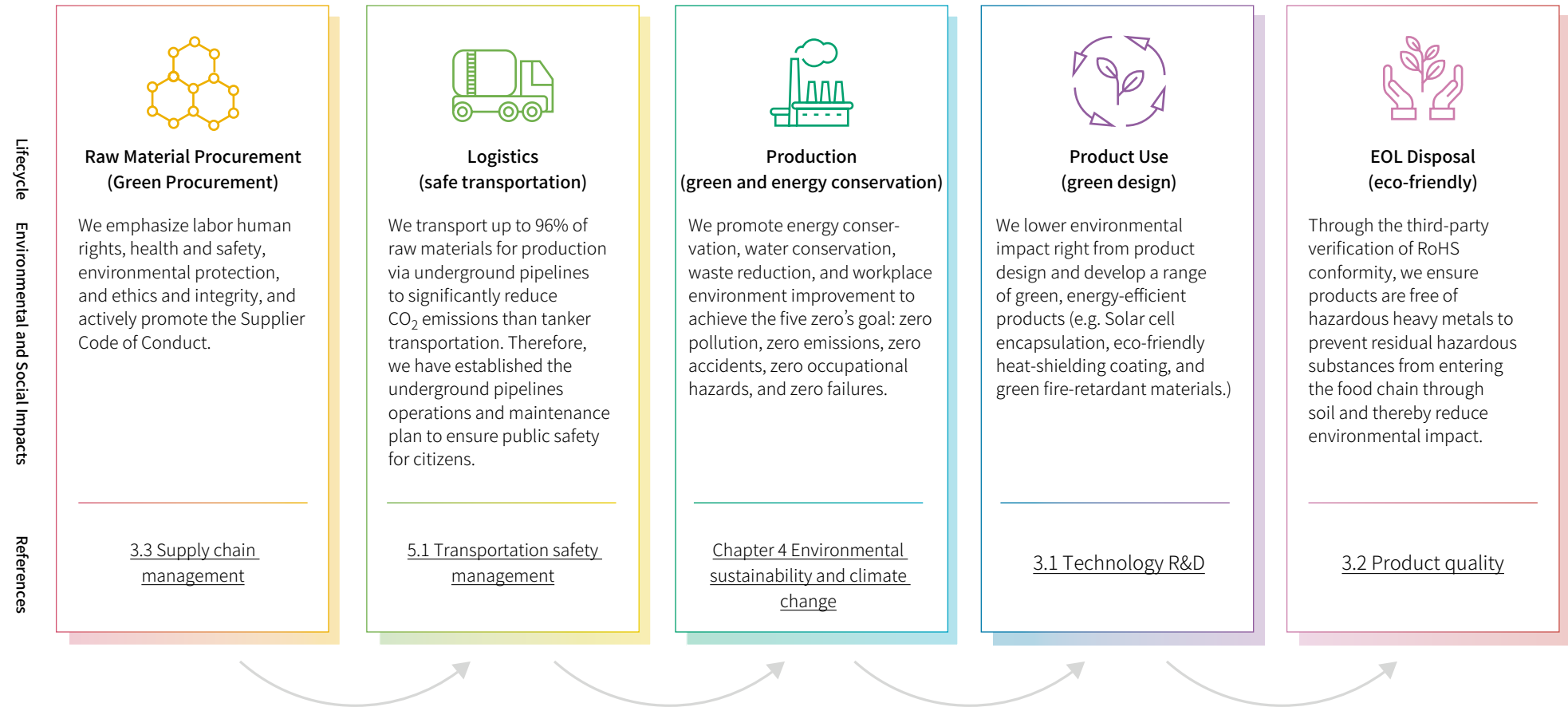
Through the actual participation and experiential activity, students can closely link to knowledge acquired from school to crosscheck theory to practice to understand the current status of field practice. With such, we aim to help students find the goal for future career planning more accurately. In recent years, we have attracted increasing students from those schools affirming our ESG concepts and practices to join USI’s big family to realize local cultivation and sustainable development towards social co-prosperity.

### Visit of the “Kaohsiung Renda Petrochemical Talent Stream” Cooperation Program in 2022



## Sustainable Products

Based on the product lifecycle concept, we minimize resource and energy consumption from strict materials control at upstream to the product end-of-life (EOL) disposal at downstream through close cooperation with upstream and downstream suppliers, in order to lower the environmental and social impacts of products.

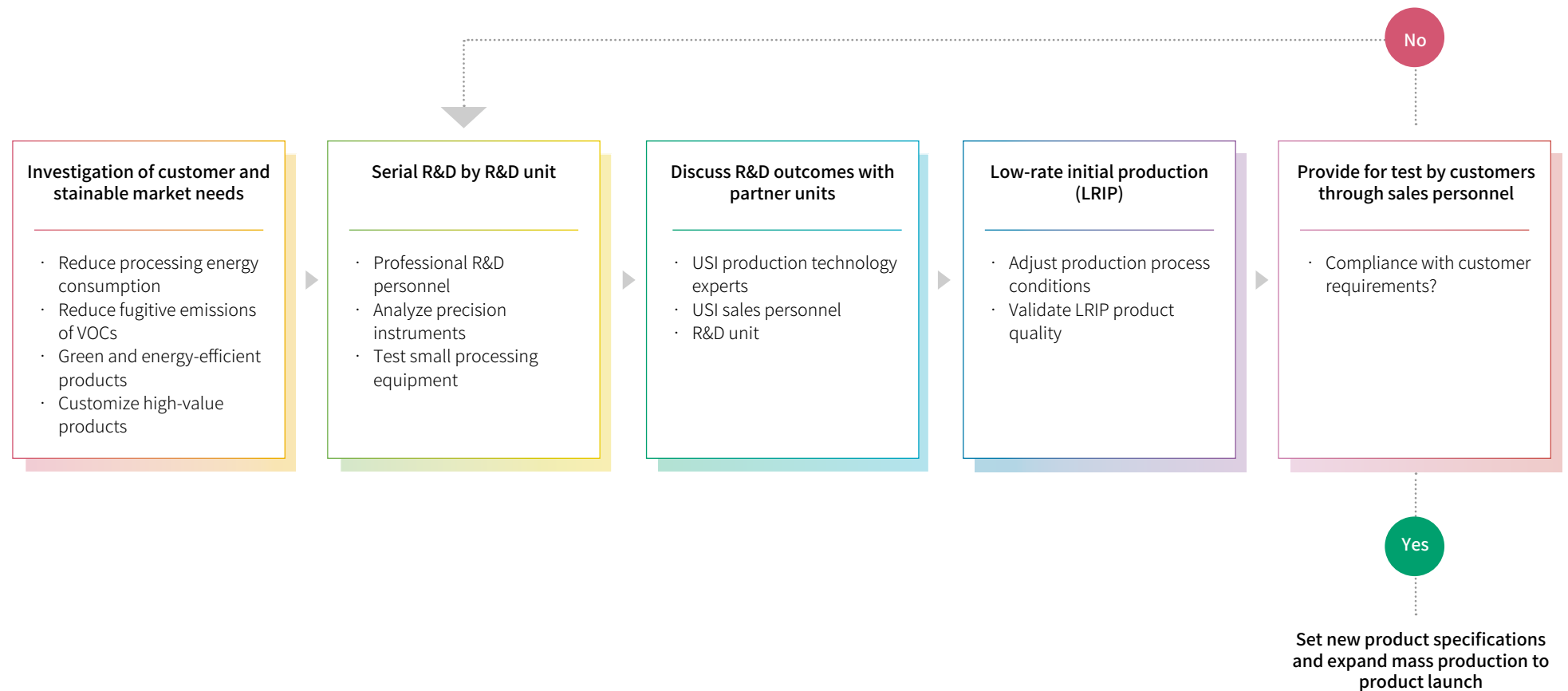




## Benefits of Product Innovation

R&D is one of our core strategies for sustainable development. Each year we invest over NT\$100 million in R&D to purchase and maintain R&D equipment and precision analyzers and actively recruit outstanding talents from home and abroad to the R&D team so as to optimize processes and maintain sustainable product development. Additionally, we have also implemented the green design concept to constantly innovate and optimize products and make upstream and downstream deployments to create sustainable value for enterprises in collaboration with suppliers.

## New product development & improvement processes

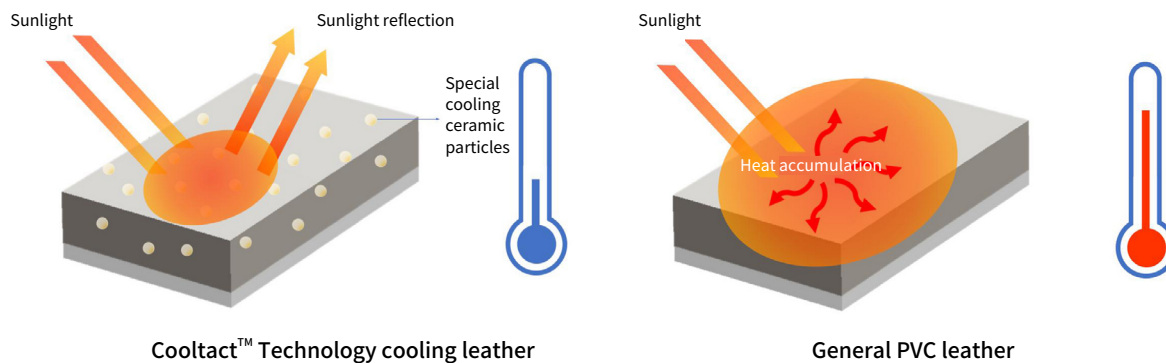


### High-VA grade EVA product: EVATHENE® UE3318

We are committed to co-developing quality, eco-friendly, non-toxic products with partners. In response to the demand for comfortable casual shoes in recent years, we developed the soft and elastic EVATHENE® UE3318 EVA product in 2022. Apart from the extensive use in foam injection and compression molding for midsoles, it can also be used for making wire and cable jackets with resin, hot-melt adhesive (HMA), and general blending. Additionally, EVATHENE® UE3318 delivers good performance when blended with and processing polymer materials for its outstanding physical strength, high filler loading performance, and ease of processing. To customers, the EVATHENE® UE3318 can enhance both production efficiency and the product yield rate to significantly reduce production costs so as to promote and realize mutual growth with partners.

### Cooltact™ Cooling Technology Leather Products

In Taiwan, the summer temperature is getting higher and higher each year. In response to the extreme temperature rise that keeps reminding us of the threatens from global warming, we have developed eco-friendly, energy-efficient products one after another. The Cooltact™ is our latest cooling technology products whose special cooling material can effectively reduce the heat absorption of material. Cooltact™ is suitable for use on the surface of a wide variety of materials. Aside from presenting a shiny color effect, it can also slow surface temperature rise under direct sunlight to significantly enhance comfort upon skin contact. With reference to the results of tests using the ASTM D 4803-10 standard, synthetic leather using Cooltact™ can effectively reduce temperature by 20°C. The low heat absorption feature of Cooltact™ can also significantly reduce the aging of materials and so to extend product life, lessen product replacement, and reduce the environmental impact of waste. Currently, Cooltact™ has been used for producing motorcycle seats, ship seats, and outdoor sofas.



### Trial production of high heat-resistance CBC products

Glass transition temperature ( $T_g$ ) affects the heat resistance and scope of applications of materials. With  $T_g$  at 128°C, the ViviOn™ 1325 and ViviOn™ 1325EUT have the best heat resistance amongst all commercialized CBC products and are currently used on optical components and functional films.

CBC has excellent chemical corrosion resistance and outstanding electrical characteristics. By further raising its heat resistance, we can expand the scope of CBC application to electronics with more demanding reliability requirements. Hence, the CBC R&D team conducted in-depth research into the heat resistance enhancement of CBC through adjusting its optimizing the process conditions. The trial production in 2022 showed that the glass transition temperature of high heat-resistance CBC had increased to over 140°C. Outstanding heat resistance enables high heat-resistance CBC to deliver great dimension stability in high-temperature environments. Currently, the market development and materials evaluation for applications including advanced semiconductor products, electronics packaging materials, film capacitors, and functional compounding materials are targeted by the R&D team.

### Trial production of low-gel PE products

Committed to co-developing high-value products with partners, we have entered the optical-grade product application field. As a field with high technical entry threshold, this application has stringent requirements for low gel and high quality. We invest in new equipment to actively optimize all existing PE processes, improve product quality, and advance production inspection methods. Currently, we are progressively entering the advanced application market.

## Solution for VOC reduction! USI promotes innovative coating deployment: Cooltact™ coating technology

The highly weather-resistant reflective anti-corrosion coating system is a breakthrough coating technology, which features the three functions of sun protection, corrosion protection and weather resistance at the same time. The low-solvent design can reduce air pollution caused by organic solvents. Characterized by a 90% sunlight reflection rate, the surface coating can significantly reduce tank interior temperature to maintain the quality and stability of chemicals in the tank to reduce fugitive emissions of VOCs.

As one of the key features of the superior weatherability sun-shielding anti-corrosion coating system, corrosion resistance is an important characteristic. It meets the ISO 12944 CX-grade requirements for high-level anti-corrosion applications, effectively preventing metal corrosion and oxidation and reducing equipment damage and failure. It also passes the ISO 16474-3 standard to deliver better weatherability and durability to ensure resistance against powdering, cracking, and peeling in outdoor environments (UV exposure) to extend equipment lifespan in a better way.

Lastly, the highly weather-resistant reflective anti-corrosion coating system can reduce energy consumption and maintenance costs. Apart from reducing more than 30% of VOC emissions over traditional anti-corrosion coatings, through the continuous coverage heat-shielding materials and key technology coating, it can significantly reduce heating on chemical tanks and leaks of VOC emissions. This internal and external emissions reduction progress that can help the petrochemical industry reduce waste emissions more effectively demonstrates our contribution to technology and environmental sustainable development.



## Participation in Internationally Indicative Shows and Exhibitions

When the pandemic began to slow around the globe in 2022, we upheld the epidemic control measures and participated in the online 2022 Taiwan Chemical Industry Forum & Exhibition, SDGs Asia Exhibition, the technology forum of TaipeiPLAS 2022, and Plastics Industry Innovation Forum (PIIF) to promote our newly developed products and the ViviOn™ (CBC) specifications extensively applied to optics, medical device, electronics, wearables, biomedical testing, the UVC (deep UV) disinfection, and PE/PP packaging materials.



## Participation in Taipei Building Show

Polyethylene (PE) extensively used in daily life is our major product. In addition to continuously developing the high-value product ViviOn™ (awarded the 17th National Innovation Award), we never forget our love for mother Earth and have progressively developed various eco-friendly and energy-efficient products: eco-friendly heat-shielding coatings, low-solvent anti-corrosion coatings, green fire-retardant materials, PRC plastic reuse, and others. In 2022 we successfully developed the Cooltact™ cooling technology products. At the 2022 Taipei Building Show at the end of year, Cooltact™ became a highlight of the show.



## 3.2 Product Quality

GRI 3-2, 3-3, 2-25

SDG 8

### Sustainability Principle: Innovative Technology

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Product quality is the foundation of corporate sustainable development. Total participation in quality is the key to success of USI's quality culture development.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Constantly enhance product yield rate and improve service quality.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Continual equipment improvement, quick capture of product quality, and reduction of customer complains</p> <p>Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>· Short-term positive actual impact: Raise yield rate and develop high-value products.</li> <li>· Medium-term Negative actual impact: Quality not meeting customer requirements</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>Global customers, USI employees</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Enhance process improvement, increase inspection frequencies, and increase customer communication frequencies.</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Confirmed customer complaints each year: Plant I &lt;6 and Plant II &lt;7.</li> <li>2. Controllable defect rate of plants I/II: &lt;0.3/&lt;0.7%</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Increase the proportion of new catalyst products at Plant II and promote products to customers.</li> <li>2. Resolve the automation bottleneck of compounding equipment.</li> <li>3. Confirmed customer complaints of plants I/II: 2 cases /5 cases</li> <li>4. Controllable defect rate of plants I/II: &lt;0.21/&lt;0.55%</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Confirmed customer complaints each year: Plant I &lt;6 and Plant II &lt;6, CBC plant &lt;5 cases.</li> <li>2. Defect rate of plants I/II/CBC: &lt;1.8/&lt;5.5%&lt;12%</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Increase the proportion of new catalyst products at Plant II, promote products to customers, and enhance customer satisfaction.</li> <li>2. Promote and enhance the pass rate of compounding products.</li> <li>3. Continue to reduce the rate of customer complaints and defect rate.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Target trace at the monthly quality improvement meeting.</li> <li>2. Review of customer complaints and quality issues at the biannual management review meeting.</li> <li>3. New product sales condition.</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <p>Customers send requests/response by telephone/mail/ internet</p>

Note1: Marked down the target customer complaints of plant II from 8 to 7 cases in 2022.

Note 2: Controllable defect rate: Defective products due to man-induced errors and improper equipment maintenance.

Note 3: The controllable defect rate was adjusted as the overall defect rate in 2023. The overall defect rate includes the controllable defect rate and product-converted defect rate.

Note 4: The overall defect rate was defined as per the performance of plants I and II and CBC Plant at 2%, 6.7%, and 5.2% respectively during January-October in 2022. The annual targets for 2023 are 1.8%, 5.5%, and 12% respectively (a higher target is set for the CBC Plant due to the trial mass production of new products).

## Product Quality System

Product quality is the foundation for USI's sustainable development. To provide customers with products and services of excellent quality, USI has established the ISO 9001 QMS. Apart from building stringent management systems in the "production-distribution plan," "materials incoming inspection," "production/manufacture," and "inspection/ judgement," we establish the quality database system and process data database PI system with the information technology. In addition to providing information of real-time monitoring and process parameters to ensure the final quality of products, these systems help produce statistics, analyze, and trace product quality, process parameters, and materials quality.

In addition, the management of change (MOC) information system ensures stringent evaluation and management of process changes to ensure risk-less changes to stabilize process and product quality.



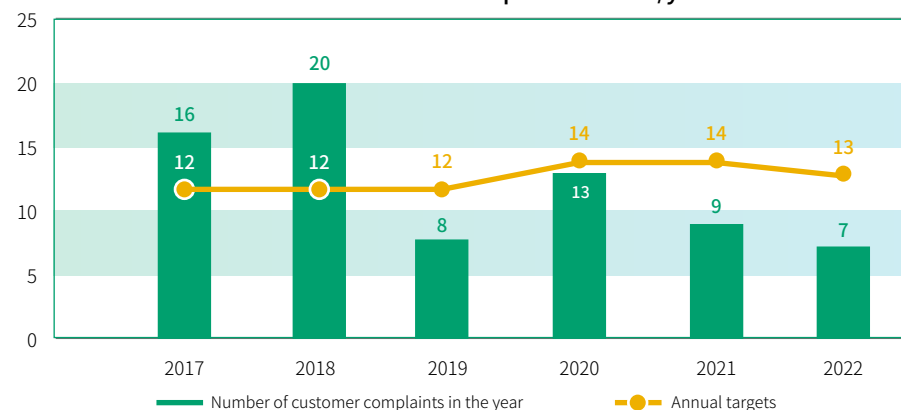
### Major Quality Improvement Projects

2022 Items	2023 Items	Contents and Schedules for 2023
Increase the proportion of new catalyst products at Plant II and promote products to customers.	Continuously adjust the production parameters of the new catalyst products of Plant II for quality optimization.	<ul style="list-style-type: none"> <li>Inorganic residue reduction, high quality, customer promotion, customer satisfaction enhancement</li> <li>Projected completion in December 2023</li> </ul>
Plant I M/P renewal	Plant I M/P renewal	<ul style="list-style-type: none"> <li>Equipment reliability and quality stability enhancement</li> <li>Projected completion in September 2023</li> </ul>
Debottleneck the automation compounding equipment	Develop new products and improve product properties.	<ul style="list-style-type: none"> <li>Improve quality and property to raise customer satisfaction.</li> <li>Projected completion in December 2023</li> </ul>
Plant I Catalyst Pump Renewal	Plant I Catalyst Pump Renewal	<ul style="list-style-type: none"> <li>Equipment reliability and quality stability enhancement</li> <li>Projected completion in March 2024</li> </ul>
Continuation of product dewatering unit construction, with projected completion in April 2023.	Continuation of product dewatering unit construction, with projected completion in April 2023.	<ul style="list-style-type: none"> <li>Enhance production stability/prevent emergency stop</li> <li>Projected completion in April 2023</li> </ul>
	Blower heat exchanger replacement at Plant I	<ul style="list-style-type: none"> <li>Avoid product contamination</li> <li>Projected completion in December 2023</li> </ul>
	Product conveying pipeline replacement at Plant II.	<ul style="list-style-type: none"> <li>Reduce defective products and raise customer satisfaction.</li> <li>#Projected completion in June 2024</li> </ul>

To ensure ongoing “employee quality improvement,” “technology advancement,” and “TQM approach optimization,” we encourage employees of all levels to engage in and propose improvement. We also organize group-wide improvement case presentations to encourage employees to embark on self-growth and plants to learn from one another. In 2022, a total of 5 important quality-related improvement projects were implemented.

Quality improvement is a persistent process. With continual enhancement of product yield rate and continual reduction of customer complaints as the long-term goals, we have achieved the yield rate goal in recent years. For self-optimization, we raise the yield rate target every year. Through long-term improvement, customer complaints have also reduced continuously.

#### Confirmed customer complaints: count/year



Note: We began to separate the customer complaint targets for plants I and II in 2020, 6 and 8 respectively.

## 3.3 Supply Chain Management GRI 3-2, 3-3, 2-6, 2-25

Material topics: Supply chain management; Corresponding sustainability principle: Sustainable development

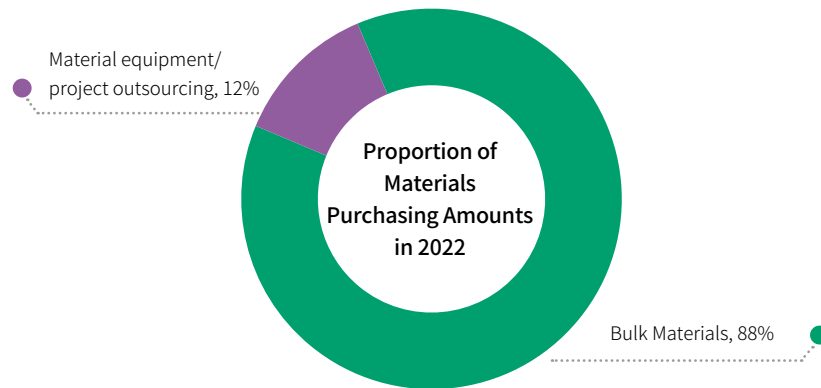
Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>As an indicative business in Taiwan, apart from pursuing profit, it is also our responsibility and obligation to assume the sustainable supply chain responsibility together with suppliers.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Establish the mechanism for supply chain sustainability risk assessment and prevention to develop a supply sustainability management culture.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>We are committed to developing communication channels with suppliers to increase the opportunities for opinion exchange so as to achieve environmental protection, industrial safety, and human rights for sustainable operations together with suppliers.</p> <p>USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>· Short-term positive actual impact: Enhance supply chain management and improve raw materials quality.</li> <li>· Long-term negative potential impact: Supply delays caused by international situations.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>Global materials and engineering contractors and customers.</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Advance procurement, increase safety stock, and source alternative suppliers.</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Added the Supplier ESG Commitment as a requirement for new supplier evaluation.</li> <li>2. Promoted transportation safety and quality audit.</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Added the Supplier ESG Commitment as a requirement for new supplier evaluation</li> <li>2. Grade A in the transportation safety and quality evaluation of transportation contractors.</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <p>Develop the “Supplier Sustainability Self-Assessment Questionnaire” for suppliers to determine compliance with the regulations through self-assessment.</p> <p>Ensure all suppliers sign the “Supplier ESG Commitment”.</p> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Conduct on-site audits on 2 suppliers each year and include the sustainability self-assessment questionnaire in the on-site audit.</li> <li>2. Based on the on-site audit results, build an opinion exchange platform with suppliers and ask related USI professionals to make recommendations for their inadequacies and help them make corrective planning.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Annual report</li> <li>2. Governance evaluation</li> <li>3. ESG Report</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <p>The group audit division has a grievance hotline and a suggestion email on the corporate website for filing grievances.</p> <p style="text-align: center;"><b>Evaluation of the management approach</b></p> <hr/> <p>Internally, conduct supplier evaluation and project construction evaluation periodically, discuss the results, and make adjustments; externally, hold irregular supplier opinion exchange conferences to discuss and share opinions on unspecific topics.</p>

## Supplier Sustainable Development Strategy and Goals

As an indicative business in Taiwan, it is our responsibility to call on suppliers to jointly undertake corporate social responsibility. Therefore, we have established the Supplier ESG Commitment to request suppliers to make commitments for compliance with human rights, industrial safety, health, environmental protection, and conflict minerals.

With the rise in the awareness of the issues related to sustainable development and supply chain risk management, apart from proactively performing social responsibilities and contributing to society, we have realized the need to understand the ESG impacts on our suppliers so as to implement supplier management.

## Sustainable Development



### Supply Chain Sustainable Development Policy

- Optimize partnership and share sustainable business opportunities
- Enhance workplace safety and enforce environmental protection
- Take social responsibility and enhance competitiveness

## Supply Chain Risk Management



### Risk Assessment and Prevention

- In addition to the supply chain safety requirements, review the special conditions (including chemical process risk, handling premises, fugitive emissions of VOCs, and the operation of environmental controlled substances) of chemical suppliers.
- Establish long-term cooperation with suppliers; cultivate a second source or multiple sources and maintain cooperation to coordinate long-term material preparation.
- Develop an internal safety stock mechanism and set a purchase base point according to the supply schedule to prevent the risk of supply disruption.
- Purchasers implement education/training for the sustainable supply chain.
- HSE education/training for contractors.
- Implement the supplier sustainability self-assessment questionnaire to provide information for initial risk assessment.

### Impact Response

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

### Future Planning

- Apart from setting chemical suppliers as the focus, a risk assessment mechanism will also be established based on the procurement amount, project outsourcing amount, or project importance, and the on-site audit results of the said sustainable development strategy.
- Control and guidance will be arranged based on the above risk assessment mechanism and the assessed risk levels.



## Performance of Supply Chain ESG Risk Management

Risk and Attribute	Supplier (chemicals)	Project Contractor
	Environmental (E), social (S), and governance (G)	
<b>Potential Risk</b>	<ul style="list-style-type: none"> <li>a. Chemicals manufacturing process (E)</li> <li>b. Dusty, high-temperature, noisy, and humid operating premises (E)</li> <li>c. Risk of fugitive emissions of risk (E)</li> <li>d. Labor-intensive industries (S)</li> <li>e. Supply chain disruption/delay risk (G)</li> <li>f. Quality risk (G)</li> </ul>	<ul style="list-style-type: none"> <li>a. Dusty, high-temperature, noisy, and humid operating premises (E)</li> <li>b. Work at height risk (E, S)</li> <li>c. Labor-intensive (S)</li> <li>d. Industrial safety risk of cutting or welding (S)</li> <li>e. Project disruption/delay risk (G)</li> <li>f. Project quality risk (G)</li> </ul>
<b>Number of audited and visited suppliers</b>	Trial audits of 2023	
<b>Audit Details</b>	<p>Environmental (E): Regulatory compliance of the manufacturing and storage of environmentally controlled substances.</p> <p>Governance (G): Management of quality, production, and orders; customer satisfaction follow-up; employee education and training; and management of outsourced processing.</p>	Implemented alongside the project construction evaluation of contractors. In 2022, we evaluated 147 contractors, and all passed the evaluation.

### Promotion of Supplier's Code of Conduct (Supplier ESG Commitment)

GRI 308-1, 414-1

In 2020, we added the Supplier ESG Commitment as an incentive. From 2022, the Supplier ESG Commitment is a prerequisite for all new suppliers to become a qualified suppliers. There were eight new suppliers in 2022, making up to a total of 43 suppliers signing the commitment.

### Supplier's Code of Conduct and Quality Requirements Self-Assessment Form

GRI 308-1, 308-2, 414-2

To enhance supplier control, we have planned on-site supplier audits in 2023 and introduced the Supplier's Code of Conduct and Quality Requirements Self-Assessment Form. Major domestic suppliers will be the priority targets for the investigation of negative environmental and social impacts.

### Five major aspects of self-assessment



Labor and human rights



Health and safety



Environment and resources



Ethics and integrity



Management and quality system

Currently, major feedstock suppliers and contractors Taiwan CPC and Dairen Chemical and partner CTCI have become our sound sustainable developer corporate suppliers. We implement “proactive risk management” to investigate the potential negative impacts of suppliers. On top of irregularly retrieving the environmental offence records of manufacturers published on the government websites and website of Green Citizens’ Action Alliance to find if suppliers have violated the above regulations or if there is related news of them, we plan to conduct on-site audits together with the Supplier’s Code of Conduct and Quality Requirements Self-Assessment Form on two suppliers each year from 2023 to assess if they will cause negative or potential impacts on the Company (e.g., sanctions by the competent authorities and operation shutdown). We also recommend the following solutions for their excellent performance or the potential negative impacts and risks caused by legal offences or defects:

**Offence or defect records:** We provide guidance for improvement for offences or defects. Where suppliers refuse or delay to make corrections, we will adopt risk control and response measures, such as degrading them or finding alternative suppliers.

**Suppliers with excellent performance and without offence of defect records:** Hold opinion exchange meetings to exchange the strengths and opinions of both parties.

### SCM mechanism

With quality, ability, and environmental policy as conditions, we perform corporate social responsibility in collaboration with outperforming suppliers on a long-term basis. We also communicate with contractors and transporters our environmental policy, comply with the EU’s RoHS directive, enhance environmental education and training, and care about the safety of contractors working in our plants in order to ensure the safety of all operations, protect the life, safety, and health of personnel, and optimize risk management.



#### SCM mechanism

<https://www.usife.com/ESG/zh-tw/ESG52.aspx>



### Smart materials supplier management

GRI 308-1, 414-1

At USI, supplier evaluation is implemented centrally by the procurement department, and only suppliers passing the evaluation are included in the Quality Supplier List. Please visit our [ESG website](#) for the details of the evaluation mechanism.

#### Sources of Major Materials in 2022

Locations/Materials	Ethylene	VAM
Taiwan	73%	78%
Foreign	27%	22%
Source	6 domestic and overseas suppliers in total.	3 domestic and overseas suppliers in total.

Note: The percentage in the table represents the proportion of purchasing amounts of bulk materials.

#### Results of Raw Materials Supplier Evaluation 2020-2022:

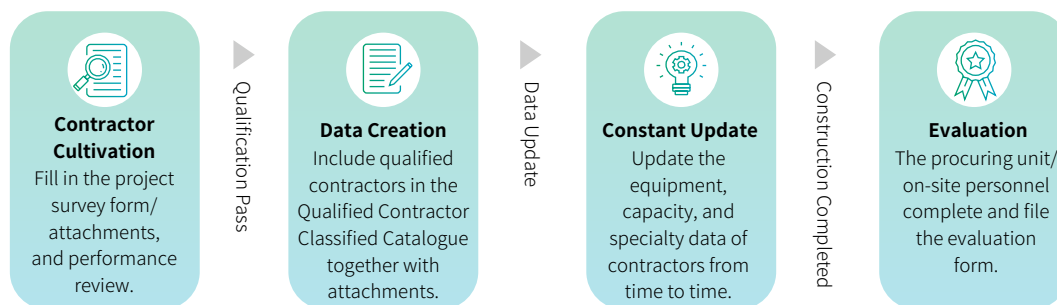
Year	2020	2021	2022
Suppliers Evaluated	76	51	83
Pass Rate	100%	100%	100%

In 2022, we evaluated a total of all 83 suppliers, and the pass rate was 100%.

### Management of construction contractors

We outsource construction contracts mainly to local contractors, and on-site personnel of the plant supervise and manage them during the construction period. In addition to construction projects, we care about HSE, occupational safety, human rights and labor practices.

### Establishment of a qualified contractor selection process:



Contractor qualification items:

Capital	Total Amount of Two Major Projects in the Last 2 Years	Cumulative Amount of Projects each over NT\$200K in the Last Year	Factory Scale	Amount of Equipment Investments	Numbers of employees
10%	20%	10%	20%	20%	20%

Project construction evaluation: During project construction, we will evaluate a contractor according to the following ESG standards:

Construction quality	Safety and health measures	Coordination performance	Site manager	Environment maintenance	Construction progress
40%	20%	10%	10%	10%	10%

Note 1: The pass mark is 50 points. We will stop enquiries from contractors with a score of 30-49 points for one or two years and disqualify contractors with a score below 30 points.

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

### Results of Construction Contractor Evaluation

Year	2020	2021	2022
Suppliers Evaluated	122	112	147
Pass Rate	100%	100%	100%

### Product transportation management evaluation

All products from Kaohsiung Plant are transported by De Yuan Transport Ltd. Apart from the hazard identification of forklift operation when product loading for shipping, we also implemented the AI industrial safety image recognition system together with partners to effectively detect if operators use personal protective equipment (PPE) properly. Additionally, we began implementing the transportation safety quality evaluation in 2020 to evaluate contractor safety management and performance. The evaluation result of 2022 was A (please refer to [5.1 In-house product loading safety management](#) for details). We also co-implement the [plastic resin pellet collection program](#) to reduce microbeads from harming marine ecology.



## Green Procurement

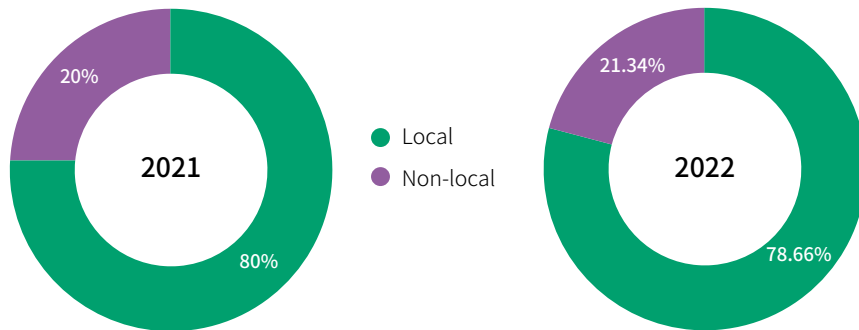
<https://www.usife.com/ESG/zh-tw/ESG54.aspx>



### Support for procurement from local suppliers

Taiwan is our operational and production base. When the procurement conditions are similar, we prioritize procurement from local suppliers in order to achieve the following goals:

- ✓ Establish long-term, sustainable cooperation
- ✓ Promote local economic development
- ✓ Increase job opportunities
- ✓ Reduce transportation processes

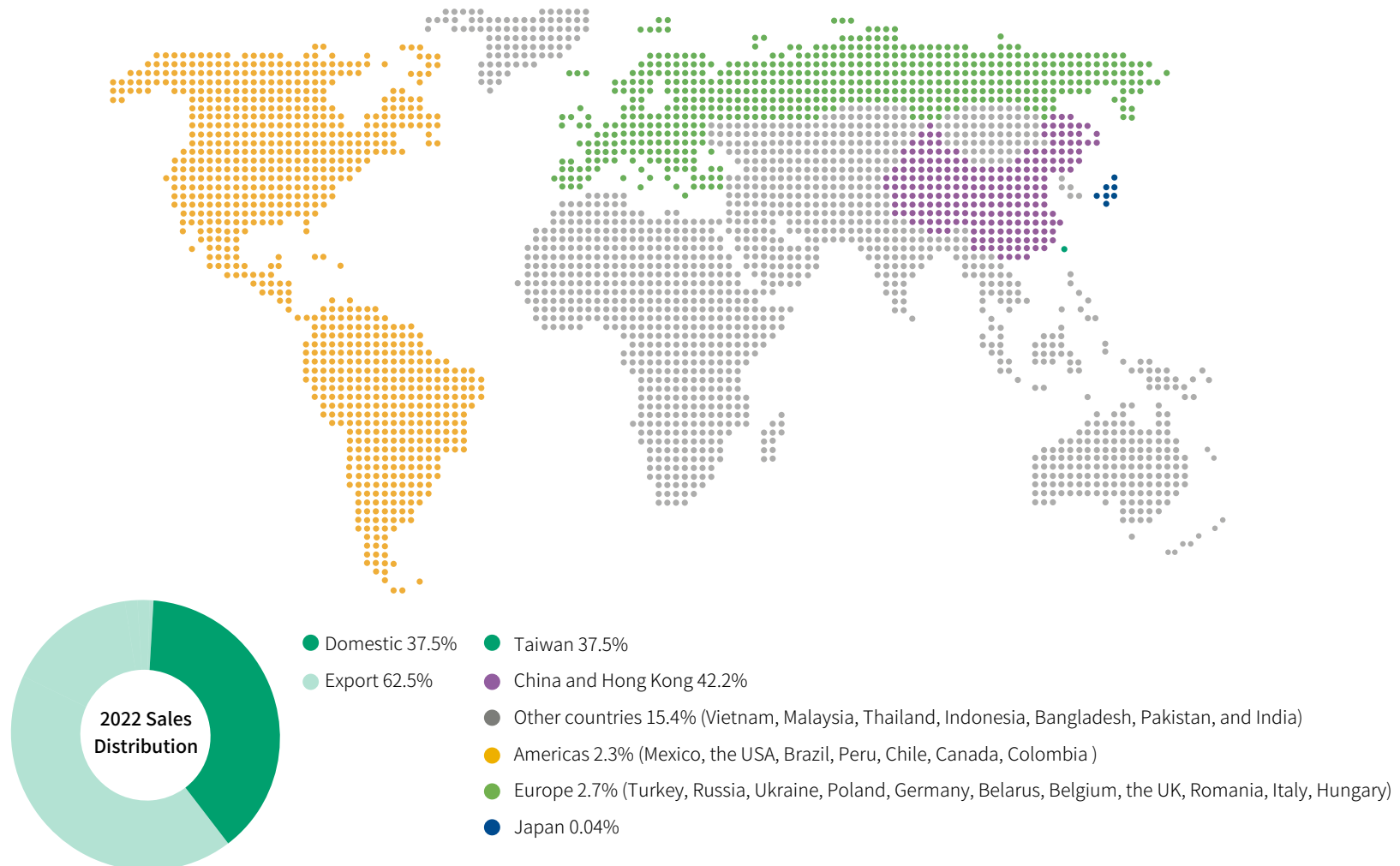


### Energy-efficient and eco-friendly equipment

In addition to continuously promoting environmental protection and energy conservation policies, we have been encouraging all units to use energy-efficient and eco-friendly materials in recent years. These materials include energy-efficient devices (e.g., inverters, high-performance IE3 motors, anti-explosion LED lighting fixtures, aircon chillers, UPS) and ecolabel products (e.g., energy-efficient and eco-friendly IT equipment). The amount of energy-efficient products procurement in 2022 was NT\$9.6 million.

## 3.4 Sales and Customer Services GRI 2-6

USI products are distributed mainly to a total of 298 customers in Europe and Asia. Products exported by ranking are EVA, HDPE, LDPE, and LLDPE. The chart below shows the sales distributions and market distributions of USI products in 2022. All were calculated by sales volume.



## Sales Services



### Technical Support

- Establishing the “Customer After Sales Technical Service Policy”
- In the “Product” section of our corporate website, we provide complete information regarding the specifications, properties, functions, application manual, and safety data sheet (SDS) of our current and new products
- Setting up an enquiry hotline
- In 2022 no legal noncompliance or fine in relation to product labeling was reported. GRI 419-1
- Providing customers with a small quantity of samples for test runs and continuous technical support



### Product Responsibility

- All USI products comply with the Restrictions on Hazardous Substances (RoHS)
- Provision of quality inspection reports as requested by customers



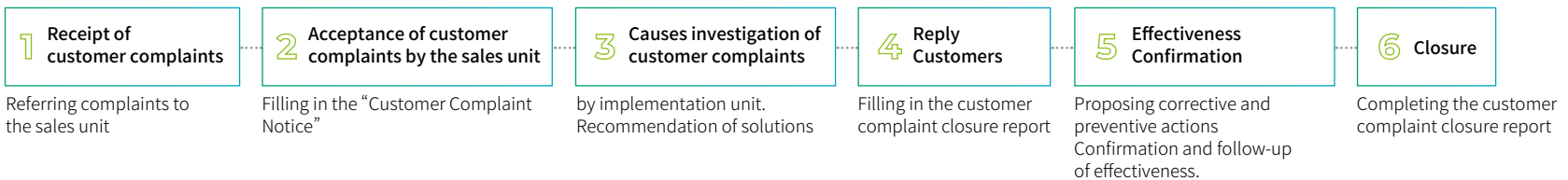
### Customer privacy

- To ensure the security and correct use of customer information, the Group Information Systems Division has established a series of regulations regarding information security management, including the General Provisions for the Information Security Management Policy, System Development and Maintenance Management Regulations, Directions for Going Live Management of Application Systems and Programs, and Directions for Database Management to protect and control all types of privacy information in terms of information security management. Moreover, we have strengthened privacy protection to prevent exposure of information by reinforcing firewall management, privilege control, segregation of testing environments and operating environments, and de-identification of data containing personal information.
- In 2022 no damage or leakage of customer privacy was reported.



### Customer Complaints

- Establishing the “Customer Complaint Handling Procedure” to process all customer complaints about products.
- Customer complaints processing procedures



- We have adopted the following procedures to ensure that all customer complaints are addressed and resolved: computer processing and recording of customer complaints processing; discussion of each complaint at the monthly meeting; effective implementation of quality improvement activities; dedicated personnel for cause analysis, follow-up of corrective and preventive actions, and tracing the effectiveness of corrective and preventive actions.

## Customer Satisfaction

### Survey Frequency

A customer satisfaction survey is conducted semi-annually.

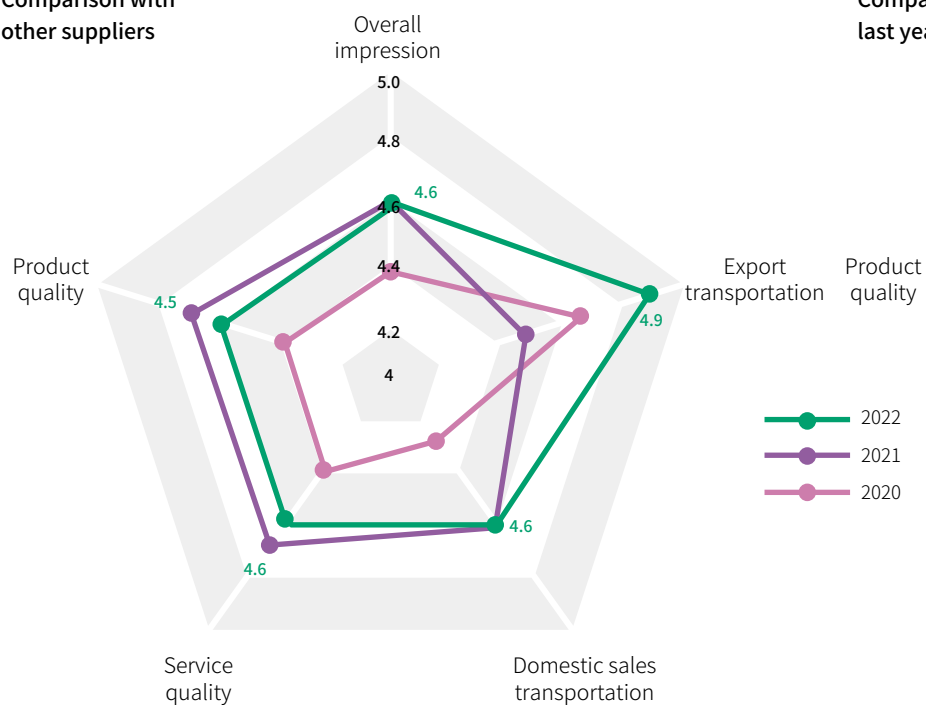
### Sampling Method

Fifty, including 30 domestic buyers and 20 overseas buyers, from the top one hundred buyers by purchasing quantity are surveyed during the H1 and H2 of each year.

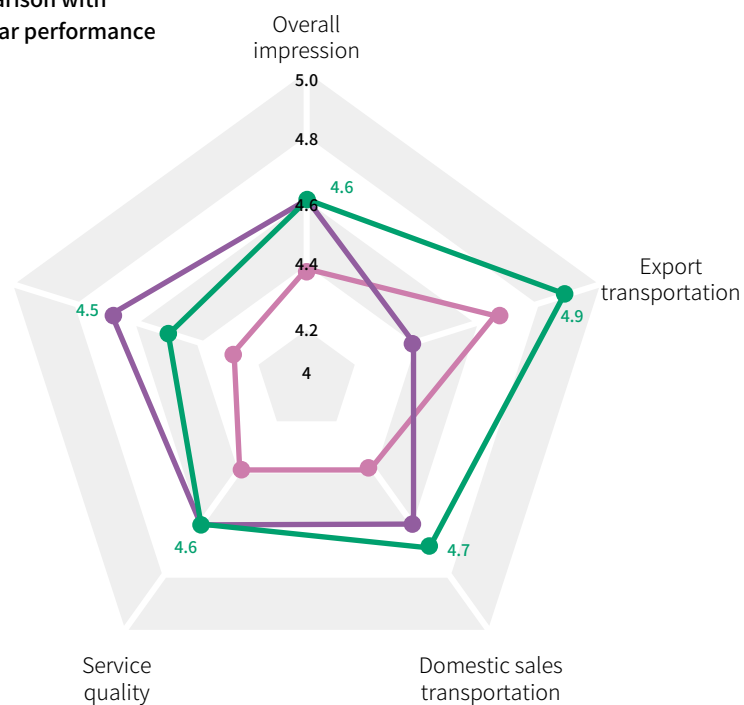
In 2022, all aspects were above the “satisfied” level, and up to 98.9% of investigation feedback for investigations in the year was either “highly satisfied” or “satisfied,” achieving the 2022 target ( $\geq 94\%$ ).

The charts below show the survey results in “comparison with other suppliers” and “comparison with the previous year performance” in the past three years.

### Comparison with other suppliers



### Comparison with last year performance



Note: “5” for highly satisfied; “4” for satisfied; “3” for fair; “2” for unsatisfied; and “1” for highly unsatisfied.

### Contents and Results

# Chapter 4

## Environmental Sustainability and Climate Change

### Material topics in this chapter

1. Water resources management
2. Air pollution control
3. Waste management
4. Climate change and energy management



### Performance Highlights

- ✓ Environmental Expenditure: approx. **155.730** million
- ✓ Electricity reduced by **1.31%** (2015-2022 average: 1.37%), energy decreased by **5.84%**, carbon decreased by **3.08%**, water decreased by **5.65%**
- ✓ Increased materials recycling rate to **13.1%**
- ✓ Continuous implementation of ISO 14064-1 Greenhouse Gases Inventory and Verification and Scope 4 inventory
- ✓ Implementation of the ISO 46001:2019 Water Efficiency Management System and completion of verification
- ✓ Implementation of ISO 14067:2018 Carbon Footprint of Products and verification



# 4.1 Environmental Management System

In 1998 we established the ISO 14001 environmental management system (EMS), with 100% coverage. EMS provides USI with a good environmental protection framework for controlling and reducing environmental impacts, preventing accidents from impacting the environment, and ensuring legal compliance. Following international trends, we have integrated the EMS and the health and safety system to draw up an HSE (health, safety, and environmental protection) policy and the "five zero goal".

Upholding and realizing the business philosophy of Chairman Wu, we optimize occupational safety and health, environmental protection, energy conservation and

carbon reduction to protect the health and safety of employees and maintain the environment and ecosystem. This is our wish and the responsibility of every employee. To promote sustainable development, fulfill ESG with due diligence, and support clean production and environmental protection, Kaohsiung Plant will make continual improvement of the workplace environment, operation safety, process waste reduction, water efficiency, energy conservation, and carbon reduction in order to achieve the "five zero goal: zero pollution, zero emission, zero accident, zero occupational hazard, and zero failure".



## Environmental objectives and management programs

### 2022 Environmental Protection Targets and Management Programs

Policy	Goals	Program	Effectiveness	2023 Management Program	
Zero emission	Reduce the fugitive emissions of VOCs of equipment/component and measured leakage rate <0.5%	<ol style="list-style-type: none"> <li>1. Reduce equipment/component for emission leakage of VOCs (Plant I)</li> <li>2. Reduce the annual leakage of VOCs (Plant II)</li> <li>3. CBC Leaked Emissions of VOCs Reduction Plan (CBC Plant)</li> </ol>	Reduced VOCs leakage of plants I/II/CBC to below 0.5% in 2022.	<ol style="list-style-type: none"> <li>1. Reduce equipment/component leaked emissions of VOCs.</li> <li>2. Reduce the annual leakage of VOCs.</li> <li>3. CBC Leaked Emissions of VOCs Reduction Plan (CBC Plant)</li> </ol>	
	Improve process equipment and pipelines to reduce the fugitive emissions of VOCs.	<ol style="list-style-type: none"> <li>1. Replace the VA transfer pump in Plant I</li> <li>2. Replace the ethylene unloading pump in Plant I</li> <li>3. Replace the EF-line xylene CIP pump</li> <li>4. Add V-201 to the V-205 emission pipelines</li> <li>5. TO incinerator emission pipeline tie-in project</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduced VOC leakage, enhanced transmission efficiency, and reduced energy consumption. Equipment delivery was postponed due to the pandemic. Only 25% was delivered in 2022, and completion has been postponed to 2023.</li> <li>2. Reduced VOC leakage, enhanced transmission efficiency, and reduced energy consumption. Equipment delivery was postponed due to the pandemic. Only 25% was delivered in 2022, and completion has been postponed to 2023.</li> <li>3. The new pump has arrived at the Kaohsiung Customs. The delivery time is 2023/01/15. The project was postponed due to the pandemic. Only 20% was completed in 2022, and completion has been postponed to 2023.</li> <li>4. Reduced the leaked emissions of VOCs, completion 100%.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce equipment/component leaked emissions of VOCs.</li> <li>2. Reduce the annual leakage of VOCs.</li> <li>3. CBC Leaked Emissions of VOCs Reduction Plan (CBC Plant)</li> </ol>	
	Increase wastewater recycling by 2% (over the 2021 wastewater recycling rate)	N.A.	N.A.	N.A.	Purchase the new float oil pump
	Reduce GHG emissions by 1,560tCO <sub>2</sub> e	The 6 plant electricity conservation projects	In 2022, electricity up to 3,065,102 kWh was accumulatively saved and emissions were reduced up to 1,560tCO <sub>2</sub> e.	Four power-saving programs	
	Reduce water discharge by 5,280 MT	Continuous monitoring and reclamation of effluents	In 2022, a total of 32,153MT of water was reclaimed through the effluent reclamation system.	The wastewater treatment system, MRT condensate water recycling improvement, and stormwater collection system with detention tanks are expected to result in a water conservation of 48,500 MT/year.	
Zero Pollution	Prevent environmental contamination caused by plastic resin pellet leakage	Prevention and management of plastic resin pellet leakage	<ol style="list-style-type: none"> <li>1. Enhanced publicity of dust zone cleaning and tanker loading area cleaning.</li> <li>2. Ensured that the unloading pipe is inserted in the inlet and surroundings are covered with dust screens before unloading in the tanker loading operating process to prevent materials from splashing.</li> <li>3. Revised and released the WI-KHB-810-51 work instructions of the Finished Product Section and included the plastic leakage management system.</li> <li>4. Inventoried the leakage prevention and management measures of plastic resin pellets in the processing area and recovered 11.89MT of plastic resin pellets in 2022.</li> </ol>	Continuously implement the prevention and management of plastic resin pellet leakage.	

## Environmental Expenditures

Our environmental management costs include the cost for environmental management activities, environmental-protection-related personnel expenses, and equipment maintenance costs. In 2022, we actively implemented the reduction of leaked emissions of VOCs, water recycling and reuse, energy conservation and carbon reduction, and emissions reduction. The total amount of environmental expenditures in 2022 increased by **14.8%** over 2021 to about **NT\$155.73 million**.

Environmental Expenses of in the Past 3 Year

(NT\$ 10 thousands)



Note 1: The cost for environmental management activities includes the fees for air pollution control, water pollution prevention, waste disposal, noise pollution prevention, management of toxic and concerned chemical substances, industrial safety improvement, depreciation of fixed assets and others (e.g., cleaning and mowing).

Note 2: Environmental-protection-related personnel expenses include personnel expenses and environmental protection-related training fees.

Note 3: Equipment maintenance cost includes the fees of environmental-related equipment and the fees for equipment maintenance.



## 4.2 Water Management

GRI 2-25, 3-3

SDG 6

### Sustainability Principle: Sustainable Development

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>In response to global climate change, valuable water resources are reclaimed for reuse through water conservation and emission reduction measures.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <ol style="list-style-type: none"> <li>Reduce pollution and emission through process and source improvement and then end-of-the-pipe treatment promote water resource recycling and reuse.</li> <li>Constantly invest in discharge reduction management, implement water conservation, and water resource reclamation management.</li> <li>Implement the water efficiency management system and flood prevention measures</li> </ol> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Annual water conservation &gt;1%</p> <p>Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>Short-term positive actual impact: Enhance water recycling efficiency and reduce production costs.</li> <li>Short-, medium- &amp; long-term negative actual impact: Water shortages, production disruption due to torrential rain</li> <li>Short-term negative potential impact: Increase NT\$330,000 each year after the collection of the water conservation charge begins.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>USI Kaohsiung plant, global customers, government agencies</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Enhance water recycling and reuse, improve manufacturing processes to reduce steam consumption, and buy water with water trucks.</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>Save energy at 1% each year.</li> <li>Increase water reclamation to 12,000MT</li> <li>Reduce water consumption by 2,880MT/year through process improvement.</li> <li>Implemented and passed the certification of the ISO 46001:2019 Water Efficiency Management System.</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>Passed the certification of the ISO 46001:2019 Water Efficiency Management System and obtained the certificate on 2022/03/17.</li> <li>Saved water by 3,403MT (target 2,880MT) each year accumulatively through the project at a progress of 105.7%, saving 5.65% of water.</li> <li>The estimated 2022 wastewater reclamation was over 12,000MT/year, the actual volume was 32,153MT. The wastewater treatment system, MRT condensate water recycling improvement, and storm-water collection system with detention tanks are expected to result in a water conservation of 48,500 MT/year. Collected 11.89MT of plastic resin pellets through the Plastic Resin Pellet Collection Program.</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <p>Wastewater treatment system, Estimated water conservation with the MRT condensate recovery improvement and retention basic rainwater harvesting system: 48,500MT/year, saving water by 4.63%.</p> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <p>Reducing water withdrawal and consumption to enhance water recycling and reuse.</p>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>Water conservation volume</li> <li>Wastewater reclamation volume</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <ul style="list-style-type: none"> <li>“Contact us” on the corporate website.</li> <li>Stakeholder contact information</li> <li>Stakeholder questionnaire</li> </ul> <p style="text-align: center;"><b>Chapter Summary</b></p> <hr/> <ol style="list-style-type: none"> <li>Water resources management</li> <li>Promote the water efficiency management system</li> <li>Prevent and manage plastic resin pellet leakage</li> </ol>

## Water resource management

GRI 303-1:2018, 303-3:2018, 303-4:2018, 303-5:2018

RT-CH-140a.3

The circular economy is an industrial system designed for recovery and regeneration to replace “end of life” with “recovery,” in order to turn waste into resources and thereby achieve waste reduction. By continuously implementing the circular economy, we implement water conservation and drainage reduction through improvement programs to reclaim and recycle valuable water resources for reuse and set the annual water conservation target at “1%”. The actual conservation in 2022 was 5.65%. The boundary of water resource and effluent management is the Kaohsiung Plant, with data coverage of 100%.

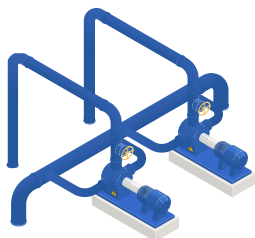
In terms of water stress distributions, based on the water stress by country in the ‘Aqueduct Water Risk Atlas’ published by the World Resources Institute (WRI), the water stress of Taiwan falls at the low to medium level, with water stress is less than 10%.

According to the 2021 water resources statistics published in the Water Resources Agency Register Statistical Report, MOEA, the water consumption of Kaohsiung City was 296,622 MI, including 85,778 MI of water for domestic use or public use, 94,526 MI of water for industrial use, 91,373 MI of water for agricultural use, and 24,945 MI of water for other uses. The 2021 total water withdrawal of Kaohsiung Plant was 998.098 MI, accounting for about 0.34% of Kaohsiung City’s total water consumption. Kaohsiung Plant withdraws water mainly from tap water supplied by the Pingding Waterworks and Cheng Ching Lake Waterworks for product production, equipment cooling, boiler, domestic use of employees, and other uses. Compared to 2021, water withdrawal in 2022 reduced by about 72.7 MI to 925.439 MI.

### 2022 Water Withdrawal, Discharge, and Consumption

GRI 303-3:2018, 303-4:2018, 303-5:2018

RT-CH-140a.1



#### Total water withdrawal 925.439 MI

Low to medium water stress areas, with water stress is less than 10%

- Third-party water-fresh water ( ≤ 1,000mg/L TDS): 925.439 MI
- No runoff, groundwater, seawater, output water.

Note: 1: With respect to the test method of NIEA W210.58A, the 2021 TDS was 344mg/L, 2022 TDS was 372mg/L, withdrawal type was fresh water.

Note: 2: Withdrawal is subject to the readings on the water meter (flow meter).



#### Total water discharge: 268.36 MI

Ammonia nitrogen total volume control area

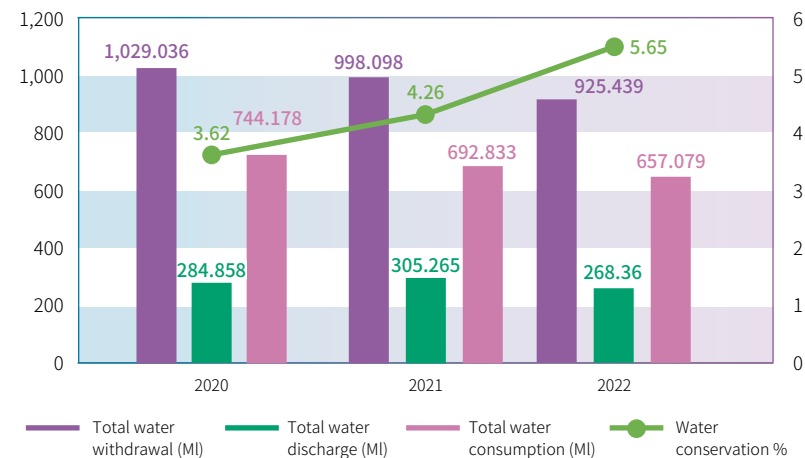
- Runoff- fresh water ( ≤ 1,000mg/L TDS): 268.36 MI
- Discharge contains no groundwater, seawater, and third-party water.
- NH4 in 2022H1 and 2022H2 was 0.2mg/L and 0.63mg/L, far below the effluent standard (20mg/L).

Note: 1: With respect to the test method of NIEA W210.58A, the 2021 TDS was 863mg/L, 2022 TDS was 912mg/L, withdrawal type was fresh water.

Note: 2: Discharge is subject to the readings on the effluent meter (flow meter).

**Total Consumption = Total Withdrawal – Total Discharge = 657.079 MI.**

Water Status in the Last 3 Years



## Water conservation and reclamation GRI 303-1:2018

Following the rising water demand, escalating climate change impact, and expanding sustainability pressure, we keep a constant track on water shortages and endeavor to reduce water consumption or enhance water reclamation in response.

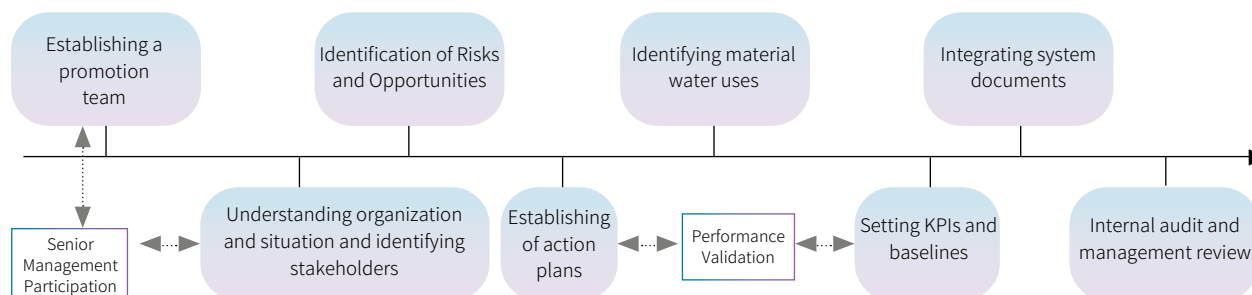
We began to build the water monitoring system in 2020 to keep constant track of the water supply. Based on the drought response measures, apart from cutting unnecessary water consumption, enhancing pipeline and switch tour inspection, and reducing cooling water discharge, we also get support for water in the fire fighting storage tanks, buying water with water trucks, following the government's 3-stage rationing measures, and actively implement various water improvement programs to reduce total water withdrawal each year.

Water reclamation program	Effectiveness
<b>Enhancing the recycling rate of water resources</b>	We have improved the steam condensate recovery system. After the completion and operation of the Kaohsiung Plant's new steam boiler, the condensate reclaimed from steam will be reused in the new boiler. The water reclaimed is approximately 47,520 MT/year. Calculation: The project was completed in 2016. After field tests, we found that the reclamation volume is 6MT/hour. Based on 330 days a year, the annual reclamation volume is 47,520 MT.
<b>Recycling spillage water reclaimed from pellet cutting</b>	Spillage water reclaimed from pellet cutting is first transported to the sedimentation tank. Then, it is pumped into the reclaimed water treatment plant before being further transported to the cooling tower for re-use to reduce tap water consumption and process effluents. The water reclaimed is approximately 27,720MT/year. Calculation: The project was completed in 2016. After field tests, we found that the reclamation volume of the system is 14MT/batch. Based on six batches a day and 330 days a year, the annual reclamation volume is 27,720 MT.
<b>Continuous monitoring and reclamation of effluents</b>	Continuous monitoring of the in-house effluent quality to enhance effluent treatment and response capacity and ensure that effluents comply with the discharge standards. After reclaiming by the system, effluents are treated before being transported to the cooling tower for re-use to reduce tap water consumption and process effluents. Calculation: Based on the readings of pumps on-site, the total wastewater reclamation in 2022 was 32,153MT.
<b>Detention basin and storm water reclamation channel</b>	Pipelines will be installed from the existing detention basin and storm water reclamation channel to the cooling tower. After filtering by the storm water separator next to the cooling tower, storm water will be re-used by the cooling tower. The estimated water reclamation in 2022 was about 5,786MT. Calculation: The project was completed in 2017 and started operation in 2018. The plant rainwater collection area is 3,500m <sup>2</sup> , the tank site dike area is 3,300m <sup>2</sup> , Kaohsiung's annual rainfall in 2022 was 946cm. Based on a reclamation rate of 90%, the estimated water reclamation is about 5,786MT/year.
<b>MRT Steam Condensate Recovery</b>	Steam condensate is recovered for reuse in the boiler to reduce tap water consumption. The project annual recovery is 17,500MT. Calculation: Steam condensate recovery at 2.2MT/hour. The number of workdays is 330 days/year. The annual recovery is thus $2.2 \times 24 \times 330 \approx 17,500$ (MT/year).

Note : The estimated volume of reclaimed and recycled water in 2022 was 130,679MT; the total water withdrawal was 925,439MT; the volume of reclaimed and recycled water was 14.1% of the total water intake.

## Water Efficiency Management System GRI 303-1:2018

In 2021 we implemented the ISO 46001:2019 Water Efficiency Management System and completed system certification in March 2022. By inventorying the current status and ways of water consumption across the plant, through identifying, planning, managing, and improving the risks and opportunities of water with systematic water consumption management, and thereby optimizing water demand management, we effectively achieved the goals of water conservation and discharge reduction to enhance water efficiency and reduce water costs.



In 2022, we enhanced wastewater system management and optimized operation to reduce wastewater discharge and increase wastewater reclamation. The actual reclamation increased to 32,153MT. Additionally, about 5,786MT of water was reclaimed within the retention basin and rainwater harvesting in the tank area.

In 2023, we will enhance wastewater system management and optimize operation to reduce wastewater by about 4.63%.

## Water as a shared resource GRI 303-1:2018

In 2022 we planned the firewater connection project with the plants (Grand Pacific Petrochemical Corporation) in the nearby Dashe Industrial Park. Besides dispatching water to support firefighting through water as a shared resource, this also strengthened the emergency response capability. Currently, Grand Pacific Petrochemical Corporation has connected firewater with TSRC Corporation in a fire fighting storage tank of about 4,500m<sup>3</sup>. Currently, the effective capacity of our fire fighting storage tank is 4,297m<sup>3</sup>. The connection project was completed at the end of 2022, the total volume of firewater as a shared resource is about 8,797m<sup>3</sup>, achieving the estimates in 2021.

## Effluents Management GRI 303-1:2018

Wastewater from the plant is the main source of effluents from USI. According to KSEPB's effluent runoff discharge permit, effluents that cannot be reused after treatment and comply with the environmental protection laws and regulations can be discharged to the surface water body—Houjing River. According to the EPA statistics, the national BOD<sub>5</sub> is 533.63MT/day. Our daily COD is 0.0173MT/day, and the pollution of Kaohsiung Plant is below 0.00324%.

Wastewater discharge from the plant includes process wastewater and domestic wastewater from employees. Wastewater is transported to the water treatment plant for treatment via wastewater pipelines. The wastewater treatment system includes the pre-treatment and primary (physical) treatment. Through trash screening, oil removal, sedimentation, and chemical treatment, and the sludge treatment unit for wastewater solid-liquid separation, effluents meet the drainage quality before discharge.

To reduce the environmental impact of discharge and promote waster recycling and reuse, besides complying with environmental protection laws and regulations, we optimized the functions of the wastewater (sewage) treatment plant in 2020, including adding the sludge concentration tank, improving the bottom sludge removal system of the sedimentary tank, and building the sludge rinsing system for the flotation system to enhance sludge treatment and collection efficiency.

The actual 2022 wastewater reclamation volume was **32,153MT**, with an achievement rate of **268%**.

## Water quality monitoring and management GRI 303-2:2018, 303-4:2018

Every half year, we hire environmental analysis organizations approved by the Environmental Analysis Laboratory (EAL) to examine water quality of effluents from our plants, including NH4 required for total volume control. Every year, effluent test items required for reporting are well-followed the effluent standard. According to previously amended and promulgated “Effluent Standards”, the water quality control of discharge from the petrochemical industry includes 22 items, including 7 general water quality items and 15 specific water quality items. In our 2022 untreated wastewater and effluent quality tests and analysis, effluents met the effluent emission standard.

### Results of Water Quality Examination in Last 3 Years

Water Quality Indicator	2020		2021		2022		Effluent Standard (Petrochemical Industry)
	H1	H2	H1	H2	H1	H2	
SS (mg/L)	3.7	8.5	9.0	5.7	8.0	9.7	30
Grease (mg/L)	6.3	2.6	6.6	4.5	9.5	5.7	10
COD (mg/L)	28.7	52.8	14.4	25.5	26.4	19.7	100
NH4 (mg/L)	1.27	0.28	0.78	0.48	0.2	0.63	20

## Prevention and Management of Plastic Resin Pellet Leakage

The US Plastics Industry Association and American Chemistry Council co-promote the Operation Clean Sweep (OCS) campaign dedicated to preventing plastic resin pellets, flakes, and powder loss from entering the ocean to cause environmental pollution.

In 2020, we began implementing the measures for prevention and management of plastic resin pellet leakage and awareness education for in-house plastic resin pellet leakage management. We also arranged education/training for contractors. In 2022, we performed the on-site walk-through inspection of contractors and comprehensive process area inventory to understand the methods that contractors and employees adopted to clean up and prevent the leakage of plastic resin pellets. We also established new or revised related control documents to ensure the collection of plastic resin pellets, flakes, and powder to

prevent them from polluting the environment by rainfall or sewage. In 2022, we recovered a total of 11.89MT of plastic resin pellets across the plant.

Year	Recovery Weight (kg)
2021	12,871.1
2022	11,889.4



### Operation management

- On-site inspection and review
- Enhancement of employee awareness
- Establishment of procedure documents
- Follow-up of implementation results



### Personnel training

- Education/training
- Enhancement of SOP conformity of employees
- Workplace publicity



### Workplace

- Ensure venue ground flatness
- Enclosure installation
- Provision of cleaning equipment for employees



### Management measures

- Materials unloading management
- Transportation packaging management
- Regional cleaning
- Collection management





## 4.3 Air Pollution Control

GRI 2-25, 3-3

SDG 11

### Sustainability Principle: Sustainable Development

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p><b>Significance to USI</b></p> <p>Continuous environment improvement to achieve "zero pollution and zero emission."</p> <p><b>Strategy</b></p> <ol style="list-style-type: none"> <li>1. Reduce pollution and emission through process source improvement in support of end-of-the-pipe treatment.</li> <li>2. Constant investment in environmental pollution control (prevention) management.</li> <li>3. Compliance with the Gaoping total volume control.</li> </ol> <p><b>Commitment</b></p> <p>Enforce zero pollution and zero emission. Data scope: Kaohsiung Plant</p>	<p><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <p>Short-, medium- &amp; long-term negative actual impact: Air pollution</p> <p><b>Impact Boundaries</b></p> <p>Community residents, environment and ecology affected by pollution</p> <p><b>Process to Remediate and Prevent Negative Impacts</b></p> <p>Negative impact remediation: Sponsor plantation and forestation for 5 hectares and began sponsoring air quality purification area on an annual bases in 2018 Preventive measures: Improve air pollution and environmental protection equipment and increase materials recycling to reduce air pollution.</p>	<p><b>2022 Goals</b></p> <ol style="list-style-type: none"> <li>1. Zero air pollution: Equipment/component VOC leakage &lt;0.5%</li> <li>2. Zero air pollution: Reduce the leaked emissions of VOCs</li> </ol> <p><b>2022 Achievements</b></p> <ol style="list-style-type: none"> <li>1. VOCs equipment component leakage: 0.036%</li> <li>2. Pump replacement project progress at 25% due to the pandemic.</li> <li>3. Completed the reduction of pipelines leaked emissions of VOCs.</li> </ol> <p><b>2023 Goals</b></p> <ol style="list-style-type: none"> <li>1. Equipment/component VOC leakage &lt;0.5%.</li> <li>2. Process pump replacement</li> <li>3. Add VA storage tank condensers to increase VA recovery by 40MT/year</li> </ol> <p><b>Medium- &amp; Long-Term Goals</b></p> <ol style="list-style-type: none"> <li>1. Implement VOCs reduction programs</li> <li>2. Reduction of equipment/component leakage.</li> <li>3. Reduction of pollutant emissions.</li> </ol>	<p><b>Effectiveness Assessment</b></p> <ol style="list-style-type: none"> <li>1. VOCs test report</li> <li>2. Emission data</li> </ol> <p><b>Grievance Mechanism</b></p> <ul style="list-style-type: none"> <li>• "Contact us" on the corporate website.</li> <li>• Stakeholder contact information</li> <li>• Stakeholder questionnaire</li> </ul>

## Management Approach Description

USI is located in Kaohsiung City within the Gaoping Total Volume Control Area and the level 3 control area of PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub>. Therefore, air quality improvement has always been our prime target. To fulfill our corporate social responsibility, we spare no effort in implementing environmental improvement, hoping to achieve the “zero pollution and zero emission” goals in the five zero’s policy and contribute to air quality improvement.

## Management Targets

We constantly promote pollution reduction, replace fuels with clean energy, and effectively collect exhaust to control equipment for proper treatment. We also cooperate with the total volume control and reduction of the Gaoping River to achieve the goals of zero pollution and zero emissions. As heavy VOC leakage was detected at the existing in-house VA transfer pump, ethylene unloading pump, and the EF-line xylene CIP pump in 2021, we scheduled the replacement of four pumps in 2022 to reduce VOC leakage, enhance transmission efficiency, and reduce energy consumption. However, as delivery was delayed in 2022 by the port congestion, pump replacement is expected to be completed in 2023.

## Management Approach

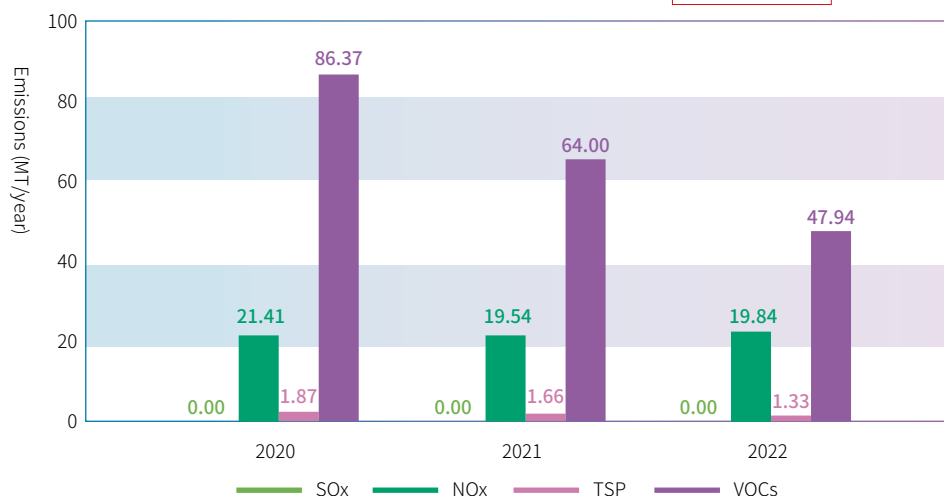
In addition to regularly testing and reporting air pollutants, we have planned the following reduction programs to effectively reduce air pollutants:

<b>VOCs Reduction</b>	<p>We implemented the equipment/component management plan. Besides establishing SOPs and creating master files for equipment/component management, outsourcing quarterly external inspection, and purchasing monitoring and measuring equipment and gauges and performing periodic instrument calibration, all plants also enhance equipment/component self-management, periodically review and follow up the inspection and service progress, run equipment maintenance and repair re-inspection, identify and improve equipment/component with a high leakage rate, reduce the quantity of equipment/component or replace with equipment/component with a lower leakage rate or leakage resistance, and enhance the inspection of equipment/component with a high leakage rate and more motions.</p> <ol style="list-style-type: none"> <li>1. In 2022, we continued to implement the management of the leaked emissions of VOCs for equipment/components. The in-house environmental protection section performed self-imposed equipment/component spot checks on 2,296 points and found leakage at one point. Improvement was completed immediately.</li> <li>2. Programs in 2022:                         <ol style="list-style-type: none"> <li>a. Replacement of the VAM transmission pump in Plant 1.</li> <li>b. Replace the ethylene unloading pump in Plant I</li> <li>c. To replace the EF-line xylene CIP pump, the progress is currently at 25%, and it is expected to be completed by 2023.</li> </ol> </li> </ol>
<b>Effective VOCs Treatment</b>	<p>The RTO treats high-intensity VOCs in-house. In 2022 we commissioned an outsourced inspection. The results showed that the content of non-methane hydrocarbons (NMHC) before and after treatment was 2,210 ppm and 56 ppm respectively, with a removal rate of 97.3%, better than the regulatory requirement of 95% or 150ppm. In 2022 we continued the equipment operation and maintenance training, management system establishment, and education and training.</p>
<b>Reduction of Pollutant Emissions</b>	<ol style="list-style-type: none"> <li>1. In 2021 we applied for cancellation of the emergency use of 540KL of fuel oil by the steam boiler to switch to clean energy--natural gas.</li> <li>2. In 2022 we purchased the new VA storage freezer to reduce the condenser temperature from -5°C to -18° C to increase VA recovery and reduce pollution.</li> </ol>
<b>Emergency Response to Air Quality Deterioration</b>	<p>In 2020-2022, we implemented the air quality deterioration response drill to enhance the response ability of employees and review the opportunity for improvement after the drill.</p> <p>We also joined the LINE group of the Environmental Protection Bureau to keep updated with the air quality condition in Kaohsiung City at any time and take counteractions immediately.</p>
<b>Managing hazardous air pollutants (HAPs)</b>	<p>In 2022 test of hazardous air pollutants (HAPs), the intensity of all other tested items was below 200ppb, except for xylene at 400ppb.</p>

## Management Performance GRI 305-7

Major air pollutants emitted by USI include sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), total suspended particulate (TSP), and volatile organic compounds (VOCs). Fuel burning of the steam boiler is the main source of SO<sub>x</sub>, NO<sub>x</sub> and TSP detected in the plant, while RTO, flares, storage tanks, and equipment components are the main sources of VOCs emissions. Over the years, we hired EAL-accredited environmental engineering companies to test USI pipeline emissions, and the emission test results have been consistently well below the EPA emission standards.

### Air Pollutant Emissions in Last 3 Years RT-CH-120a.1



Note: Air pollutant volume was reported based on the air pollution control fee.

### Testing Results of Boiler Discharge Pipes in the Last 3 Years

Pollutant	2020	2021	2022	Emission Standard (announced 2020)
SO <sub>x</sub> (ppm)	ND	ND	ND	50
NO <sub>x</sub> (ppm)	90	54	88.9	100

Note 1: The results of VOCs emissions of Kaohsiung Plant comply with the statutory requirements over the years, with a reduction rate over 95%.

Note 2: ND means not detected.

### Testing Results of the RTO Discharge Pipes in the Last 3 Years

Pollutant	2020	2021	2022	Emission Standard
SO <sub>x</sub> (ppm)	ND	ND	ND	100
NO <sub>x</sub> (ppm)	2	2	2	150
TSP (mg/NM <sup>3</sup> )	<1	-	2	100
VOCs (ppm)	52	52	56	Reduction rate>95% or <150ppm

Note: The results of VOCs emissions of Kaohsiung Plant comply with the statutory requirements over the years, with a reduction rate over 97%.\*The results of VOCs emissions of Kaohsiung Plant comply with the statutory requirements over the years, with a reduction rate over 97%.

# 4.4 Waste Management

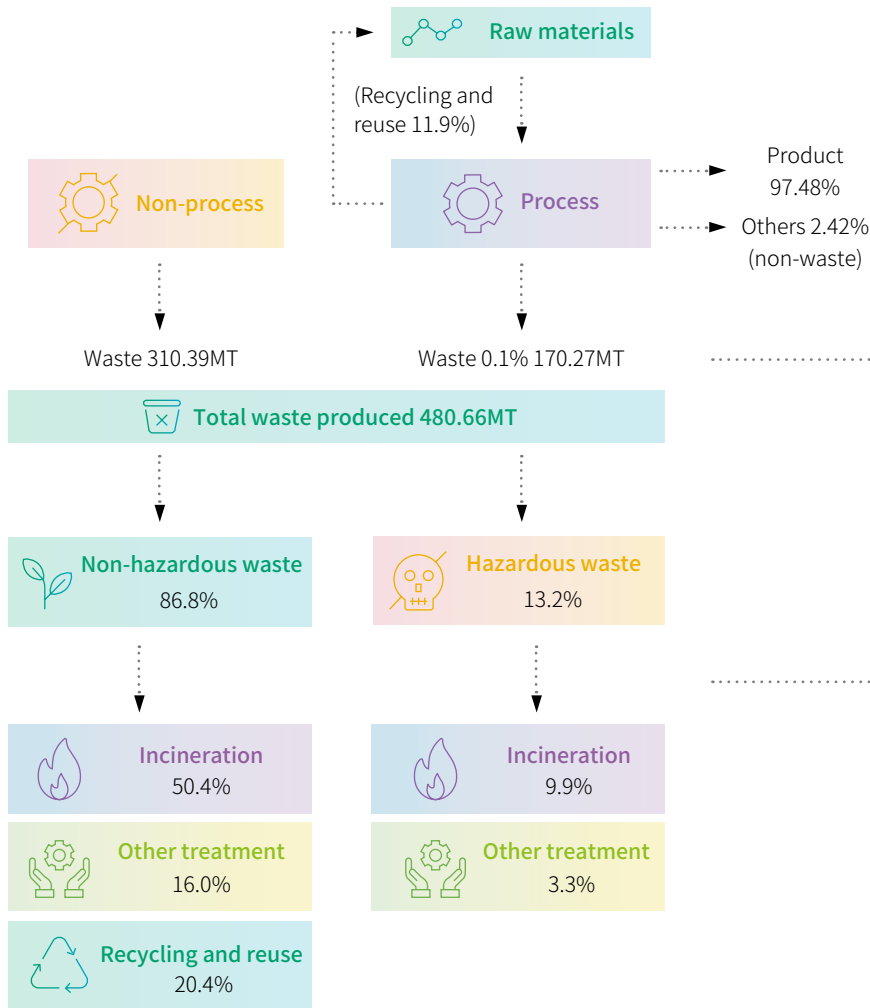
GRI 2-25, 3-3

SDG 11, 12

Sustainability Principle: Sustainable Development

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Continuous environment improvement to achieve “zero pollution and zero emission.”</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>1. Strengthen the waste management system 2. R&amp;D of waste reduction</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Enforce zero pollution and zero emission. Data scope: Kaohsiung Plant</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>• Medium-term positive actual impact: Resource recycling, waste reduction</li> <li>• Long-term negative actual impact: Improper waste treatment.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>Community residents, environment and ecology affected by pollution, waste disposal contractors</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Reduce at the source and source qualified waste disposal contractors</li> <li>2. Implement the waste audit and management systems</li> </ol>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <p>Establishing the waste audit and management systems.</p> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <p>Spot checks on 9 waste cleanup contractors and 7 waste disposal contractors, and no nonconformity was found</p> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Continue to implement the waste audit and management systems</li> <li>2. Implement waste recycling and reuse</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Strengthening the waste audit and management systems.</li> <li>2. Implementing waste reduction</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Waste reporting data.</li> <li>2. Targeted research reports.</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <ul style="list-style-type: none"> <li>• “Contact us” on the corporate website</li> <li>• Stakeholder contact information</li> <li>• Stakeholder questionnaire</li> </ul>

**Waste Management Process** GRI 306-1:2020



**Use of Output Waste/Resources**

- Waste collection and sorting management
- Periodic online report of waste output and storage.
- Monthly storage zone walk-through inspection to ensure legal compliance.
- Source management review to reduce waste production.
- Promotion of waste reduction programs

**Waste Transportation Management**

- Online report of the weight of waste disposed out of the plant.
- Real-time tracking system (GPS) of waste transportation
- Retention of tripartite order for outsourced common disposal, control, and delivery.
- Cleaning contractor audit and management

**Waste Disposal, Management and Recycling**

- Online report of the weight of received waste by contractors.
- Retention of proper disposal documents for reference.
- Contractor audit and management
- Consolidation of resource recycling records

**Management Approach Description**

For proper waste disposal, we hire licensed contractors to dispose of such waste according to laws and regulations related to waste disposal. Apart from reviewing the qualifications of contractors and requesting them to provide support documents for proper waste disposal on a regular basis, we perform onsite inspections on contractors to verify their waste disposal performance, in order to perform our supervision obligation.

**Management Approach**

We produce mostly general industrial waste and dispose of such waste by incineration, physical treatment and cleaning. In recent years, the QC lab has been constantly assessed and reviewed the methods for analyzing hazardous waste management to reduce solvent consumption and effectively reduce the output of hazardous industrial waste. In addition, after washing and processing by qualified contractors, waste plastic containers are crushed and sliced for recycling to achieve the circular economy of resources.

In 2022, we continued with the comprehensive review of waste legitimacy, compared and proofread the monthly report data to facilitate the accurate control of waste information. Additionally, industrial waste is sorted by the property of major composition before storing in the storage site, and the storage sites, containers, and facilities are properly labeled. We also built covered waste storage sites equipped with blocking ditches to prevent groundwater and water from runoff contaminations. In 2022, we audited waste storage sites every month, and all sites complied with the related regulations.

**Waste disposal contractor audit and management** GRI 306-2:2020

We only hire licensed waste disposal contractors to clean up and dispose of waste by law. In 2021, we performed spot checks on 9 waste cleanup contractors and 7 waste disposal contractors with the items stated in Annex 2 of the “Regulations Governing Determination of Reasonable Due Care Obligation of Enterprises Commissioning Waste Clearance” (amended on February 23, 2021) to understand the storage, removal, disposal, and recycling of waste of disposal contractors, and no nonconformity was found.

**Waste disposal contractors audit and management**



**1 Basic document review**

- Environmental Protection Contractor Permit
- ISO management system



**2 Waste storage/disposal**

- Degree of legal compliance
- Compliance with disposal methods and contracts/receipts



**3 Waste final disposal**

- Verification of final disposal methods and flow
- Compliance with final disposal methods and contracts/receipts



**Management effectiveness** GRI 306-3:2020, 306-4:2020, 306-5:2020 RT-CH-150a.1

We are also committed to waste sorting to categorize, collect, and manage recyclable resources. Apart from weighing and recording waste before shipping out of the plant, we hire licensed contractors to recycle waste metal. In 2022 we recovered 93.5MT of waste metal and hired nearby resource recycling contractors to dispose of the 4.7MT of paper waste. The total volume of waste recycling reduced by 26.8% over 2021 to 20.40% of all waste. The recycling rate in 2021 was higher mainly because of the increased metal recycling due to equipment replacement and the expansion of the R&D building. In 2022 the total waste production was 480.66MT. Additionally, no spill of oils, fuels, waste, or chemical substances was reported in 2022.

**Waste Production, Transfer, and Disposal in the Last 3 Years**

Waste		Disposal/Recycling	2020	2021	2022
<b>Hazardous waste</b>	Toxic Industrial Waste	Incineration (including nonrecyclable waste)	1.05	3.46	47.5
	Direct disposal	Other treatment	15.67	18.77	15.85
		Total weight of hazardous waste		16.72	22.23
<b>Non-hazardous waste</b>	General Industrial Waste	Incineration (including nonrecyclable waste)	201.22	269.40	248.95
		Other treatment	171.14	178.32	70.16
	Total weight of non-hazardous waste		372.36	447.72	319.11
	Recycling	Recycling for reuse	84.92	420.87	98.20
		Resource recycling rate (%)	17.9	47.2	20.40
Total weight of non-hazardous waste		457.28	868.59	389.27	
Total weight of waste (MT)		474.00	890.82	480.66	

Note 1: Data regarding the production, transfer, and disposal of waste were extracted from the Waste Report and Management Information System of the Environmental Protection Administration. Data of recycling were extracted from in-house records and accounting documents.

Note 2: Waste is transported by licensed cleanup contractors to the qualified disposal contractors for disposal. Waste for recycling was recycled for reuse outside of the plant.

**Waste reduction programs:**


**Reinforcement of awareness education**

Reinforce the awareness education of the need for waste sorting and labeling to increase waste recovery volume and reduce the disposal volume of general waste.


**Clean production**

Strengthen process management to minimize end-of-pipe treatment and reduce the output of sludge and other industrial waste.


**Hazardous Waste Reduction Management**

1. After washing and processing by qualified contractors, waste plastic containers are crushed and sliced for recycling.
2. In analysis method improvement, the QC lab skipped the extraction process in inhibitor analysis to stop using solvents. As a result, solvent consumption reduced significantly. In addition, solvents are recovered for reuse in washing to reduce the consumption of washing solvents. In the future, we will continue to assess and review the analysis methods to effectively promote the reduction of hazardous waste.

# 4.5 Climate Change and Energy Management

GRI 2-25, 3-3

SDG 7, 13

## Sustainability Principle: Sustainable Development

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Drawing up of related energy conservation and emissions reduction measures, enhancing climate change responsiveness, reducing GHG emissions, lower operating cost, raise process efficiency, and enhance competitiveness.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <p>Establish the energy management system, lower unit product energy consumption, reduce GHG emissions, and develop green power.</p> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Annual electricity conservation &gt;1%</p> <p>Data scope: Kaohsiung Plant, Guishan R&amp;D Division, Taipei HQ, coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <ul style="list-style-type: none"> <li>• Short-term positive actual impact: Invest in green power with profit gained from EVA solar energy products.</li> <li>• Short-term positive potential impact: Develop AI systems to lower energy consumption</li> <li>• Short- &amp; medium-term negative actual impact: 1. Increased electricity prices estimated at NT\$100 million/year 2. Disrupted production by power curtailment</li> <li>• Short-term negative potential impact: Increased costs due to carbon tax collection of about NT\$45 million at NT\$300/MT.</li> </ul> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>USI, global customers, green power suppliers</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Sponsor forestation of 5 hectares</li> <li>2. Implement various energy conservation and carbon reduction programs.</li> <li>3. Develop green power</li> </ol>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <p>Implement 10 energy conservation projects to reduce electricity by about 1.71%</p> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <p>Due to the pandemic and project delays, implemented 6 energy improvement projects to reduce power consumption by 1.31%/year (average of 2015-2022 was 1.37%).</p> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Saved electricity: 1.27%</li> <li>2. Reduce GHG emissions by 145,000tCO<sub>2</sub>e</li> <li>3. Implement three energy conservation and carbon reduction projects in 2023 to reduce emissions by about 838tCO<sub>2</sub>e.</li> <li>4. Implement ISO 14064-1 GHG emissions inventory and verification.</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Build the AI intelligent management platform to advise energy conservation operations.</li> <li>2. Continue to plan energy conservation to enhance energy efficiency, saving electricity by 1% /year.</li> <li>3. Plan and implement green power strategies within the group: Kaohsiung Plant will use green power (solar PV) of about 3.698GWh in 2025 by law.</li> <li>4. Fulfill the commitment of carbon reduction by 27% in 2030 over 2017 (base year).</li> <li>5. Continue to increase the use of renewables.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Unit product energy consumption.</li> <li>2. Energy conservation volume.</li> <li>3. Energy review and identification table (monthly).</li> <li>4. HSE/Energy Management Committee meeting (quarterly).</li> <li>5. GHG inventory.</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <ul style="list-style-type: none"> <li>• “Contact us” on the corporate website.</li> <li>• Stakeholder contact information</li> <li>• Stakeholder questionnaire</li> </ul>

\* Determined and target annual electricity conservation rate: Based on the energy conservation targets set for energy users and the regulations of the implementation plan, energy users are required to save electricity by over 1% each year on average during 2015-2024.



## Management Performance

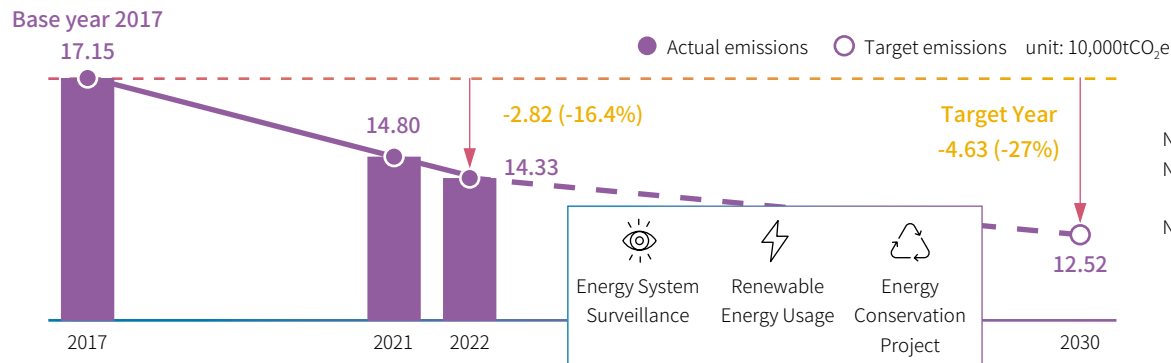
### 1 Climate Change: Addressing climate change brings the opportunities for sustainable development

#### TCFD climate change risk management

Climate change is a common challenge around the world. To keep up with the world and match the demand for sustainable development, Taiwan's legislature passed the Climate Change Response Act in October 10, 2023. Facing the impact of climate change, carbon reduction has become a global goal. To enhance carbon reduction, we set the 2030 carbon reduction target at "27% less than 2017 by 2030" in early 2022 to actively implement countermeasures and management mechanisms. Nine core businesses of the group will continue to implement ISO 14064-1 GHG inventory and verification and plan and implement carbon reduction programs. The group will also actively develop external renewables sites. By the end of 2022, the accumulative on-grid capacity of solar PV sites has reached 5.9MW.

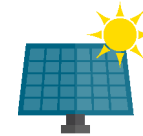
#### Carbon reduction pathway

We plan our carbon reduction pathway according to the group's 2030 carbon reduction target. Our 2022 GHG reduction already reached 16.4% over the base year (2017). The target is "27% less than base year by 2030". In the future, we will implement energy conservation and carbon reduction programs more actively, enhance energy efficiency, increase renewables use, and use low-carbon fuels to achieve the carbon reduction target and implement sustainable development.



#### USI 2030 Carbon Reduction Pathway Planning

As indirect GHG emissions from purchased electricity accounts for over 80% at USI, green power deployment is an important strategy:



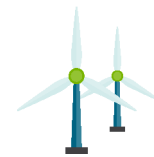
##### Solar PV

Installed capacity reached 5.9MW in 2022 and will increase to 20MW in 2027.



##### Geothermal

We have selected sites in Taitung, and terminal survey is in progress.



##### Offshore wind power

We have formed an alliance with other petrochemical companies to discuss electricity purchase with wind power developers.

Note 1: Achieved rate = 2022 target emissions/2022 actual emissions

Note 2: The carbon reduction contribution from purchased electricity (TPC) was not included in the carbon reduction pathway planning.

Note 3: As full plant operation started in 2017 after the completion of new production lines, we set 2017 the base year for energy consumption and total GHG emissions.

At USI, the ESG Committee is the highest governance body of climate change management. Chaired by independent director, the committee reviews the Company's climate change strategies and targets every year, manages the actions and reviews the performance in climate change risks and opportunities, and reports to the Board. Based on the framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD), we identify climate-related risks and opportunities, assess risks and opportunities from different departments, assess financial impacts and set responsive plans, plan overall assessment every three years, and review updates every year. The last assessment was completed in 2021.

### Climate change management framework

Type	Management strategy and action	
 Governance	<b>ESG Committee</b>	As the highest governance body of climate change management chaired by an independent director, it reports climate change planning, implementation and performance to the Board every year.
	<b>Operations Management Meeting</b>	Chaired by the Board chairman, it plans and implements material policies for energy conservation and carbon reduction and reports the results from time to time.
	<b>Division of Equipment Preventive Maintenance and Environmental Risk Control Quarterly Meeting</b>	As the highest governance body of the Group's energy management, it reports the planning and progress to the Group's chairman each quarter and makes decisions on energy management.
	<b>Group Green Power Team</b>	As the Group's responsible unit for green power promotion, it reports the status of and future plans for green power development to the chairman.
 Strategy	<b>Identification of risks and opportunities</b>	Identify material risks and opportunities based on their likelihood and impact.
	<b>Assessment of risks and opportunities</b>	Assess the potential financial impacts of identified material risks and opportunities.
	<b>Scenario analysis</b>	Set plans to achieve net zero emissions in different scenarios.
 Risk Management	<b>Implementation of TCFD-recommended framework</b>	Identify risks and opportunities based on the TCFD-recommended framework, communicate with all responsible units, and confirm by senior supervisor.
	<b>Report of identification results</b>	Include them in the annual risk assessment. The president reports the control measures and management performance to the Audit Committee and Board every year.
 Indicators and Targets	<b>Group carbon reduction target</b>	27% less than 2017 (base year) by 2030.
	<b>Climate change countermeasures</b>	Equipment replacement, construction of renewables facilities, optimization of production scheduling, planning building aircon, energy management system, extreme weather events contingency plans
	<b>GHG emissions disclosures</b>	Disclose the data of Scopes 1 and 2 emissions in the ESG report every year and review the causes for changes periodically.

\* Please refer to [2.3 Risk Management](#) for the details of the risk management process and mechanism.

## Identification of Climate Risks and Opportunities

The impact of climate change on USI's operations has been increasing. To carefully tackle potential risks and capture potential new business opportunities, we have spared no efforts in implementing programs to enhance energy conservation and carbon reduction, improving production efficiency, and replacing old equipment with high-efficiency equipment. During operations, we have identified 8 major risks and 10 major opportunities with the TCFD-recommended methods and assessed and differentiated the duration of impacts. In the future, we will review the counteractions every year and develop a resilient climate change culture.

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



Type	Short-term (<3 years)	Medium-term (3-5 years)	Long-term (>5 years)
<b>Physical risk</b>	<ul style="list-style-type: none"> <li>· Increased severity of extreme weather events</li> <li>· Changes in precipitation patterns and extreme variability in weather patterns</li> </ul>	—	<ul style="list-style-type: none"> <li>· Sea level rises</li> <li>· Average temperature rises</li> </ul>
<b>Transition risk</b>	<ul style="list-style-type: none"> <li>· Enhance GHG Emission Pricing</li> <li>· Raw material cost rises</li> <li>· Product Stigmatization</li> <li>· Enhance emission report obligation</li> </ul>	—	—
<b>Opportunity</b>	<ul style="list-style-type: none"> <li>· Reduce water use and water consumption</li> <li>· Participation in renewables projects and adoption of energy conservation measures</li> <li>· Alternative energy and energy diversification</li> <li>· Recycling and reuse</li> <li>· Use low-carbon energy</li> <li>· Use of incentivizing policies</li> </ul>	<ul style="list-style-type: none"> <li>· R&amp;D and innovation of new products and services.</li> <li>· Participation in carbon trade</li> </ul>	<ul style="list-style-type: none"> <li>· Consumer preference changes</li> <li>· Use of new technology</li> </ul>

Financial implications and other risks and opportunities due to climate change and countermeasures GRI 201-2

Type	Climate Related Risks	Time Range	Degree of Risk	Potential Financial Risk	Countermeasures	USI Specific Description
Transition	Enhance GHG Emission Pricing	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating costs</li> </ul>	<ol style="list-style-type: none"> <li>1. Implement the energy management system.</li> <li>2. Invest in green power, energy conservation, and carbon reduction equipment, and increase the expense of carbon fee.</li> </ol>	Own-brand manufacture (OBM) is our core business. The electricity cost accounts for 7.9% of the total production cost. <b>Apart from the annual electricity conservation target at 1%, we have also set the 2030 carbon reduction target to reduce GHG emissions.</b> The result of financial quantification in carbon control risk assessment shows that the carbon tax mechanism will be implemented in 2024 the earliest. If the amount of carbon tax is NT\$300/MT for direct (Scope 1) GHG emissions from operations and indirect (Scope) GHG emissions from purchased electricity, we will need to pay a carbon tax of nearly NT\$45 million by then. Electricity prices increase at about 17% a year on average to increase electricity bills by about NT\$100 million.
	Raw material cost rises	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating costs</li> </ul>	Accelerate AI production scheduling to enhance efficiency and reduce material losses from number plate change.	Ethylene is our major material. To increase ethylene sources, we invested in the Gulei Project (nearly NT\$8 billion) and the Ethylene Storage Tank Project of Kaohsiung Intercontinental Container Terminal Project (NT\$906 million). 2022 materials recycling rate at 13.1%, about NT\$1.45 billion.
	Product Stigmatization	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬇️ asset value</li> <li>⬇️ revenue</li> </ul>	<ol style="list-style-type: none"> <li>1. Accelerate transformation</li> <li>2. Invest in green energy equipment and use green products.</li> <li>3. Recycling and reuse of plastic materials.</li> </ol>	The High-Value R&D Center with an investment of NT\$170 million started operations in 2022 to accelerate R&D.
	Enhance emission report obligation	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ operating costs</li> </ul>	<ol style="list-style-type: none"> <li>1. ISO 14064-1 and promote Scope 3 (completed Cat. 4 and continue to increase others), ISO 14067 production carbon footprint verification.</li> <li>2. Enhance website and media disclosures.</li> </ol>	<ol style="list-style-type: none"> <li>1. The expenses on the guidance and verification of ISO 14064-1 for Kaohsiung Plant completed in 2022.</li> <li>2. As the ISO 14067 certificate is valid until 2024/03/02, Kaohsiung Plant did not need CFV in 2022.</li> </ol>
Physical	Extreme changes in rainfall pattern change and climate pattern	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating expense</li> </ul>	<ol style="list-style-type: none"> <li>1. Build an AI water information system to establish countermeasures based on the precipitation in reservoirs.</li> <li>2. Implement the ISO 46001 Water Efficiency Management System.</li> <li>3. Improve the wastewater reclamation system and enhance operational management to increase the capacity of water reclamation.</li> </ol>	<ol style="list-style-type: none"> <li>1. In case of water shortages, we need to purchase water from outside. In case of water scarcity, we need to reduce production line output or shut down operations. It is estimated that water purchase will increase production costs by over NT\$0.1 million/day. In case of production line shutdown, the loss will increase to about NT\$2.5 million/day. In case of operation suspension, the loss will be over NT\$10 million/day.</li> <li>2. Passed the certification of the ISO 46001 Water Efficiency Management System in 2022.</li> <li>3. The 2022 water recycling volume was 32,153MT. The volume is estimated to increase by 2% in 2023. Based on the price of NT\$12/m<sup>3</sup> of tap water, this will save up to NT\$385,836.</li> </ol>
	Increase in the severity of extreme weather events: typhoons and floods	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating expense</li> </ul>	Build flood control and drainage facilities.	To reduce the loss on operation suspension caused by floods, we progressively plan budgets of about NT\$14 million to build flood control and drainage facilities. Otherwise, the loss on operation suspension will be about 650MT/day.
	Sea level rises	Long-term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating expense</li> </ul>	<ol style="list-style-type: none"> <li>1. Raise the equipment foundation.</li> <li>2. Build flood control and drainage facilities.</li> </ol>	Countermeasures corresponding to the rainfall pattern change and extreme weather events such as typhoons and floods.
	Average temperature rises	Long-term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬆️ operating expense</li> </ul>	<ol style="list-style-type: none"> <li>1. Use eco-friendly sunshield coatings, reduce the fugitive emissions of VA gases, and reduce aircon uses.</li> <li>2. Modify cooling towers with inverter control. Enhance the heat insulation of pipelines and equipment.</li> </ol>	Countermeasures corresponding to the rainfall pattern change and extreme weather events such as typhoons and floods.

Type	Climate Related Opportunities	Time Range	Degree of Opportunity	Potential Financial Risk	Countermeasures	USI Specific Description
Resource Efficiency	Reduce water use and water consumption	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ capital expenditure</li> <li>⬇️ operating costs</li> </ul>	<ol style="list-style-type: none"> <li>1. Invest in wastewater reclamation equipment.</li> <li>2. Improve process equipment and operation to reduce steam use.</li> <li>3. Constantly develop water conservation programs.</li> </ol>	<ol style="list-style-type: none"> <li>1. In 2020 a total of NT\$1.6 million was invested in the reclamation of condensate from the process steam to reclaim up to 17,500MT of water. In 2022, process operation improvement reduced steam use to save water by 3,403MT/year.</li> <li>2. Constantly develop water conservation programs.</li> <li>3. If the water conservation fee is NT\$3/m<sup>3</sup>, water bills will increase by NT\$330,000/year.</li> </ol>
	Recycling and reuse	Short-Medium Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ revenue</li> <li>⬇️ operating costs</li> </ul>	<ol style="list-style-type: none"> <li>1. Wax recycling and reuse</li> <li>2. Materials recycling improvement</li> </ol>	<ol style="list-style-type: none"> <li>1. The cost of wax recycling equipment is NT\$776,574. The 2022 wax recycling volume was 17,650kg, with a profit of NT\$35,300, saving wax disposal fee by about NT\$1 million.</li> <li>2. Materials recycling: 13.1%.</li> </ol>
Energy source	Participation in carbon trade	Medium-Long Term	Medium-High	⬆️ operating costs	Constantly trace related laws and regulations and seek transaction opportunities.	Constantly trace related laws and regulations and seek transaction opportunities, and participate in related seminars from time to time.
	Use low-carbon energy	Short-Medium Term	Medium-High	⬆️ asset value	Engage in renewables programs within three years.	Constantly assess and seek appropriate programs to engage in renewables programs within three years.
	Use of new technology	Long-term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ asset value</li> <li>⬇️ operating costs</li> </ul>	<ol style="list-style-type: none"> <li>1. Constantly enhance process carbon efficiency.</li> <li>2. Engage in high-performance investments.</li> <li>3. Purchase Green Mark equipment</li> </ol>	In 2021, we activated the smart factory system to constantly keep track on equipment energy consumption.
	Use of incentivizing policies	Short-Medium Term	Medium-High	⬇️ capital expenditure	Coordinate with the Renewables Incentivization Regulations	Propose corresponding actions according to the Renewables Incentivization Regulations
Products and Services	R&D and innovation of new products and services.	Medium-Long Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ asset value</li> <li>⬆️ revenue</li> <li>⬆️ capital expenditure</li> </ul>	Cultivate new markets and engage in industrial transformation, and develop plastic-reduced and low-energy-consumption products.	Cultivate new markets and engage in industrial transformation, and the R&D center started operations in 2022.
	Consumer preference changes	Long-term	Low-Medium	⬆️ revenue	Develop CBC new materials	Develop CBC new materials in response to the pandemic.
Resilience	Participation in renewables projects and adoption of energy conservation measures	Medium-Long Term	Medium-High	<ul style="list-style-type: none"> <li>⬆️ asset value</li> <li>⬇️ operating costs</li> </ul>	Constantly participate in related activities.	Constantly participate in related activities, engage in local procurement, and implement green procurement.
	Alternative energy and energy diversification	Medium-Long Term	Medium-High	⬆️ asset value	Invest in green power.	Actively seek suitable sites for green power development. INOMA Corporation with an authorized capital of NT\$72.59 million is our wholly-owned investee. In 2022, we invested in solar generation of about 5.9MW.

We continue to invest in innovative materials and products to lower the impact of climate change. Please refer to [3.1 Technology R&D](#) for details.

## 2 Energy management

### Group Energy Management Targets

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

Every year USIG holds the "plant technology exchange meeting" and several "northern/Kaohsiung plants resource integration meetings" for plants to share resources and exchange technologies to improve performance in energy conservation and carbon reduction. In 2022 the "plant technology exchange meeting" was held in October. Case presentation with themes including "industrial safety and environmental protection", "equipment preventive maintenance", and "energy conservation and carbon reduction" were conducted through competitions. Through plan technology case submission and documentary review, a total of 7 cases entered the final. Senior USIG officers and plant representatives elected the three best cases. The USIG chairman presented the certificates and bonuses to winners. Through ratings and encouragement, sharing, and mutual learning, we aim to advance technology in the group.



USIG Plant Technology Exchange Meeting



### USIG Carbon Reduction Targets 2030 27% less than 2017 by 2030



#### Carbon Inventory/ Carbon Footprint

- TVCM, CGPC, and USI have been implementing carbon inventory and verification for years. In 2022 APC, TTC, CGPCP, and ACME will complete Carbon Inventory and Verification.
- Carbon Footprint (CFP) in 2021 USI implemented EVA CFP inventory. In 2022 CGPC and CGPCP implemented CFP on PVC resin powder, PVC films, PVC leather, and TPE. In 2023 TTC implemented VCM CFP.



#### Plant Energy Conservation and Carbon Reduction

- All USIG publicly offered companies in Taiwan already passed ISO 50001 EnMS certification.
- USIG plants in Taiwan continue to implement energy conservation and carbon reduction, and the 2020-2021 performance was 12,000tCO<sub>2</sub>e.
- Hold the USIG Plants Technology Exchange Meeting every year for mutual learning and resource sharing.



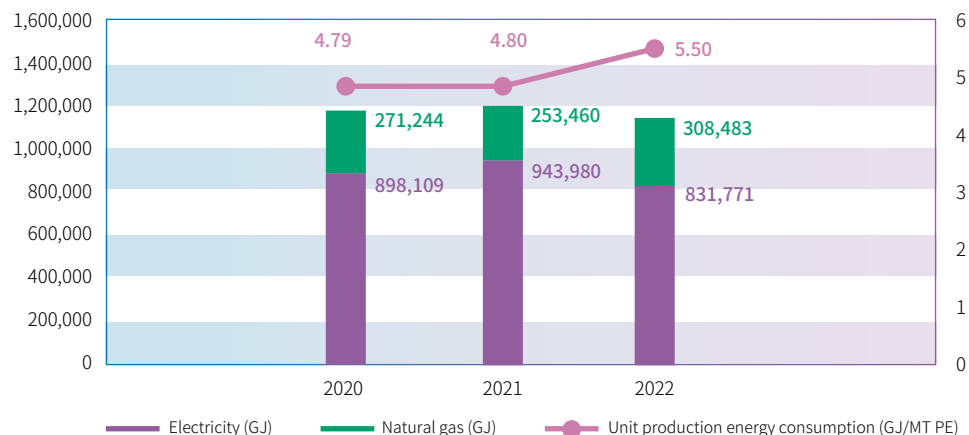
#### Creating Renewables

- Established the USIG Green Power Team to plan and implement green power strategies.
- By the end of 2022, USIG has invested in solar PV facilities up to 5.9MW. In 2022 CGPC bought back its' 1.4MW PV plant.
- Continue to actively implement other renewables

## Energy consumption GRI 302-3 RT-CH-130a.1

The production line shutdown due to the equipment failure in 2022 increased the unit energy consumption when there was no output.

### Energy Consumption and Unit Product Energy Consumption in the Past 3 Years



Note 1: As diesel consumption is far lower than that of electricity and natural gas, it cannot be shown in the chart. Please refer to the table below for details.

### Energy Consumption and Unit Product Energy Consumption in Last 3 Years GRI 302-1

Energy Type	Unit	2020	2021	2022
Electricity	GJ	898,109	943,980	831,771
Natural gas	GJ	271,244	253,460	308,483
Diesel	GJ	527	581	415
<b>Total consumption</b>	GJ	1,169,881	1,198,022	1,140,670
<b>Production</b>	MT	244,162	249,402	207,413
<b>Unit product energy consumption</b>	GJ/MT	4.79	4.80	5.50

Note1: Referring to the Energy Heating Value Per Unit Product Table announced by the Bureau of Energy, Ministry of Economic Affairs, the conversion factor of energy consumption of electricity, LNG, and diesel is as follows: 860 kcal/kWh, 9,000kcal/m<sup>3</sup>, and 8,400 kcal/L; where 1 cal = 4.187 kJ.

Note2: Sources of natural gas and electricity consumption: fuel bill statistics.

Note3: Source of diesel consumption: Material collection forms.

Note4: Only non-renewables is used.

Note5: Energy data coverage rate = 100%.

Note6: Natural gas calculation: Changed from the boiler consumption into the total of boiler consumption and prevention equipment consumption.

Note7: Kaohsiung Plant followed the carbon reduction pathway to achieve USIG's 2030 carbon reduction commitment. The 2020 and 2021 energy consumption data was corrected to the energy consumption data of all plants (Plants I, II, and CBC).

### Electricity Conservation Rate in the Past 3 Years

Item	2020	2021	2022
Electricity Saved (kWh)	4,230,976	1,972,419	3,065,102
Electricity Conservation (%)	1.67	0.75	1.31

Note 1: Based on the 2022 Report on the Annual Energy Saving Audit System of Energy Users of the Bureau of Energy.

Note 2: Subject to the energy audit equation of the Bureau of Energy, reported energy saved divided by the total electricity consumption.

The 2022 target and performance of electricity conservation and the planned 2023 target are tabulated below:

Item	2022		2023
	Targets	Performance	Targets
Electricity Conservation (%)	1.71	1.31	1.27

### Factory smart energy management system

After applying to the IDB for the Factory Smart Energy Management Demonstration Guidance Program in 2020, we engaged in active construction. With the assistance of IDB and Taiwan Green Productivity Foundation (TGPF), we progressively achieved the KPIs of energy management system.

- ✓ Establish energy performance indicators and baseline requirements.
- ✓ Develop the data collection and analysis and control and management capabilities of plant personnel.
- ✓ Practice the application of smart production and management.
- ✓ Provision of decision-making references of corrective action for management.
- ✓ Reduction of management workforces and costs.
- ✓ Discovery of room for improvement of energy conservation and references for improvement of energy performance supervision.

In March 2021, we were selected as a demonstration plant for the smart energy management system. In 2022, we were published by the IDB in the media for implementing the ISO 50001-transformed low-carbon smart factory. We follow up 93 KPIs and progressively propose improvement programs.



### GHG management GRI 302-2, 303-2, 305-1, 305-2, 305-3

Based on the ISO 14064-1:2018 GHG inventory standard and the GHG Emissions Inventory and Registration Guidelines of EPA, we performed GHG inventory, consolidation, and system establishment with the assistance of external experts. We set organizational boundary for GHG inventory based on the “operational control method.” The organization has 100% of GHG emissions from facilities under its operational control. GHGs under inventory include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, and NF<sub>3</sub>. The emission coefficients are cited from EPA’s GHG Emission Coefficient Management Table V.6.0.4, and the global warming potential (GWP) is reported based on IPCC’s AR5 (2013).

In 2022, Kaohsiung Plant’s direct (Scope 1) GHG emissions were 25,480tCO<sub>2</sub>e/year, the energy indirect (Scope 2) GHG emissions were 117,580tCO<sub>2</sub>e/year, other indirect (Scopes 3-Cat 4) GHG emissions were 130tCO<sub>2</sub>e, and the combined direct and indirect GHG emissions were 143,180tCO<sub>2</sub>e/year (rounding error).

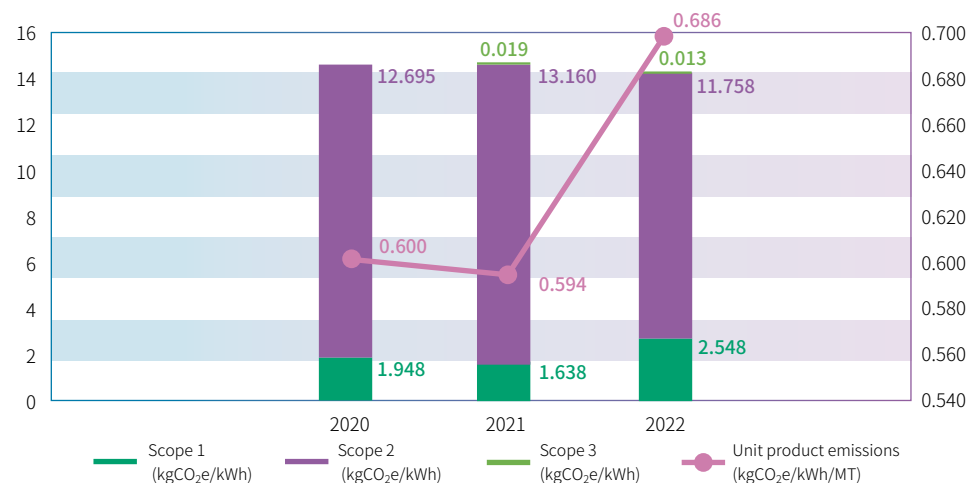
Guishan R&D Division’s direct (Scope 1) GHG emissions and energy indirect (Scope 2) GHG emissions were 10tCO<sub>2</sub>e and 90tCO<sub>2</sub>e respectively. The combined direct and indirect GHG emissions were 100tCO<sub>2</sub>e.

Taipei HQ’s direct (Scope 1) GHG emissions and energy indirect (Scope 2) GHG emissions were 0tCO<sub>2</sub>e and 120tCO<sub>2</sub>e respectively. The combined direct and indirect GHG emissions were 120tCO<sub>2</sub>e.

We will continue to implement energy conservation and carbon reduction measures to progressively plan and implement the inventory of other indirect (Scope 3) GHG emissions to effectively review the environmental impact of CO<sub>2</sub> so as to achieve the win-win scenario of environmental protection and profit together. Currently, we have added to the 2023 inventory the carbon emissions from the commuting and business travel by employees (Cat. 3 as referred to in ISO 14064) in Scope 3.



### GHG Emissions in the Past 3 Years GRI 305-4 RT-CH-110a.1



Note 1: Scope 1 refers to the direct emissions from stationary combustion sources, direct emissions from mobile combustion sources, direct process emissions from industrial manufacturing processes, and direct leaked emissions from GHGs generated by artificial systems.

Note 2: Scope 2 refers to the indirect emissions of purchased electricity.

Note 3: Scope 3 refers to other indirect emissions. During 2021-2022, we inventoried category 4: indirect emissions from the disposal of solid and liquid waste.

Note 4: The latest carbon emission factor of electricity announced by Bureau of Energy was apply: 2020 at 0.502kgCO<sub>2</sub>e//kWh, 2021-2022 at 0.509kgCO<sub>2</sub>e/kWh.

Note 5: Diesel containing no biofuel was used in 2021. The combustion emission of biofuel was 0 kgCO<sub>2</sub>e/kWh.

Note 6: Verification according to the ISO 14064-1:2018 standard by SGS Taiwan Limited.

### Energy conservation and carbon emissions targets and performance GRI 302-4

The energy conservation and carbon reduction programs in 2022 and their performance are tabulated below. **A total of 6 programs with a total investment of NT\$25.176 million were implemented to reduce carbon by 2,138tCO<sub>2</sub>e.** GRI 305-5

Item	Type	Program	Energy Saved kWh/Year	Carbon Reduced tCO <sub>2</sub> e/year
1	Electricity Saving	W-238 refrigerator replacement	1,152,620	586.7
2	Electricity Saving	J-290A/C cooling water pump replacement	1,576,913	802.6
3	Electricity Saving	Inlet pressure reduction of primary compressors in Plant I	385,393	196.2
4	Electricity Saving	Suspension of the MULTI CYCLONE FEEDER	11,412	5.8
5	Electricity Saving	Reactor pressure reduction of Plant I	178,503	90.9
6	Natural gas	Reduction of MRT steam consumption	219,110 m <sup>3</sup>	455.3
			Total	2,138

Note 1: Carbon emission factor of electricity as 0.509kgCO<sub>2</sub>e/kWh.

Note 2: Based on the 2022 Report on the Annual Energy Saving Audit System of Energy Users of the Bureau of Energy.

Note 3: Electricity conservation of items 1 and 2 was calculated based on the design value/measured value and operating duration of equipment before and after replacement.

Note 4: Electricity conservation of item 3 was calculated based on the operating current and operating duration of the inlet pressure of primary compressors before and after adjustment.

Note 5: Electricity conservation of item 4 was calculated based on the equipment specifications.

Note 6: Electricity conservation of item 5 was calculated based on the electricity consumption and operating duration of the reactor pressure before and after adjustment.

Note 7: Energy conservation of item 6 was calculated based on the actual steam consumption.

The energy conservation programs we have declared to the Bureau of Energy in 2023 include freezer and cooling water pump replacement, inlet pressure reduction of compressors, and operating pressure reduction of compressors. A total of 3,362,422kWh of electricity is projected to conserve in 2023, with a conservation rate of 1.27%.

2023 Principal Energy Conservation and Carbon Reduction Program	2023 Target Reduction
Reduction of reactor pressure and secondary compressor load (B line UE2828)	838 tCO <sub>2</sub> e/year
Optimization of operation for J-214B-1/2/3	
Plant II nitrogen compressor replacement	

## Energy conservation and carbon reduction plan



### Forestation Adoption Program

In response to energy conservation, carbon reduction, and environmental protection, we promoted the Forestation Adoption Program in collaboration with the Experimental Forest, College of Bio-Resources and Agriculture, National Taiwan University to grow more trees with the technical assistance of professional teams. Additionally, the program allows the public to understand the benefits of growing trees for CO<sub>2</sub> adsorption by soil and water and its importance to environmental protection.

In December 2021 we signed the agreement to donate NT\$9 million for forestation through adopting 7,500 trees occupying an area of about 5 hectares for a term of 20 years, with a total carbon fixation capacity of 1,350tCO<sub>2</sub>e, equivalent to the capacity of about 3.5 Daan Parks. (According to the Council of Agriculture, the per hectare carbon adsorption of forests is 15tCO<sub>2</sub>e/year. The area of Daan Park is 25.8 hectares, i.e., its annual carbon adsorption capacity is about 387tCO<sub>2</sub>e.)



### Supported “Earth Hour”, a global energy conservation activity.

We began supporting this event in 2018. During 20:30-21:30 on March 26, 2022, we joined the “Earth Hour” activity with the world by turning off the landscaping lights of the plant’s exterior walls and unnecessary lighting fixtures so as to advocate the idea that everyone, regardless of age and socioeconomic status, has the ability and responsibility to protect Earth in climate change.

We supported the government’s energy conservation and carbon reduction policies and activities in real action. Besides reducing energy use and lowering the cost, we also hope to encourage the public and businesses to value energy conservation and carbon reduction by setting an example through participating in Earth Hour.

During the activity, we turned off a total of 98 skyline lamps and 1 signboard lamp to save about 1.18kWh of electricity and reduce carbon of about 0.6kg CO<sub>2</sub>e.

## Product carbon footprint

We promoted product carbon footprint verification (CFV) in 2021 and obtained the assurance certificate in March 2022. Based on the data of lifecycle assessment, the GHG emissions from direct and indirect activities or accumulated in the product is considered according to the product lifecycle from materials acquisition or natural resource production to disposal at the end of life is considered. Verification for conformity to the ISO 14067:2018 product carbon footprint standard was completed on EVA, the target product, according to ISO 14064-3:2006. The declared/functional unit is per kilogram (including package).

### Lifecycle GHG Emissions

Lifecycle Stage	Declared Unit of Emissions of Target Verification Product (kgCO <sub>2</sub> e)			Functional Unit Emissions (kgCO <sub>2</sub> e)
	Materials	Manufacturing	Total	
EVA®UE2828	2.270	0.689	2.96	2.96
EVA®UE649-04	2.128	0.689	2.82	2.82
EVA®UE659	2.223	0.689	2.91	2.91



## 4.6 Raw Materials Management

Our main products are: LDPE, EVA, HDPE, and LLDPE. Major raw materials include ethylene, VAM, and butene. Major secondary materials include Iso-Paraffin Solvent, propylene, n-Hexane, and isopentane. Raw materials are only used by Kaohsiung Plant, with a coverage rate of 100%.

In the product manufacturing process, we are committed to enhance the recovery efficiency of raw materials, hoping to reduce raw materials consumption. Recovery methods included the improvement of the high-pressure recovery system, monomer refine tower (MRT), connection of new and existing tanks, installation of the condenser at the frontend of the ethylene purification tower (EPT), addition of the compressor leak gas recovery system, and others at Plant II. As a result, the recovery rate of raw materials in 2022 was 13.1%.



# Chapter 5

## Health, Safety and Social Inclusion



### Material topics in this chapter

1. OH&S
2. Talent attraction and retention

### Performance Highlights

- ✓ Rated Operation Excellence in the joint underground pipeline joint defense
- ✓ Annual employee health checkup: **94.3%** coverage
- ✓ A total of **2,725** hours of PSM training for **746** persons
- ✓ Awarded the certificate of Taiwan i-Sports by the Sports Administration
- ✓ Turnover (excluding retirement) rate: **4.8%**
- ✓ Education/training: **23.8** hours/person



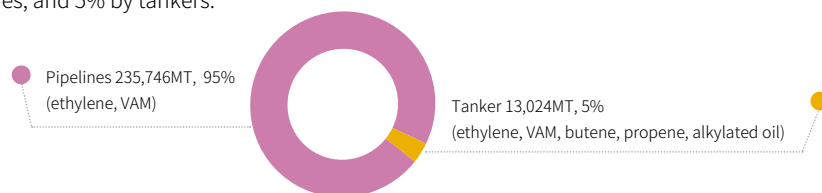
## 5.1 Transportation Safety Management

### Management of raw materials and product transportation <https://www.usife.com/ESG/zh-tw/ESG46.aspx>

Transportation Methods

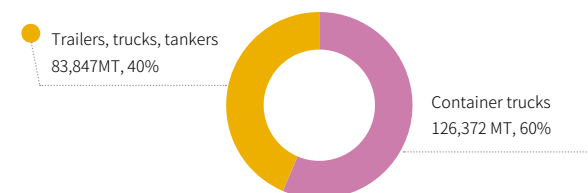
#### 2022 Raw Material Transportation Methods (MT)

95% of raw materials required by the Kaohsiung Plant are transported via underground pipelines, and 5% by tankers.



#### 2022 Product Transportation Methods (MT)

All USI products are transported with trailers, trucks, tankers, and container trucks through contractors.



Implementation Plan and Effectiveness

- ✓ No transportation-related accident was reported in the last decade
- ✓ To ensure pipeline integrity, we maintain the safety management of underground pipelines through operation, maintenance, test, inspection, and emergency response with reference to the international underground pipeline regulations and in compliance with the legal and regulatory requirements of the Kaohsiung City Economic Development Bureau. Additionally, we have passed the third-party (DNV) verification for compliance with the standard B31.8S Managing System Integrity of Gas Pipelines of the American Society of Mechanical Engineers and the review of the Kaohsiung City Economic Development Bureau.
- ✓ Double protection including corrosion zone and impressed current cathodic protection (ICCP) is implemented for all underground pipelines. In 2022 every quarter, we completed 192 cathodic corrosion tests and 36 cathodic corrosion rectifier checks to ensure the anti-corrosion system is working without worries.
- ✓ To prevent pipeline damage caused by third-party excavation and construction errors, we commission CKS Guard to perform daily pipeline tour inspection. We collaborate with the Pipeline Excavation Management Center formed by the Kaohsiung City Public Works Bureau to prevent pipeline damage caused by third-party excavation. In 2022 we prevented a total 40 instances of pipeline damage caused by third-party excavation.
- ✓ In 2022, we organized one underground pipeline scenario drill with other manufacturers and the simulated accident alert drill of the Economic Development Bureau to reduce the damage caused by natural disasters or accidents through emergency response drills.
- ✓ In 2022 we were leader of the pipeline joint defense organization and rated excellence in pipeline joint defense operation by the Industrial Development Bureau, MOEA.
- ✓ All tankers are qualified tankers for transporting chemical substances; each contractor has good emergency response ability, and well-established emergency response plans. Transportation is implemented according to the relevant control regulations and management measures.

- ✓ Government-licensed transporters that have passed ISO 9001 certification and equipped with trained, qualified health and safety management personnel.
- ✓ Semi-annual evaluation of performance, efficiency, cooperation and quality and proposals for improvement programs based on customer feedback at the transportation review meeting.
- ✓ Regular vehicle examinations according to the relevant regulations. Holding safety meetings quarterly to ensure that contractors can safely transport products to the destination to minimize environmental impacts caused by transportation.
- ✓ During 2020-2022, we continuously implemented transportation safety and quality evaluation. Besides reviewing the results of agreed improvements from last year, we verified the degree of legal compliance of onsite operations and equipment condition in order to capture and manage the transportation safety of contractors. The result of the 2022 transportation safety and quality evaluation of contractors was grade A.

## In-House Product Loading Safety Management

### Management Approach Description

All products from Kaohsiung Plant are transported by Deyuan Transport Ltd. Apart from shipping products with trucks every day, the transporter designates resident loading personnel at Kaohsiung Plant. In addition to requiring them to comply with Kaohsiung Plant's access control and HSE regulations, we have established related controls to supervise their work alongside onsite and industrial safety OH&S personnel. We also constantly request them to enhance product loading safety to strictly control personnel operation safety.

### Management Approach

In response to the massive use of forklifts for loading and stacking finished products at the warehouse in routine work, we identified the forklift operation hazards during product loading during 2021-2022. We also implemented the AI industrial safety image-recognition system with partners to perform workplace verification with AI intelligent image-recognition technology and effectively detect if workers use related personal protective equipment (PPE) properly through the image captured by the real-time recognition system in order to comply with the in-house PPE regulations, enhance the strength of in-house industrial safety walk-through inspection, improve contractor operation management, and reduce the risk of industrial safety accidents.

During 2021-2022, we continued to implement the transportation safety and quality evaluation of products in terms of the following eight items: corporate condition, driver record, safety policy and communication, SOPs and instructions, safety equipment, driver evaluation, vehicle condition control, and transportation quality. Additionally, to enhance the control of recommended improvements after the evaluation, we determine the audit frequency based on the evaluation score and notify transporters to make early improvements of the audited problems.

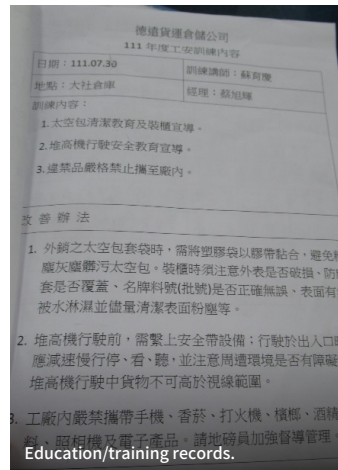
GRI 403-7:2018

### Management Performance

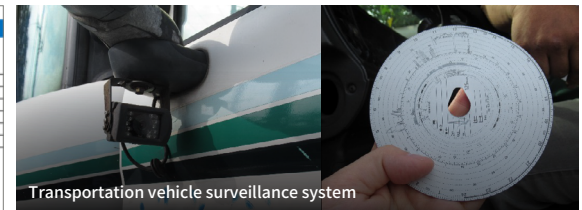
In 2022 we continuously promoted the warehouse forklift operation safety protection recognition (AI system). Apart from the safety check of finished product warehouse personnel and continuing system correction and updating, the system can alert area supervisors and suppliers to correct and review the identified defects to enhance the awareness of operation safety together. Additionally, we also shared this project in AI and shared its achievements at technology demonstration meetings for other USIG plants to understand the effectiveness and practical application of recognition.



In the 2022 transportation safety and quality evaluation, apart from re-auditing the improvement of recommended items of Deyuan's documented SOPs, records, and announcements in the previous year and verifying its achievements in safety management optimization, we also conducted on-site spot checks on its field operation, vehicle condition, and related PPE. The integrated score was grade A. We also informed Deyuan of the evaluation results for reference for future improvement of overall operation safety.



評鑑結果總表		
基本資料		
承攬公司: 德遠貨運股份有限公司		
地址: 高雄中華路與新豐一路43號		
聯絡人: 呂文輝-陳淑慧		
稽核日期: 2022年11月29日		
稽核人員: 台安公司高維庭(工安室-陳志明)工程師 台安公司高維庭(工安室-黃怡萍)工程師		
評鑑概要: 1. 稽核時務必針對評鑑事項實施查核並電子檔留底。 2. 部分評鑑事項建議本廠未實施或紀錄, 建議後續改善。 3. 緊急應變處理及消防設施的檢查與改善紀錄。 4. 備有評鑑紀錄與改善紀錄, 應妥善保存為永久紀錄。 5. 作業現場應為安全通暢無障礙, 相關表單應建立及紀錄確實。 6. 每次評鑑內容應加附件照片。 7. 稽核結果應通知分公司, 列成改善單。		
第次	滿分	得分
1 公司狀況	9	8
2 車輛管理	7	7
3 安全政策與溝通	15	13
4 工作程序與指示	8	8
5 安全設備	18	12
6 稽核紀錄、管理與改善計劃	22	18
7 車輛裝設、管理與維修紀錄	18	15
8 運輸品質管理與維護	7	7
總分	100	88
Evaluation results		



## 5.2 Occupational Health and Safety GRI 2-25, 3-3 SDG 3, 8

### Sustainability Principle: Sustainable Development

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p><b>Significance to USI</b></p> <p>Take care of employee health. Prevent industrial accidents. Enhance employee OH&amp;S protection. Develop the emergency response capacity and self-imposed safety management of employees.</p> <p><b>Strategy</b></p> <ol style="list-style-type: none"> <li>1. Enhance personnel training and occupational safety awareness.</li> <li>2. Strengthen work environment safety management</li> </ol> <p><b>Commitment</b></p> <p>Create a safe workplace environment and reduce industrial safety accidents. Data scope: Kaohsiung Plant, contractors, and transportation contractors</p>	<p><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <p>Medium-term positive actual impact: Build a friendly workplace to lower the turnover rate and reduce occupational accidents. Short-, medium- &amp; long-term negative actual impact: Industrial safety accidents</p> <p><b>Impact Boundaries</b></p> <p>USI employees and contractors</p> <p><b>Process to Remediate and Prevent Negative Impacts</b></p> <p>Enhance industrial safety in-process inspection and environment improvement and play industrial safety films at the weekly plant affairs meeting to enhance industrial safety awareness.</p>	<p><b>2022 Goals</b></p> <ol style="list-style-type: none"> <li>1. Incident Rate = 0</li> <li>2. Frequency-Severity Indicator (FSI) =0</li> <li>3. Monitored Nonconformities =0</li> <li>4. Shutdowns caused by key equipment =0</li> </ol> <p><b>2022 Achievements</b></p> <ol style="list-style-type: none"> <li>1. Incident rate = 0, equipment improvement and renewal, inspection and maintenance enhancement, periodic walk-through inspection, education and training, and OH&amp;S management.</li> <li>2. Frequency-Severity Indicator (FSI)=0. Rust removal, supplementary welding, screw replacement, and paint maintenance of equipment and pipelines according to the work instructions</li> <li>3. Monitoring indicator excess=0. Completed onsite monitoring on Type 2 organic solvents, specific chemical substances, noise, and CO<sub>2</sub>. The effectiveness of new QC fume hoods was also inspected. No nonconformity is found.</li> <li>4. Downtime caused by key equipment=4, machinery maintenance by the engineering department = 5,025 units.</li> <li>5. Implemented 17 projects, including 3 underground pipeline operations and maintenance projects.</li> </ol> <p><b>2023 Goals</b></p> <ol style="list-style-type: none"> <li>1. Incident Rate = 0</li> <li>2. Frequency-Severity Indicator (FSI) =0</li> <li>3. Monitored Nonconformities =0</li> <li>4. Shutdowns caused by key equipment =0</li> </ol> <p><b>Medium- &amp; Long-Term Goals</b></p> <ol style="list-style-type: none"> <li>1. Comprehensive industrial safety check.</li> <li>2. Reduction of disabling injury.</li> <li>3. PSM system promotion.</li> </ol>	<p><b>Effectiveness Assessment</b></p> <ol style="list-style-type: none"> <li>1. Employee health checkup</li> <li>2. Reduction of injury of disability and work-related accidents</li> <li>3. Contents and statistics of work-related accidents</li> </ol> <p><b>Grievance Mechanism</b></p> <p>Labor-Management Meeting Union Board Meeting Occupational Safety and Health Committee</p>

In 2001 we began to constantly implement the OH&S management system across the plant and promote system certification. We also set it as part of the company’s sustainable development strategy to maintain workplace environment safety and employee health. In 2020, we completed the certificate renewal certification and acquired the certificate for ISO 45001:2018. GRI 403-1:2018

In 2022, 1,796 personnel were covered by the OH&S management systems, including all USI employees and contractors. All operations were planned and implemented according to the OH&SMS, including hazard identification, risk assessment, audit, and accident investigation.

**Workers covered by OH&SMS in 2022** GRI 2-8, 403-8

Type	Numbers of person	Proportion
<b>USI Employees</b>	453	25%
<b>Contractor Personnel</b>	1,342	75%

\* Contractor personnel include 32 contractor resident personnel (Deyuan Transport) and 1,310 personnel of qualified contractors in 2022.

Please visit the website for the system details:  
<https://www.usife.com/ESG/zh-tw/ESG43.aspx>





## OH&S Goals and Management Program 2022

Policy	Goals	Program	Effectiveness
Zero accident	Incident Rate =0	Steam inlet inspection for reducing hazards from steam sleeve breakage and leakage caused by corrosion and prevent pipeline corrosion hazards.	Completed steam inlet inspection at 66 points in 2022, and no corrosion was noted.
		Replacement of the recycle train cooler to prevent broken or leaking cooler from causing hazards.	Replacement status a. Shut down 2021/04/22 D-line for replacing the D-1 train cooler. b. Shut down 2022/03/16 EF-line for replacing the F-2 train cooler. c. Shut down 2022/03/16 B-line for replacing the B-1 & B-2 train coolers. Project status: 100 %
		Replacement of the recycle train cooler is necessary to prevent hazards caused by pipeline leaks during operation.	Replacement status a. Already notified the works section of the scope of onsite pipeline replacement. b. D and EF-line derime pipelines were replaced in 2022/01. Project status: 100 %
		Replacement of the corroded M/P outlet pipelines of D-line.	Replacement status a. Already clarified the scope of pipeline replacement: Between the M/P outlet pipeline and the main pipeline. b. Replacement was completed and service started on 2022/01/06. Project status: 100 %
		Installation of the explosion- and sound-proof glass in the operation room of C/D/EF-lines to reduce noise and protect safety.	Replacement status a. Completed onsite survey and outsourcing. b. Completed construction of the compression and processing rooms. Project status: 100 %
		D-line reactor standby plan to prevent impact on production due to sleeve breakage and leakage during startup and shutdown.	Replacement status a. The inspection section already verified leakage (cannot be fixed) at three welding spots on the bottom expansion ring on 2020/01/14. b. This project has been suspended. Project status: 55%. (This project has be suspended.)
		Addition of the standby M/P to enhance the UE4055 QC capacity; addition of one modifier pump J-220L to C-line.	Replacement status a. Modifier pump was already delivered. b. The pipeline tie-in project was completed. c. Completed the test of the R/T thermoplastic pump pipeline vibration improvement project. Project status: 100 % (Completed in Q2)
		Underground pipeline inspection and maintenance	Status: Completed visual inspection and thickness check of the overground pipeline sections in July and November 2022. Project status: 100 %
Pipeline patrol education and training plan.	Status: Arranged 12 hours of education and training for tour inspections in 2022, to be 100% completed by the end of December. Project status: 100 %		

Policy	Goals	Program	Effectiveness
Zero accident	Incident Rate =0	Underground pipeline routine patrol plan.	Replacement status a. Hired CKS Guard to implement routine tour inspection for this quarter. By the end of November, 91.6% was completed, and 100% completion by the end of December. b. Completed the fifth time of self-imposed tour inspection. c. The 6 <sup>th</sup> tour inspection was expected to be completed by the end of December. Project status: 100 %
		Production of the D-9706 foam pipeline support	Replacement status a. Operators verified the pipeline location. The works order was issued for the repair and maintenance unit to implement. Works Order No.: 2201766. b. Staff of the repair and maintenance unit already completed onsite survey, and construction will start after materials preparation. (completed on 3/25). Project status: 100 %
Zero occupational accidents	Frequency-Severity Indicator (FSI) =0	Replacement to the B-301A fume stack to enhance boiler operation safety.	Replacement status a. Fume stack demolition was completed. b. Foundation construction was completed. c. New fume stack installation was completed. d. B-301A boiler fume stack trial discharge was completed. Project status: 100 %
		Addition of the silo Y-6015 operating platform to enhance the operation safety of staff.	Replacement status a. Implementation by operation personnel in accordance with the work instructions. b. February shutdown was completed. Project status: 100 %
		Addition of the burn prevention net to the purification zone E-1110 (prevent personnel from burn and keep warmth against corrosion)	Replacement status a. Implementation by operation personnel in accordance with the work instructions. . b. May shutdown was completed. Project status: 100 %
		Demolition of the EDC pipelines and foundations in the catalyst zone (enhance operation safety for employees)	Replacement status a. Implementation by operation personnel in accordance with the work instructions. b. May shutdown was completed. Project status: 100 %
		Raw material unloading platform improvement of the precursor cylinder (enhance raw material loading/unloading safety)	Replacement status a. Implementation by operation personnel in accordance with the work instructions. b. February shutdown was completed. Project status: 100 %
		Road surface repair project of the CBC waste storage zone	Replacement status a. The damage block already verified, the works order was issued for the repair and maintenance unit to outsource the project. b. The repair project was completed. Project status: 100 %
Zero Failure	Shutdowns caused by key equipment =0	Shutdowns caused by key equipment = 0 (machinery and instrumentation)	Downtime caused by key equipment = 4, machinery maintenance by the engineering department = 5,025 units

Note 1: Incident Rate (IR) = Number of incidents x 200,000/total hours worked

 Note 2: Frequency-Severity Indicator (FSI) =  $\sqrt{[(FR \times SR)/1000]}$

## OH&S Organization and Operation GRI 403-4:2018

USI establishes the OH&S Committee with respect to the “Regulations for Occupational Health and Safety Management” to establish OH&S policies, make recommendations for OH&S management, and review, coordinate, and advise OH&S affairs.

Members of the OH&S Committee include the committee chair (the plant general manager), executive secretary (deputy chief of the industrial safety office), committee members (department chiefs/unit chiefs/industrial safety staff/labor representatives). Labor representatives are elected by employees. Currently, there are 9 labor representatives (35%) and 17 management representatives, totaling 26 members. The committee holds a committee meeting every quarter. Labor representatives voice for all employees and discuss, coordinate, plan, and decide on HSE issues with the management to ensure employee participation, consultation, and communication.

**2022 OH&S Committee Statistics**

OH&S Committee	Committee Members	Committee Proportion
Labor representatives	9	35%
Management representatives	17	65%
<b>Total</b>	<b>26 people</b>	<b>100%</b>

## Hazard identification and risk assessment GRI 403-2:2018, 403-9:2018

To prevent operations, activities, or services from harming employee health and safety and causing financial losses to the Company, early intervention is implemented. Through constant identification of hazards, risks, and opportunities relating to OH&S, we take appropriate precautionary actions, implement necessary controls, or eliminate hazards. We also find opportunities to make improvements to control risks within an acceptable range in order to enhance OH&S performance.

Every three years, we identify hazards and assess risks on current, changing (potential or transitional) and future activities within the plant, hazards outside of the plant, and underground pipelines. The baseline review team formed by the section chiefs of all

units provided professional training on hazard identification and risk assessment for the baseline review team and employees in 2022. We assess and screen risk levels using semi-quantitative descriptive statistics. Then, we establish targets and plans based on the graded control, OH&S objectives, and the Regulations for Management of Management Plans to reduce the risk to an acceptable range by prioritizing means such as elimination, replacement, engineering controls, labels/warnings/or management controls, and PPEs.

## OH&S Management GRI 403-7

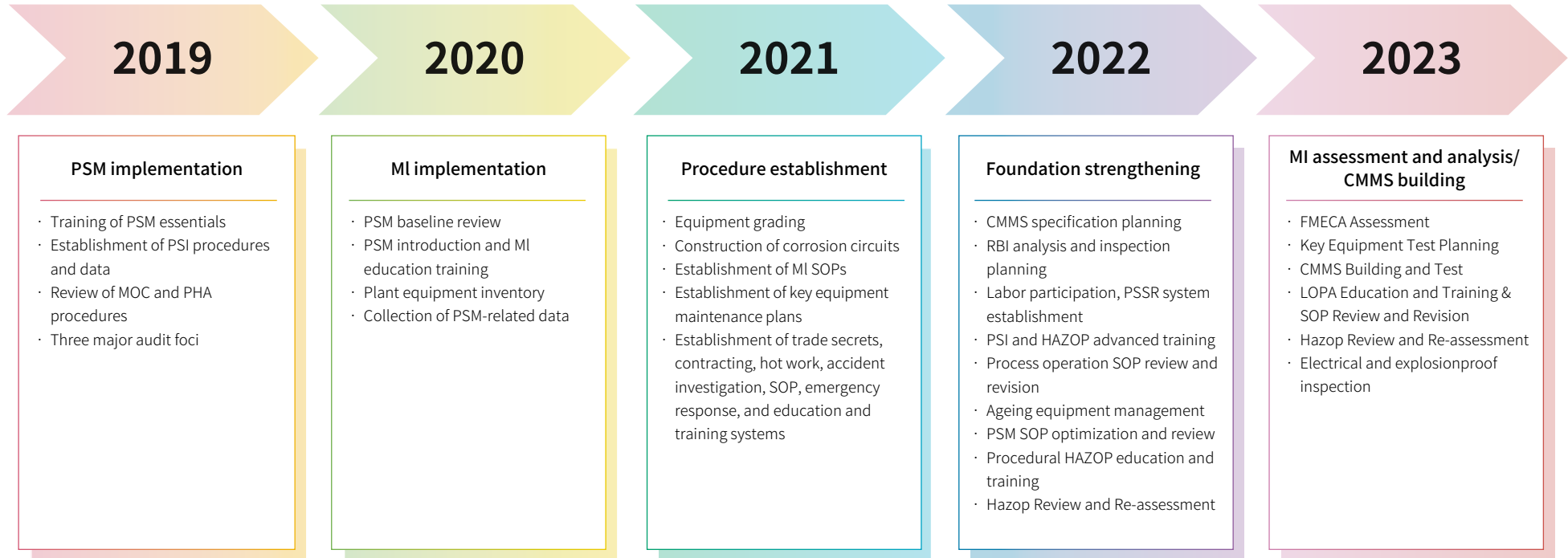
### Management Approach Description

In consideration of the increasing industrial safety accidents in Taiwan in recent years, IDB has progressively implemented joint supervision on large petrochemical plants and found that those implementing process safety management (PSM) have significantly better performance in industrial safety. Therefore, in addition to arranging PSM education and training for employees, labor inspection units have constantly revised OH&S laws and regulations based on PSM. They also provide guidance and advice for petrochemical plants to implement PSM to enhance the employee’s awareness of process safety in order to reduce fires, explosions, leakages, intoxication, and occupational accidents.

### Management Approach

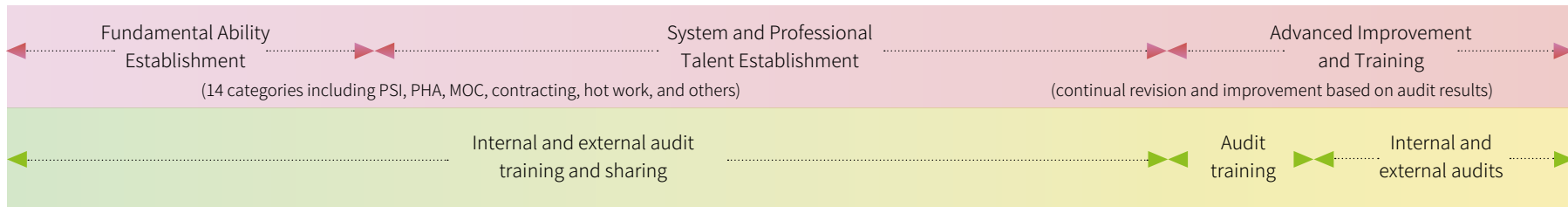
PSM is implemented in main consideration of the relevant regulations at home and aboard, such as the “Process Safety Management of Highly Hazardous Chemicals” (29CFR 1910.119) announced by the US Occupational Safety & Health Administration (OSHA), the Hazardous Workplace Review and Inspection Regulations, and the “Regulations of Implementation Regarding Regular Process Safety Evaluation”. A total of 14 categories were concluded for overall planning and review. PSM conformity was identified through compliance audit to review its ability to improve the plant’s process safety and industrial safety protection.

### Process Safety Management Plan



Note: Management of change (MOC), process hazard analysis (PHA), machinery integrity, computer maintenance and management software (CMMS)

### Key Practices



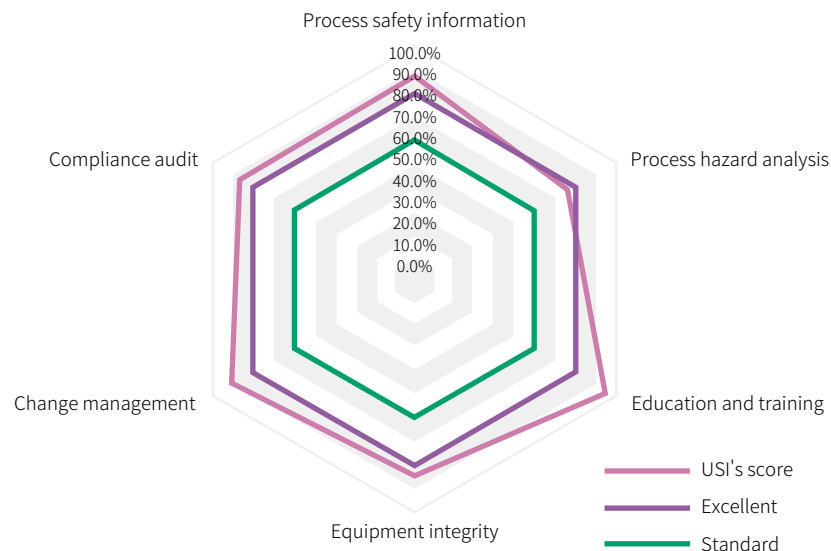


### Management Performance

When implementing PSM in 2022, we completed the following: optimization, review, and amendment of SOPs; planning the CMMS system and RBI analysis and tests; review of process SOPs; management of aging equipment; PSM education and training; and review and re-assessment of Hazop. During the period, we have completed a total of 71 training courses with a total of 2,725 hours for a total of 746 persons. In 2022 and 2023, USIG invited an external expert team from BSI to provide PSM internal auditor training. We also obtained the certificate of completion.

We conducted onsite inspection of aging equipment in the plants to progressively identify, review, and control high-risk old equipment in-house and plant and establish the aging equipment management process to reduce the likelihood of process hazards. Additionally, to verify the suitability and compliance of PSM promotion, apart from implementing internal and external audits on PSM compliance, conducting mutual audits and experience sharing with other USIG plants through the Division of Equipment Preventive Maintenance and Environmental Risk Control, and taking corrective and preventive action for audited defects to enhance the integrity of PSM implementation of our plant and other USIG plants, we also reported the achievements of PSM promotion in the Occupational Safety and Health(OH&S) Committee each quarter, timely coordinated with and gave recommendations for unit supervisors, increased PSM implementation requirements, communicated the importance of safety to employees to continuously enhance our determination to implement PSM and implement self-imposed management and audit so as to promote total participation in PSM through a top-down manner.

### PSM audit results



Note: Except for process hazard analysis, all other scores are good or above.

### Process Safety Management Performance RT-CH-540a.1, RT-CH-540a.2

Item	2021	2022
Total Count of Process Safety Incidents (PSIC)	0	1
Process Safety Total Incident Rate (PSTIR)	0	0.26
Process Safety Incident Severity Rate (PSISR)	0	0.79

Note 1: Employees are only permanent employees. The total hours worked in 2022 was 755,626 hours.

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

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

The 2022 PSISR was level 3, 3 marks.

## Equipment safety management

We regulate and perform periodic inspection of dangerous machinery and equipment by law to ensure equipment operation safety. In 2022 we inspected 5 dangerous machines and 230 sets of dangerous equipment, and all were qualified. Additionally, we replaced and suspended 6 sets of dangerous equipment to maintain operational safety and production continuity.

## Emergency Response Mechanism

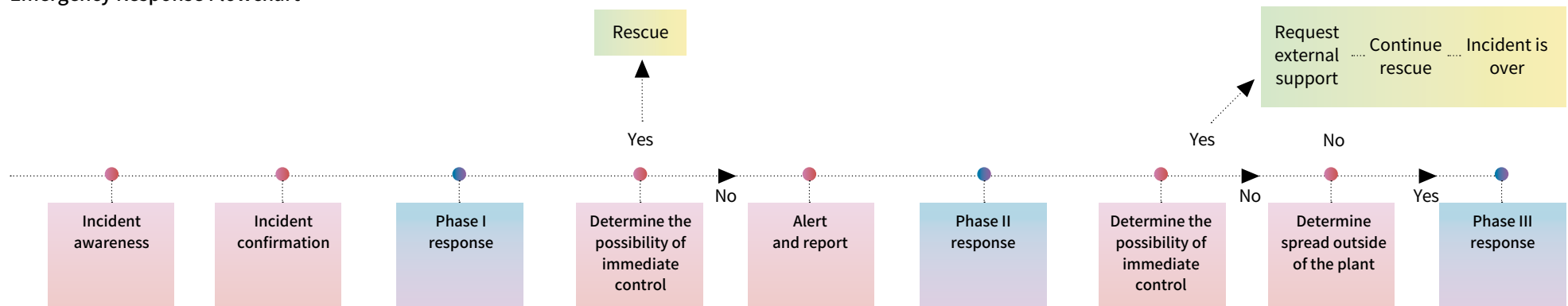
We organize emergency response and fire safety drills and OH&S general training half-yearly and refer to the emergency response guide and manual to facilitate emergency mobilization, take corrective actions, effectively control disasters, and reduce losses in emergencies.



Please visit <https://www.usife.com/ESG/zh-tw/ESG43.aspx> for the details of the response processes at different stages

The 2022 operation of the “foam fire extinguishing system” was the training focus of the in-house fire defense task force. As flammable liquids (Class IV) are major public hazardous substances used in petrochemical plants, regular fundamental training can develop effective response to fire extinguishing at the beginning of accidents.

## Emergency Response Flowchart



## Underground pipeline emergency response

To improve emergency preparedness and response ability to underground pipeline occurrences, we perform emergency response assessments on high-consequence areas (HCAs) based on the analysis results. In 2022 we assessed the 10-inch ethylene pipelines in high-consequence areas including Fengren Road and Shuiguan Road, where there were sensitive receptors including shops, Renwu Sports Park, THSR, Renwu Elementary School, and the Renwu Industrial Park. The process covered a full-scale assessment, including the simulation of chemical spread after a pipeline leakage, people evacuation, receptor contacts, communication and coordination of external support, hoping to help improve the preparedness and efficiency of emergency response to underground pipeline accidents.

### Simulation and assessment of emergency response plans



## Emergency response drills on toxic and concerned chemical substances

In 2022, we held emergency response drills on toxic and concerned chemical substances, including one comprehensive response drill and two unannounced tests and drills. Additionally, we also sent personnel to receive external training for different levels of emergency responses to toxic and concerned chemical substances, including one for the expert level, two for the commander level, eight for the technologist level, and four for the operator level, to improve our independent responsiveness to toxic and concerned chemical substances.



## Work-related injury and absenteeism GRI 403-9:2018

Given that “zero accident and zero injury” are the objectives of USI’s management of work-related injuries, a low injury rate (IR) and low absentee rate (AR) are two key indicators for evaluating the OH&S of employees and contractors.

In 2022 no employee work-related injury during work was reported, and one contractor work-related injury was reported (please refer to the accident investigation in this section for details). In commuter accidents, we do not arrange commuter services or vehicles for employees, and no work-related traffic accident of an employee was reported in 2022. Between 7 April 2020 and 31 December 2022, the cumulative total working hours without disabling injury totaled 2,210,123 hours. Additionally, no work-related injury was reported from Taipei HQ and Guishan R&D Division in 2022.

### OH&S Management Performance RT-CH-320a.1

Item / Year	2020		2021		2022	
	Employees	Contractors	Employees	Contractors	Employees	Contractors
F.R.	0.25	0	0	0	0	3.94
S.R.	255	0	0	0	0	67
Frequency-Severity Indicator (F.S.I.)	0.25	0	0	0	0	0.51
Number and rate of recordable work-related injuries	1/0.25	0/0	0/0	0/0	0/0	2/3.94
Number and rate of high-consequence work-related injuries	1/0.25	0/0	0/0	0/0	0/0	0/0
Number and rate of fatalities as a result of work-related injury	0/0	0/0	0/0	0/0	0/0	0/0

Note1: All employees were permanent employees. The total hours worked in 2020, 2021, and 2022 were 776,160 hours, 764,444 hours, and 755,626 hours respectively.

Note2: Disabling injury frequency rate (F.R.) = Injury frequency × 200,000/total hours worked (rounded down to two decimals)

Note3: Disabling injury severity rate (S.R.) = Injury days lost × 200,000/total hours worked (rounded down to two decimals)

Note4: Frequency severity index (F.S.I.) =  $\sqrt{[(F.R \times S.R.) / 1000]}$  (rounded down to two digits)

Note5: Rate of recordable work-related injuries = Number of recordable work-related injuries (including fatalities) × 200,000/total hours worked (rounded down to two decimals)

Note6: Rate of high-consequence work-related injuries = Number of high-consequence work-related injuries (excluding fatalities) × 200,000/total hours worked

Note7: Rate of fatalities as a result of work-related injury = Number of fatalities as a result of work-related injury × 200,000/total hours worked

## Industrial safety audit and follow-up

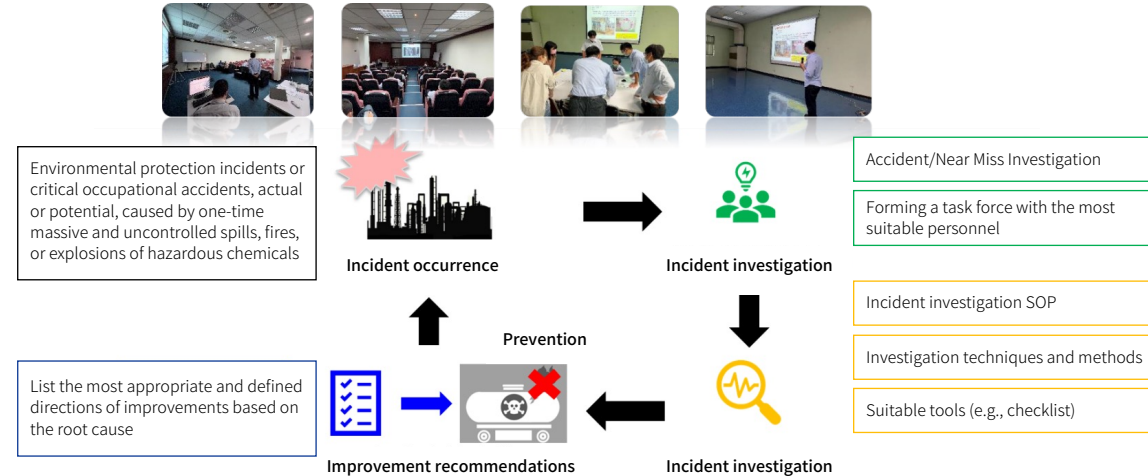
To capture the safety of contractors and their workers working in-house, we measure their blood pressure to ensure that they are physically and mentally fit before entry. In vehicle control, we timely perform spot sobriety tests to ensure they are in a safe state before entry. We also perform tour inspection of all onsite operations every day to verify contractor and worker safety to reduce unsafe behavior. The tour inspection results are recorded in the “ESH Management Platform” and reported to the OH&S Committee every quarter. In 2022 we audited 2,690 items, and 2,266 items passed, 420 items required observation or recommendation, and 4 items fails. The improvement of all nonconforming items was completed. Additionally, we conduct one group audit and guidance every six months and follow up all audited defects and improvement results. Through total industrial safety audit and management, we improve occupational safety and process safety.

Focus of Action (audit unit)	Frequency
Contractor entry physical and mental condition check (security guards)	Irregularly
Contractor coordination organization meeting (Industrial Safety Section)	Daily
Workplace inspections and records (Industrial Safety Section)	Daily
Defect and improvement review and publicity (Industrial Safety Section)	Quarterly (OH&S Committee)
HSE & regulatory audit (Audit Division)	Semiannually

## Incident investigation GRI 403-2:2018

One contractor work-related injury occurred in 2022. In the wax discharge operation, operators did not notice that contractors were implementing welding work on the second floor. During the discharge, leaked ethylene triggered a flashover and caused burn (direct cause) to two contactors. The results of accident investigation show that personnel did not verify the surroundings and take effective control (indirect cause) before discharge and failed to conduct safety observation and follow the operating procedures (fundamental cause). To prevent the accident from recurring, apart from purchasing closed fittings, we also prohibit hot work in the area during the discharge, request for onsite fire watch by fire-watchers, hot work control by floor and continuous flammable gas monitoring of contractors, and enhance safety awareness education for personnel.

In 2022, for process and occupational safety accidents or near misses in all operational activities, we reviewed and established new accident investigation SOPs, developed effective accident investigation processes and handling mechanisms that included accident investigation technical lists such as time series, fault tree analysis (FTA) or event tree analysis (ETA). We also added the evidence collection checklist to facilitate the consolidation and identification of actual or potential accident causes and established preventive measures against potential causes that can be prevented to prevent the recurrence of similar accidents.



Additionally, we arranged education and training and simulated drills for accident investigation and analysis techniques to improve the professional investigation and analysis skills of relevant personnel so as to make appropriate improvements through the effective recording, investigation, and analysis of the root cause of accidents and so to prevent the recurrence of accidents and near misses to protect employee safety and health.



## Contractor Management

GRI 403-5:2018

We also value the safety management of contractors and suppliers. Contractors must go through the qualification review, receive ESH education and training, and pass the evaluation before entry. Through continuous training, publicity, and request, we urge contractors to voluntarily follow all safety and health regulations to achieve the goal of zero accidents. Additionally, we enforce the workplace environment and hazard notification and hold the work safety meetings and coordinative organization meetings for contractors. Before implementing high-risk work, we run a risk assessment to identify hazards, assess risk, take precautionary measures, and review the emergency response plan. We also hold communication and coordination meetings with contractors from time to time to ensure operation safety.

In 2022, we upgraded our request for the toolbox meeting and the work permit system, verified onsite environmental safety, explained the contents, potential environmental hazards, and safety protection and regulations of individual operation, and completed the safety inspection of onsite construction equipment and tools and environment inspections. To enhance contractor entry safety management and enforce the supervision and management duty of occupational safety and health management personnel, the industrial safety section performs a walk-through inspection of all in-house projects every day to confirm if a preparatory inspection of machinery is completed and if there is a safety incident in the construction. If a nonconformity is detected, industrial safety staff will immediately request contractors to stop construction and complete all improvements before carrying on construction. If a serious nonconformity is detected, re-education and re-training will be arranged for that contractor.

Additionally, in response to COVID-19 during 2021-2022, we implemented the contractor self-imposed health management system and installed the automatic body temperature scanner to effectively control the pandemic and capture the health condition of contractors. In 2022, a total of 12,734 contractors reported normal after self-imposed health management, and no health anomaly was reported.

RT-CH-320a.1

## Contractor Works Distribution by Type in 2022

Type of Works	No. of Works	Proportion
Open Fire	499	55%
Confined Space	49	5%
Others	352	39%

## HSE Education and Training

GRI 403-5:2018

Education, training, and publicity are the fundamentals for promoting HSE awareness to employees and contractors. By establishing the "Labor Safety and Health Education and Training Regulations," we provide knowledge and skill training for different categories of employees and contractor personnel based on their actual needs. In 2022, we arranged a total of 4,545 hours of HSE education and training over 115 sessions, recording a cumulative attendance of 1,502.


## Statistics on HSE Education and Training 2022

Type	Hours/ person	Sessions	Person	Total hours
New employee training	6	8	13	78
On-the-job training	3	9	179	537
Contractor Personnel	3	98	1,310	3,930

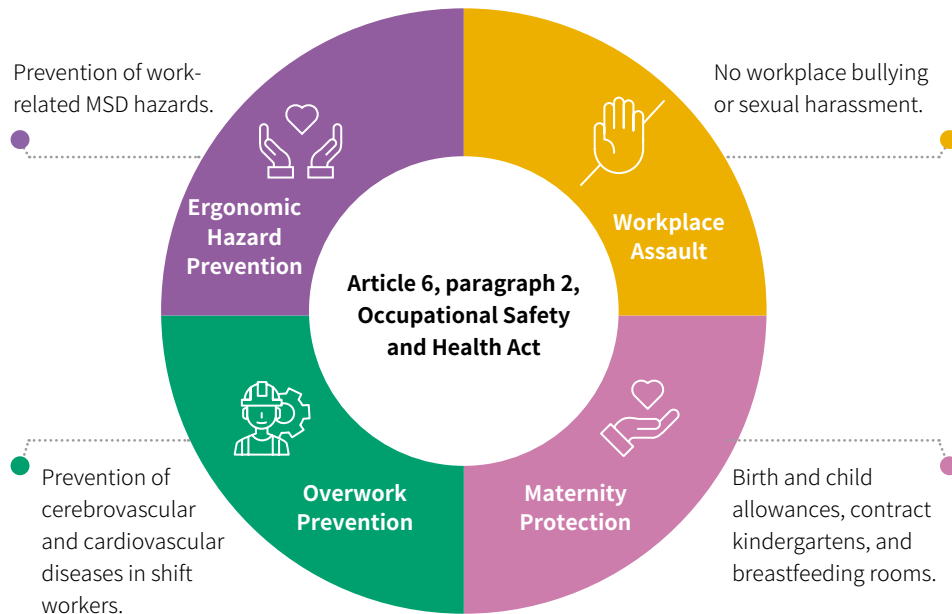
With respect to the legal requirements, domestic and overseas industrial safety incidents, and occupational safety awareness education, we organize a series of training courses. In 2022, we organized 32 training activities with 1,046 participants for employees to value operation safety and understand professional knowledge. Through drills and training, we develop the positive attitude towards learning new skills in employees.

In addition to HSE training, at the quarterly safety meeting, each unit discusses unsafe acts and behavior in their operations and explore industrial safety incidents occurring at home and abroad to prevent their recurrence. Through this process, employees can better understand safety knowledge and USI's safety culture.

## Health concerns

 please visit the OH&S section of our corporate site usife.com for details: <https://www.usife.com/ESG/zh-tw/ESG43.aspx>

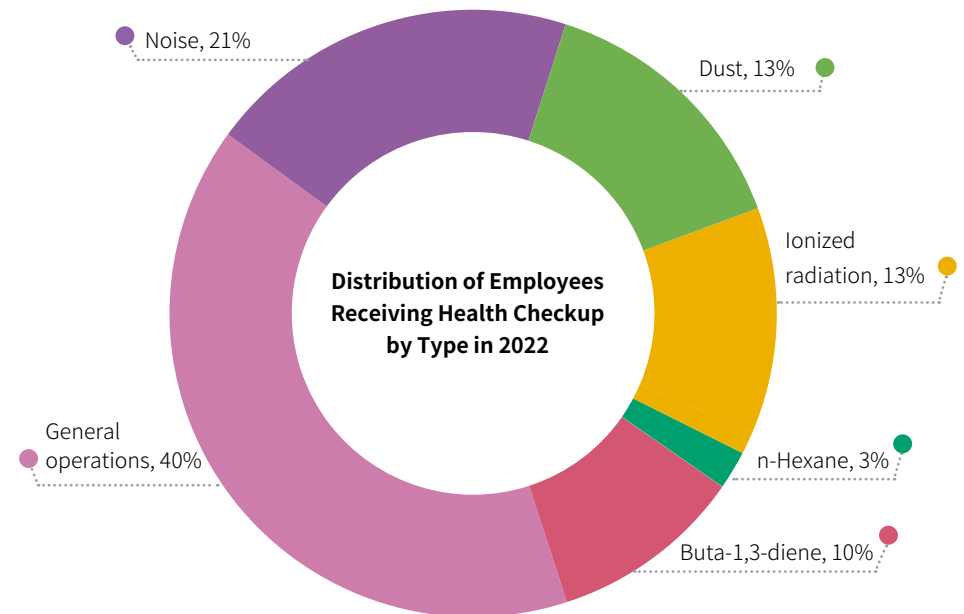
### Workplace Health Keeper



We value the rights and interests of every employee. Therefore, we establish a preventive program according to the "Occupational Safety and Health Act" for each USI employee to feel happiness and the sense of belonging. Apart from retaining people, this can create better work performance.

### Health passport GRI 403-3:2018, 403-6:2018, 403-10:2018

USI cares about the physical health of employees. Therefore, we arrange complete health checkups better than the legal requirements for employees every year and follow up their health condition periodically. Additionally, we combine the environmental monitoring data of statutory special operations to identify the risk of potential health hazards and arrange special health checkups for employees exposing to noise, dust, n-hexane, ionizing radiation, and 1,3-butadiene in order to capture the health condition of employees and provide a reference for employees to implement self-health management to achieve the aim of "prevention is better than cure" and create a safe workplace environment. In addition, every month we arrange labor health service physicians to provide in-house service, free medical consultation, and health and new healthcare knowledge promotion. We also develop the awareness and execution power of self-health management in employees through various thematic health talks.



Note 1: In 2022 there were 451 employees in total (Taipei HQ, Guishan R&D Division, and Kaohsiung Plant) qualified for the health checkup, with a checkup rate of 94.3%.

Note 2: All employees received the general health checkup, other items are additional special examinations.

## Graded health management GRI 403-10:2018

In 2022 special checkups were arranged for 269 employees, and health management was implemented based on the graded health management by risk level, hoping to identify high-risk groups, provide individual health instructions and notification, and reduce the risk of work-related ill health through early detection of the high-risk group in order to build a healthier and more comfortable workplace environment through continual source improvement and terminal health care.

Health Checkup Item	Numbers of person	Grade 1 management	Grade 2 management	Grade 3 management	Grade 4 management
Noise operation	95	53	42	0	0
Dust	57	55	2	0	0
Ionized radiation	57	20	37	0	0
n-Hexane	15	15	0	0	0
Buta-1,3-diene	45	33	12	0	0

Level I Management	<b>No anomaly</b>	Provision of health instructions
Level II Management	<b>Partial anomalies unrelated to work</b>	<ol style="list-style-type: none"> <li>1. Provision of health instructions</li> <li>2. Indication of not suitable jobs by physicians</li> </ol>
Level III Management	<b>Partial anomalies Work-related anomalies</b>	<ol style="list-style-type: none"> <li>1. Health follow-up and instructions by occupational specialists</li> <li>2. Operation assessment by occupational specialists</li> <li>3. Re-grading based on operation assessment</li> <li>4. Report to competent authorities</li> </ol>
Level IV Management	<b>Work-related anomalies</b>	<ol style="list-style-type: none"> <li>1. Hazard control</li> <li>2. Engineering improvement</li> <li>3. Administrative improvement</li> <li>4. Health management measures</li> <li>5. Report to competent authorities</li> </ol>

## Checkup quality and achievements GRI 403-10:2018

It is our obligation to ensure the quality of medical institutions providing the health checkup service to ensure that checkup results are effective and valid for reference. We select only checkup institutions accredited by the Occupational Safety and Health Administration (OSHA) and medics accredited by the Kaohsiung Department of Health. After the checkup, besides explaining the results and giving health instructions and education to employees by health professionals, we enable employees to understand more about their health condition and promote health and acquire correct health care knowledge.

## Care for contractors GRI 403-3:2018

It is our obligation to maintain workplace safety and health. Therefore, we arrange education and training for all contractors, including the contents of operation and hazard identification. We also ensure the health condition of contractor personnel working in-house with sobriety tests and blood pressure measurement. We further inhibit personnel with hypertension and cardiovascular disease from engaging in work at height, work at high temperature, work in confined spaces, and work requiring physical strength in order to prevent potential work-related ill health.



## Occupational disease analysis GRI 403-7:2018, 403-10:2018

To enforce OH&S, we take precautionary actions relevant to the physical, chemical, ergonomic, and sociopsychological health hazards according to the "Occupational Safety and Health Act". For related hazard factors, potential work-related ill health and precautionary management actions (please visit the [Health Concerns](#) section on our corporate website for details). No occupational disease from employees or contracts has been reported over the years.

### Prevention of Work-Related Ill Health

#### Ergonomic Hazard Prevention



Musculoskeletal disorders assessment: **379** persons  
 Ergonomic education and training: **258** persons  
 Operation environment review and interview: **16** persons

#### Maternity Protection



Establishment-Breastfeeding (lactation) room for employees  
 Maternity health protection 2022: **1** person

#### Care for Employee Health



Work-related injury and ill health return-to-work assessment: **7** persons  
 COVID-19 return-to-work care: **52** persons  
 PPE use assessment: **175** persons

#### Overwork prevention



Overwork assessment: **379** persons  
 High-risk identification and interview: **10** persons  
 Chronic disease prevention talks: **62** persons

#### Workplace Assault



Publication: Statement of No Workplace Violence  
 Workplace violence (bullying) education and training: **308** persons

## Health control for shift workers (overwork prevention) GRI 403-3:2018

Besides prohibiting shift workers from working excessive extra hours, we plan and screen checkup items for the high-risk group of cerebrovascular and cardiovascular diseases, including ECG, myocarditis diagnosis, personal fatigue index, and Framingham Risk Score. We also implement administrative and health management on the high-risk group, including limiting the night shift frequency, active follow-up of medical attention and drug use condition, developing the habit of daily blood pressure measurement. We also provided them with health instructions. Health talks for chronic disease prevention in 2022



## Workplace Violence-Education and Training Against Workplace Bullying GRI 403-2:2018, 403-3:2018

We are committed to maintaining the rights and interests of employees and protecting them against workplace assaults. Therefore, we establish and implement the "Workplace Extortion Prevention Program" to implement work adaptive assessment and early identification of hazard factors and for employees to reflect workplace assaults through the grievance channels. The case acceptance unit will participate in the investigation and coordinate with the case in collaboration with labor representatives before nurses follow up the case and provide related assistance. If an employee leaves the workplace as a result of the workplace hazard factors or report to the competent authorities, we will make a written statement. The company should make efforts to protect the employee against unfair treatment or retaliation. If this happens, the company will handle the case according to the internal disciplines and regulations. Furthermore, we state in the emergency response plan that when discovering a life-threatening situation in the workplace, employees should immediately withdraw from the situation to protect employees against such threats. Each year we arrange education and training for mental health promotion to help employees relieve stress and provide them with proper channels for relieving stress and speaking their mind.



## Education and training for musculoskeletal injury prevention

GRI 403-3:2018

To prevent workplace musculoskeletal injury, besides regularly checking out if employees work in correct postures, we actively ask if they have musculoskeletal disorder, plan education and training for musculoskeletal injury prevention, demonstrate postures that may cause musculoskeletal injury in the daily life and their corrections, including the correct postures to handling objects, neck protection for using computer, communications and consumer electronics, hoping to reduce the possibility of musculoskeletal injury and enhance work efficiency.



## Health promotion GRI 403-6:2018

We have been certified as a sports administration by Taiwan i-Sports for four consecutive years and received awards from the vice president of ROC, demonstrating the effectiveness of our long-term employee care.



In 2022, on top of organizing the 4<sup>th</sup> Healthy Weight Loss Competition, we also teamed up with a catering service provider to supply healthy meals formulated by dieticians for employees at only NT\$40 each, while the rest was funded by the Company. Other benefits included group travel and employee club activities and monthly healthcare consultation and health talk. Friendly workplace benefits include childcare allowance, breastfeeding (lactation) room, and others. Please visit the Health Promotion section on our ESG website for details.



## Community residents

To care about the disease prevention and risk control of residents in local communities, we continuously implement control over air, water, and waste pollution and periodically organize employee blood donation activities and employee club mountain clean-up. We also plan and implement local environmental clean-up and epidemic control. Apart from donating epidemic control materials to local communities, schools, and fire teams, we assign employees to be volunteers to help local communities with environmental clean-up and epidemic control.

During 2018-2022, we continuously sponsored the “Kaohsiung City Air Quality Purification Area Management Program”.

In the healthy workplace environment, aside from drawing up the Dengue Fever Prevention Plan, we assign special dengue fever management personnel and request all units to implement in-house environmental checks every week to eliminate stagnant water through the “check-empty-clean-brush” cycle. We release fish in specific fountains to effectively eliminate vector mosquito breeding. We post related publicity materials and articles on the bulletin board to raise the employee’s awareness of epidemic prevention. In 2022, no dengue fever infection was reported at USI.



## First Aid Education/Training

### Emergency Medical Services

We equip four automated external defibrillators (AEDs) in-house. While workers are working shift, to equip each of them with the first response capability, besides requesting all units to send staff to receive EMT1 certificate training and form the first response team with 17 members, we also arrange education and training for each unit every year, hoping that all employees can get familiar with the correct first aid process to give help to others in emergencies to enhance survival and cure rate. To prevent chemical splattering, we have purchased the savior of acid/alkaline splattering: Diphoterine® solution and installed it in the control room of all units and as the PPE of employees. We also organized the education and training for the use of Diphoterine® solution. Besides educating the hazards of organic solvents, we also explained the use of Diphoterine® solution.



## PPE Education/Training

### Respirator Education/Training

We have established the respiratory protection plan, identified risks in the workplace environment, and selected the correct PPE. We also equip each worker with a 3M respirator and plan respirator education/training and tightness tests for 176 persons to ensure PPE can demonstrate its protection.



## 5.3 Talents Attraction and Retention GRI 2-25, 3-3 SDG 4, 5, 8

### Sustainability Principle: Unity Governance

Significance and Strategy	Impact Management	Achievement and Goal	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>While talents are the Company's irreplaceable core asset, and maintaining steady and continuous workforce growth is the cornerstone of sustainable operations, we encourage employees to keep making self-improvement through well-planned training courses, welfare system, and salary in order to achieve the personal career development of employees and thereby enhance overall corporate performance.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <ol style="list-style-type: none"> <li>Recruit eligible talents through a fair, open, transparent and efficient recruitment system.</li> <li>Value and respect the rights, interests, and opinions of employees, and build comprehensive and unfettered publicity and communication channels.</li> <li>Providing a safe and healthy workplace environment</li> <li>Build a total career development platform for employees.</li> </ol> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <ol style="list-style-type: none"> <li>14 months of base salary plus allowances and bonuses, travel allowance, free meals, and employee travel.</li> <li>Complete and solid retirement system and planning</li> <li>Periodic healthcare and medical assistance for employees</li> </ol> <p>Data range: USI coverage 100%</p>	<p style="text-align: center;"><b>Short-, Medium- &amp; Long-Term Positive/Negative Impacts</b></p> <hr/> <p>Positive potential impact: Increase employee benefits for a happy business. Negative actual impact: Difficulty in talents recruitment.</p> <p style="text-align: center;"><b>Impact Boundaries</b></p> <hr/> <p>USI employees and community residents</p> <p style="text-align: center;"><b>Process to Remediate and Prevent Negative Impacts</b></p> <hr/> <p>Enhance industry-academia collaboration, increase employee benefits and improve workplace environment, hire retired employees as technical advisors.</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>Turnover (excluding retirement) of all employees &lt;5%.</li> <li>Complete employee insurance and medical coverage</li> <li>Competitive pay and reward policy</li> <li>Harmonious labor-management relations</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>Total employee turnover 4.8% (excluding retirement)</li> <li>Provided well-designed group insurance plans and contributed pension by law to protect the later life of employees.</li> <li>Annual employee health checkup</li> <li>Implement reward differentiation.</li> <li>Hold labor-management meetings periodically.</li> </ol> <p style="text-align: center;"><b>2023 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>Turnover (excluding retirement) of all employees: &lt;5%.</li> <li>Continuous employment of persons with disabilities: 4 persons, reaching the statutory quota.</li> <li>Unfailing two-way communication with employees</li> <li>Local talent recruitment increasing local job opportunities and benefiting local communities.</li> <li>Constant campus cultivation with opportunities for industry-academia collaboration and internships</li> </ol> <p style="text-align: center;"><b>Medium- &amp; Long-Term Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>Constantly provide complete learning resources</li> <li>Enhancement of talent inventory and the evaluation system</li> <li>Integration of workforce rotation and promotion mechanisms</li> <li>Implementation of the overall performance and talent development system</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>Turnover (excluding retirement) of all employees: &lt;5%.</li> <li>Welfare policy better than the regulatory requirements</li> <li>Employee engagement survey</li> <li>Performance evaluation mechanism</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <ol style="list-style-type: none"> <li>Labor union and employee welfare committee</li> <li>Establish the Employee Grievance Regulations and the whistleblower policy in the Ethical Corporate Management Best Practice Principles</li> <li>Employee suggestion box.</li> </ol> <p style="text-align: center;"><b>Chapter Summary</b></p> <hr/> <ol style="list-style-type: none"> <li>Pay and reward policy</li> <li>Health care benefits</li> <li>Employee rights and benefits</li> <li>Harmonious labor-management relations</li> </ol>

## Workforce Structure GRI 2-7, 2-8

### 2022 Personnel Data

<b>Numbers of employees</b>	453 persons; Male 423 persons (approx. 93%); Female 31 persons (approx. 7%)
<b>Average age</b>	42.7 years old
<b>Average service length</b>	13.4 years
<b>Summary</b>	<ol style="list-style-type: none"> <li>All USI employees are from Taiwan, mainly distributed in the Taipei and Kaohsiung regions.</li> <li>Except for employees of different business attributes, such as advisors (consultants) and experts with whom a fixed-term employment contract is signed, we sign non-fixed-term employment contracts with all full-time employees.</li> <li>We hired 3 persons with disabilities in 2022, accounting for approximately 0.7% of all employees.</li> <li>About 85% were college and university graduates.</li> </ol>

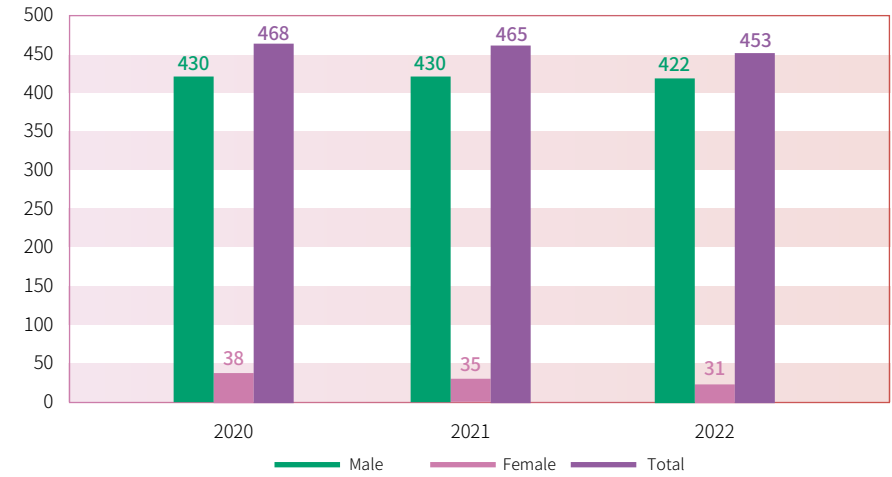
Note 1: Due to the characteristics of the petrochemical industry, male employees are more than female employees.

Note 2: Personnel data were obtained from the human resources system.

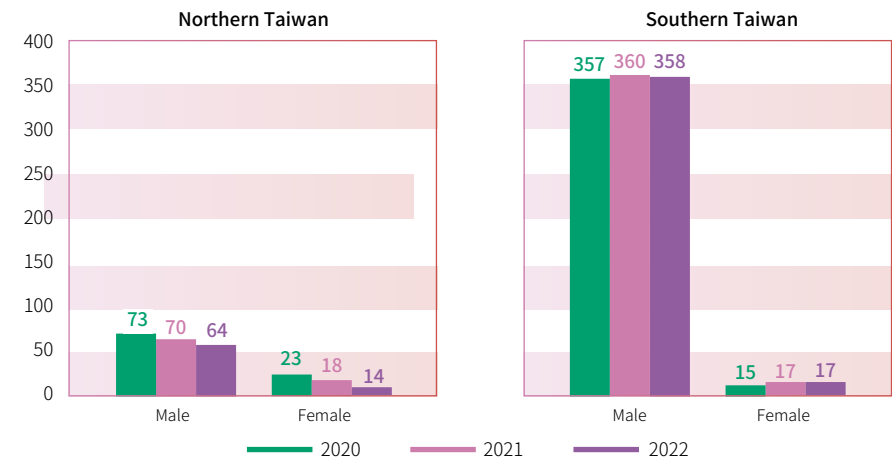
Note 3: Currently, although we do not hire the required number (4 people) of persons with disabilities, we have paid the substitution fee. Additionally, we have discussed suitable candidates among retired senior employees with disabilities with the Kaohsiung City Training and Employment Center to make up the difference in 2023. We will also continue to regulate the employment of persons of disabilities.

	Northern Taiwan				Southern Taiwan			
	Non-fixed-term contract employees	Fixed-term contract employees	Full-time	Part-time	Non-fixed-term contract employees	Fixed-term contract employees	Full-time	Part-time
<b>Male</b>	64	0	64	0	355	3	358	0
<b>Female</b>	14	0	14	0	16	1	17	0

### Number and Gender Distributions of Employees 2020-2022



### Employee Distributions by Region and Gender 2020-2022





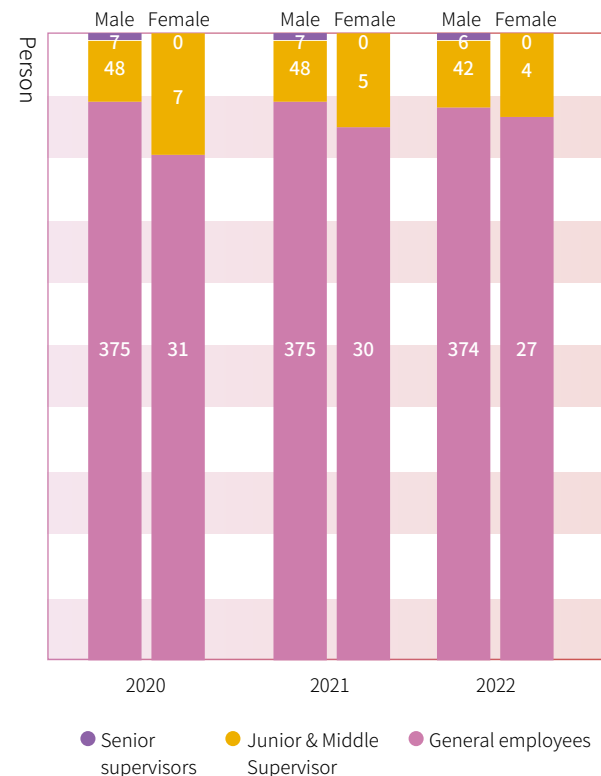
Duty Distributions of Employees 2020-2022



Age Distributions of Employees 2020-2022



Distribution of Employees by Grade and Gender in 2020-2022



**Employee turnover** GRI 401-1, 404-3

**Recruitment, Selection, and Evaluation**

To stabilize human resources, we recruit excellent talents with a fair, open, transparent, and efficient recruitment system in order to build a strong organization. In addition to maintaining diversity and equal opportunities, we do not engage in discrimination based on race, social status, language, thought, religion, political party, native place, place of birth, gender, sexual orientation, age, marital status, pregnancy, appearance, facial features, physical/mental disabilities, horoscope, and blood type. In routine operations, we maintain workforce composition control and workforce structure balance and we analyze and improve employee turnover.

When new or existing positions need to be filled or the workforce needs to be expanded due to business needs, organizational planning or employee resignations,

the workforce-requesting unit must complete the “Personnel Replenishment Request Form.” After the request is approved, we will first recruit personnel from within the organization or transfer eligible candidates by announcing the openings over the intranet or by email. With the approval of their current supervisors, active employees interested in such openings may voluntarily submit their resume to the human resources unit. After further screening, the human resources unit will forward the resumes of eligible candidates to the supervisor of the requesting unit to provide multiple options to the unit and a better career development mechanism for employees. We also recruit employees from outside of the organization through newspapers, human resources websites, human resources consulting agents, schools and employment service stations. For job openings at the Kaohsiung Plant, we give priority to local citizens as a way of giving back to the local communities.

Except for senior management, such as vice presidents and senior officers, fixed-term contract employees, and employees arriving at USI in and after October every year who do not need performance evaluation, 100% of employees receive a performance evaluation at planned intervals.

In 2022 we hired 23 new employees (including 3 contract employees), accounting for about 5.1% of all employee. With reference to the retention rates and turnover trends of new employees in the [Workforce F.B.I. \(Function, Budget, Indicator\) Report published by 104 Corporations](#) in 2021, the new employee retention rate by industry type is compared as follows:

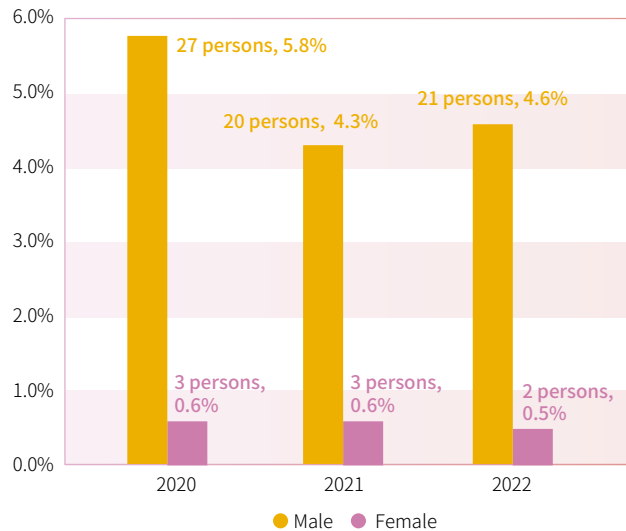
### New Employee Retention Rate (traditional manufacturing industries)

Duration	USI	USI (excluding turnover before contract expiration)	Workforce F.B.I. Report
1 month	80.95%	95.24%	78.10%
3 months	75.00%	93.75%	74.50%
6 months	63.64%	90.91%	68.50%

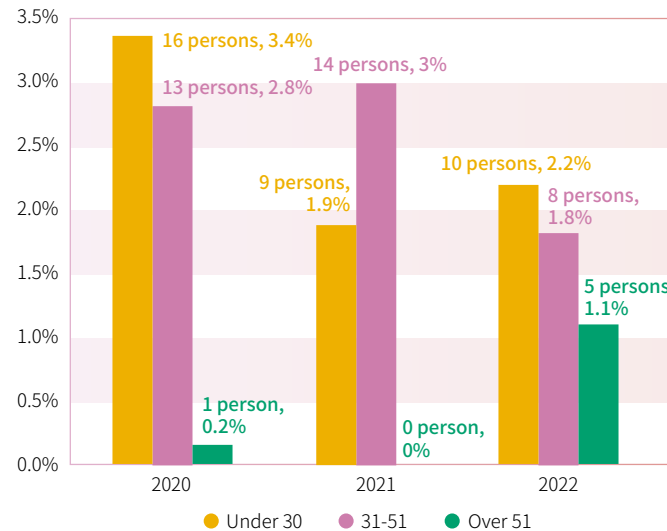
Note: New employee retention rate refers to the rate of new employees continuing employment 1/3/6 months after arrival.

These results show that we enhance employee engagement by earning their high organizational commitment, enforcing their core value, and advancing new employee training. The tables below show new employee hires by gender, age, and region.

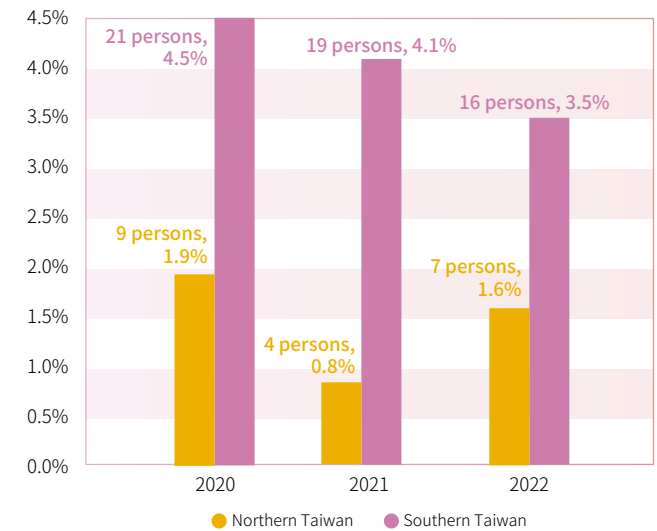
#### Rate of New Employee Hires by Gender 2020-2022



#### Rate of New Employee Hires by Age 2020-2022



#### Rate of New Employee Hires by Region 2020-2022



Note: New Employee Rate = Number of New Employees/End-of-Year Active Employees

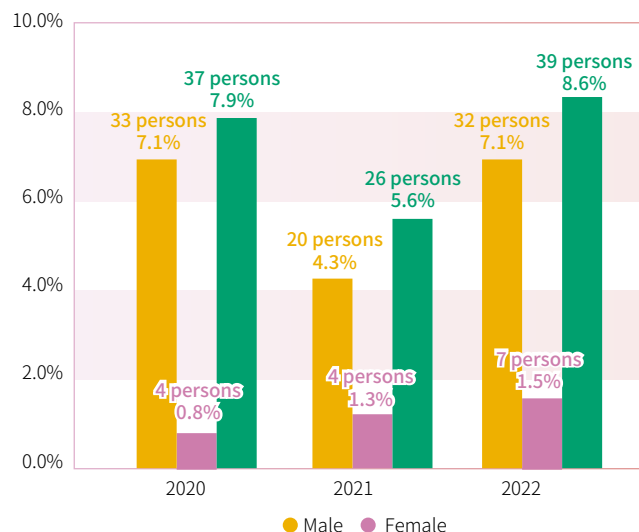
## Turnover Rate

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

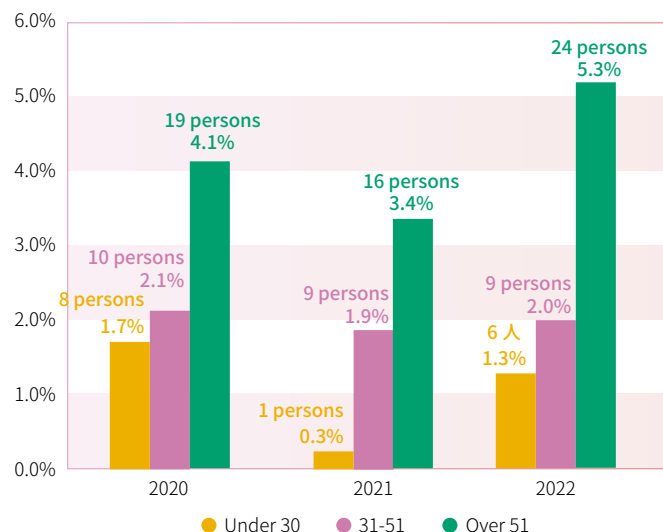
In 2022, a total of 38 employees resigned (including 16 who retired and 4 after contract expiration/probation), including 7 female employees. The number and rate of employee turnover in 2022 increased compared to 2021. With reference to the Workforce F.B.I. Report published by 104 Corporation in 2022, the 2021 rate of employee turnover (excluding retirement) increased by 0.5% over 2020 to 12.8%.

In terms of the traditional manufacturing industries, the rate of employee turnover (excluding retirement) was 12.6%. At USI, the rate of employee turnover was 4.8%, far lower than that of the report and slightly lower than the expected rate at 5%. This suggests that our pay, rewards, benefits, and retirement policies are competitive to attract and retain talents and encourage employees to create performance and make continuous contributions, demonstrating the effectiveness of our care and work protection for employees. To keep the employee turnover rate (excluding retirement) below 5%, we periodically review our pay and reward policies and continuously offer employee benefits better than the regulatory requirements, periodical health checkups, and medical assistance to take care of both the mental and physical health of employees.

### Rate of Employee Turnover by Gender 2020-2022



### Rate of Employee Turnover by Age 2020-2022



### Rate of Employee Turnover by Region 2020-2022



Note: Employee Turnover Rate = Number of Employee Turnover/End-of-Year Active Employees

## Human Rights Policy and Management Programs

### Human rights policy GRI 2-23

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

### Identification and assessment of human rights risk

We identify human rights risks every year and perform compliance checks and third-party assessment of concerned human rights issues. Based on the risk assessment results and defects found in internal and external audits, we adopt mitigation and corrective actions and make continual improvement to achieve the goal of risk management.

We establish the steps and processes for each stage of human rights management as the foundation for human rights maintenance and protection. They include:



Human rights issues involve different business departments and units. HRD runs due diligence of human rights and risk management on individual targets and human rights issues based on their different impacts.

### Human rights due diligence process

Stage	Step	Practice
Stage 1: Commitment	Statement	Make external commitment and support and draw up the human rights policy in compliance with international standards and local laws and regulations.
Stage 2: Management	Identification	Validate material human rights issues and the affected based on the organizational attribute and style of operations.
	Assessment and analysis	Periodically assess human rights impacts on all employees and service processes to understand the significance of exposure.
Stage 3: Counter-measures	Action and practice	<ul style="list-style-type: none"> <li>• Draw up different action plans based on the significance of the periodically assessed human rights risks.</li> <li>• Follow up the status and performance of action plans and communicate to ensure the effectiveness of human rights management.</li> <li>• If there is a human rights violation, provide compensatory measures through system improvement, physical benefits, and counseling.</li> </ul>
	Report	Discuss and report human rights management within the organization and disclose the practice and effectiveness of human rights management on the corporate website.

## Achievements in human rights management 2022 GRI 2-24

This year, no significant non-compliance was reported. We will continue to arrange education and training on human rights. Please visit our [corporate website](#) for the details related to training for human rights. After identifying risks based on the approaches to implement the human rights policy, we included a total of 14 human rights issues in this year, including 8 issues of material concern, with risks covering “occupational safety management” and “workplace inclusion” (complete assessment report). The implemented mitigation and impact compensation measures are as follows:

### Mitigation and compensation measures of human rights management

Topic	Mitigation Measure	Compensation Measure
Occupational safety management	<ol style="list-style-type: none"> <li>1. Continue to provide occupational safety and health education and training every year</li> <li>2. Activate the occupational accident reporting and handling procedures</li> <li>3. Make timely job accommodation based on the physical and mental recovery state of employees.</li> </ol>	Actual impacts have been reported and handled according to the compensation measures and care and compensation have been given to employees.
Workplace inclusion	<ol style="list-style-type: none"> <li>1. Employ persons with disabilities by law.</li> <li>2. Build an accessible workplace environment for persons with disabilities.</li> <li>3. Handle insufficient employment based on the regulations of the competent regulations.</li> </ol>	Although we do not hire the statutory number of persons with disabilities, we have paid the substitution fee. Additionally, we are discussing suitable candidates among retired senior employees with disabilities with the Kaohsiung City Training and Employment Center to make up the difference in 2023. We will also continue to regulate the employment of persons of disabilities.

### Concerns of Human Rights and Practice

We provide a safe and healthy workplace environment and eliminate discrimination to ensure equal job opportunity and ensure there is no child labor or forced labor. We

also help employees maintain mental and physical health and work-life balance. Please visit the [ESG section](#) for details regarding human rights protection training

### Training and Practice of Human Rights Protection

#### ✔ New employee training

On their arrival, new employees are requested to receive related compliance training, with topics including sexual harassment prevention, no discrimination, no harassment, working hours management, protection of humane treatment, and healthy and safe workplace environment. We also sign the commitment and agree to keep the commitment.

#### ✔ Preventing workplace violence

Through publicity and notices, we let employees understand their responsibility for assuring no workplace assaults. We also disclose grievance channels to build a friendly workplace environment.

#### ✔ Training for occupational safety

Training contents include OH&S education and training, fire safety training, emergency response, and first aid training.

#### ✔ Publicizing integrity and ethics

We arrange education and publicity on integrity and ethics in routine work and behavior to build a healthy and positive workplace culture.

✔ Human rights protection training: We continuously concern ourselves with human rights protection and implement relevant training to raise the awareness of human rights protection and lower the likelihood of the relevant risks. In 2022 we arranged a total of 3,631 hours of training related to human rights protection for 882 persons.

### Grievance system GRI 2-13, 2-25

We have established unfettered grievance channels for employees to report all internal problems to supervisors at all levels and the Human Resources Division. To maintain gender equality at work and provide employees and jobseekers with a work and service environment free of sexual harassment, we have established a dedicated mailbox and email for sexual harassment grievances. All information will be kept confidential during the investigation. Neither the name nor the data valid for identifying the complainant will be disclosed to ensure complainant protection. Please visit our [ESG website](#) for the details regarding grievance channels.

## Employee benefits GRI 401-2

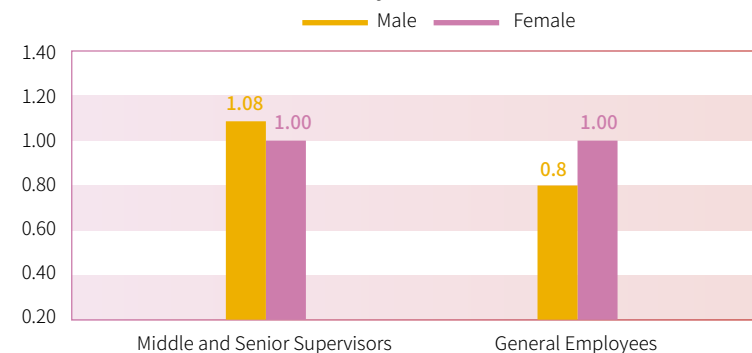
Employee benefits are our focus, and every USI employee is entitled to the following benefits:

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

## Equal salary and remuneration policy

Upholding the belief to share profits with employees, we attract, retain, cultivate, and encourage all kinds of outstanding talents and have established a comprehensive and competitive employee remuneration plan. The pay for new employees is higher than the legal minimum wage. Allowances vary based on the position and academic achievements. Year-end bonuses are distributed based on the employee's annual performance. We do not engage in salary discrimination based on race, social status, language, thought, religion, political party, native place, place of birth, gender, sexual orientation, age, marital status, pregnancy, appearance, facial features, physical/mental disabilities, horoscope, and blood type. Due to the characteristics of the petrochemical industry, the proportion of wage for female and male employees is slightly different. To stabilize the workforce and retain outstanding talents, apart from adjusting the pay for employees according to the consumer price index and personal performance of the employees every year, we participate in a compensation survey of the petrochemical industry to estimate pay standards in the market to make appropriate adjustments and planning. We also give a special raise to employees with outstanding performance to ensure that our pay is competitive with the market.

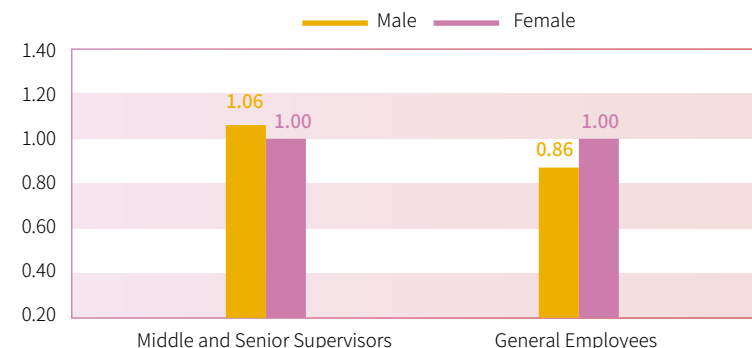
### Women-to-Men Ratio of Salary and Remuneration in 2022 (Base Salary)



Note 1: The base for female employees is "1." Remuneration in 2022 is the base salary of male and female employees. The calculation does not include contractual employees.

Note 2: Medium and senior management are employees of grades 8 or higher, while general employees are grades 7 and below.

### Women-to-Men Ratio of Salary and Remuneration in 2022 (Full Pay)



Note 1: The base for female employees is "1," including wage, bonuses and benefits. The calculation does not include contractual employees.

Note 2: Medium and senior management are employees of grades 8 or higher, while general employees are grades 7 and below.

Item	Contents	2022	Difference from the previous year
1	Number of non-management full-time employees	443	-17
2	"Average Earnings" of non-management full-time employees (NTD)	1,513,000	43,000
3	"Median Earnings" of non-management full-time employees (NTD)	1,376,000	58,000

## Health care benefits

Every year we arrange periodic health checkups for employees. Our Taipei HQ is equipped with a gym, and Kaohsiung Plant has qualified nurses who offer lifestyle advice and medical assistance to the employees there. We provide menstruation leave and individual breastfeeding space for female employees and have cooperation with kindergartens and educational organizations to provide daycare services for employees. In addition, we periodically organize outdoor activities for employees to maintain a balance between work and life.

In 2022 a total of 9 employees applied for the childbirth funding. Employees in need of the parental leave may apply for the leave when their children are under 3 years of age. In 2022 a total of 40 employees were entitled to the leave. In 2021 one employee applied for the unpaid parental leave for six months (Sep 2021- Feb 2022). This employee returned to work in February 2022 and is still in service by the end of 2022. We have designed perfect plans for employees to return to work after parental leave. When an employee returns after the unpaid parental leave, we will arrange reinstatement education/training for the employee to protect their right to work and ensure their smooth return to work. GRI 401-3

Item		Male	Female	Total
Annual Status	Number of employees entitled to parental leave	39	1	40
	Number of employees took unpaid parental leave in the year	0	0	0
Return to work Status	A) Total number of employees due to return to work after taking unpaid parental leave	1	0	1
	B) Total number of employees that did return to work after unpaid parental leave	1	0	1
	Return to work rate=B/A	100%	100%	100%
Retention Status	C) Total number of employees returning from parental leave in the prior reporting period	-	-	-
	D) Total number of employees retained 12 months after returning to work following a period of parental leave	-	-	-
	Return to work rate=D/C	-	-	-

## Pension contribution GRI 201-3

We have established a set of retirement regulations for all full-time employees and contribute every month the employee pension reserves to the personal pension account at the Labor Insurance Bureau for each employee in accordance with the Labor Standards Act. Please refer to the information of [benefit pension plans disclosed notes 21 of the 2022 Individual Financial Statement](#) for details regarding contribution.

Item	Proportion of Contribution	Employee Participation in the Retirement Plan
<b>Pension under the Labor Standards Act (old system)</b>	Employer contribution: 12% of the employee's monthly wage.	100%
<b>Pension under the Labor Pension Act</b>	Employer contribution: 6% of the employee's monthly wage. Employee contribution: 0-6% of the employee's monthly wage.	100%

## Labor union

We have a labor union and protect the right to collective bargaining and freedom of association of the employees. This fully demonstrates our determination to maintain labor rights and benefits. Every year, representatives elected by the employees attend the "labor-management-meeting" held periodically by the management to negotiate and discuss matters relating to labor conditions and employee welfare. In addition, relevant officers from management attend the "board meeting" and the "member representatives' annual congress" held by the union to listen to the voices and appeals of employees and engage in face-to-face communication with the member representatives in order to arrive at a consensus, promote labor-management cooperation and create a win-win situation for both parties through this process. As we maintain sound communication with employees through the labor union and labor-management meeting, no collective bargaining agreement has been concluded.

By the end of 2022, the labor union had a total of 348 members, including 13 female members and 335 male members. Except for employees of the Taipei HQ who are unable to join the union for the geographic reasons, and the unit chiefs and personnel staff of Kaohsiung Plant who are not allowed to join the union by law, all employees of Kaohsiung Plant are union members, with a 100% participation rate. In addition, representatives of labor and management have formed the “Pension Reserve Supervisory Committee,” the “Employee Welfare Committee,” and the “Occupational Safety and Health Committee.” These committees hold meetings at planned intervals to provide a channel for labor and management to communicate and thereby maintain labor rights and benefits. GRI 102-41

➤ Please refer to Remuneration and Benefit System - USI Corporation (usife.com) for the organizational structure of the labor union

### 2022 Member Representatives' Annual Congress



### Employee Welfare Committee

Each month we contribute 0.15% of the sales turnover to the fund for the Employee Welfare Committee (EWC) for employee tour subsidies, the preschool entertainment subsidy and study grants the children of employees to repay the devotion of employees. In 2022 a total of 186 employees applied for the preschool entertainment funding and study grants, and a total of 306 children received the funds, i.e., an average of 1.65 children/person, higher than the Taiwan’s average at 1.08/person (according to USA CIA public information, 2022: <https://reurl.cc/yQjb7q>). This suggests that our employee welfare policy has brought influence to the domestic society. In terms of employee clubs, we have 11 employee clubs so far, including a badminton club, a baseball club, a table tennis club, a tennis club and so on. The company and the Employee Welfare Committee guide and sponsor them. Employees can relieve their work stress, promote their health with club activities, and thereby improve their organizational commitment.





## Concerns for employee benefits and opinions

To strengthen employee care and meet the needs of employees, we continuously introduce various measures for employee welfare, employee reward, employee development, and employee communication:

### ✔ Performance evaluation

With respect to the “Employee Performance Evaluation Regulations” and “Employee Performance Supervision and Guidance Regulations,” officers and employees establish the annual performance evaluation targets together for the periodic performance evaluation. We also supervise and guide employees failing to meet the company’s performance requirements and maintain persistent observation to maintain organizational competitiveness.

To distinguish employees with excellent performance from those requiring guidance, we implement the “Employee Performance Supervision/Guidance” program for employees graded C and below in the annual performance evaluation. We will also terminate the employment contract with those who fail the program.

### ✔ Reward for improvement proposals

We constantly combine USIG’s proposal reward scheme and the real-time reward scheme to establish the “Regulations for Rewarding Outstanding Performance and Improvement Proposals.”

### ✔ Year-end bonus differentiation

We integrate USIG’s year-end bonus distribution to combine the year-end bonus with reward and punishment to reward the merits and punish the demerits.

The year-end bonus is distributed according to the “Employee Performance Evaluation Regulations.” For employees with poor performance, unwilling to take orders from their supervisors, or with other gross negligence, we will cancel or cut their year-end bonus with the president’s approval.



## 5.4 Talent Cultivation and Development

### Sustainability Principle: Sustainable Development

Significance and Strategy	Achievement and Goal	Sustainable Development Milestone	Management
<p style="text-align: center;"><b>Significance to USI</b></p> <hr/> <p>Talents are the company's irreplaceable core asset. Steadily and constantly growing human resources are the bedrock of steady operations to enhance overall corporate efficiency.</p> <p style="text-align: center;"><b>Strategy</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Establish a systematic employee development mechanism.</li> <li>2. Provide learning resources in various fields.</li> <li>3. Enforce a level-specific management competence training mechanism.</li> </ol> <p style="text-align: center;"><b>Commitment</b></p> <hr/> <p>Provide a multidimensional framework and complete resources for talent development for employees to demonstrate potential and make contributions according to their personal traits and specialties. Data scope: USI coverage 100%</p>	<p style="text-align: center;"><b>2022 Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Annual training for indirect labor: 8+hours.</li> <li>2. Plan and activate a level-specific management competence training mechanism.</li> <li>3. Provide supervisors and employees with comprehensive training courses.</li> <li>4. Develop a talent cultivation system.</li> </ol> <p style="text-align: center;"><b>2022 Projects</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Level-specific management competence training mechanism</li> <li>2. Talent matrix inventory</li> </ol> <p style="text-align: center;"><b>2022 Achievements</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Average hours of training per employee in 2022: 21.90 hours</li> <li>2. Total hours of training in 2022: 9,450 hours</li> <li>3. Average training fee per person in 2022: approx. NT\$1,514</li> <li>4. On-site workers acquired a total of 90 required professional certificates.</li> </ol>	<p style="text-align: center;"><b>2023 Targets</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Annual training for indirect labor: 8+hours.</li> <li>2. Implement a level-specific management competence training mechanism.</li> <li>3. Enforce annual circulating courses.</li> <li>4. Continue to enhance talent inventory and the evaluation system.</li> </ol> <p style="text-align: center;"><b>3-Year Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Assess stage results after assessing training courses and training.</li> <li>2. Establish channels for equal career development.</li> <li>3. Enforce a level-specific management competence training mechanism.</li> </ol> <p style="text-align: center;"><b>5-Year Goals</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Integration of workforce rotation and promotion mechanisms</li> <li>2. Strengthen overall performance and the talent development system.</li> <li>3. Eliminate interruption in talent succession for corporate sustainable development.</li> </ol>	<p style="text-align: center;"><b>Effectiveness Assessment</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Annual training for indirect labor: 8+hours.</li> <li>2. Acquire various professional licenses and certificates.</li> <li>3. Annual training fees per employee</li> <li>4. Performance evaluation mechanism</li> </ol> <p style="text-align: center;"><b>Grievance Mechanism</b></p> <hr/> <p>Labor union, Employee Grievance Regulations, whistleblower policy in the Ethical Corporate Management Best Practice Principles, and employee suggestion box.</p> <p style="text-align: center;"><b>Chapter Summary</b></p> <hr/> <ol style="list-style-type: none"> <li>1. Education/training</li> <li>2. R&amp;D personnel training and planning</li> <li>3. Diversified and complete employee development framework</li> <li>4. Talent Development</li> <li>5. Employee development.</li> </ol>

### Multidimensional and Complete Personnel Development Framework

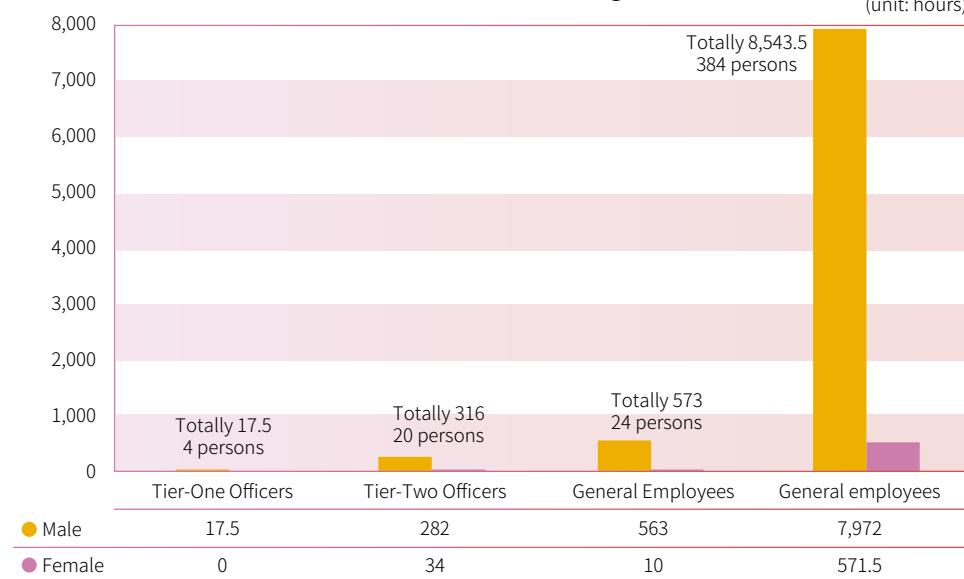
Through work planning and performance management, we establish the “overall performance and talent development system” for business units to optimize their key missions to and for departments to fully demonstrate their functions so as to enforce talent cultivation and succession planning.

## Education/training

In 2022, we provided employee training for a total of 9,450 hours (including training courses participated by employees and organized by the group). The average training length was 21.9 hours/person, with a training expense of about NT\$687 thousand. As most male supervisors were from production departments, they needed longer HSE license training than female supervisors. We are committed to building a continuous and rich learning environment to systematically provide employees of different jobs with a series of general and special education courses and management courses. Apart from hiring external experts as instructors, we also cultivate internal instructors to pass on USI's important knowledge and technology.

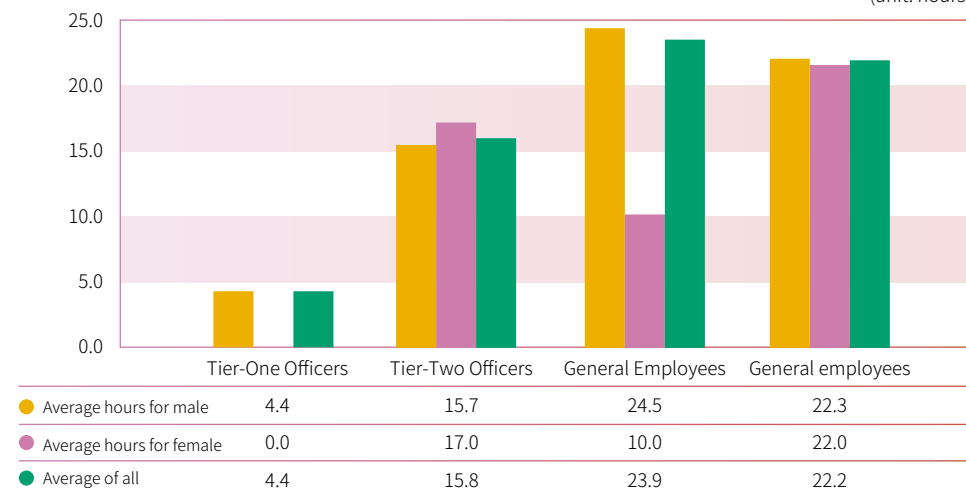
In addition, we provide multidimensional learning channels and resources, including on-the-job training, job guidance, mentoring, job rotation, onsite instruction, and e-learning. For employees with high learning intentions and developmental potential, we finance them to pursue continuing education in domestic universities and adjust their duties for training, in order to cultivate business successors. GRI 404-1

**Total Hours of Training in 2022** (unit: hours)



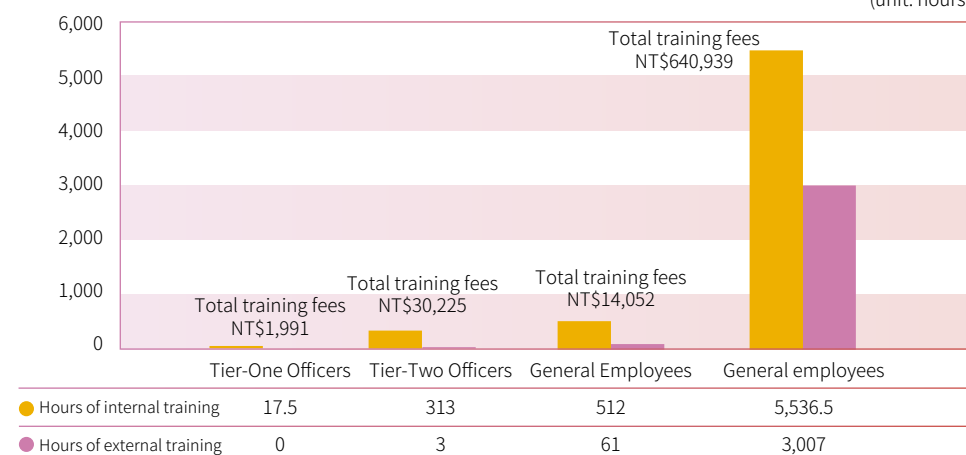
Note: Senior supervisors are employees of grades 13 and higher; tier-one officers are employees of grades 10-12; tier-two officers are employees of grades 8-9; and general employees are employees of grades 7 and below.

**Average Hours of Training Per Employee in 2022** (unit: hours)



As shown in the distributions of internal training and external training, we offer well-planned internal and external training resources to employees. Apart from hiring external professional instructors to give classes in the facility, employees can also apply for training at external professional training organizations through the online application system.

**Distributions of Internal/External Training 2022** (unit: hours)



**Programs for upgrading employee skills** GRI 404-2

- 1 Regardless of age, employees relating to production are validated in accordance with the “Employee Training and Competence” (OP-KHI-720-01) and obtain the in-house certificate of qualification. Employees are to re-validate every three years to ensure their competence meets the demand of work.
- 2 Regardless of age, equipment personnel are sent to training in accordance with the Occupational Safety and Health Act to obtain government licenses. Employees also receive recurrent training every three years to ensure the validity of certificates.

The above measures can ensure the professional competence for re-employment in the future.

**Transition assistance programs to support employees on retirement or terminating employment**

- 1 We arrange suitable employees for succession planning with officers or senior technicians and mechanics qualified for retirement for job training or handover to reduce the physical and mental workload of these employees and facilitate their planning for later life.
- 2 We also help reigning or laying off employees applying for the relevant subsidies or give them the redundancy (severance) payment for them to maintain daily living during the transition. We also refer them to the government employment or training agencies to help them return to workplace as quickly as possible.

## 5.5 Charity and Community Participation

### Community care

In addition to caring for the education of the vulnerable, education in remote townships, and environmental education through the USI Education Foundation, upholding the spirit of “giving back”, we spare no effort in expressing our care for the communities, local groups, and schools in the vicinity of the Kaohsiung Plant to maintain and develop positive relationships with these neighbors. With the general affairs section being the contact, a team of five employees maintain sound interaction with local communities to develop good friendship.

During the pandemic, we provided epidemic control materials to local communities, schools, and fire units from time to time. In the past three years, we have given back to local communities an amount over NT\$1.6 million.



**Community support**

Community development associations, education and culture, volunteer police and firefighters, community groups, local folk festivities, emergency relief, and air quality purification zone.



**Job opportunities**

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



**Community involvement**

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

### Charity ball games

USIG combines sports with charity. In 2022 it organized the 3<sup>rd</sup> USI Cup Charity Softball Competition with a total of 120 participants. The USI Education Foundation sponsoring the meals specifically order meals from the Children Are Us Foundation Sheltered Workshop. Additionally, all USIG business and employees made an additional donation of NT\$14,000 to the Children Are Us Foundation to help the sustainable development of disadvantaged groups. Please refer to Latest News - USI Corporation (usife.com)

## Industry-academia collaboration

In response to declining student numbers in recent years, schools are developing more sophisticated and unique education approaches and programs to provide students with a high-quality and comprehensive learning environment. In the context of the population and education trends in Renwu and Dashe districts, Kaohsiung Plant and other 13 other plants (including Formosa Plastics Renwu, the Chang Chun Group, and the Dashe Industrial Park Enterprises Association) of Renda Industrial Park and Renwu Senior High School have established an industry-academia collaboration model to cultivate a talent pool for the future and for local schools to develop dynamic learning models and strengthen their ability to attract more top students through their linkages with enterprises.

This collaboration model among industry, government and academe aims to develop high-caliber students with market-relevant skills and sound employment prospects. Enterprises will have direct access and warm relationships with specifically trained talent, and they can develop positive relationships with neighboring communities in a substantial way. Moreover, the government can promote local prosperity, close the urban-rural gap, bolster regional economic development, and minimize brain drain. Thus, the project will produce a win-win-win situation for the students, schools, enterprises, communities and the local government.



### “Kaohsiung Renda Petrochemical Talent Stream” Cooperation Program

<b>Period</b>	August 1, 2018 to July 31, 2023 (three graduation classes for five years)
<b>Partner</b>	Kaohsiung Municipal Renwu Senior High School
<b>Target</b>	Students with household registrations in Renwu, Dashe, Dashu, Niaosong, and Nanzi districts near Renda Industrial Park, 35 tenth graders a year.
<b>Internship</b>	<ol style="list-style-type: none"> <li>In addition to the general tenth grade curriculum, electives relating to the petrochemical industry and professional ethics are emphasized.</li> <li>Students on the program will visit USI during the summer break or on Saturdays to further understand the industry and job environment.</li> </ol>
<b>Vacancy</b>	10 students each year, totaling 90 for three graduation classes in five years.
<b>Scholarships and grants</b>	<p>Three graduation classes in five years: NT\$1.08 million</p> <p>Subsidization for the hourly pay for professional courses in three years: NT\$330,000</p> <p>USI sharing for three graduation classes in five years based on the program MOU: NT\$140,000.</p>
<b>Preferential hiring</b>	<ol style="list-style-type: none"> <li>USI will recommend one student from the top-ten graduating students studying at the relevant departments recognized by businesses at the Ren Da Industrial Park to be the trainee of an USI supplier.</li> <li>Students who choose to further their studies will be priority candidates for hiring by companies in the Ren Da Industrial Park Service Center as long as they pursue studies in relevant disciplines</li> </ol>
<b>Summary</b>	<ol style="list-style-type: none"> <li>In 2020 a total of 27 students graduated from the Kaohsiung Renda Petrochemical Talent Stream program enrolled to the Star Plan and were accepted by national universities, demonstrating outstanding performance.</li> <li>The contract for the second Kaohsiung Renda Petrochemical Talent Stream program was signed on April 20, 2018 and initiated in August. In view of the program’s heated acclaim, we continued with the third program (2021-2025), with the contract signed on December 20, 2020.</li> <li>Changed into the domestic offsite learning plan in 2022 due to the pandemic.</li> </ol>

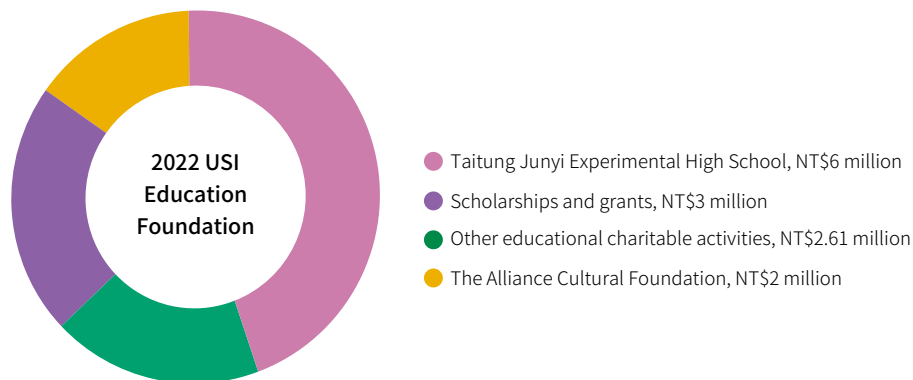
## USI Education Foundation

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

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

### Charity Events

In 2022, we donated NT\$5 million to the USI Education Foundation to sponsor various charitable activities through the foundation for a total of NT\$13.61 million, including NT\$3 million for scholarships and grants; NT\$2 million for The Alliance Cultural Foundation, NT\$6 million for Junyi Experimental High School in Taitung; and NT\$2.61 million for other educational and charitable activities. To invest more resources in cultural and art development, we also supported the Cloud Gate Culture and Art Foundation to promote its performances at home and abroad in 2022, as well as art education and residents' arts and cultural activities in the Tamsui community, enriching the cultural life of Taiwan and the world.



## Scholarships and grants

We offer scholarships to students from low-income families with outstanding performance and specializing in disciplines relating to chemical engineering, materials science, chemistry, and applied chemistry of 15 public and private universities to promote education and talent cultivation in related fields, encourage university students of related disciplines to study hard and cultivate outstanding industrial talents for society. 2022 marked the 11th anniversary of USI scholarships. Over the years, we have accumulatively granted scholarships amounting to NT\$17.1 million to 297 students.

In 2022, we offered scholarships and grants of NT\$3 million in total to 31 students from 17 departments of 11 public and private universities, including 10 from doctoral programs, 16 from master's programs, and 5 undergraduates - 23 of them were from low-income families. To encourage scholarship-winning students, the presentation and commendation ceremony was held at noon on December 9, 2022. USI officers attended the event to exchange opinions and experience with students, wishing them to keep studying in order to demonstrate positive influence and contribute to society.



## The Alliance Cultural Foundation and Taitung Junyi School of Innovation

To invest more resources in rural education and the sustainable development of Hualien and Taitung, the foundation sponsors the Alliance Cultural Foundation and Junyi School of Innovation on a long-term basis. Established 13 years ago, The Alliance Cultural Foundation always has a blueprint: hoping that Junyi School of Innovation will become the base in Hualien and Taitung for developing future talents. It also helped building the Paul Chiang Art Center into an international cultural and art landmark in Taitung and even in Taiwan, while the Forest Culture Museum in Yanping, Taitung, and GS Forest in Fengbin, Hualien, are demonstrations of indigenous culture and arts distributed in all parts of Taitung and Hualien.

Currently, relief for the poor is the common practice of most charities. However, to accompany economically disadvantaged children to walk out of the bonds from their families and broaden their horizons for them to find their future development and eventually give back to society all the way round is what our society needs now.

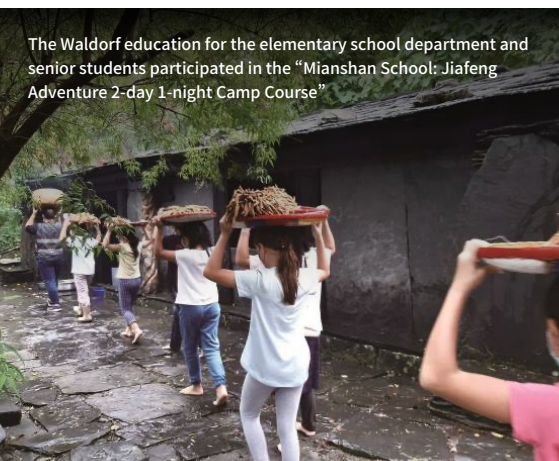
The teacher training program of The Alliance Cultural Foundation and Taitung Junyi School of Innovation continues to spread the experimental education model into a roadmap for government to modify the remote township's policies. Additionally, they also invite more domestic and overseas key influencers to Taitung to translate what they see and feel into text, images, and other forms of creations and spread them in their hometowns or home countries. We believe that in the next three to five years, more substantiated achievements of the sustainable development of Hualien and Taitung will be spotted.

## Taitung Junyi School of Innovation: Realization of education for remote townships

According to international research, only 30% of people are good at exploring knowledge through reading or the traditional classroom learning model, while the other 70% are suitable for learning from doing to turn experience into knowledge. How to let students acquire knowledge from practice and application is what the current education system of Taiwan lacks. Conversely, it is the strengths of Hualien and Taitung and the direction for changing education in remote townships of The Alliance Cultural Foundation.

For economically vulnerable children to get the opportunity to change their life, the "Rural Education Seeds Cultivation Program" founded in 2012 and Taitung Junyi School of Innovation that supports economically vulnerable children from families of remote townships in Hualien and Taitung (also include Pingtung in recent years) have cultivated a total of 210 students from low- and medium-income families, single-parent families, skipped-generation families, or education seeds dedicating to indigenous culture promotion accumulatively in 2022, the onset of another decade of the program. They hope that each education seed can become youth with "good character," "cultural and art" literacy, and "critical thinking" and a world citizen who embraces enthusiasm, self-confidence, and international perspective and return to indigenous communities to become the seeds that change indigenous communities.

In 2017, the Alliance activated the "Innovation and Overseas Study Education Fund" to provide scholarships for students of Junyi School of Innovation to apply for overseas study at two-year community colleges, the United World College, or four-year universities as the start of connection with the point, develop specialties, and broaden their international perspective, so that they can become the power to change their communities and hometowns in the future. A total of 7 students studied overseas in the program in 2022.



The Waldorf education for the elementary school department and senior students participated in the "Mianshan School: Jiafeng Adventure 2-day 1-night Camp Course"



The "Creativity Module" of the senior high school department enables students to learn more about themselves through "exploration, inspiration, and achievement".



Students of the "Creativity Module-International Hospitality" course of the senior high school department coordinates the Thanksgiving dinner.



The capstone project of students of the senior high school department presents the achievements of "self-learning" over the past three years.

### Toufen Junior High School Music Program

By integrating with the Harvest 365 Music Program of the Harvest 365 Foundation (Harvest 365), The Alliance Cultural Foundation collaborated with Toufen Junior High School to introduce the Toufen Junior High School Music Education Program in September 2021. The professional choir instructors of Harvest 365 collaborated with the music teachers of Toufen Junior High School to form the Harmony Choir with 7th and 8th graders. Currently the choir has 25 members. Apart from the routine school club time, the choir also practices after class. It is hoped that vocal art can keep students in company through their growth and motivate students to perform on stage at the annual music festival so as to develop self-confidence in students.



Harmony Choir of Toufen Elementary High School

### Sponsoring subsidiaries CGPC and TTC organize Coastal Clean-up

In support for the marine environmental protection policy of the Miaoli Environmental Protection Bureau, China General Plastics Corporation (CGPC), a USIG subsidiary, adopted 500m coast of Long Fong Fishing Port in Zhunan Town in 2017. The fifth coastal clean-up after the adoption took place on September 24, 2022. Under the leadership of CGPC Vice Chairman Lin and with the support of Taita Chemical Company Limited (TTC), a total of 200 employees participated in the cleanup.



Coastal clean-up activity



Coastal clean-up activity



## Sponsoring other educational and philanthropic activities

Other major sponsorships in 2022 included BOYO Social Welfare Foundation, Teach for Taiwan Association, Education Support for Taiwan, Cloud Gate Culture and Arts Foundation, and Taitung Blue Ocean Daily.

1 Founded in 2002, BOYO Social Welfare Foundation provides free “remedial instruction” after-school club services for junior high school and elementary school students from low-income families in the belief that “education gives hopes for children living in poverty” so as to achieve its mission “End Poverty with Education”. Additionally, the foundation also provides “care guidance” to remedy learning instability for each child from vulnerable groups to receive an appropriate education environment, in order to develop their basic capacity and social competitiveness to end poverty in the future with their own ability. Since BOYO Social Welfare Foundation was established 20 years ago, each year it invests a large amount of labor and resources in curriculum design, develops remedial teaching materials, and trains parents in the community. Currently, there are 17 locations to provide after-school club service for over 2,000 students.



2 Founded in 2013, Teach for Taiwan (TFT) is a non-profit organization caring for “education inequity”, hoping to create equal opportunities in education for every child. Through training competent youth with a sense of mission to teach at elementary schools in low-income rural communities for at least two years, TFT resolves the long

teacher shortage and high turnover rate problems in the rural area. Since 2014, it has sent over 300 quality talents to the rural areas, including Taitung, Tainan, Pingtung, Yunlin, Hualien, and Nantou, to help over 6,000 children from vulnerable groups.



3 Education Support for Taiwan was founded in 2019 to start services with School-children accompaniment. It is now in over 230 schools and regional groups in all cities and countries, including offshore islands, to help schools solve problems and find developmental advantages. In 2022 it began promoting the “No-License Substitute Teacher Support Program” starting from Taitung. By accompanying substitute teachers with “partner teachers”, they provide corresponding guidance and support based on the situation and needs.

4 Cloud Gate Culture and Arts Foundation is a non-profit business aiming to “promote cultural development and international exchange through creation, performance, and promotion of dance and other arts and cultural activities”. Apart from promoting domestic and overseas performance over time to enrich the cultural life of Taiwan and the world, it also engages in promoting community art education and citizen arts and cultural activities in Danshui.

5 Taitung Blue Ocean Daily is a brand-new Taitung-specific ocean culture exchange activity promoted by the Taitung County Government in 2022 for the first time. For two consecutive weekends between September 17-25, based on the slow travel and downshifting concepts, they launched the immersive ocean recreation life experience in Sanyuan Bay, Huosui Lake, Jinjun, and Green Island and combined with the Austronesian culture to provide ocean culture education and training and outrigger canoe experience for more citizens to understand the Austronesian island culture so as to progressively start connecting Taitung's recreation development with the world.



Outrigger canoe cultural exchange

# Chapter 6 Appendices



1965	2042	2091	2138	2186	2235	2284	2332	2380	2428	2476	2524	2572	2620	2668	2716	2764	2812	2860	2908	2956	3004	3052	3100	3148	3196	3244	3292	3340	3388	3436	3484	3532	3580	3628	3676	3724	3772	3820	3868	3916	3964	4012	4060	4108	4156	4204	4252	4300	4348	4396	4444	4492	4540	4588	4636	4684	4732	4780	4828	4876	4924	4972	5020	5068	5116	5164	5212	5260	5308	5356	5404	5452	5500	5548	5596	5644	5692	5740	5788	5836	5884	5932	5980	6028	6076	6124	6172	6220	6268	6316	6364	6412	6460	6508	6556	6604	6652	6700	6748	6796	6844	6892	6940	6988	7036	7084	7132	7180	7228	7276	7324	7372	7420	7468	7516	7564	7612	7660	7708	7756	7804	7852	7900	7948	7996	8044	8092	8140	8188	8236	8284	8332	8380	8428	8476	8524	8572	8620	8668	8716	8764	8812	8860	8908	8956	9004	9052	9100	9148	9196	9244	9292	9340	9388	9436	9484	9532	9580	9628	9676	9724	9772	9820	9868	9916	9964	10012	10060	10108	10156	10204	10252	10300	10348	10396	10444	10492	10540	10588	10636	10684	10732	10780	10828	10876	10924	10972	11020	11068	11116	11164	11212	11260	11308	11356	11404	11452	11500	11548	11596	11644	11692	11740	11788	11836	11884	11932	11980	12028	12076	12124	12172	12220	12268	12316	12364	12412	12460	12508	12556	12604	12652	12700	12748	12796	12844	12892	12940	12988	13036	13084	13132	13180	13228	13276	13324	13372	13420	13468	13516	13564	13612	13660	13708	13756	13804	13852	13900	13948	13996	14044	14092	14140	14188	14236	14284	14332	14380	14428	14476	14524	14572	14620	14668	14716	14764	14812	14860	14908	14956	15004	15052	15100	15148	15196	15244	15292	15340	15388	15436	15484	15532	15580	15628	15676	15724	15772	15820	15868	15916	15964	16012	16060	16108	16156	16204	16252	16300	16348	16396	16444	16492	16540	16588	16636	16684	16732	16780	16828	16876	16924	16972	17020	17068	17116	17164	17212	17260	17308	17356	17404	17452	17500	17548	17596	17644	17692	17740	17788	17836	17884	17932	17980	18028	18076	18124	18172	18220	18268	18316	18364	18412	18460	18508	18556	18604	18652	18700	18748	18796	18844	18892	18940	18988	19036	19084	19132	19180	19228	19276	19324	19372	19420	19468	19516	19564	19612	19660	19708	19756	19804	19852	19900	19948	19996	20044	20092	20140	20188	20236	20284	20332	20380	20428	20476	20524	20572	20620	20668	20716	20764	20812	20860	20908	20956	21004	21052	21100	21148	21196	21244	21292	21340	21388	21436	21484	21532	21580	21628	21676	21724	21772	21820	21868	21916	21964	22012	22060	22108	22156	22204	22252	22300	22348	22396	22444	22492	22540	22588	22636	22684	22732	22780	22828	22876	22924	22972	23020	23068	23116	23164	23212	23260	23308	23356	23404	23452	23500	23548	23596	23644	23692	23740	23788	23836	23884	23932	23980	24028	24076	24124	24172	24220	24268	24316	24364	24412	24460	24508	24556	24604	24652	24700	24748	24796	24844	24892	24940	24988	25036	25084	25132	25180	25228	25276	25324	25372	25420	25468	25516	25564	25612	25660	25708	25756	25804	25852	25900	25948	25996	26044	26092	26140	26188	26236	26284	26332	26380	26428	26476	26524	26572	26620	26668	26716	26764	26812	26860	26908	26956	27004	27052	27100	27148	27196	27244	27292	27340	27388	27436	27484	27532	27580	27628	27676	27724	27772	27820	27868	27916	27964	28012	28060	28108	28156	28204	28252	28300	28348	28396	28444	28492	28540	28588	28636	28684	28732	28780	28828	28876	28924	28972	29020	29068	29116	29164	29212	29260	29308	29356	29404	29452	29500	29548	29596	29644	29692	29740	29788	29836	29884	29932	29980	30028	30076	30124	30172	30220	30268	30316	30364	30412	30460	30508	30556	30604	30652	30700	30748	30796	30844	30892	30940	30988	31036	31084	31132	31180	31228	31276	31324	31372	31420	31468	31516	31564	31612	31660	31708	31756	31804	31852	31900	31948	31996	32044	32092	32140	32188	32236	32284	32332	32380	32428	32476	32524	32572	32620	32668	32716	32764	32812	32860	32908	32956	33004	33052	33100	33148	33196	33244	33292	33340	33388	33436	33484	33532	33580	33628	33676	33724	33772	33820	33868	33916	33964	34012	34060	34108	34156	34204	34252	34300	34348	34396	34444	34492	34540	34588	34636	34684	34732	34780	34828	34876	34924	34972	35020	35068	35116	35164	35212	35260	35308	35356	35404	35452	35500	35548	35596	35644	35692	35740	35788	35836	35884	35932	35980	36028	36076	36124	36172	36220	36268	36316	36364	36412	36460	36508	36556	36604	36652	36700	36748	36796	36844	36892	36940	36988	37036	37084	37132	37180	37228	37276	37324	37372	37420	37468	37516	37564	37612	37660	37708	37756	37804	37852	37900	37948	37996	38044	38092	38140	38188	38236	38284	38332	38380	38428	38476	38524	38572	38620	38668	38716	38764	38812	38860	38908	38956	39004	39052	39100	39148	39196	39244	39292	39340	39388	39436	39484	39532	39580	39628	39676	39724	39772	39820	39868	39916	39964	40012	40060	40108	40156	40204	40252	40300	40348	40396	40444	40492	40540	40588	40636	40684	40732	40780	40828	40876	40924	40972	41020	41068	41116	41164	41212	41260	41308	41356	41404	41452	41500	41548	41596	41644	41692	41740	41788	41836	41884	41932	41980	42028	42076	42124	42172	42220	42268	42316	42364	42412	42460	42508	42556	42604	42652	42700	42748	42796	42844	42892	42940	42988	43036	43084	43132	43180	43228	43276	4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## 6.1 GRI Content Index

USI Corporation has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022 using GRI 1 (GRI 1: Foundation 2021).

### GRI 2: General Disclosures 2021

Disclosure Item		Section	Page	Remarks	
The organization and its reporting practices	2-1	Organizational details	1.2 Company Profile	<a href="#">15</a>	
	2-2	Entities included in the organization's sustainability reporting	0.2 About this report	<a href="#">4</a>	
	2-3	Reporting period, frequency and contact point	0.2 About this report	<a href="#">5</a>	
	2-4	Restatements of information	--	--	No restatements of information
	2-5	External assurance	0.2 About this report	<a href="#">4</a> 、 <a href="#">152</a>	
Activities and workers	2-6	Activities, value chain and other business relationships	1.2 Company Profile, 1.4 Management of Material Topics, 3.3 Supply Chain Management, 3.4 Sales and Customer Services	<a href="#">15-17</a> 、 <a href="#">27</a> 、 <a href="#">62</a> 、 <a href="#">65-69</a>	
	2-7	Employees	1.2 Company Profile, 5.3 Talent Attraction and Retention	<a href="#">15</a> 、 <a href="#">119-122</a>	
	2-8	Workers who are not employees	5.3 Talent Attraction and Retention	<a href="#">103</a> 、 <a href="#">119-122</a>	
Governance	2-9	Governance structure and composition	2.1 Corporate Governance	<a href="#">29-30</a>	
	2-10	Nomination and selection of the highest governance body	2.1 Corporate Governance	<a href="#">29-31</a> 、 <a href="#">35-36</a>	
	2-11	Chair of the highest governance body	2.1 Corporate Governance	<a href="#">29-32</a>	
	2-12	Role of the highest governance body in overseeing the management of impacts	2.1 Corporate Governance	<a href="#">29-30</a>	
	2-13	Delegation of responsibility for managing impacts	2.3 Risk Management, 5.3 Talent Attraction and Retention	<a href="#">43-44</a> 、 <a href="#">124</a>	
	2-14	Role of the highest governance body in sustainability reporting	0.2 About this report, 1.4 Management of Material Topics 2.1 Corporate Governance	<a href="#">4</a> 、 <a href="#">23</a> 、 <a href="#">36-37</a>	
	2-15	Conflicts of interest	2.1 Corporate Governance	<a href="#">32</a>	
	2-16	Communication of critical concerns	2.1 Corporate Governance 2.4 Ethical Corporate Management and Legal Compliance	<a href="#">37</a> 、 <a href="#">46-48</a>	

GRI 2: General Disclosures 2021					
Disclosure Item			Section	Page	Remarks
Governance	2-17	Collective knowledge of the highest governance body	2.1 Corporate Governance 2.4 Ethical Corporate Management and Legal Compliance	<u>34</u> 、 <u>47</u>	
	2-18	Evaluation of the performance of the highest governance body	2.1 Corporate Governance	<u>33-35</u>	
	2-19	Remuneration policies	2.1 Corporate Governance	<u>35</u>	
	2-20	Process to determine remuneration	2.1 Corporate Governance	<u>35</u>	
	2-21	Annual total compensation ratio	2.1 Corporate Governance	<u>35</u>	
Strategy, policies and practices	2-22	Statement on sustainable development strategy	1.1 Sustainable Development Visions and Goals 2.1 Corporate Governance	<u>11-14</u>	
	2-23	Policy commitments	0.1 Message from the Chairman, 2.1 Corporate Governance 5.3 Talent Attraction and Retention	<u>3</u> 、 <u>29</u> 、 <u>123</u>	
	2-24	Embedding policy commitments	2.1 Corporate Governance, 5.3 Talent Attraction and Retention	<u>34</u> 、 <u>124</u>	
	2-25	Processes to remediate negative impacts	2.2 Economic Performance, 2.3 Risk Management 2.5 Smart Management, 3.1 Technology R&D, 3.2 Product Quality 3.3 Supply Chain Management, 4.2 Water Resources Management 4.3 Air Pollution Control, 4.4 Waste Management 4.5 Climate Change and Energy Management 5.2 Occupational Health and Safety 5.3 Talent Attraction and Retention, 5.4 Talent Cultivation and Development	<u>38</u> 、 <u>45</u> 、 <u>49</u> <u>52</u> 、 <u>59</u> 、 <u>62</u> <u>75</u> 、 <u>80</u> 、 <u>83</u> 、 <u>87</u> <u>102</u> 、 <u>118</u> 、 <u>124</u>	
	2-26	Mechanisms for seeking advice and raising concerns	2.3 Risk Management	<u>45</u>	
	2-27	Compliance with laws and regulations	2.4 Ethical Corporate Management and Legal Compliance	<u>46-48</u>	
	2-28	Membership of associations	1.2 Company Profile	<u>17</u>	
	Stakeholder engagement	2-29	Approach to stakeholder engagement	1.3 Stakeholder Engagement	<u>20-22</u>
2-30		Collective bargaining agreements	--	--	No collective bargaining agreement signed with employees

GRI 3 Material Topics 2021						
Material Topics	Management approach and disclosures			Section	Page	Remarks
Category: Governance						
<b>Economic performance</b>	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23-24</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	2.2 Economic Performance	<u>38</u>	
	GRI 201 : Economic Performance 2016	201-1	Direct economic value generated and distributed	2.2 Economic Performance	<u>39</u>	
		201-2	Financial implications and other risks and opportunities due to climate change	4.5 Climate Change and Energy Management	<u>91-92</u>	
		201-3	Defined benefit plan obligations and other retirement plans	5.3 Talent Attraction and Retention	<u>126</u>	
		201-4	Financial assistance received from government	-		NA
<b>Smart management</b>	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	2.5 Smart Management	<u>49</u>	
	Non-GRI Standards topic, USI specific topics USI 203					
<b>Technology R&amp;D</b>	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	3.1 Technology R&D	<u>52 - 56</u>	
	Non-GRI Standards topic, specific topic USI 201					
<b>Product quality</b>	GRI 3: Material Topics 2021	3-1	Process to determinematerial topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	3.2 Product Quality	<u>59-61</u>	
	Non-GRI Standards topic, USI specific topic USI 202					

GRI 3 Material Topics 2021							
Material Topics		Management approach and disclosures			Section	Page	Remarks
<b>Category: Governance</b>							
SCM	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>		
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>		
		3-3	Management of material topics	3.3 Supply Chain Management	<u>62</u> \ <u>66</u>		
	GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	3.3 Supply Chain Management	<u>64</u>		
		308-2	Negative environmental impacts in the supply chain and actions taken	3.3 Supply Chain Management	<u>64</u> \ <u>65</u>		
	GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	3.3 Supply Chain Management	<u>64</u> \ <u>65</u>		
414-2		Negative social impacts in the supply chain and actions taken	3.3 Supply Chain Management	<u>64</u> \ <u>65</u>			
<b>Category: Environmental</b>							
Water resources management	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>		
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>		
		3-3	Management of material topics	4.2 Water Resources Management	<u>75</u>		
	GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	4.2 Water Resources Management	<u>76-78</u>		
		303-2	Management of water discharge-related impacts	4.2 Water Resources Management	<u>79</u>		
		303-3	Water withdrawal	4.2 Water Resources Management	<u>76</u>		
		303-4	Water discharge	4.2 Water Resources Management	<u>76</u>		
		303-5	Water consumption	4.2 Water Resources Management	<u>76</u>		
Air pollution control	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>		
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>		
		3-3	Management of material topics	4.3 Air Pollution Control	<u>80-82</u>		

GRI 3 Material Topics 2021						
Material Topics	Management approach and disclosures			Section	Page	Remarks
Category: Governance						
Air pollution control	GRI 305 Emissions 2016	305-1	Direct (Scope 1) GHG emissions.	4.5 Climate Change and Energy Management	<u>95</u> - <u>96</u>	
		305-2	Energy indirect (Scope 2) GHG emissions.	4.5 Climate Change and Energy Management	<u>95</u> - <u>96</u>	
		305-3	Other indirect (Scope 3) GHG emissions	4.5 Climate Change and Energy Management	<u>95</u> - <u>96</u>	
		305-4	GHG emissions intensity	4.5 Climate Change and Energy Management	<u>96</u>	
		305-5	Reduction of GHG emissions	4.5 Climate Change and Energy Management	<u>96</u>	
		305-6	Emissions of ozone-depleting substances (ODS)	No ODS emissions during production	-	N.A.
		305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	4.4 Air Pollution Control	<u>82</u>	
Waste management	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	4.4 Waste Management	<u>83</u> - <u>86</u>	
	GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	4.4 Waste Management	<u>84</u>	
		306-2	Management of significant waste-related impacts	4.4 Waste Management	<u>85</u>	
		306-3	Waste generated	4.4 Waste Management	<u>86</u>	
		306-4	Waste diverted from disposal	4.4 Waste Management	<u>86</u>	
		306-5	Waste directed to disposal	4.4 Waste Management	<u>86</u>	
Climate change and energy management	GRI 3: Material Topics 2021	3-1	Process determine material topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	4.5 Climate Change and Energy Management	<u>87-95</u>	



GRI 3 Material Topics 2021						
Material Topics	Management approach and disclosures			Section	Page	Remarks
<b>Category: Governance</b>						
<b>Climate change and energy management</b>	GRI 302 : Energy 2016	302-1	Energy consumption within the organization.	4.5 Climate Change and Energy Management	<a href="#">94</a>	
		302-2	Energy consumption outside of the organization	4.5 Climate Change and Energy management	<a href="#">95</a>	
		302-3	Energy intensity.	4.5 Climate Change and Energy Management	<a href="#">94</a>	
		302-4	Reduction of energy consumption	4.5 Climate Change and Energy Management	<a href="#">96</a>	
		302-5	Reductions in energy requirements of products and services	N/A		N/A
<b>Category: Social</b>						
<b>Occupational health and safety</b>	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<a href="#">23</a>	
		3-2	List of material topics	1.4 Management of Material Topics	<a href="#">24</a>	
		3-3	Management of material topics	5.2 Occupational Health and Safety	<a href="#">102</a>	
	GRI 403 Occupational Health and Safety-2018	403-1	Occupational health and safety management system	5.2 Occupational Health and Safety	<a href="#">103</a>	
		403-2	Hazard identification, risk assessment, and incident investigation	5.2 Occupational Health and Safety	<a href="#">106</a> \ <a href="#">111</a> \ <a href="#">115</a>	
		403-3	Occupational health services	5.2 Occupational Health and Safety	<a href="#">113-116</a>	
		403-4	Worker participation, consultation, and communication on occupational health and safety	5.2 Occupational Health and Safety	<a href="#">106</a>	
		403-5	Worker training on occupational health and safety	5.2 Occupational Health and Safety	<a href="#">112</a>	
		403-6	Promotion of worker health	5.2 Occupational Health and Safety	<a href="#">113</a> \ <a href="#">116</a>	
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	5.2 Occupational Health and Safety	<a href="#">106</a> \ <a href="#">115</a>	
		403-8	Workers covered by an occupational health and safety management system	5.2 Occupational Health and Safety	<a href="#">103</a>	
		403-9	Work-related injuries	5.2 Occupational Health and Safety	<a href="#">106</a> \ <a href="#">110</a>	
		403-10	Work-Related ill health	5.2 Occupational Health and Safety	<a href="#">114-115</a>	

GRI 3 Material Topics 2021						
Material Topics	Management approach and disclosures			Section	Page	Remarks
<b>Category: Social</b>						
<b>Talent attraction and retention</b>	GRI 3: Material Topics 2021	3-1	Process to determine material topics	1.4 Management of Material Topics	<u>23</u>	
		3-2	List of material topics	1.4 Management of Material Topics	<u>24</u>	
		3-3	Management of material topics	5.3 Talent Attraction and Retention	<u>118</u>	
	GRI 401 Employment 2016	401-1	New employee hires and employee turnover	5.3 Talent Attraction and Retention	<u>120-122</u>	
		401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5.3 Talent Attraction and Retention	<u>125</u>	
		401-3	Parental leave	5.3 Talent Attraction and Retention	<u>126</u>	
	GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	5.4 Talent Cultivation and Development	<u>130</u>	
		404-2	Programs for upgrading employee skills and transition assistance programs	5.4 Talent Cultivation and Development	<u>131</u>	
		404-3	Percentage of employees receiving regular performance and career development reviews	5.3 Talent Attraction and Retention	<u>121</u>	

## 6.2 Chemical Industry SASB Index

Item	Code	Accounting Metric	Unit of Measure	Corresponding Section	Page
Greenhouse Gas Emission	RT-CH-110a.1	Gross global Scope 1 emissions (tCO <sub>2</sub> e), percentage (%); covered under emissions-limiting regulations	Quantitative	4.5 Climate Change and Energy Management	96
	RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets			
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants:	Quantitative	4.3 Air Pollution Control	82
		(1) NO <sub>x</sub>			
		(2) SO <sub>x</sub>			
		(3) volatile organic compounds (VOCs)			
		(4) hazardous air pollutants (HAPs)			
Energy Management	RT-CH-130a.1	(1) Total energy consumed (GJ)	Quantitative	4.5 Climate Change and Energy Management	94
		(2) Percentage grid electricity			
		(3) Percentage renewable			
		(4) Total self-generated energy (GJ)			
Water Management	RT-CH-140a.1	(1) Total water withdrawn	Quantitative	4.2 Water Resources Management	76-78
		(2) Total water consumed			
		(3) Percentage of each in regions with high or extremely high baseline water stress and the proportion of (1) and (2)			
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations		2.4 Ethical Corporate Management and Legal Compliance	47
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks		4.2 Water Resources Management	76
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled	Quantitative	4.4 Waste Management	86
Community Relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests		N.A.	

Item	Code	Accounting Metric	Unit of Measure	Corresponding Section	Page
Workforce Health & Safety	RT-CH-320a.1	(1) Total recordable incident rate (TRIR) (Number of Incidents x 200,000)/Total Hours Worked)	Quantitative	5.2 Occupational Health and Safety	<a href="#">110</a>
		(2) fatality rate for (a) direct employees and (b) contract employees			
	RT-CH-320a.2	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks			
Product Design for Use-Phase Efficiency	RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	Quantitative	N/A	
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.1	Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances		N/A	
		Percentage of such products that have undergone a hazard assessment			
	RT-CH-410b.2	Discussion of strategy to manage chemicals of concern and develop alternatives with reduced human and/or environmental impact			
Genetically Modified Organisms	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)		N/A	
Management of the Legal & Regulatory Environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Description	2.4 Ethical Corporate Management and Legal Compliance	<a href="#">46</a> , <a href="#">47</a>
Operational Safety, Emergency Preparedness & Response	RT-CH-540a.1	Total Count of Process Safety Incidents (PSIC)	Quantitative	5.2 Occupational Health and Safety	<a href="#">108</a>
		Process safety total incident rate (PSTIR) (= The cumulative count of incidents x 200,000/total hours worked by workers)			
		Process safety incident severity rate (PSISR) (= The total severity score of process safety incidents x 200,000/total hours worked by workers)			
	RT-CH-540a.2	Number of transport incidents			

## 6.3 Sustainability Disclosure Metrics — Plastics Industry

No.	Unit of Measure	Category	Annual Disclosure	Unit	Corresponding Section and Page
1	Total energy consumed, percentage grid electricity, percentage renewable, total self-generated energy	Quantitative	(1) 1,140,670 (2) 73 (3) 0 (4) 0	Gigajoules (GJ), Percentage (%), Percentage (%), kWh	4.5 Climate Change and Energy Management ( <a href="#">P.94</a> )
2	Total water withdrawn and total water consumed	Quantitative	(1) 925,439 (2) 657,079	Thousand cubic meters (m <sup>3</sup> )	4.2 Water Management ( <a href="#">P.76</a> )
3	Amount of hazardous waste generated, percentage recycled	Quantitative	(1) 63 (2) 0	MT (%)	4.4 Waste Management ( <a href="#">P.84</a> )
4	Number of employees in and rate of occupational accidents	Quantitative	(1) 0 (2) 0	persons, percentage (%)	5.2 Occupational Health and Safety ( <a href="#">P.110</a> )
5	Volume of major products by category	Quantitative	207,413	MT	1.2 Company Profile ( <a href="#">P.16</a> )

## 6.4 Climate-related Financial Disclosures

No.	Item	Implementation Status																																																			
1	Describe the board's oversight of climate-related risks and opportunities.	The ESG Committee supervised by the Board is the highest governance body of climate change management chaired by independent directors, it reports the climate change implementation planning and performance to the Board every year. The Operations Management Meeting is held monthly and chaired by the Board Chairman to report the planning and results of material energy conservation and carbon reduction plans.																																																			
2	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	<p>Based on the likelihood and impact of climate-related risks and opportunities, we identified 8 major climate-related risks and 10 major climate-related opportunities and assess the duration of impact and potential financial impacts as tabulated below: Short-term (&lt;3 years), medium-term (3-5 years), long-term(&gt;5 years)</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Related Item</th> <th>Duration</th> <th>Category</th> <th>Related Item</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Physical risk</td> <td>Increased severity of extreme weather events</td> <td>Short-term</td> <td rowspan="10">Opportunity</td> <td>Reduce water use and water consumption</td> <td>Short-term</td> </tr> <tr> <td>Changes in precipitation patterns and extreme variability in weather patterns</td> <td>Short-term</td> <td>Participation in renewables projects and adoption of energy conservation measures</td> <td>Short-term</td> </tr> <tr> <td>Sea level rises</td> <td>Long-term</td> <td>Alternative energy and energy diversification</td> <td>Short-term</td> </tr> <tr> <td>Average temperature rises</td> <td>Long-term</td> <td>Recycling and reuse</td> <td>Short-term</td> </tr> <tr> <td rowspan="4">Transition risk</td> <td>Enhance GHG emission pricing</td> <td>Short-term</td> <td>Use low-carbon energy</td> <td>Short-term</td> </tr> <tr> <td>Raw material cost rises</td> <td>Short-term</td> <td>Use of incentivizing policies</td> <td>Short-term</td> </tr> <tr> <td>Product stigmatization</td> <td>Short-term</td> <td>R&amp;D and innovation of new products and services.</td> <td>Medium-term</td> </tr> <tr> <td>Enhance emission report obligation</td> <td>Short-term</td> <td>Participation in carbon trade</td> <td>Medium-term</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Consumer preference changes</td> <td>Long-term</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Use of new technology</td> <td>Long-term</td> </tr> </tbody> </table>	Category	Related Item	Duration	Category	Related Item	Duration	Physical risk	Increased severity of extreme weather events	Short-term	Opportunity	Reduce water use and water consumption	Short-term	Changes in precipitation patterns and extreme variability in weather patterns	Short-term	Participation in renewables projects and adoption of energy conservation measures	Short-term	Sea level rises	Long-term	Alternative energy and energy diversification	Short-term	Average temperature rises	Long-term	Recycling and reuse	Short-term	Transition risk	Enhance GHG emission pricing	Short-term	Use low-carbon energy	Short-term	Raw material cost rises	Short-term	Use of incentivizing policies	Short-term	Product stigmatization	Short-term	R&D and innovation of new products and services.	Medium-term	Enhance emission report obligation	Short-term	Participation in carbon trade	Medium-term				Consumer preference changes	Long-term				Use of new technology	Long-term
Category	Related Item	Duration	Category	Related Item	Duration																																																
Physical risk	Increased severity of extreme weather events	Short-term	Opportunity	Reduce water use and water consumption	Short-term																																																
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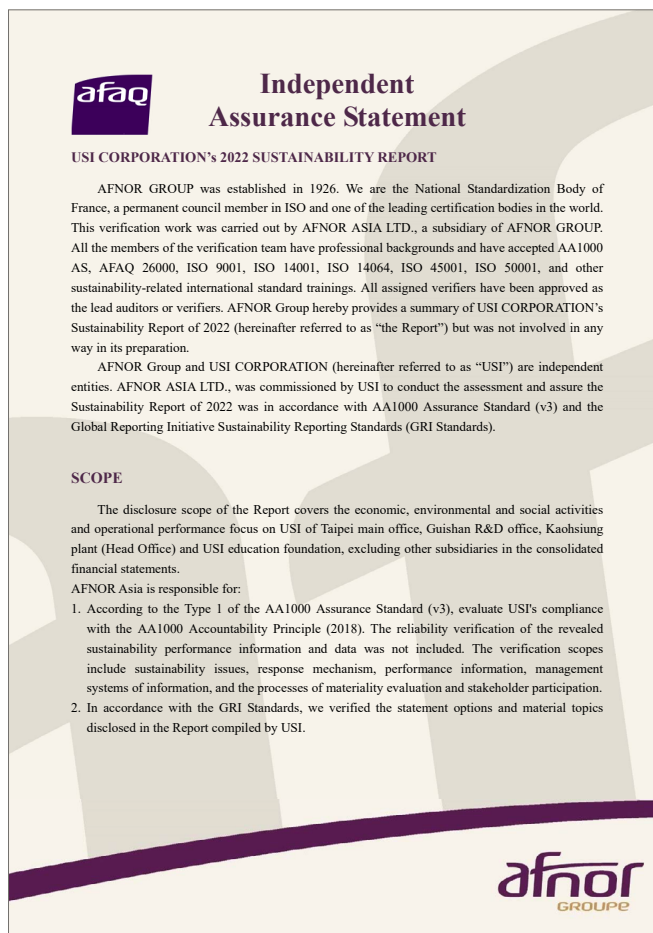
No.	Item	Implementation Status		
3	Describe financial impacts of extreme weather events and transition actions	The financial impacts of extreme weather events and transition actions are tabulated below:		
		<b>Category</b>	<b>Related Item</b>	<b>Potential Financial Impact</b>
		Physical risk	Increased severity of extreme weather events	Increased capital expenditure and increased costs of operations
			Changes in precipitation patterns and extreme variability in weather patterns	Increase in capital expenditure. Increase in operating expense.
			Sea level rises	Increase in capital expenditure. Increase in operating expense.
			Average temperature rises	Increase in capital expenditure. Increase in operating expense.
		Transition risk	Enhance GHG Emission Pricing	Increase in capital expenditure. Increase in operating costs.
			Raw material cost rises	Increase in operating costs. Increase in capital expenditure.
			Product stigmatization	Reduction in asset value. Reduction in revenue.
			Enhance emission report obligation	Increase in operating costs.
		Opportunity	Reduce water use and water consumption	Increase in capital expenditure. Reduction of operating costs
			Participation in renewables projects and adoption of energy conservation measures	Increase in revenue. Reduction of operating costs.
			Alternative energy and energy diversification	Increase in asset value.
			Recycling and reuse	Increase in revenue. Reduction of operating costs.
			Use low-carbon energy	Increase in asset value.
			Use of incentivizing policies	Reduction in capital expenditure.
			R&D and innovation of new products and services.	Increase in asset value. Increase in revenue. Increase in capital expenditure
			Participation in carbon trade	Increase in operating costs
			Consumer preference changes	Increase in revenue
Use of new technology	Increase in asset value. Reduction of operating costs			

No.	Item	Implementation Status
4	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	Identify risks and opportunities based on the TCFD-recommended framework, communicate with all responsible units, and confirm by senior management every three years Include them in the annual risk assessment. The president reports the control measures and management performance to the Audit Committee and Board every year.
5	When assessing the resilience taking into consideration different climate-related scenarios, state the input parameters, assumptions, and analytical choices for the scenarios used, and critical financial impacts.	No scenario analysis has been used for assessing the resilience in climate-related risks. We will include scenario analysis in two years.
6	If transition plans are used in climate-related risk management, state the contents of such plans and the metrics and targets used to identify and manage physical risks and transition risks.	Plans include: Equipment replacement, construction of renewables facilities, optimization of production scheduling, planning building aircon, energy management systems, extreme weather events contingency plans. Please refer to 4.5 Climate change and energy management of this report for the details.
7	If internal carbon pricing is the planning tool, state the basis of the pricing system	No assessment tool for internal carbon pricing has been used.
8	If climate-related targets are set, state the activities, scopes of GHG emissions, planning period, and annual targets. If the relevant targets are achieved with the renewable energy certificates (RECs), state the sources and quantity of the carbon credit of such RECs or the quantity of RECs.	We set 2017 as the base year and reduction by 27% by 2030 as the carbon reduction target. Every year we disclose the data of Scopes 1 and 2 GHG emissions in the ESG report and review the achievement progress periodically. No REC has been used for carbon reduction so far.
9	GHG inventory and verification	Please refer to 4.5 Climate change and energy management for the details of GHG inventory.



## 6.5 Independent Assurance Statement

GRI 2-5



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### Independent Assurance Statement

USI CORPORATION'S 2022 SUSTAINABILITY REPORT

AFNOR GROUP was established in 1926. We are the National Standardization Body of France, a permanent council member in ISO and one of the leading certification bodies in the world. This verification work was carried out by AFNOR ASIA LTD., a subsidiary of AFNOR GROUP. All the members of the verification team have professional backgrounds and have accepted AA1000 AS, AFAQ 26000, ISO 9001, ISO 14001, ISO 14064, ISO 45001, ISO 50001, and other sustainability-related international standard trainings. All assigned verifiers have been approved as the lead auditors or verifiers. AFNOR Group hereby provides a summary of USI CORPORATION'S Sustainability Report of 2022 (hereinafter referred to as "the Report") but was not involved in any way in its preparation.

AFNOR Group and USI CORPORATION (hereinafter referred to as "USI") are independent entities. AFNOR ASIA LTD., was commissioned by USI to conduct the assessment and assure the Sustainability Report of 2022 was in accordance with AA1000 Assurance Standard (v3) and the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards).

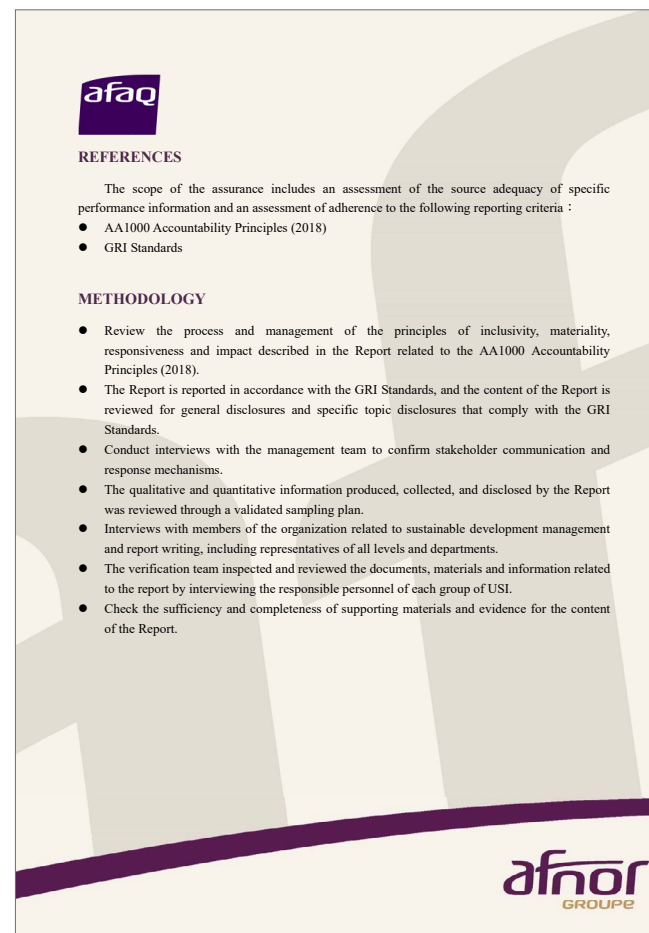
#### SCOPE

The disclosure scope of the Report covers the economic, environmental and social activities and operational performance focus on USI of Taipei main office, Guishan R&D office, Kaohsiung plant (Head Office) and USI education foundation, excluding other subsidiaries in the consolidated financial statements.

AFNOR Asia is responsible for:

1. According to the Type 1 of the AA1000 Assurance Standard (v3), evaluate USI's compliance with the AA1000 Accountability Principle (2018). The reliability verification of the revealed sustainability performance information and data was not included. The verification scopes include sustainability issues, response mechanism, performance information, management systems of information, and the processes of materiality evaluation and stakeholder participation.
2. In accordance with the GRI Standards, we verified the statement options and material topics disclosed in the Report compiled by USI.

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#### REFERENCES

The scope of the assurance includes an assessment of the source adequacy of specific performance information and an assessment of adherence to the following reporting criteria :

- AA1000 Accountability Principles (2018)
- GRI Standards

#### METHODOLOGY

- Review the process and management of the principles of inclusivity, materiality, responsiveness and impact described in the Report related to the AA1000 Accountability Principles (2018).
- The Report is reported in accordance with the GRI Standards, and the content of the Report is reviewed for general disclosures and specific topic disclosures that comply with the GRI Standards.
- Conduct interviews with the management team to confirm stakeholder communication and response mechanisms.
- The qualitative and quantitative information produced, collected, and disclosed by the Report was reviewed through a validated sampling plan.
- Interviews with members of the organization related to sustainable development management and report writing, including representatives of all levels and departments.
- The verification team inspected and reviewed the documents, materials and information related to the report by interviewing the responsible personnel of each group of USI.
- Check the sufficiency and completeness of supporting materials and evidence for the content of the Report.

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## CONCLUSION

### ◆ AA1000 Accountability Principles

#### Inclusivity

USI has continued to implement a wide range of stakeholder engagement programs to identify and understand the important information generated by issues of concern to stakeholders. The report has fairly reported and disclosed economic, environmental and social information, which is sufficient to support appropriate plans and goals. Future reports may:

- sustaining corporate sustainable development strategies, effectively integrating internal and external resources, managing risks and opportunities, clearly setting program goals, and presenting sustainability-related performance that stakeholders are concerned about.
- continuously strengthen the existing mechanism for identifying stakeholders and materiality issues, collect and understand stakeholders' concerns, specific methods of participation, and reasonable expectations and interests.

#### Materiality

USI has released relevant information on sustainable management to enable stakeholders to judge the company's management and performance, and develop and implement a decision-making mechanism for material issues to accommodate issues from all parties. Future reports may:

- expand the number of questionnaires and returns of stakeholders, continue to collect and disclose significant sustainable development information, and fully disclose significant sustainable development information.
- continue to strengthen the identification mechanism of positive and negative impacts, materiality considerations and related impacts, strengthen the risk and opportunity management and control of materiality issues, and implement them into the operating procedures of each department.



#### Responsiveness

USI has developed and implemented a stakeholder response mechanism and the comparison of SDGs, clearly declaring relevant policies and communicating with stakeholders, and responding to expectations and opinions from stakeholders. Future reports may:

- continue to strengthen the response and communication mechanism of various departments and stakeholders, strengthen the depth and breadth of disclosed data and increase their comparability.
- continue to compile the responses of stakeholders to this report as a reference for future refinement.

#### Impact

USI has developed and implemented a process for understanding, measuring, evaluating and managing the impact of the organization, and provided the necessary capabilities and resources, and committed to making a comprehensive and balanced disclosure of the measurement and evaluation of the organization's impact on stakeholders and itself. Future reports may:

- continuously strengthen the risk and opportunity monitoring and measurement mechanism of various major sustainable actions and related impacts, and implement them into the operating procedures of various departments.

### ◆ Global Reporting Initiative Sustainability Reporting Standards

Based on the results of the review, we confirm that the Report complies with GRI reporting requirements in terms of general disclosure items and specific topic disclosures, including material topic management and disclosure items. Future reports may:

- continuously collect and disclose performance information that can be extended to other regions or operating bases in the future, and strengthen the depth and breadth of disclosed information, strengthen the content of management policy disclosure, and more completely present the context of sustainability and related sustainability performance.
- continuously collect major issues, risks and opportunities, strengthen management and control, practice results, and gradually implement various operations and management actions of subsidiaries in various operating bases, so as to expand the influence of enterprises on sustainable management.



## ASSURANCE OPINION

In our opinion, the information and data presented in the Report by USI provides a fair and balanced representation. We believe the focuses on economic, environmental, and social aspects of USI in 2022 are well represented.

Afnor Group has developed a set of process for the Assurance of Sustainability Reports based on current practice guidance provided in the AA1000 Assurance Standard (v3) and GRI Standards. We believe that the evidence collected by onsite assessment has exhibited that USI did follow the guidance of AA1000 Assurance Standard (v3) and GRI Standards, and their self-declaration in response to the Global Reporting Initiative.

### ASSURANCE LEVEL

In accordance with the AA1000 Assurance Standard (v3), we verified this assurance statement corresponding to a moderate level. The scope and methods are as described in this statement.

### LIABILITY

This assurance statement is intended for the use of USI CORPORATION only. AFNOR is not responsible for any other uses. Our responsibility is only based on the scope and methodology described, and to provide stakeholders an independent assurance statement.

For and on behalf of AFNOR :

Trevor Wilmer  
The Director for Certification and Assessment  
MAY.15.2023

AFNOR Asia Ltd.—20F-2, No. 102, Chung Ping Rd., Taoyuan, Taiwan  
Tel. : +886 3 2200066, Fax : +886 3 2207889, <http://www.asia.afnor.org>



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000-84/V3-RIS61



**USI Corporation**  
**台灣聚合化學品股份有限公司**

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- 📍 **Head Office** 81449 No. 330, Fengren Road, Renwu District, Kaohsiung City.
  - 📍 **Taipei Office** 11492 12F, No. 37, Jihu Road, Neihu District, Taipei City
  - ☎ **Telephone** +886-2-8751-6888
  - ✉ **Fax** +886-2-2659-9523
  - 🌐 **Website** [www.usife.com/](http://www.usife.com/)