

Chapter 3

Innovation and Supply Chain Services



Material topics in this chapter

Technology R&D

Product quality

Supply chain management

Performance Highlights

- ✓ New product development & improvement: **4**
- ✓ Innovation and R&D accumulated **143** patents.
- ✓ Funds for R&D and innovation: NT\$**140** million
- ✓ Ratio of R&D staff to all employees: **13.1%**
- ✓ 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>Significance to USI</p> <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> <hr/> <p>Strategy</p> <p>Expand R&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> <hr/> <p>Commitment</p> <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>Positive/Negative Impacts</p> <p>Short-term positive actual impact: Develop new products to increase revenues Medium-& long-term positive potential impact: Develop towards a high-value low-pollution/energy-efficient industry Long-term negative potential impact: Technology innovation fails to meet the customer needs</p> <hr/> <p>Impact Boundary</p> <p>Global customers, employees of USI, the environment at the Kaohsiung Plant, and local residents in the community.</p> <hr/> <p>Processes to remediate and prevent negative impacts</p> <p>Negative impact remediation: Enhance market survey</p> <p>Preventive measures Predict and analyze the trend of changes in customer demands</p>	<p>2023 Goals</p> <p>New product development and improvement: 4 pcs/year.</p> <hr/> <p>2023 Achievements</p> <ul style="list-style-type: none"> New product development and improvement: 4 pcs/year 1. High heat-resistance ViviOn™ 0645 2. Fire retardant FRMB-601P 3. Dust-proof and anti-fouling coating SS1900T 4. Trial production of encapsulation film-grade EVA. In 2023 no legal noncompliance or fine in relation to product labeling was reported <hr/> <p>2024 Goals</p> <ul style="list-style-type: none"> New product development and improvement: 4 pcs/year. Legal noncompliance of products: 0 Constantly develop and promote eco-friendly products <hr/> <p>Medium- & Long-Term Goals</p> <ul style="list-style-type: none"> New product development and improvement: 4 pcs/year. Legal noncompliance of products=0 Constantly develop and promote eco-friendly products 	<p>Effectiveness Assessment</p> <ol style="list-style-type: none"> Continuously follow up target achievement in the annual ESG report. Successfully developed technology and R&D outcomes. Reporting the sales of new products at the business meeting. All USI products comply with the Restrictions on Hazardous Substances (RoHS) to reduce environmental impact. <hr/> <p>Product & Service Development Mechanisms</p> <ol style="list-style-type: none"> Customers make demands on the sales/R&D units by phone/email/internet; or irregular customer visits. 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&D and trial run. 2023 customer technical service cases: 57. <hr/> <p>Achievements and Directions of Technology R&D</p> <ol style="list-style-type: none"> Advanced materials development New product development Developing high-value products In 2023 the consolidated revenues of newly developed products accounted for 9.245%. Funds for R&D and innovation in 2023: NT\$140 million Ratio of R&D staff to all employees: 13.1% Innovation and R&D in 2023 accumulated 143 patents.

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 2023 reached NT\$140 million, accounting for 1.26% of the revenues.

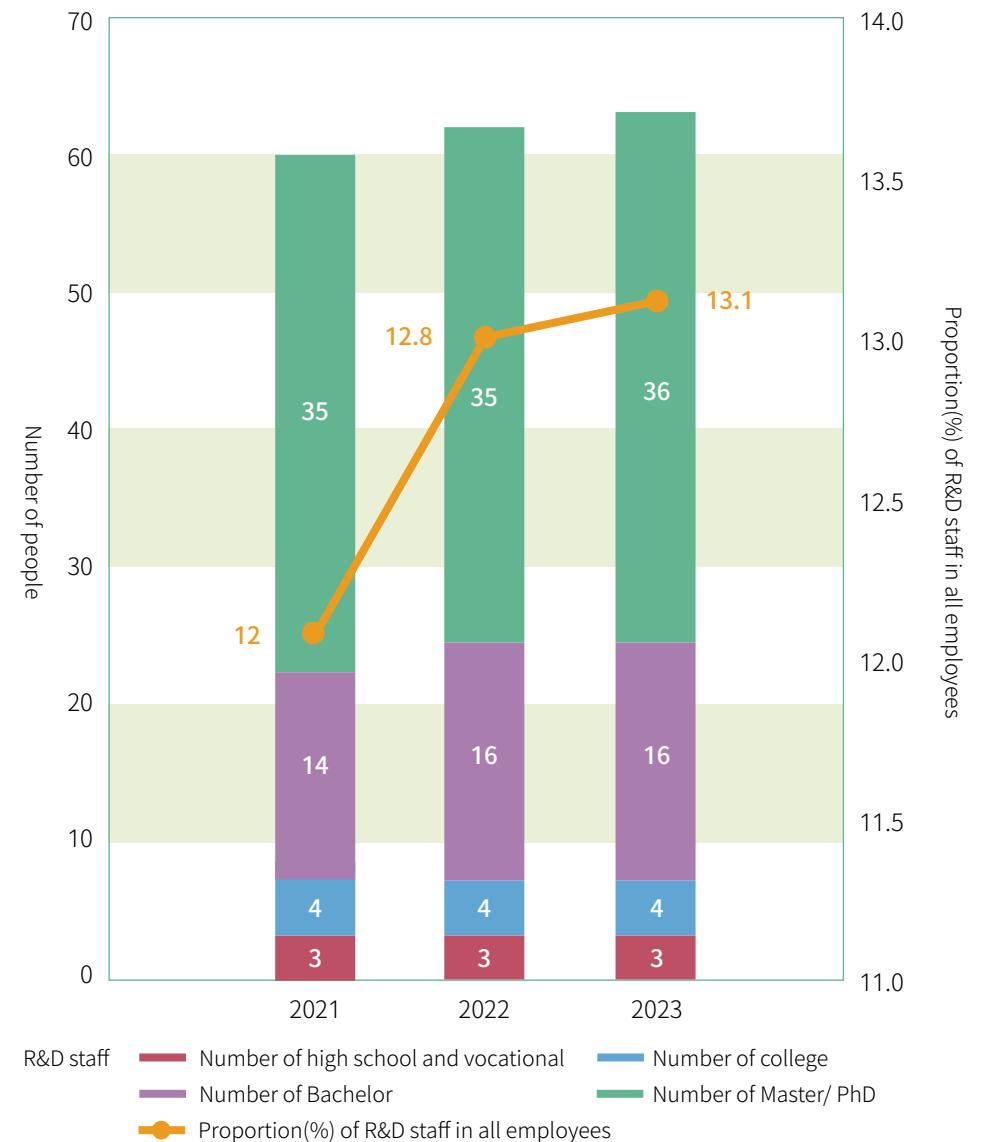
In 2023 there were 59 R&D staff, accounting for 13.1% of all employees. In terms of education distributions in 2023, 61% of R&D staff hold a master's or doctoral degree, and the number of R&D staff is maintained at the specific level.

Investments in Innovation and R&D

(unit: NTD)

Item	2021	2022	2023
Operating revenues	16,034,251,000	15,632,151,000	11,449,372,000
R&D Funds	160,687,540	150,870,000	144,359,000
Number of employees	465	453	452
Number of R&D staff	56	58	59
Proportion of R&D staff in all employees.	12.0%	12.8%	13.1%

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 PV module packaging, 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 Administration, MOEA, we were also awarded the 17th National Innovation Award with the cyclic block copolymer (CBC).



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.

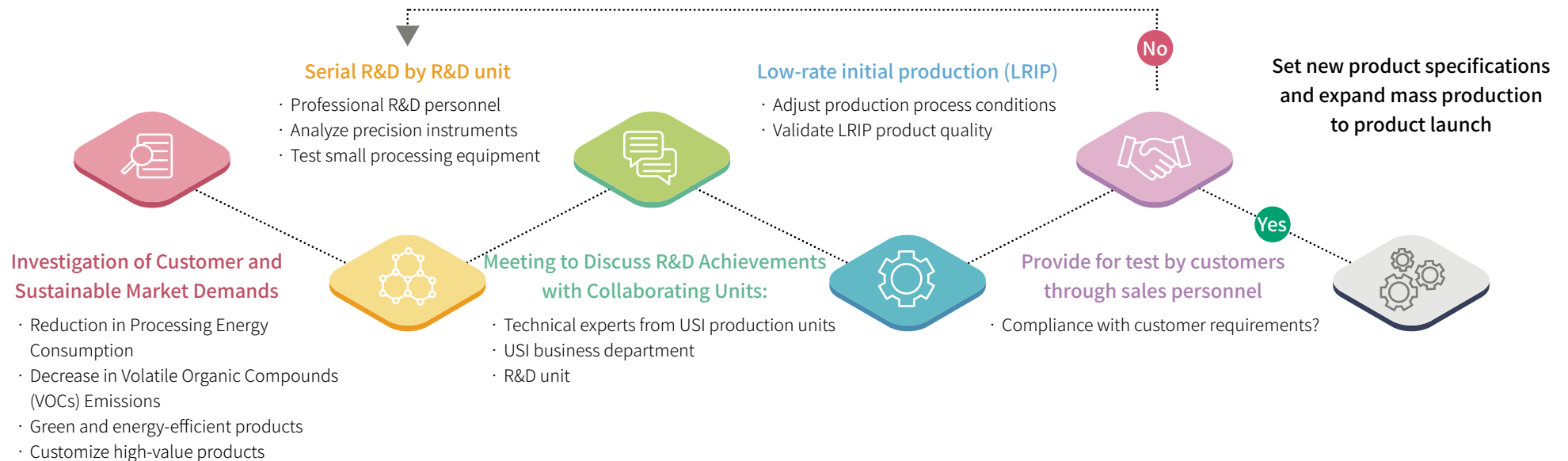
Benefits of Product Innovation

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. In recent years, new high Melt Index (MI) products have been developed, characterized by better fluidity, suitable for use in thin-wall injection molding or fiberglass impregnation for thinning applications. This can reduce downstream processing energy consumption. In 2023, revenue amounted to NT\$20.63 million.

For more details about product development and improvement process, please refer to:
[Technology R&D](#) of our corporate site for details

Accumulated 143 patents at home and abroad in 2023

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 2023, we have accumulated **10** Taiwan patent and **133** overseas patents.



ViviOn™ 0645, a new high-heat resistant material, effectively improves the heat resistance of PP film capacitors.

With the advancement of energy storage, there is a rising demand for high heat-resistant film capacitors to enhance their performance. In response, USI introduces a novel high heat-resistant material, ViviOn™ 0645.

ViviOn™ 0645 is renowned for its high purity and heat-resistant properties, which can effectively improve the heat resistance of polypropylene (PP) film capacitors.

By proper incorporation of ViviOn™ 0645 into the traditional PP, the film capacitor can be made to meet the increasing demand for high heat-resistant capacitors. This integration effectively improves the dimensional stability of the PP film capacitor, especially under high temperatures.

Film capacitors play a crucial role in the high-voltage drive circuit systems of electric vehicles. Currently, they are widely used in mainstream electric vehicle models, leading to an increased demand for film capacitors in the electric vehicle market.

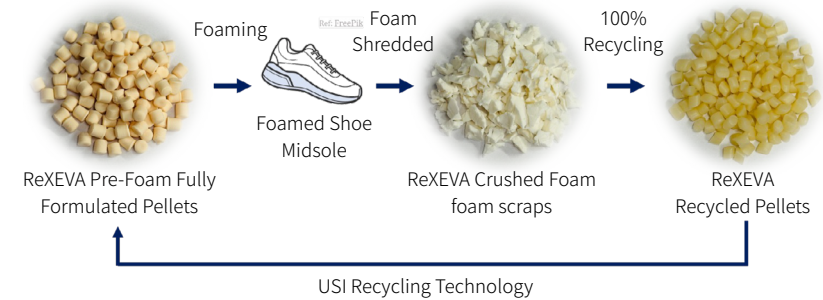


EVA Closed-Loop Recycling Technology

Currently, the midsoles of most shoes are made using of an EVA cross-linking process, which is difficult to be recycled and can only be disposed of through incineration. Recognizing this issue, USI has invested in developing a recyclable cross-linking technology called ReXEVA, for which a patent has been granted. ReXEVA is not only suitable for traditional chemical foaming processes but also for high-pressure autoclave supercritical physical foaming processes. Using this technology, midsoles can achieve up to 100% recyclability.

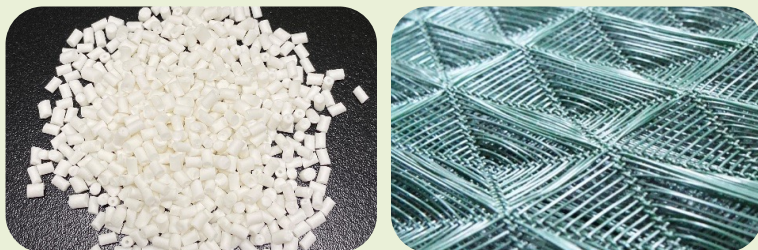
ReXEVA offers the following advantages:

- ✓ Significantly reduces the carbon footprint of footwear products, assisting companies in achieving their carbon reduction goals.
- ✓ Reduces waste generated by footwear products, promoting the development of a circular economy.
- ✓ Enhances the sustainability of footwear products, providing companies with a competitive advantage.
- ✓ Currently, collaboration and verification are underway ongoing with several international brand owners. In the future, we will continue to collaborate with more brand partners on this technology, with the hope of making a contribution to the sustainable development of the industry.



Fire Retardant PP Masterbatch Product - FRMB-601P

Plastic products have become widely used in daily life. Beyond the inherent physical properties of plastic materials, effectively enhancing their flame retardant and fire-resistant characteristics has become an increasingly important topic in recent years. In response to market demand for flame retardant products and global trends in fire resistance regulations, USI launched the halogen-free flame retardant retardant masterbatch FRMB-601P in 2023. This product features high-efficiency flame retardancy and good processability, making it suitable for applications in the PP flame retardant film and flat wire markets.



USii Liquid Thermal Insulation Film for Cooling the Planet

Countries around the world are increasingly affected by extreme weather, with summer days and temperatures reaching record highs. In response to the global challenges of climate change and energy consumption, the Group has introduced the USii Liquid Thermal Insulation Film as an innovative energy-saving and carbon reduction solution.

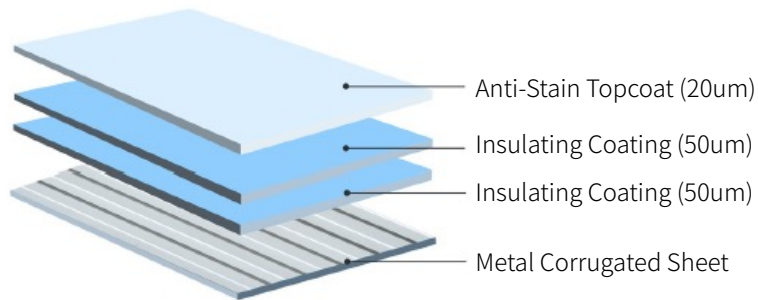
Applied to glass surfaces, the USii Liquid Thermal Insulation Film forms an effective thermal barrier. SGS testing has demonstrated that it can reduce temperatures by an average of 4 to 6° C, thereby lowering indoor temperatures, reducing the load on air conditioning systems, saving energy, and cutting electricity costs. It also helps prevent sun damage to furniture. The Group, in collaboration with consumers, is committed to cooling the planet and embracing a low-carbon future.



Dirt Repellent Coating SS1900T

In 2023, USI released an innovative product-Dirt Repellent Coating, featuring a thin layer for efficient use, transparency to highlight the base color, and protection of substrate texture and pattern integrity.

It is suitable for various materials, for example, metal, cement, stone, wood, and so on. Applying this coating could achieve a clean and dirt-repelling surface. In harsh external environment, like seaside or with heavy dust accumulation area, the application of this coating can deliver excellent protection for crucial production equipment and facilities used by industrial clients.



Best Performance

- ✓ Water-based paints & Eco-friendly
- ✓ Wide range of applications
- ✓ Thin thickness & efficient usage.
- ✓ Easy to use

Performance Test

USI selected two pipelines at the Kaohsiung Intercontinental Container Terminal for onsite testing. This area is close to the sea and has a significant amount of dust. The test started from July 2022, and checked in April 2023. USI observed the dirt circumstances on the pipeline surfaces and check the comparison after simple cleaning. The findings have verified that pipelines treated with USI dirt repellent coating have surface that is easier to clean, and has top-notch protection.

Item	Without USI SS1900T	With USI SS1900T
Before Cleaning	 <p>Dust & stain is obvious</p>	 <p>Dust & stain is not obvious</p>
After Cleaning	 <p>Stain could not be removed.</p>	 <p>Dust & stain are removable.</p>



Trial Production of EVA Encapsulation Film Grade Products

Currently, solar encapsulation films available on the market can be categorized into four main types: transparent EVA encapsulation films, white EVA encapsulation films, POE encapsulation films, and EPE encapsulation films. EVA resin serves as the core material for both EVA and EPE encapsulation films and is a mainstream product in the market. At present, the EVA encapsulation film grade produced by USI is UE2828. In response to the growing market demand, we are developing a low-MI encapsulation film grade EVA.

Participating in internationally recognized trade exhibitions

In 2023, USI participated in Chinaplas 2023 and the Kaohsiung Chemical Instrument Exhibition to promote ViviOn™ (CBC) and its applications in optics, industrial electronics, eyewear, medical devices, bio-diagnostics, UVC disinfection, and PE/PP packaging.

Exhibition at Sustainable Materials Library

ViviOn™ (CBC) was showcased at the Sustainable Materials Library of the Plastics Industry Development Center under the name "Reduced-Plastic ViviOn™ (CBC)/PE Blown Film". This ViviOn™ /PE blend reduced plastic easy-tear film is a PE thin film that mixes ViviOn™ and produced via blown film.

The addition of ViviOn™ in PE increases the stiffness and rigidity of PE film, thereby allowing it to better satisfy physical requirements such as thinner application and achieve the effect of plastic reduction as well as making the film easy to tear due to a decrease in tearing strength.

ViviOn™ is suitable as an additive to PE/PP to produce functional thin films in applications such as easy-tear film, heat shrinkable film, food packaging, and medical packaging. In terms of safety, ViviOn™ has passed food safety testing and complies with all relevant standards in multiple countries.

Additionally, ViviOn™ has excellent compatibility with polyolefin materials, allowing it to be recycled and reused in the PE or PP recycling system.

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™ (honored with 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, PCR plastic reuse, and others. In 2022 we successfully developed the Cooltact™ cooling technology products. At the end of the year, Cooltact™ became a highlight at the 2022 Taipei Building 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>Significance to USI</p> <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> <hr/> <p>Strategy</p> <p>Constantly enhance product yield rate and improve service quality.</p> <hr/> <p>Commitment</p> <p>Continual equipment improvement, quick capture of product quality, and reduction of customer complains</p> <p>Data scope: USI coverage 100%</p>	<p>Positive/Negative Impacts</p> <p>Short-term positive actual impact: Raise yield rate and develop high-value products.</p> <p>Medium-term Negative actual impact: Quality not meeting customer requirements</p> <hr/> <p>Impact Boundary</p> <p>Global Customers, USI Employees</p> <hr/> <p>Processes to remediate and prevent negative impacts</p> <p>Enhance process improvement, increase inspection frequencies, and increase customer communication frequencies.</p>	<p>2023 Goals</p> <ol style="list-style-type: none"> Confirmed customer complaints each year: Plant I <6, Plant II <6 and Plant CBC <5. Overall defect rate of plants I/II/CBC: 1.8/5.5/12%. <hr/> <p>2023 Achievements</p> <ol style="list-style-type: none"> Increase the proportion of new catalyst products at Plant II and promote products to customers. Resolve the automation bottleneck of compounding equipment. Confirmed customer complaints of plants I/II/CBC: 5 cases /4 cases /1 case Overall defect rate of plants I/II/CBC: <1.57/<4.69/<7.4% <hr/> <p>2024 Goals</p> <ol style="list-style-type: none"> Confirmed customer complaints each year: Plant I <5, Plant II <4 and Plant CBC <5. Overall defect rate of plants I/II/CBC: 1.8/5.5/10%. <hr/> <p>Medium- & Long-Term Goals</p> <ol style="list-style-type: none"> Increase the proportion of new catalyst products at Plant II, promote products to customers, and enhance customer satisfaction. Promote and enhance the pass rate of compounding products. Continue to reduce the rate of customer complaints and nonconformities. 	<p>Effectiveness Assessment</p> <ol style="list-style-type: none"> Target trace at the monthly quality improvement meeting. Review of customer complaints and quality issues at the biannual management review meeting. New product sales condition. <hr/> <p>Grievance Mechanism</p> <p>Customers send requests/response by telephone/mail/ internet</p>

Note: 1. Marked down the target customer complaints of plant II from 7 to 6 cases in 2023.

2. Controllable defect rate: Defective products resulting from human error and improper equipment maintenance.

3. The 2023 target has been adjusted from controllable defect rate to overall defect rate. The overall defect rate includes both the controllable defect rate and the defect rate from product transitions.

4. The overall defect rate targets for 2023 are based on the performance from January to October 2022 at Plant 1/2/CBC, which were 1.5%, 4.69%, and 7.4% respectively. The targets for the full year 2023 are set at 1.8%, 5.5%, and 10% (the higher target for CBC is due to the anticipated testing and 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 computer change management system ensures stringent evaluation and management of process changes to ensure risk-less changes to stabilize process and product quality.

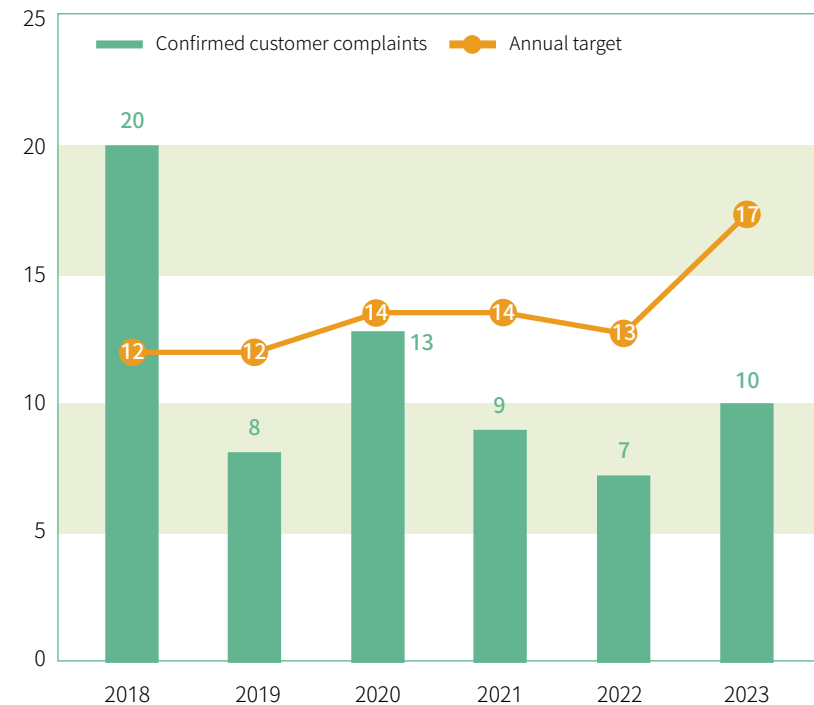


Major Quality Improvement Projects

2023 Items	2024	Contents and Schedules for 2024
Continuously adjust the production parameters of the new catalyst products of Plant II for quality optimization.	Continuously adjust the production parameters of the new catalyst products of Plant II for quality optimization.	<ul style="list-style-type: none"> Inorganic residue reduction, high quality, customer promotion, customer satisfaction enhancement Projected completion in December 2024
Plant I M/P renewal	Plant I M/P renewal	<ul style="list-style-type: none"> Equipment reliability and quality stability enhancement Projected completion in June 2024
Develop new products and improve product properties.	Compounding continues to develop new products that meet the physical property requirements of our customers.	Improve quality and property to raise customer satisfaction.
Plant I Catalyst Pump Renewal	Plant I Catalyst Pump Renewal	<ul style="list-style-type: none"> Equipment reliability and quality stability enhancement Projected completion in December 2024
Blower heat exchanger replacement at Plant I	Blower heat exchanger replacement at Plant I	<ul style="list-style-type: none"> Avoid product contamination Projected completion in September 2024
Cake removal equipment construction upgrade is complete.		<ul style="list-style-type: none"> Enhance production stability/prevent emergency stop
Product transmission pipeline replacement at Plant II is complete.		<ul style="list-style-type: none"> Reduce defective products and raise customer satisfaction.
	Implementation of a new additive system.	<ul style="list-style-type: none"> Enhancing product quality, reducing material consumption, and improving customer satisfaction. Projected completion in December 2025

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 2023, a total of 7 important quality-related improvement projects were implemented.

Confirmed customer complaints: count/year



Note: Starting from 2023, the number of customer complaints at the CBC plant will be included in the statistics.

3.3 Supply chain management GRI 3-2, 3-3, 2-6, 2-25

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

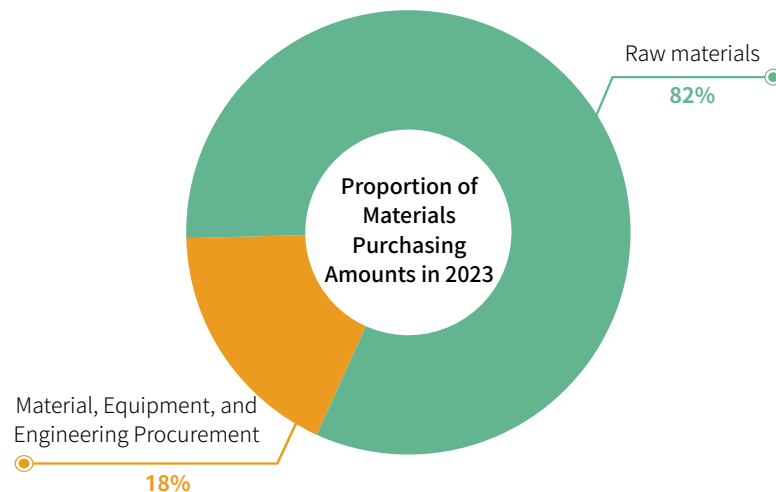
Significance and Strategy	Impact Management	Achievement and Goal	Management
<p>Significance to USI</p> <p>As an indicative business in Taiwan, apart from pursuing profit, it is also our responsibility and obligation to assume the sustainable supply chain responsibility together with suppliers.</p> <hr/> <p>Strategy</p> <p>Establish the mechanism for supply chain sustainability risk assessment and prevention to develop a supply sustainability management culture.</p> <hr/> <p>Commitment</p> <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>Positive/Negative Impacts</p> <p>Long-term negative potential impact: Enhance supply chain management and improve raw materials quality. Promoting carbon reduction initiatives in the supply chain Short-term positive actual impact: Supply delays caused by international situations, pandemic and weather.</p> <hr/> <p>Impact Boundary</p> <p>Global raw material and engineering contractors, customers</p> <hr/> <p>Processes to remediate and prevent negative impacts</p> <p>Advance procurement, increase safety stock, and seek alternative suppliers</p>	<p>2023 Goals</p> <ol style="list-style-type: none"> Added the Supplier ESG Commitment as a requirement for new supplier evaluation. Ensure all suppliers sign the "Supplier ESG Commitment". <hr/> <p>2023 Achievements</p> <ol style="list-style-type: none"> Proposed the "Supplier's Code of Conduct and Quality Requirements Self-Assessment Form" to investigate the risks of environmental and social negative impacts, and completed on-site audits of two suppliers in 2023. Towards the end of 2023, in response to a customer invitation, we signed up for the Ministry of Economic Affairs' "Gudeng Supply Chain Low-carbon Transition Coaching Program." We are collaborating with our customer and its supply chain to collectively strive towards the goal of reducing carbon emissions. All suppliers sign the "Supplier ESG Commitment". <hr/> <p>2024 Goals</p> <ol style="list-style-type: none"> In conjunction with the Supplier Code of Conduct and Quality Requirements Self-Assessment Form, we have officially implemented the on-site audit system to investigate the risks of negative impacts on environmental and sociality, with the goal of examining two suppliers per year. Implemented a guidance program for the low-carbon transformation of the supply chain. Drafting an application for the Smart Supply Chain Transformation Project. <hr/> <p>Medium- & Long-Term Goals</p> <ol style="list-style-type: none"> Conduct on-site audits on 4 suppliers each year. 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. Collaborating with customers and their supply chains to collectively achieve the goal of reducing 10,000MT of carbon emissions by 2025. 	<p>Effectiveness Assessment</p> <ol style="list-style-type: none"> Annual report Corporate governance evaluation Annual Report <hr/> <p>Grievance Mechanism</p> <p>The group audit division has a grievance hotline and a suggestion email on the corporate website for filing grievances.</p> <hr/> <p>Evaluation of the management approach</p> <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 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, the specific criteria for identifying chemical suppliers are as follows:

- ① Risk of chemical process leaks and pollution.
- ② Occupational safety and environmental pollution risks in dusty, high-temperature, noisy, and humid operating premises.
- ③ Work at height risk.
- ④ Industrial safety risk of cutting or welding (S)
- ⑤ Risk of fugitive emissions of VOCs (Volatile Organic Compounds).
- ⑥ Labor-intensive industries.
- ⑦ Supply chain and project disruption/delay in delivery and completion risk.
- ⑧ Raw materials and construction quality risk.

Preventive measures include:

- ① Implement the Supplier ESG Self-Assessment Form to provide information for initial risk assessment.
- ② Establish long-term cooperation with suppliers; cultivate a second source or multiple sources and maintain cooperation to coordinate long-term material preparation.
- ③ Develop an internal safety stock mechanism and set a purchase base point according to the supply schedule to prevent the risk of supply disruption.
- ④ Providing sustainability education and training for procurement personnel.
- ⑤ HSE Education and Training for contractors.

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)	Construction Contractor
	Environmental (E), social (S), and governance (G)	
Potential Risk	a. Chemicals manufacturing process (E) b. Dusty, high-temperature, noisy, and humid operating premises (E) c. Risk of fugitive emissions of VOCs (Volatile Organic Compounds) (E) d. Labor-intensive industries (S) e. Supply chain disruption/delay risk (G) f. Quality risk (G)	a. Dusty, high-temperature, noisy, and humid operating premises (E) b. Work at height risk. (E ∨ S) c. Labor-intensive (S) d. Industrial safety risk of cutting or welding (S) e. Project disruption/delay risk (G) f. Project quality risk (G)
Number of audited and visited suppliers	In 2023, trial audits are conducted at 2 suppliers. Pass Rate: 100%	Before construction: The contractors must undergo a review to ensure they do not employ child labor and comply with relevant occupational safety and health laws. (E ∨ S) During construction: Daily inspections and checks are conducted. (E ∨ S) After completion: Relevant units jointly complete the evaluation of the contractors' construction work. In 2023, a total of 186 contractor evaluations were completed, all of which were deemed qualified. (G)
Audit Details	Environmental (E): Regulatory compliance of the manufacturing and storage of environmentally controlled substances. Governance (G): Management of quality, production, and orders; customer satisfaction follow-up; employee education and training; and management of outsourced processing.	

Sustainable Supply Chain Concept Promotion and Qualification Screening:

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. Since 2023, all current and new suppliers have been required to sign this commitment letter, and we have achieved a 100% signing rate.

Counteractions for the negative environmental and social impacts on the supply chain:

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.

Self-Assessment Form



Currently, major key feedstock suppliers and contractors, including Taiwan CPC Corporation, Dairen Chemical Corporation, and our partner CTCI Corporation, have all obtained relevant certifications for ISO 14001 and 45001. This compliance meets our company's requirements for environmental management and occupational health and safety management from major suppliers, making them excellent partners for our company's sustainable development. 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 online media 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



SCM mechanism

<https://www.usife.com/ESG/en-us/ESG52.aspx>



Value Chain ESG Discussions

Carbon Reduced: In 2023, USI signed up for the Ministry of Economic Affairs' "Gudeng Supply Chain Low-carbon Transition Coaching Program." We are collaborating with our customer Gudeng Precision Industrial Co., LTD and its supply chain to collectively strive towards the goal of reducing carbon emissions by ten thousand tons by 2025. This project includes expert site visits and recommendations, as well as a GHGs inventory. In 2024, USI plans to implement six energy-saving and carbon-reduction

initiatives to reduce 1,629MT of CO₂e emissions. Additionally, they will evaluate new initiatives for 2025 based on expert recommendations.

Water Resource Sharing: USI has maintained a cooperative relationship with CPC Corporation for a long time. During water shortages, they obtain water from CPC's Kaohsiung plant. In 2023, the amount of water sourced from CPC was 13,725MT.

Plastic Reduction: They collaborate with product transportation companies to implement a plastic pellet leak prevention management plan, reducing the dispersion of plastic pellets and dust during transportation. In 2023, they recycled 12MT of plastic.

USI has been implementing plastic reduction in packaging for many years.

And for specific customers, we use tank trucks for delivery to reduce the use of packaging bags.

Supply chain management

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.

Raw materials supplier management GRI 308-1

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 2023

Locations / Materials	Ethylene	VAM
Taiwan	66%	76%
Foreign	34%	24%
Source	Totaling 8 suppliers	Totaling 5 suppliers

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

Results of Raw Materials Supplier Evaluation 2021-2023

Year	2021	2022	2023
Suppliers Evaluated	51	83	86
Pass Rate	100%	100%	99%

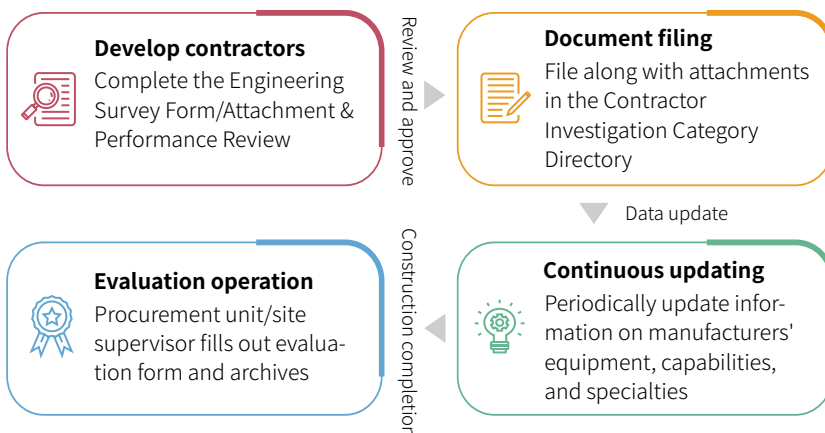
In 2023, there was one supplier who did not meet the qualification criteria. This supplier exhibited quality abnormalities, and despite discussions in meetings, they did not actively address the issues. As a result, they have been categorized as a C-grade supplier (requires improvement).

The approach to handling this situation involves suspending transactions with the supplier until they improve their quality standards and pass the required tests. Only after meeting these conditions will their products be considered for use again.

Management of construction contractors

We outsource construction contractors 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 (G)	Safety and health measures (S)	Coordination performance (G)	Site manager (S)	Environment maintenance (E)	Construction progress (G)
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.

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

Results of Construction Contractor Evaluation

Year	2021	2022	2023
Suppliers Evaluated	112	147	186
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 2023 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



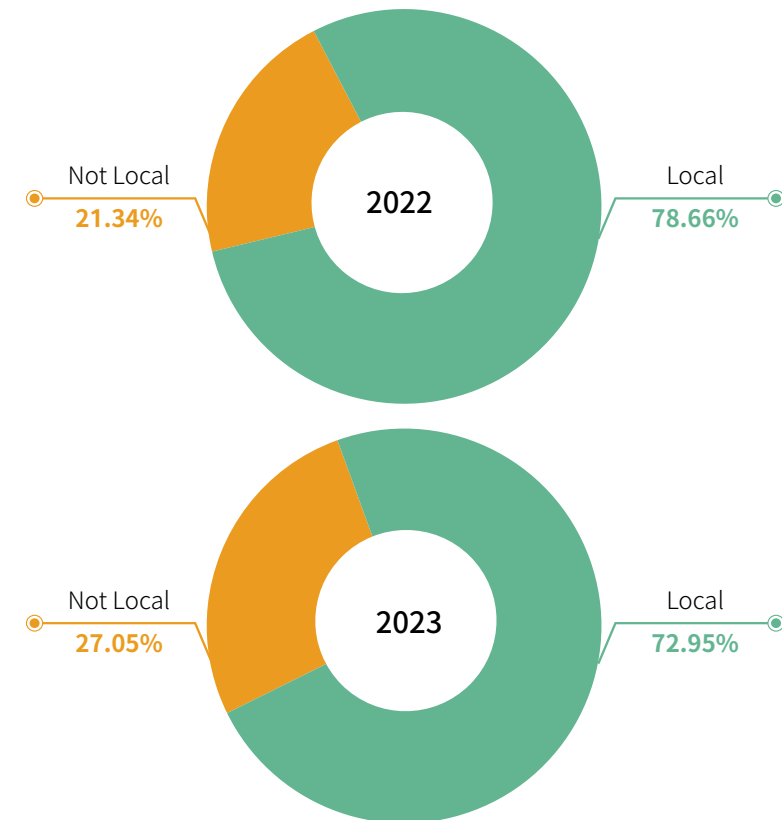
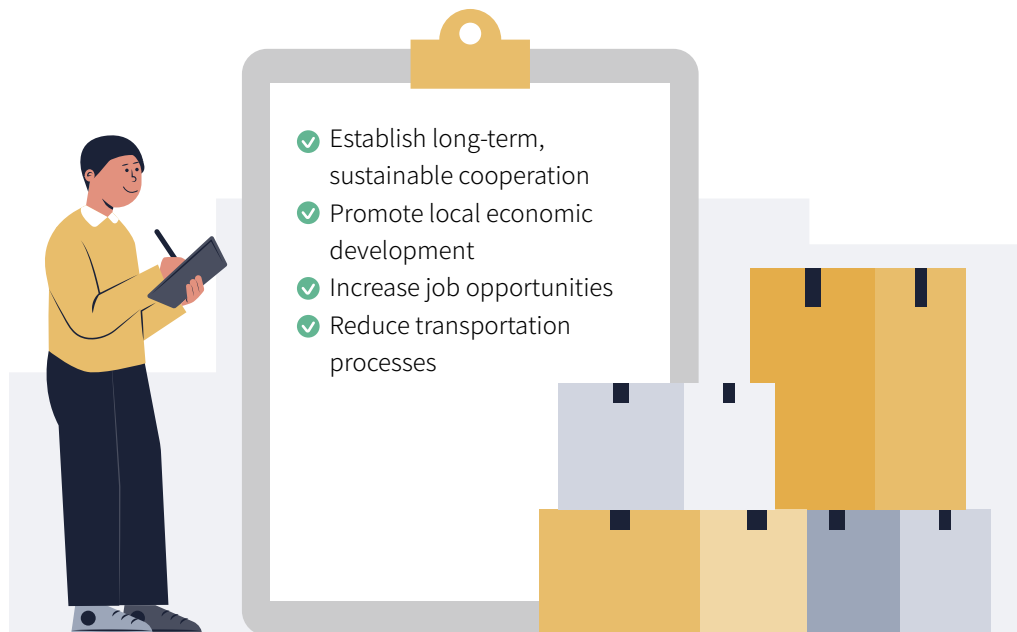
Green Procurement

<https://www.usife.com/ESG/en-us/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:

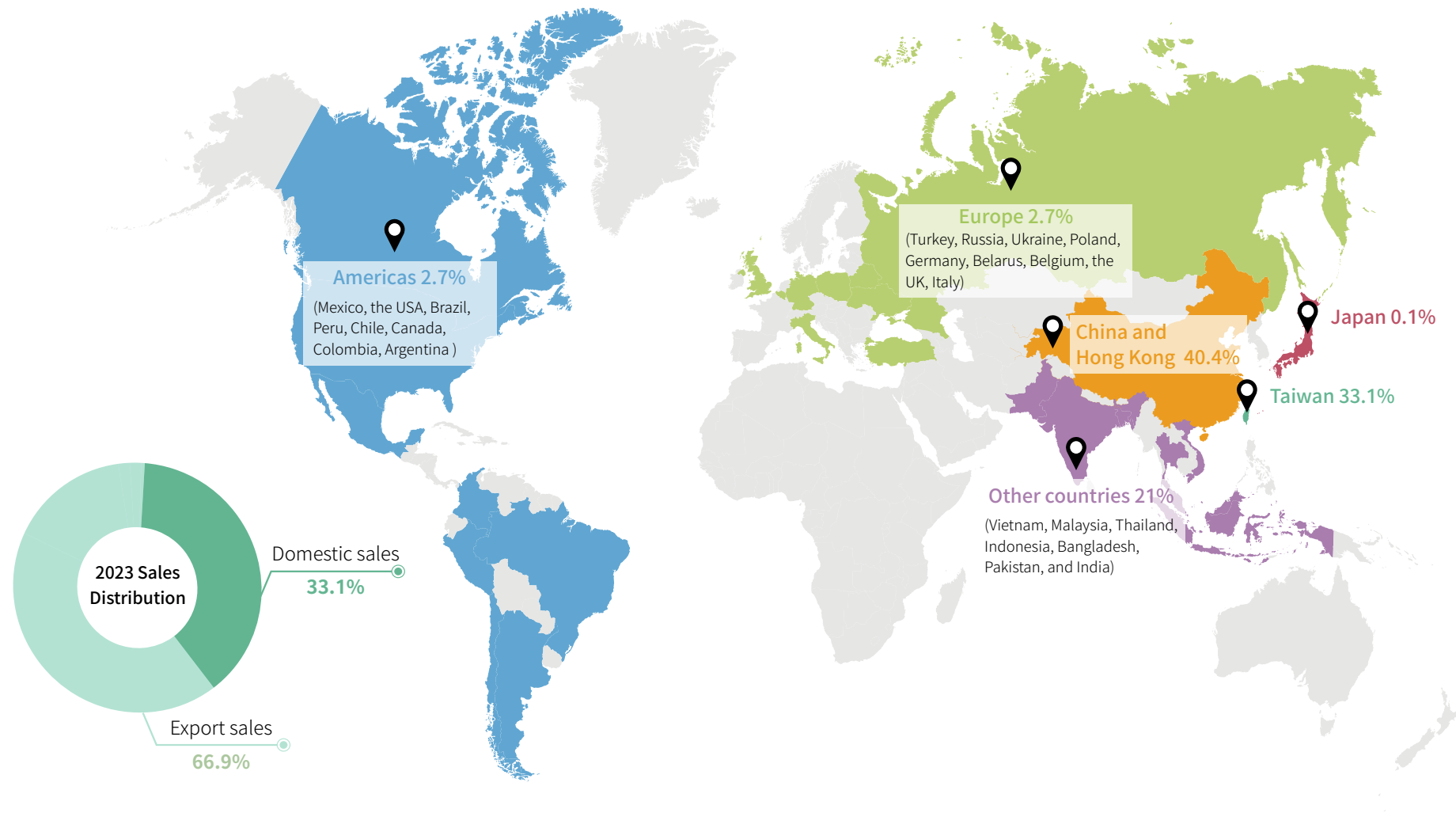


Energy-efficient and eco-friendly equipment

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). In 2023, the reported amount for green procurement on the Ministry of Environment's Green Lifestyle Information Platform was NT\$12,160,363.

3.4 Sales and customer services GRI 2-6

USI products are distributed mainly to a total of 303 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 2023. 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 2023 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



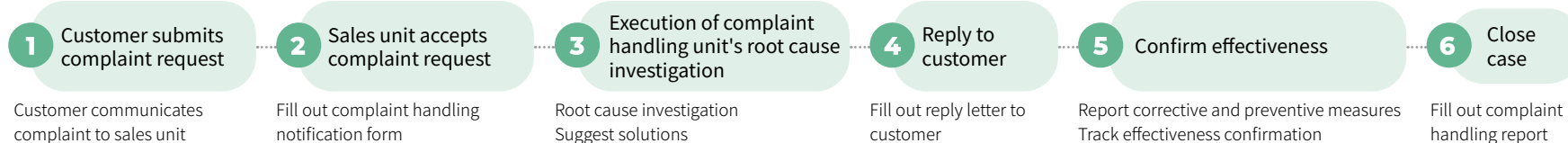
Customer privacy

- 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 2023 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.																																																
Contents and Results	<p>In 2023, all aspects were above the “satisfied” level, and up to 95.9% of investigation feedback for investigations in the year was either “highly satisfied” or “satisfied,” achieving the 2023 target (≥ 94%).</p> <p>The charts below show the survey results in “comparison with other suppliers” and “comparison with the previous year performance” in the past three years.</p> <div><div><p>Comparison with other suppliers</p><table><caption>Comparison with other suppliers (2021-2023)</caption><thead><tr><th>Category</th><th>2021</th><th>2022</th><th>2023</th></tr></thead><tbody><tr><td>Overall impression</td><td>4.6</td><td>4.6</td><td>4.6</td></tr><tr><td>Export transportation</td><td>4.8</td><td>4.8</td><td>4.8</td></tr><tr><td>Domestic sales transportation</td><td>4.6</td><td>4.6</td><td>4.6</td></tr><tr><td>Service quality</td><td>4.7</td><td>4.7</td><td>4.7</td></tr><tr><td>Product quality</td><td>4.6</td><td>4.6</td><td>4.6</td></tr></tbody></table></div><div><p>Comparison with last year performance</p><table><caption>Comparison with last year performance (2021-2023)</caption><thead><tr><th>Category</th><th>2021</th><th>2022</th><th>2023</th></tr></thead><tbody><tr><td>Overall impression</td><td>4.6</td><td>4.6</td><td>4.6</td></tr><tr><td>Export transportation</td><td>4.7</td><td>4.7</td><td>4.7</td></tr><tr><td>Domestic sales transportation</td><td>4.6</td><td>4.6</td><td>4.6</td></tr><tr><td>Service quality</td><td>4.7</td><td>4.7</td><td>4.7</td></tr><tr><td>Product quality</td><td>4.6</td><td>4.6</td><td>4.6</td></tr></tbody></table></div></div> <p>Note: "5" for highly satisfied; "4" for satisfied; "3" for fair; "2" for unsatisfied; and "1" for highly unsatisfied.</p>	Category	2021	2022	2023	Overall impression	4.6	4.6	4.6	Export transportation	4.8	4.8	4.8	Domestic sales transportation	4.6	4.6	4.6	Service quality	4.7	4.7	4.7	Product quality	4.6	4.6	4.6	Category	2021	2022	2023	Overall impression	4.6	4.6	4.6	Export transportation	4.7	4.7	4.7	Domestic sales transportation	4.6	4.6	4.6	Service quality	4.7	4.7	4.7	Product quality	4.6	4.6	4.6
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