# Shinkong Synthetic Fibers Corporation



# SUSTAINABILITY REPORT

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About This Report
Message from the Chairman
Performance Overview
Sustainable Development Blueprint
Material Topic Management
Stakeholder Engagement
Short-, Medium-, and Long-Term Corporate Sustainability Goals

# 1. Sustainable Governance

1.1 Corporate Governance	19
1.2 Integrity and Compliance	40
1.3 Risk Management	45

# 2. Sustainable Production

2.1 Deepening Technology	59
2.2 Green Innovation	62
2.3 Customer Relations	69
2.4 Sustainable Supply Chain	73

# 3. Sustainable Workforce

3.1 Employee Management	79
3.2 Talent Development	85
3.3 Employee Care	93
3.4 Labor Relations	105
3.5 Workplace Safety	108

4.	4. Sustainable Environment					
4.:	1 Green Operations	129				
4.2 Resource Management						
4.3	3 Pollution Control	146				
5. Local Engagement						
A	opendices					
¢	GRI Standards Index	154				
¢	SASB Standards Index	156				
¢	TCFD Recommendations Index	161				
∉	Third-Party Assurance Statement	162				
∉	Greenhouse Gas Accounting Certificate	166				

# Shinkong Synthetic Fibers Corporation 2023 Sustainability Report

#### **About This Report**

Shinkong Synthetic Fibers Corporation (hereafter referred to as Shinkong Synthetic Fibers or the Company) envisions becoming a "high-tech polyester industry for sustainable development." The Company is committed to its core values of "sustainable development, environmental protection and green energy, and heartfelt care," striving to provide customers with high-quality products and services. Upholding the philosophy of "pursuing excellence and continuous improvement," Shinkong Synthetic Fibers will continuously enhance its expertise, introduce innovative products, fulfill social responsibilities, and work toward sustainable operations.

#### **Reporting Period**

This report discloses actions and performance information related to corporate governance, environmental sustainability, and social commitments for the year 2023 (from January 1 to December 31). The report is also published on Shinkong Synthetic Fibers' official website in the "ESG Social Responsibility" section.

- ∉ The previous report was published in June 2023.
- ∉ The current report is scheduled for publication in August 2024.
- $\notin$  The next report is expected to be published in August 2025.

#### **Reporting Boundary**

The information disclosed in this report covers the period from January 1 to December 31, 2023. It includes actions and performance information on significant topics related to corporate governance, environmental sustainability, and social commitments. Concerns raised by stakeholders are also incorporated. The reporting boundary is set to focus on Shinkong Synthetic Fibers as the main entity, with financial data consistent with the audited financial statements, covering 100% of the consolidated financial statement revenue. Specific disclosure scopes, if any, are annotated in the report. Any restatements of historical data will be explained in the text.

#### **Principles of Report Writing**

This report is compiled with reference to the 2021 GRI Standards issued by the Global Reporting Initiative (GRI). The information aligns with domestic and international standards, including the *Regulations Governing the Preparation and Filing of Sustainability Reports by* 

*TWSE Listed Companies*, the United Nations *Sustainable Development Goals (SDGs)*, the *Task Force on Climate-Related Financial Disclosures (TCFD)* framework, and the *Sustainabil-ity Accounting Standards Board (SASB)* guidelines.

#### **External Assurance**

This report has undergone verification by an independent third-party organization, AFNOR Asia Ltd., in accordance with the AA1000 AS v3 verification standards, achieving a moderate assurance level for Type 1 requirements. For details, please refer to the verification statement in the appendix of this report.

#### **Contact Information**

To continuously improve the quality and content of Shinkong Synthetic Fibers' sustainability reports, enhance social responsibility performance, and facilitate communication with stakeholders, suggestions and feedback are welcome. Please contact the following representative:

Company Address: 5F, No. 136, Sec. 3, Ren' ai Road, Da' an District, Taipei City

Company Website: http://www.shinkong.com.tw/

ESG Section: https://esg.shinkong.com.tw/

Contact Person: Chou Yun-Bin, Tel: (02) 2507-1259 Ext. 7813

#### Message from the Chairman

Founded in 1970, Shinkong Synthetic Fibers Corporation has continuously focused on enhancing product differentiation and practical value through its core expertise in polyester. The company's development not only reflects its own growth but also serves as a concrete representation of the shifting times and changing environments. Against this backdrop, we actively engage in green energy, environmental protection, and sustainable development, integrating people-centric and circular economy values into our business philosophy. Through innovative business models, we aim to address the challenges of the current green era.

In 2023, faced with economic fluctuations and delayed recovery caused by the Federal Reserve' s continued interest rate hikes, economic recession in the Eurozone, pressure from a stronger dollar in emerging markets, China' s sluggish economic recovery, and the global energy and geopolitical impacts of the Russia-Ukraine war, we focused on accelerating market development and business expansion to better adapt to market dynamics. At the same time, we leveraged our core strengths to enhance efficiency and expand our share in differentiated markets. To improve operational efficiency and cash flow, we actively reduced inventory and optimized fund utilization. Additionally, we remain committed to energy saving, carbon reduction, and waste minimization to uphold our responsibility to the sustainable environment and maintain our brand competitiveness.

Shinkong Synthetic Fibers' efforts in ESG (Environmental, Social, and Governance) reflect the company's dedication to sustainable development. Through our ESG policies, we demonstrate a proactive approach and commitment to corporate social responsibility and sustainable development projects, striving to contribute to economic prosperity, environmental conservation, and community welfare.

Under the global trend of ESG development, Shinkong Synthetic Fibers is not only focused on its own interests but also embraces a mission closely tied to societal advancement. With environmental friendliness and sustainable operations at the core of our development, we closely align our business goals with societal needs, continually exploring new industrial directions to set an example as a premium enterprise. In environmental protection and carbon reduction, we actively participate in global and brand-led environmental initiatives, such as carbon reduction and recycled material usage policies.

In Taiwan, Shinkong Synthetic Fibers produces 100% recycled r-PET with stable quality certified for food and beverage container production. This makes us a key strategic partner for internationally renowned food, beverage, and packaging brands promoting environmental protection, carbon reduction, and sustainable operations. Internationally, through our joint venture with Mitsubishi Group in Thailand, Thai Shinkong Industry Corporation, we have expanded our production line for recycled polyester pellets (r-PET), using FTR (Flake-to-Resin) technology. This innovation reduces supply chain processes, lowers production costs, simplifies inventory management, and ensures more stable r-PET quality, thereby advancing global efforts in material recycling.

In the field of environmentally friendly textile applications, Shinkong Synthetic Fibers has progressed from Bottle-to-Textile (B2T) and Bottle-to-Bottle (B2B) recycling to exploring Textile-to-Textile (T2T) applications. We continue collaborating with international companies and brand customers to develop technologies for recycling textiles and other waste products, increasing the use of recycled r-PET materials while pursuing the development of low-carbon and green products.

Additionally, Shinkong Synthetic Fibers has ventured into environmental agriculture, establishing the Strawberry School Leisure Farm. This initiative promotes food and environmental education, STEAM learning, regional revitalization, and youth farmer reintegration, making it one of Taiwan' s most successful models of a six-level industry demonstration base.

Leveraging AI, big data, and other digital technologies, we are driving industrial transformation and actively participating in net-zero carbon initiatives, aiming for carbon neutrality by 2050. Moving forward, we will continue implementing energy-saving and carbonreduction projects, establishing green business models, and supporting the promotion of sustainable practices. Our development efforts include new eco-friendly products such as recycled polyester, bio-based polyester, functional polyester elastomers, and elastic yarns.

Through our Earth Hour campaigns, Shinkong Synthetic Fibers employees collectively turn off non-essential lights and electrical appliances, supporting global energy-saving initiatives. We also encourage low-carbon activities such as night walks and cycling during this time, fostering environmental awareness among employees and their families.

On World Environment Day, we reaffirm our environmental commitments by promoting green initiatives and hosting environmental education seminars to enhance employee awareness. Furthermore, we allocate resources to develop eco-friendly product technologies, such as manufacturing high-quality polyester products from recycled materials, reducing reliance on virgin resources.

These efforts underscore our dedication to sustainability and set a benchmark for sustainable development in society. Shinkong Synthetic Fibers will continue enhancing its core technological capabilities, strengthening research and development, accelerating corporate transformation, injecting fresh vitality into the company, and expanding its operational vision to meet future market challenges.

4

#### **Performance Overview**

#### Economic

[Governance]

- ∉ Total company revenue: NT\$21.82 billion
- ∉ Net profit after tax: NT\$760 million
- ∉ Number of incidents related to business ethics and information security violations: 0
- ∉ Corporate governance evaluation: 36% to 50%
- ∉ Revenue from green products: approximately NT\$1.88 billion
- ∉ R&D expenditures: NT\$224 million, a record high in recent years, representing a 27% year-on-year increase

∉ Products certified with *Confidence in Textiles* and *GRS (Global Recycled Standard)* certifications

#### Environmental

[Energy]

✓ Completed 64 energy-saving improvement projects in 2023, saving approximately 3.649 million kWh, with an energy-saving benefit of NT\$10.36 million, and avoided greenhouse gas emissions of 1,807 metric tons of CO2e [Water Resources]

- ∉ Water savings: 472,000 metric tons; water-saving rate: 25.2%
- ∉ Recycled and reused water: 1.207 million metric tons
- ∉ Water recycling rate: 90.5% [Pollution Prevention]
- ∉ Air pollution emissions reduced by 31% compared to the previous year
- ∉ Continuous third-party certification under the ISO 14001 Environmental Management System [Green Procurement]
- ∉ Received the *Green Procurement Outstanding Enterprise Award* for 11 consecutive years
- ∉ Procurement of environmentally friendly raw materials in 2023: 43,960 tons, a 7.4% increase compared to 2022 [Supplier Management]

∉ Commitment letter signing rate for "Supplier Social Responsibility Pledge" among key suppliers: 100%

# Social

[Employees]

- ∉ Average employee training hours: 25.24 hours
- ∉ Number of labor and human rights violations: 0

Public welfare contributions: NT\$636,000

#### Sustainable Development Blueprint

#### Sustainable Development Promotion Committee

Shinkong Synthetic Fibers established the "Corporate Social Responsibility Promotion Committee" in early 2015. In 2022, the "Carbon Neutrality Promotion Center," subordinate to the Management Decision Committee, was formed to track and plan sustainability progress. By 2024, these were consolidated into the "Sustainable Development Promotion Committee" (formerly the Corporate Social Responsibility Promotion Committee) to oversee and drive the company's social responsibility initiatives. The committee is chaired by an independent director, who serves as both a member and convener, responsible for reviewing social responsibility strategies and monitoring performance. The General Manager acts as the executive committee member, integrating six functional groups under the committee: Employee Care Group, Product Responsibility Group, Green Environment Group, Social Welfare Group, Corporate Governance Group, and Supply Chain Management Group. These groups are tasked with promoting related activities and compiling the sustainability report.

The members of the "Sustainable Development Promotion Committee" address topics of concern to stakeholders by communicating and coordinating over the long term. They or-ganize reports and propose topics of interest to primary stakeholders. These topics are discussed during meetings to finalize the theme and structure of the sustainability report. The drafting of the report involves a review by department heads, followed by examination and consolidation by the Sustainable Development Promotion Committee. The report is then verified by an independent third-party organization and submitted to the convener for approval. This ensures that the disclosed topics meet stakeholders' needs and clearly explain the social responsibility performance of Shinkong Synthetic Fibers during the reporting year.



## **Material Topic Management**

Sustainable corporate operations have long been one of Shinkong Synthetic Fibers' primary objectives and a driving force behind its growth. The company believes that engaging in in-depth communication with stakeholders contributes significantly to sustainable development. By listening to the perspectives of employees, customers, suppliers, and shareholders, and addressing current social and environmental issues, the company identifies critical sustainability topics, sets objectives and strategies, and implements improvement plans to meet stakeholder expectations. In doing so, Shinkong actively fulfills its corporate citizenship responsibilities and pursues a sustainable future. The company adheres to the GRI Standards and the AA1000 AS V3 Stakeholder Engagement Standard (SES) to establish systematic processes for managing material sustainability topics and objectives.

#### **Evaluation Process**

#### Step 1: Identification and Collection

#### Identifying Stakeholders

This report identifies seven key stakeholders based on the five principles of the AA1000SES Stakeholder Engagement Standard (SES): Dependency, Responsibility, Influence, Tension, and Diverse Perspectives. These stakeholders include employees, customers, investors, suppliers, governments, non-governmental organizations (NGOs), and community residents.

#### Collecting Sustainability Topics

Following the GRI Standards, the UN Sustainable Development Goals (SDGs), internal organizational development goals, and industry-specific topics, the company identifies internal and external factors that may affect sustainability. Feedback is gathered through questionnaires distributed to internal experts to consider stakeholder concerns, business impacts, and benefits. This process results in a consolidated list of sustainability topics relevant to stakeholders.

#### Step 2: Materiality Analysis of Sustainability Topics

#### Operational Impact Analysis

The Sustainable Development Promotion Committee consolidates stakeholder concerns into a "Sustainability Topic Impact Assessment Table," covering 20 sustainability topics. External consultants analyze these topics based on their positive, negative, actual, and potential impacts on the environment, economy, and society (including human rights). Twelve senior internal executives review the analysis to evaluate the "severity of impact" and

"likelihood of occurrence" for each topic, assigning ratings. Each material topic is scored by summing the positive and negative impact scores, calculated as the product of impact severity and likelihood of occurrence.

# Step 3: Confirmation of Material Topics

# Determining Key Topics for Disclosure

The final ranking of material topics is based on their impact severity, as confirmed by members of the Sustainable Development Promotion Committee and senior executives. For 2023, 14 material topics were identified. These topics form the foundation for the sustainability report and stakeholder communication, with specific management approaches and annual performance disclosed for each topic to address stakeholder expectations and concerns.

Material Topic Matrix



Economic, Environmental, and Social Impact Levels



Economic, Environmental, and Social Impact Levels

# Material Topics and Correspondence

Major Topics	Significance to ShinKong Synthetic	Value Chain Impact Boundary ● Direct Impact ◎ Contributory Impacts		Corresponding	Corresponding GRI	Corresponding		
Major ropics	Fiber	upstream	SSFC	downstream	SDGs	Standards	Section	
Operating Performance	Steady development of eco-friendly products, improving operational performance, maintaining stakeholder interests, and achieving sustainability.		•		8	201 Economic	1.1.3 Financial Performance	
Integrity in Operations	Adhering to principles of integrity since inception, establishing a robust legal foundation to ensure sustainable and ethical business practices.	۵	•	۵	12	205 Anti-Corruption	1.2.2 Integrity in Operations	
Corporate Governance	Establishing comprehensive risk management to mitigate risks from economic, environmental, and social factors, ensuring stable operations.		•	۵	12 13	Custom Key Topic	1.1 Corporate Governance	
Green Products	Demonstrating eco-friendly achievements, continuing green product R&D and upstream innovation for environmental sustainability.	۵	•	۵	12	Custom Key Topic	2.2 Green Innovation	
Information Security	Ensuring confidentiality and privacy for customers and employees, safeguarding data and corporate secrets through stringent controls.		•	۵		418 Customer Privacy	2.3.2 Information Security Management	
Energy Management	Developing comprehensive environmental policies for energy, water, GHG emissions, and waste		•	۵	6 × 7 × 12 × 13 × 14 × 15	302 Energy	4.1 Green Operations	
Water Resource Management	management, advancing a low-carbon, sustainable vision.		•	۵		303 Water and Effluents	4.2.1 Water Resource Management	
Waste Management		٥	•			306 Waste	4.3.3 Waste Management	
Pollution Prevention			•	۵		305 Emissions	4.3 Pollution Prevention	
Greenhouse Gas Management			•	۵		305 Emissions	4.2.3 Greenhouse Gas Management	
Supplier Management		۵	•			308 Supplier Environmental Assessment	414 Supplier Social Assessment	
Talent Development	Investing in recruitment, training, and compensation systems to enhance competitiveness and attract talent.		•		4	404 Training and Education	3.2 Talent Development	
Human Rights Protection	Ensuring fair opportunities and a friendly workplace, promoting human rights policies, and providing open communication channels.		•	۵	10	412 Human Rights Assessment	3.3.1 Human Rights Maintenance	
Occupational Health and Safety	Focusing on occupational injury prevention, promoting health and safety, and fostering a secure work environment for employees.		•	0	8	403 Occupational Health and Safety	3.5 Workplace Safety	

**Note**: The core of the value chain is Shinkong Synthetic Fibers itself, including employees and partners. The upstream refers to suppliers, while the downstream includes customers, government bodies, NGOs, and community residents.



#### Stakeholder Engagement

Through the AA1000AS V3 Stakeholder Engagement Standard, Shinkong Synthetic Fibers identifies seven key stakeholders. Recognizing the importance of stakeholders to the company and the responsibilities it bears, the company strengthens its connections with stakeholders and adjusts its policies promptly to meet their expectations. Shinkong communicates with stakeholders through various channels and methods, reporting stakeholder engagement updates regularly to senior management meetings. These insights are used as a reference for formulating corporate social responsibility policies and related plans. Details of responses and plans for material topics can be found in the respective sections.

Stakeholder	Significance to Shinkong Synthetic Fibers	Key Concerns	Communication Channels	Frequency
Employees	Employees are the cornerstone of the company's sustainable development, and Shinkong places a strong emphasis on fostering positive relationships with them.	Talent Development, Human Rights Protection, Occupational Health and Safety	Internal meetings, Labor- management meetings, Performance evaluations, Training sessions, Employee satisfaction surveys, Complaint mailbox	Monthly, Quarterly, Annually, Annually, Annually, Irregular
Customers	Customer trust and support drive the company's growth. Shinkong is dedicated to delivering high-quality products and services to meet customer expectations and create maximum value.	Customer Privacy and Information Security, Green and Innovative Products, Legal and Regulatory Compliance	Customer satisfaction surveys, Business and technical evaluations, Customer meetings, Information collection and customer discussions	Annually, Annually, Irregular, Irregular
Investors	Shareholders and investors provide robust support for the company. Management is accountable to them, adopting transparent strategies to maximize their benefits.	Business Performance, Ethical Conduct and Regulatory Compliance, Enhanced Governance and Risk Management	Shareholder meetings, Investor briefings, Annual reports, Investor mailbox	Annually, Annually, Annually, Irregular
Suppliers	Suppliers are integral to the product lifecycle, directly impacting the company's operations. Shinkong collaborates with suppliers through rigorous management systems to mitigate risks, reduce costs, and foster mutual growth.	Supplier Management, Green Procurement	Supplier meetings, Procurement negotiations	Annually, Irregular

Stakeholder	Significance to Shinkong Synthetic	Key Concerns	Communication Channels	Frequency
	Fibers			
		Business Performance, Ethical		
	Shinkong complies with government	Conduct and Regulatory		
	regulations and actively cooperates	Compliance, Occupational Health		
Courses	with policy advocacy, fostering a	and Safety, Energy Management,	Seminars and forums, Official	Irregular,
Government	culture of compliance and fulfilling	Water Resource Management,	correspondence	Irregular
	its responsibilities as a corporate	Waste Management, Pollution		
	citizen.	Prevention, Greenhouse Gas		
		Management		
	Understanding and addressing the			
	issues prioritized by NGOs fosters	Water Resource Management,	Community service and	Irregular,
NCO	ethical corporate behavior and	Waste Management, Pollution	collaborative projects,	Irregular,
NGUS	enhances societal welfare through	Prevention, Greenhouse Gas	Company website, Social	Irregular,
	effective communication and	Management, Circular Material Use	media, Press releases	Irregular
	collaboration.			
	Shinkong actively engages in local			
Community	initiatives and social care, aiming to		Community services and	Irrogular
Desidents	generate positive social impacts and	Community Care	collaborative projects,	Irregular,
Residents	foster collective goodwill for a		Neighborhood visits	irregular
	brighter future.			



#### Short-Term Performance (2023-2025)

#### Environment (E):

- ∉ Achieve a 7% carbon reduction target by 2025.
- ∉ Promote low-carbon fuel alternatives and improve energy efficiency.
- ∉ Increase wastewater recycling rate to 25.2%.
- ∉ Cumulatively reduce greenhouse gas emissions by 100,490 tons.

#### Social (S):

∉ Introduce a performance evaluation system in 2023 and enhance two-way communication.

- ∉ Achieve an average of 27 hours of employee training.
- ∉ Provide a friendly work environment, ensuring equal pay and diversity.

#### Governance (G):

- ∉ Conduct 44 regulatory promotion activities by 2023.
- ∉ Obtain certifications such as ISO 9001 and ISO 14001.

Establish an internal legal service platform to ensure compliance.

#### Mid-Term Performance (2026-2030)

#### Environment (E):

- ∉ Achieve a 22% carbon reduction target by 2030.
- ∉ Develop low-carbon circular regeneration products and renewable energy.
- ∉ Cumulatively save 2,702,725 tons of water.
- ∉ Establish and manage a comprehensive chemical map.

#### Social (S):

✓ Continue implementing a zero-payment policy for migrant workers, targeting 1,000 beneficiaries. ∉ Provide ongoing employee development and welfare activities (e.g., family days, employee tours).

∉ Further improve labor-management communication mechanisms and workplace safety.Governance (G):

## $\notin$ Regularly review internal compliance policies and risk management.

∉ Strengthen board member diversity and enhance governance effectiveness.

Continue promoting information transparency and corporate responsibility.

#### Long-Term Performance (2031-2050)

#### Environment (E):

- ∉ Achieve net-zero emissions by 2050.
- ∉ Develop applications for hydrogen energy and carbon capture technology.
- ∉ Maintain the goal of zero work-related injuries and accidents.
- ∉ Fully promote the transformation of green supply chains.

#### Social (S):

- ∉ Consolidate labor-management relations and strengthen diversity and equality policies.
- ∉ Continue supporting comprehensive measures for employee health and safety.
- ∉ Improve employee satisfaction and maintain a strong corporate culture.

#### Governance (G):

- ∉ Maintain high standards of corporate governance and regulatory compliance.
- ∉ Regularly update compliance requirements and legal training.

Drive continuous organizational improvement and long-term sustainable development strategies.

#### 1. Sustainable Governance

#### **Management Policy**

Key Issues: Operational Performance

**Policy Direction**: Enhance company-wide revenue and net profit to achieve budget targets. **Core Objectives**: Achieve growth in company-wide revenue and net profit compared to last year.

**Performance Results**: Annual company revenue reached NT\$21.82 billion, with net profit at NT\$760 million.

#### Action Plans:

∉ Monthly business group financial forecast meetings—review and adjust operational targets;

∉ Semi-annual expanded performance presentation meetings—recognize AO sales personnel who meet performance targets;

∉ Year-end budget and strategy meetings—review and formulate next year's budgets and operational strategies.

# How to Manage

#### Resources Invested:

- ∉ Business units
- ∉ Service units
- ∉ Factory production units

# Feedback Mechanisms:

- ∉ Monthly business group meetings
- ∉ Performance reward and penalty systems

# **Evaluation Mechanisms**:

Annual budget and strategy report meetings

#### 2023 Goals:

In response to the post-pandemic era, the company aims to promptly address changes in the market, customer demands, and raw material conditions to achieve revenue targets steadily.

#### **Management Policy**

Key Issue: Integrity in Business Operations

**Policy Direction**: Embed ethical conduct and anti-corruption principles into corporate culture.

Core Objective: Eliminate all instances of fraud, corruption, or breaches of integrity.

**Performance Results**: No occurrences of corruption or violations of professional ethics were reported.

#### **Action Plans:**

∉ Promote integrity in business through educational training programs;

✓ Continuously implement and regularly review compliance with the *Shinkong Synthetic Fibers Co., Ltd. Code of Ethical Conduct* and *Anti-Corruption Management Guidelines*.

#### How to Manage

#### Resources Invested:

- ∉ Corporate Governance Team, Audit Office
- ∉ Governance budget allocation
- ∉ Internal control systems

#### Feedback Mechanisms:

- ∉ Complaint hotline
- ∉ Customer service mailbox
- ∉ Investor relations mailbox

# **Evaluation Mechanisms**:

- ∉ Internal and external audit mechanisms
- ∉ Results of corporate governance evaluations

#### 2023 Goals:

∉ Continue implementing training and awareness programs;

Increase the number of participants and sessions for integrity advocacy.

# Management Policy Key Issue: Corporate Governance Policy Direction:

∉ Minimize operational risks to avoid financial and reputational losses while strengthening the company' s operational framework.

∉ Align financial control strategies with the company's operational policies to ensure stable operations.

Core Objective: Improve corporate governance evaluation rankings.

**Performance Results**: Achieved corporate governance evaluation ranking improvement from 36% to 50%.

#### Action Plans:

∉ Assign a dedicated team to handle various corporate governance activities, facilitating communication through meetings and awareness sessions.

✓ Implement systematic mechanisms to effectively identify potential internal and external risks during operations. Analyze collected data qualitatively and quantitatively to evaluate the impact of various risk factors on the company' s operations.

∉ Conduct at least one self-assessment of internal controls annually, with the Audit Department reviewing the assessment materials from each unit. This serves as the primary basis for the Board of Directors and the General Manager to evaluate the effectiveness of the overall internal control system and issue the "Internal Control System Statement."

#### How to Manage

# Resources Invested:

∉ General Management Office, Corporate Governance Team, Financial and Accounting Department

- ∉ Risk management and internal control systems, information security systems
- ∉ Self-owned and external funds

#### Feedback Mechanisms:

- ∉ Complaint hotline
- ∉ Customer service mailbox
- ∉ Investor relations mailbox

#### **Evaluation Mechanisms**:

- ∉ Corporate governance evaluations
- ∉ Internal audits

#### 2023 Goals:

- ∉ Maintain corporate governance evaluation rankings between 36% and 50%.
- ∉ Establish a Risk Management Committee.

Continue enhancing the process of internal control self-assessments.

# 1.1 Corporate Governance

# 1.1.1 About Shinkong Synthetic Fibers

Shinkong Synthetic Fibers Corporation is currently a first-category listed company on the Taiwan Stock Exchange. The company operates two production sites in Zhongli and Guanyin, manufacturing chemical fibers, plastics, and optical film products. Its offerings include polyester chips, partially oriented yarn (POY), polyester filament yarn, polyester staple fiber, polyester textured yarn, industrial yarn, PET bottle-grade resin, engineering plastics, polyester films, and optical films.

The company provides services spanning design, manufacturing, and distribution through an integrated production and sales system and efficient energy resource management, achieving its operational goals of "excellent quality" and "comprehensive service." These efforts have earned the trust and favor of both domestic and international customers.

In recent years, Shinkong Synthetic Fibers has actively adjusted its product portfolio to expand and increase the proportion of niche products. It focuses on "differentiation" and "value-added enhancement" to strengthen product competitiveness. Simultaneously, it has pursued diversification through investments in related industries based on its core business, expanding its operational scope and driving transformation and innovation to create added value for society and stakeholders.

Beyond fulfilling its product responsibilities, the company positions itself as a frontline practitioner of social and environmental responsibility. Since its establishment, it has actively promoted and developed environmentally friendly green products while continuously optimizing energy and resource management in its production processes.

In the realm of social welfare, Shinkong emphasizes "community engagement" and "industry-academia collaboration" as two main focuses. As a corporate citizen, it remains committed to building competitiveness and strengthening its operational foundation while advancing on the path of sustainable co-prosperity.

# **About Shinkong Synthetic Fibers**

- 1. Total Assets: NT\$53.4 billion
- 2. Total Capital: NT\$28 billion
- 3. First-category listed company on the Taiwan Stock Exchange
- 4. Employees: 1,940
- 5. Shareholders: 141,419

Specializes in chemical fibers, plastics, and optical film products

# The Origin of Shinkong Synthetic Fibers (Special Feature)

The founder, Mr. Wu Huo-Shih, began his career after completing primary school by working for a Japanese trading company specializing in textile imports and wholesale on Dihua Street. His outstanding performance led him, at the young age of 20, to become the youngest "head" (equivalent to a general manager) in the textile industry. This experience laid a solid foundation for his entrepreneurial journey.

After World War II, Mr. Wu established "Shinkong Trading Company" on Dihua Street, dealing in imported textiles, general merchandise, and textile parts. In the early 1950s, with government approval, he founded "Shinkong Silk Weaving Factory," which later became a leader in the textile industry.

In the late 1960s, he foresaw that "synthetic fibers" would shape the future of the textile industry. With this vision, he decided to introduce new synthetic fiber technology from Japan. In 1967, Mr. Wu co-founded "Shinkong Synthetic Fibers Corporation" with Japan's Toray Industries, Inc. and Mitsubishi Corporation. He served as the company's chairman.

#### Organizational Structure



**Operating Locations** 

- ∉ Taipei Headquarters: 5th Floor, No. 136, Section 3, Ren'ai Road, Da'an District, Taipei City
- ∉ Zhongli Plant: No. 223, Section 3, Yanping Road, Pingzhen District, Taoyuan City
- ∉ Guanyin Plant: No. 9, Guojian 3rd Road, Guanyin District, Taoyuan City

#### **Departmental Business Overview**

# Department | Responsibilities Audit Office

1. Establish and implement internal control and internal audit systems.

2. Plan and assist various departments in establishing and executing self-assessment operations for internal controls.

3. Provide suggestions and improvement reports for control and processes in all departments.

4. Execute and cooperate with regulations and administrative orders issued by supervisory authorities.

#### **General Management Office**

1. Responsible for formulating, reviewing, and coordinating the establishment of internal control and audit systems for business groups, including domestic and overseas subsidiaries.

2. Plan and promote operations related to company information systems.

#### **Information Department**

1. Formulate overall company information strategies and regulations.

2. Plan and promote various company information systems.

#### **Information Security Committee**

Plan, monitor, and execute information security management operations.

#### **Investment Business Department**

1. Develop, evaluate, and execute investment projects.

2. Manage post-investment projects, integrate business operations, and evaluate performance.

# **Quality Management Department**

1. Manage the quality of company products and continuously improve and supervise the execution of quality management systems.

2. Summarize, review, and track improvements for all company customer complaints.

# **International Marketing Division**

Expand markets, promote products, and formulate marketing strategies.

#### **Innovation Center**

1. Introduce new technologies, create clustering business opportunities, and collaborate with external academic institutions or organizations.

2. Integrate company resources to create new products, platforms, or service models, thereby generating value.

3. Establish new profit units, invest in startups, and provide assistance or guidance for technical evaluation, business strategy, and financial planning during the growth phase.

# Chief Engineer's Office

1. Review investment plans and confirm and develop production technologies.

2. Collect, introduce, and conduct R&D on engineering technologies.

3. Establish, promote, and review engineering management systems and maintenance policies.

4. Formulate and promote workplace safety and environmental protection policies.

5. Draft, execute, and supervise factory management guidelines.

#### **Operations Headquarters**

1. Responsible for the production and sales of solid polyester chips and engineering plastic pellets.

2. Responsible for the production and sales of differentiated products, including polyester chips, traditional polyester yarns, polyester cotton, drawn textured yarns, industrial yarns, partially oriented yarns, and polyester processed yarns.

#### Human Resources Department

Draft, execute, and supervise human resource management policies.

# **Finance and Accounting Department**

1. Formulate, execute, and supervise financial, accounting, credit management, and external investment policies.

2. Conduct statistical analysis of product costs.

# **Optoelectronics Business Group**

Responsible for the production and sales of optical-grade TAC film substrates, precisioncoated optical film materials, brightness enhancement film materials, and optical-grade PET film substrates.

#### 1.1.2 Business Overview Chemical Fiber Business

#### Production Business Market and Industry Overview

In the global chemical fiber industry supply chain, Taiwan has always played a crucial and influential role, particularly in polyester fiber products. The company's chemical fiber business is divided into the Long Fiber Division and the Industrial Fiber Division based on product categories. The main products include polyester chips, polyester cotton, polyester partially oriented yarn (POY), polyester drawn textured yarn (DTY), polyester processed yarn, and polyester industrial yarn. In recent years, all product lines have been dedicated to environmental sustainability, focusing on recycling and reuse to provide downstream spinning and weaving industries with materials for further processing and applications.

#### ✤ Major Chemical Fiber Products and Industry Chain



#### **Application Fields**

- ∉ Apparel and home textile products
- ∉ Spinning, non-woven fabrics, and fillings
- ∉ Seat belts, ropes, and tire cords
- ∉ PET bottles
- ∉ Water bottles, pressure bottles, and heat-resistant bottles
- ∉ Packaging boxes and trays
- ∉ Packaging films and optical films
- ∉ Electronics, automotive, and fiber optic components

# Major Product Introduction, Sales Regions, Production Capacity, and Market Share

In recent years, the company has focused on producing functional products, with the main offerings including:

#### **General Textile Products**

- o Recycled GRS-certified eco-friendly yarns
- o CD cationic yarns
- o TCD twisted yarns
- o Sigma eco-friendly elastic multifunctional yarns
- o Split-type microfiber
- o Shinspan false-twist yarns
- o Shincool cooling yarns
- o Breeze linen-like eco-friendly yarns
- o 2XDry 2.0 wave quick-dry moisture-wicking yarns
- o Shale yarn eco-friendly yarns
- o Solarcool heat-reflective cooling fibers
- o Cooltouch moisture-wicking yarns
- o Cooltouch Thermo moisture-wicking and thermal yarns
- o Shinhot far-infrared thermal fibers
- o Differential shrinkage microfibers
- o Fine denier fibers
- o FR flame-retardant fibers
- o Flash Dye low-temperature dyeable fibers
- o Heavy metal-free fibers

# **Industrial Applications**

o General industrial yarns and HMLS (High Modulus Low Shrinkage) yarns, including highstrength high-shrinkage yarns, high-strength low-shrinkage yarns, water-repellent yarns, colored yarns, and eco-friendly high-strength yarns.

# Polyester Cotton for Spinning

o Anti-pilling cotton

- o 4T New Soft Cotton
- o GRS-certified eco-friendly cotton

# Spinning-Grade Eco-Friendly Polyester Chips

• Taiwan's actual production in 2023: 1,425 tons, used for spinning processing or molding applications.

# **Product Sales Regions**

The majority of sales are domestic, while export destinations include China, Hong Kong, Japan, the United States, South Korea, Thailand, Vietnam, Europe, Central and South America, Malaysia, India, Indonesia, Pakistan, Bangladesh, Sri Lanka, Brazil, Germany, Spain, Italy, Canada, Australia, the Czech Republic, and other regions.

# Actual Production Volume and Market Share of Major Chemical Fiber Products (2023)

Category	Application	Annual Sales (tons)	Domestic Market Share (%)
Polyester Chips	Spinning, injection molding, film, sheet, solid-state polymerization	67,570	
Polyester Partially Oriented Yarn (POY)	False-twist processing, draw processing	3,370	
Polyester Drawn Textured Yarn (DTY)	General clothing, footwear, accessories, home décor, etc.	2,597	
Polyester Processed Yarn	General clothing, decorative fabrics, sportswear, casual wear, women's wear, etc.	26,859 (Taiwan)	8.1
		4,808 (Overseas)	
Polyester Industrial Yarn	Tire cord fabrics, geotextiles, billboard fabrics, canvas, etc.	13,130	34.1

Note: Domestic market share is defined as domestic sales volume/domestic total industry sales volume (Source: Taiwan Man-Made Fiber Industries Association).

# Production Capacity and Market Share of Major Chemical Fiber Products (2023)

Category	Application	Annual Capacity (tons)	Domestic Market Share (%)
Polyester Chips	Spinning, injection molding, film, sheet, solid-state polymerization	137,970	5.21
Polyester Partially Oriented Yarn (POY)	False-twist processing, stretching processing	50,110 (Taiwan)	4.79
		5,400 (Overseas)	
Polyester Drawn Textured Yarn (DTY)	General clothing, footwear, accessories, home décor, etc.	5,760	5.76
Polyester Processed Yarn	General clothing, decorative fabrics, sportswear, casual wear, women's wear, etc.	38,800 (Taiwan)	4.34
		10,800 (Overseas)	
Polyester Industrial Yarn	Tire cord fabrics, geotextiles, billboard fabrics, canvas, etc.	25,200	30.45

Note: Domestic market share is defined as domestic sales volume/domestic total industry production capacity.

#### **Major Brands**

The company's chemical fiber products primarily focus on producing upstream raw materials for textiles. After years of effort, several brands have been established, including SHINPET, SHINLON, and RECOTEX, as shown in the table below.

Brand	Product	Applications	Main Raw Materials
SHINPET	Polyester Chips	Spinning, injection molding, film, sheet, solid-state polymerization, plastics	PTA, MEG, masterbatch, additives
SHINLON	Polyester Yarn	General clothing, decorative fabrics, sportswear, casual wear, trousers, women's wear, footwear, tire cords, geotextiles, billboard fabrics, canvas, agricultural fabrics, etc.	Polyester Chips
RECOTEX	Eco-Friendly Polyester Fibers	General clothing, decorative fabrics, sportswear, casual wear, women's wear, industrial fabrics, etc.	GRS-certified Recycled Polyester Bottles

#### **Plastics Business**

#### Production Business Market and Industry Overview

Starting from chemical fiber technology, the company has diversified and differentiated its operations, establishing production facilities in Taiwan, China, and Thailand (Note: The factories in China and Thailand are investments by Shinkong Synthetic Fibers Corporation) to supply the global market. Major plastic products include polyester chips, PET bottle-grade chips, PET bottles, PET bottle preforms, engineering plastics, and polyester sheets.

# Introduction of Major Plastic Products

# Solid-State Polyester Chips:

o SHINPET PET boasts superior quality and has been approved by the FDA in Europe, the U.S., Japan, and major international beverage manufacturers.

o In 2023, the global demand for bottle-grade PET chips is estimated to reach approximately 34 million metric tons, with a growth rate of around 3.0-4.0%.

Taiwan has achieved an annual production of 12,000 metric tons of 100% recycled R-PET, while Thailand began producing 210,000 metric tons of semi-chemical R-PET annually in Q2 of 2023.

# **Engineering Plastics:**

o Featuring excellent electrical properties and ease of processing, engineering plastics are widely used in computer components, home appliances, and automotive connectors.

o **Compounding Engineering Plastics** are extensively applied in consumer electronics and automotive industries.

o **PBT Base Resin** is mainly used for engineering plastics, industrial applications, and apparel fibers.

o In recent years, PBT resin has maintained an annual growth rate of approximately 4-5%.

• To accelerate product promotion and reduce certification timelines, Shinkong has collaborated with UL to establish a **Performance Material Long-Term Thermal Aging Laboratory (LTTA Lab)**, significantly speeding up product launches and enhancing market competitiveness. o The company is actively pursuing green energy and carbon-reduction products in line with sustainable development and plastic reduction policies. Current priorities include developing recyclable and biodegradable materials as the next generation of key products.

# **Polyester Sheets:**

o **PET Sheets:** Suitable for vacuum forming and folding box printing, commonly used for packaging electronics, medical peripherals, personal care products, food, and hardware tools.

o Growing environmental awareness has led to a gradual shift from PVC and PS packaging to eco-friendly PET alternatives. Additionally, major technology companies have started certifying R-PET sheets in response to sustainability demands, creating new business opportunities.

 Beyond its existing silicon-free market advantage for electronic products, the company is actively introducing PET sheets for medical packaging, aiming to improve quality while boosting profits.

# PET Bottles and Preforms:

o PET bottles, introduced in 1977, have replaced glass and PVC bottles due to their lightweight, safe, non-toxic, and aesthetically pleasing characteristics. They are now one of the most widely used packaging containers for consumer products.

Suitable for packaging soft drinks, juices, soy sauce, salad oils, cosmetics, detergents, and general food products.

#### **Sales Regions**

✓ Solid Polyester Chips: In addition to internal use, they are sold in markets such as Japan, the United States, Southeast Asia, the Middle East, Africa, and Central Asia.

# Production Capacity and Market Share

Product Type	Application	Annual Capacity (tons)	Domestic Market Share (%)
Solid Polyester Chips	Bottles and film packaging	325,000 (Taiwan)	20
		385,000 (Overseas)	
		710,000 (Total)	
Compounding Engineering Plastics	5G & electronic products, automotive materials	30,000 (Taiwan)	50
		13,000 (Overseas)	

Product Type	Application	Annual Capacity (tons)	Domestic Market Share (%)
		43,000 (Total)	
PBT Base Resin	Optical fibers, automotive materials, and spinning	120,000	50
TPEE	Automotive materials, outdoor products	5,000	25
Polyester Sheets	Electronics, personal care, food packaging	18,000	20
Bottles and Preforms	Beverage containers	4 billion units	10

*Note: Thailand commenced production of 210,000 tons of semi-chemical R-PET annually in Q2 2023.* 

#### **Major Brands**

Brand	Product	Applications	Main Raw Materials
SHINPET	Solid Polyester Chips	Bottles, films, masterbatch applications	PTA, MEG
SHINITE	TE PBT, TPEE Small appliance parts, high-voltage insulation components, microswitches, relay		PTA, BDO, Compounding Engineering Plastics
			PTMEG
SHINPAK	A-PET, polyester sheets	Packaging for electronics, medical products, personal care items, food, and hardware tools	Solid Polyester Chips
PAN- ASIA	Bottles and Preforms	Packaging for soft drinks, juices, soy sauce, salad oil, cosmetics, detergents, and general food items	Solid Polyester Chips

# The Birth of PET Bottles - Taiwan's First PET Bottle (Special Feature)

In 1980, Shinkong Synthetic Fibers Corporation invested in establishing **Pan-Asia Polyester Corporation**, introducing Japan Toray's **PET (bottle-grade) solid polyester chip** technology and purchasing PET bottle blow molding machines from Japan's Nissei Industries. The company began producing PET soy sauce bottles. At the time, the name "PET bottle" was coined by taking the phonetic resemblance of "PET" in Mandarin, and the term was registered as a trademark. Thus, Taiwan's first domestically produced "PET bottle" was born. To this day, PET bottles remain an indispensable part of daily life for Taiwanese people.

#### **Client Overview**

The company primarily operates under a B2B model, processing raw materials into semifinished products for downstream clients. These downstream clients further process the semi-finished products into final goods for brand sales. Major clients include Eclat, TOYO-BO, LOTTE, BASF DUPONT, Delta Electronics, King Car Otsuka, Uni-President, Hey-Song, Coca-Cola, Tong Guan, CONTINENTAL, TORAY, among hundreds of other clients and distributors.

Shinkong Synthetic Fibers maintains long-term contracts and non-contractual direct sales relationships with its key clients, in addition to selling through distributors. Besides domestic sales, the company exports primarily to markets in Japan, North America, Europe, China, and Central Asia.

# Participation in Industry Associations

Shinkong Synthetic Fibers actively participates in industry associations to engage in crossindustry exchanges and stay informed about the latest industry developments and future trends.

Association Name	Membership Status
Taiwan Synthetic Resins Manufacturers Association	Director
Taiwan Rubber and Elastomer Industries Association	Member
Taiwan Man-Made Fiber Industries Association	Member
Taiwan Silk & Filament Weaving Industrial Association	Member

#### **External Advocacy**

Shinkong Synthetic Fibers supports and adheres to the ten universal principles of the **United Nations Global Compact (UNGC)** in areas such as human rights, labor, environment, and anti-corruption. The company is committed to safeguarding the rights and interests of all stakeholders, including employees, customers, suppliers, and contractors.

Incorporating these principles into its business strategy, Shinkong Synthetic Fibers focuses on respecting human rights, protecting labor rights, ensuring freedom of association, prohibiting forced labor and child labor, eliminating all forms of discrimination, promoting environmental sustainability, and combating corruption.

In 2023, Shinkong Synthetic Fibers reported no violations related to human rights issues, including discrimination, violations of freedom of association, use of child labor, forced labor, or corruption.

#### **1.1.3 Financial Performance**

Shinkong Synthetic Fibers adheres to a consistent and stable business strategy, focusing on steady revenue growth and product mix optimization as its primary operational objectives. The company's impressive operational performance over the years demonstrates strong recognition from domestic and international consumers for its current product strategy. This success motivates continuous improvement and innovation, breaking old frameworks and exceeding limits.

The company sets annual revenue and net profit budgets and conducts monthly financial forecasting meetings across its business divisions. These meetings review operational conditions, assess progress toward business goals, and make necessary adjustments. This ensures that management stays well-informed of operational and market dynamics while overseeing budgets to achieve performance targets.

Category	2021	2022	2023
Total Assets	53,408,513	53,593,600	53,916,156
Total Liabilities	17,319,958	18,111,455	17,565,073
Total Shareholders' Equity	36,088,555	35,482,145	36,351,083
Operating Revenue	25,915,403	28,012,162	21,818,314
Operating Gross Profit	3,950,087	3,142,153	893,823
Net Profit After Tax	3,888,416	2,823,787	764,410

#### Assets and Revenue Structure

Unit: NT\$ thousand

# 2023 Profitability Indicators

Category	2021	2022	2023
Return on Assets (ROA) (%)	8.05	5.49	1.68
Return on Equity (ROE) (%)	11.48	7.89	2.13
Earnings Per Share (EPS) (NT\$)	2.41	1.75	0.47

# Economic Value Distributed to Stakeholders

Category	2021	2022	2023
Operating Costs	21,965,316	24,870,009	20,924,491
Employee Salaries and Benefits	1,765,519	1,766,162	1,431,151
Payments to Investors (Interest Expenses and Cash Dividends)	1,899,739	2,408,553	1,793,832
Payments to Governments	364,105	515,983	342,821
Community Investments	750	698	637

Unit: NT\$ thousand
# 1.1.4 Board Structure

The Board of Directors is the highest governing body of the company. Directors serve a three-year term, with the current 19th term running from June 2, 2023, to June 1, 2026. The Board consists of 12 members, including three independent directors. Two directors are under 50 years old (17% of the Board), and ten directors are over 50 years old (83% of the Board). Through the diverse professional experiences of its members, the Board undertakes comprehensive planning, operational execution, and major decision-making for the company.

# **Board Member Selection Process and Compensation**

The selection of Board members follows the company's "Board Election Procedures" and "Ethical Corporate Management Best Practices", as well as the independence standards set by regulatory authorities. The nomination system evaluates candidates based on their academic and professional background, ensuring members possess "independence," "fairness," and "diversity." Beyond age, nationality, and cultural considerations, emphasis is placed on professional expertise, industry experience, and specialized skills. To manage and prevent conflicts of interest, Board members must exercise their powers in accordance with the Articles of Incorporation, the Board Meeting Rules (including conflict-of-interest provisions), and relevant laws.

According to the company's **Articles of Incorporation**, up to 5% of annual profits may be allocated as directors' compensation. The exact proportion and amount are proposed by the Compensation Committee based on the company's performance and peer benchmarks and finalized by the Board for shareholder reporting. In 2023, directors' compensation accounted for 0.29% of net profit after tax.

# **Required Competencies for Board Members**

- 1. Operational judgment
- 2. Accounting and financial analysis
- 3. Business management
- 4. Crisis management

- 5. Industry knowledge
- 6. Global market perspective
- 7. Leadership
- 8. Decision-making

To enhance the Board's ability to respond to regulatory changes and global market dynamics, the company organizes annual training sessions conducted by external experts. Topics in 2023 included "Taiwanese Business Operations and M&A Strategies Amid Global Political and Economic Dynamics" and "Corporate Risk and Supply Chain Cybersecurity Management under ESG Trends." All directors fulfilled the "Corporate Governance Best Practice Principles for TWSE/TPEx Listed Companies" requirements, with each director completing six hours of training.

The company has established a "**Board Performance Evaluation Policy**", covering the performance of the Board as a whole, individual directors, and functional committees. Evaluation criteria include participation in operations, decision-making quality improvement, Board composition and structure, director selection and continuing education, and internal controls. Evaluations are conducted internally, with results reported to the Board.

Position	Name	Education	Experience	Gender	Age	Board Diversity and Core Competencies
Chairman	Shinkong Development Co., Ltd. Representative: Wu Dong-Sheng	Harvard University, Doctor of Law	Chairman of UBright Optronics, New Era Optronics, Shinkong Leasing, Shinkong Network, Shinkong Recreation, and Shinkong Mitsukoshi Department Store	Male	71	Business Management: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: V; Global Market Perspective: V; Leadership: V; Decision- Making: V; Crisis Management: V
Vice Chairman	Shinkong Development Co., Ltd. Representative: Wu Hsin-Chieh	Columbia University, Psychology/Economics	Chairman of UBright Optronics	Male	44	Business Management: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: V; Global Market Perspective: V; Leadership: V; Decision- Making: V
Director	Shinkong Development Co., Ltd. Representative: Wu Dong-Ming	Western Illinois University, Master's in Accounting	Chairman of Fuline Systems Integration and Wemo Technology	Male	74	Systems Integration: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: -; Global Market Perspective: V; Leadership: V; Decision- Making: V

Position	Name	Education	Experience	Gender	Age	Board Diversity and Core Competencies
Director	Taiwan Shinkong Industries Co., Ltd. Representative: Hung Shih-Chun	University of Minnesota, Information Systems	Chairman of Hanlin Construction and Hanshan Construction	Male	59	Investment: V; Operational Judgment: V; Industry Experience: V; Management: - ; Finance: -; Global Market Perspective: -; Leadership: V; Decision-Making: -
Director	Jihjen Co., Ltd. Representative: Wu Hsin-En	UCLA, Master's in Materials Science	Chairman of Shinkong Textiles and Shinkong Asset Management	Male	47	Textiles, Insurance: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: V; Global Market Perspective: V;
						Leadership: V; Decision- Making: V
Director	Shinkong Wu Ho-Su Cultural and Educational Foundation Representative: Liu Rong-Ji	National Chung Hsing University, Administration	Consultant to Shinkong Wu Ho-Su Memorial Hospital	Male	82	Accounting: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: -; Global Market Perspective: -; Leadership: V; Decision-Making: -
Director	Te-Yue Industrial Co., Ltd. Representative: Shih Huo-Tso	Feng Chia University, International Trade	Chairman of Dahui Optronics	Male	74	Marketing: V; Operational Judgment: V; Industry Experience: V; Management: V; Finance: V; Global Market Perspective: V; Leadership: V; Decision-Making: V
Director	Te-Yue Industrial Co., Ltd. Representative: Chiu Ching-Chun	St. Thomas University, Master's in International Management	Former Hsinchu County Magistrate, Legislator, President of the World Hakka Federation	Male	75	Business Management: V; Operational Judgment: V; Industry Experience: V; Management: -; Finance: V; Global Market Perspective: V; Leadership: V; Decision- Making: V
Director	Mien-Hao Industrial Co., Ltd. Representative: Ni Shun-Mo	National Cheng Kung University, Mechanical Engineering	Consultant to Shinkong Wu Ho-Su Memorial Hospital	Male	80	Mechanical Engineering: V; Operational Judgment: V; Industry Experience: V; Management: -; Finance: V; Global Market Perspective: -; Leadership: V; Decision- Making: V

Position	Name	Education	Experience	Gender	Age	Board Diversity and Core Competencies
Independent Director	Chiu Hsien-Teh	National Taiwan University, Law	Chairman of Shin Hung Construction	Male	72	Legal: V; Operational Judgment: -; Industry Experience: -; Management: V; Finance: V; Global Market Perspective: V; Leadership: -; Decision-Making: -
Independent Director	Lin Hui-Huang	Duke University, Doctor of Law	Professor at Shih Hsin University, Visiting Professor at Taipei University	Male	73	Legal: V; Operational Judgment: -; Industry Experience: -; Management: -; Finance: V; Global Market Perspective: V; Leadership: -; Decision-Making: -
Independent Director	Tsai Yung-Chin	Takming University of Science and Technology, Financial Insurance	Consultant at Shinkong Mega, Director at Upower HR, Deputy General Manager of Jiabang Investment	Male	75	Financial Insurance: V; Operational Judgment: -; Industry Experience: -; Management: V; Finance: V; Global Market Perspective: V; Leadership: -; Decision- Making: -

# Audit Committee

The company has established an **Audit Committee**, consisting of three independent directors. The committee' s objectives include overseeing the fair presentation of the company' s financial statements, the appointment/dismissal and independence/performance of external auditors, the effective implementation of internal controls, compliance with relevant laws and regulations, and the management of potential risks. In 2023, the Audit Committee held six meetings, with a 100% attendance rate.

# **Compensation Committee**

The company's **Compensation Committee** consists of three members, with an independent director serving as the convener. The committee assists the Board of Directors in formulating policies, systems, standards, and structures for performance evaluation and compensation for directors, supervisors, and executives. Responsibilities include reviewing performance appraisals, salaries, bonuses, employee profit-sharing, incentive plans, and director/

supervisor remuneration distribution methods. Recommendations are then submitted to the Board for discussion.

In 2023, key tasks included reviewing employee compensation, director remuneration allocation, year-end performance bonus distribution, the reasonableness of salary adjustment plans, and amendments to bonus policies. After proposals were presented and explained by relevant units, committee members discussed and approved them. The committee convened three times in 2023, with a 100% attendance rate.

Looking ahead to 2024, the Board has resolved to align senior management compensation with **ESG-related performance evaluations** to further promote sustainable development. The decision and details will be published on the company website.

Shinkong Synthetic Fibers employs a responsibility-oriented hierarchical framework, determining compensation standards based on the duties and responsibilities of senior managers, including ESG implementation and goal achievement. Within the scope of delegated authority, remuneration decisions are approved by the Chairman.

### 1.1.5 Shareholders' Rights

To safeguard the rights of every shareholder, Shinkong Synthetic Fibers adheres to the Company Act, Securities and Exchange Act, and other relevant regulations, treating all shareholders equally. During general meetings, all acknowledgment, discussion, and election proposals are voted on individually. Shareholders can exercise their voting rights to participate in corporate decision-making, and voting results are disclosed promptly during the meetings, ensuring fairness and transparency.

#### **Investor Relations**

#### Shareholder Services

The company has entrusted **Shinkong Securities Co., Ltd.** with handling various shareholder services. In addition to disclosing major information on the **Market Observation Post System (MOPS)**, the official website includes a dedicated "**Stakeholder Section**" offering contact details for the Investor Relations Office and spokesperson, as well as other relevant shareholder information to protect shareholder rights.

Stakeholder Section: http://www.shinkong.com.tw/front/investors#/shareholders

# Institutional Investor Relations

Since 2017, the company has held at least one investor conference annually to communicate directly with institutional investors, providing updates on the company's latest operations and future outlook. The company also engages periodically with professional print and electronic media to enhance transparency and ensure accurate disclosure.

# Key Event Communication and Response

For major decisions or significant events that meet the Taiwan Stock Exchange' s criteria for listed companies' disclosure procedures, the responsible department must file a **"Major Event Disclosure Application"** no later than the day before the event occurs. The application, signed by the department head, is submitted to the designated unit for review and approval by the spokesperson.

The designated unit prepares the disclosure content and completes a "Major Event Assessment Checklist" to ensure compliance with regulatory timelines. The disclosure is then reviewed by the spokesperson and approved by the Chairman before release. Routine operational information, however, may be approved by the General Manager.

# **1.2 Integrity and Compliance**

# 1.2.1 Legal Compliance

"Integrity and compliance" is Shinkong Synthetic Fibers' highest guiding principle. To ensure adherence to laws and regulations, the company has implemented a series of internal courses and external seminars, setting the highest standards in managing business operations and product sales.

Internally, through comprehensive educational training, the company incorporates "regulatory compliance" into essential competency development for employees. These training sessions cover laws and regulations related to energy, environment, fire safety, occupational health and safety, and intellectual property, offering diverse learning modules to instill compliance throughout the organization.

In addition to robust internal training, external professional consultants are frequently invited to provide advanced lectures, keeping employees updated on the latest industry trends and regulatory frameworks. The company also encourages employees to apply for external training sessions tailored to their departmental needs, creating a flexible and contemporary approach to enhancing professional expertise.

# **Compliance System and Audit Mechanism**

Shinkong Synthetic Fibers conducts regular large-scale "**Regulatory Compliance Self-Assessments**" to evaluate its internal adherence to laws. Through periodic inspections, the company effectively mitigates legal risks. High-risk areas, such as potential deficiencies or issues impacting directors and managers' criminal liability, corporate image, or significant civil and administrative responsibilities, are prioritized for management and audit.

The **General Management Office** oversees the compliance framework, directing departments to conduct self-assessments and establish internal audit mechanisms. Following departmental evaluations, the **Human Resources Office** and **Audit Office** perform on-site audits to ensure thorough checks.

Audit findings and recommendations are discussed in dedicated meetings, with corrective measures set and deadlines established for resolving deficiencies. Follow-ups are conducted to ensure proper implementation. Additionally, involved personnel may undergo performance reviews, and the Board of Directors is regularly updated on compliance progress.

Since the implementation of this compliance system and audit mechanism, the results have been favorable, successfully achieving the objectives of managing and mitigating operational risks.

# 2023 Regulatory Changes and Corresponding Measures

Revised Regulation	Revision Date	Legal Promotion
Fire Safety Act	2023/06/21	
113th Annual Labor Inspection Policy	2023/06/26	
High-Pressure Gas Labor Safety Rules	2022/09/14	
Guidelines for Selecting Outstanding Units and Personnel in Occupational Safety and Health	2023/01/19	
Occupational Safety and Health Facility Rules	2022/08/12	
High-Pressure Gas Labor Safety Rules (Duplicate)	2022/09/14	
Controlled Chemical Substances and Operation Management	2023/01/12	
Toxic Chemical Substances Management	2023/02/20	
Recycling and Disposal Fee Rates for Goods	2023/04/27	The Occupational Safety Office has promoted
Periodic Testing and Reporting of Stationary Pollution Sources	2023/05/04	and required strict compliance to prevent
Emission Standards for Mobile Pollution Sources	2023/06/30	occupationarnazarus.
Vehicle Emission Testing and Commissioning Methods	2023/06/30	The Environmental Protection Department
Fee Rates for Air Pollution Control of Stationary Sources	2023/06/30	has promoted the amendments to on-site units in the plant and required strict
Management of Fugitive Particulate Air Pollution Control Facilities for Stationary Sources	2023/07/06	compliance to prevent environmental incidents.
Environmental Education Institutions Certification and Management	2023/08/08	
Greenhouse Gas Emission Inventory and Registration Management	2023/09/14	
Management of Greenhouse Gas Certification and Verification Institutions	2023/10/05	
Management of Greenhouse Gas Emission Offset Projects	2023/10/12	
Management of Voluntary Greenhouse Gas Reduction Projects	2023/10/12	

# **Compliance Status**

In 2023, the company had no significant environmental, social, or economic penalties. However, there were three minor occupational safety incidents and two environmental violations, resulting in total fines of NT\$300,000 and NT\$12,000, respectively.

Corrective measures for all occupational safety and environmental violations have been implemented. To prevent similar issues, the company launched improvement projects, reviewed these incidents in the Safety Committee and Management Review Committee, and notified relevant departments to propose corrective actions and revise SOPs.

Additionally, regular safety awareness meetings are held to promote compliance and prevent recurrence of violations.

Penalty Date	Violation	Fine	Corrective Measures
2023/06/20	The AFK #15 motor drive chain of the false-twist machine posed a potential hazard to workers due to the lack of a protective cover.	NT\$100,000	Installed protective covers for motor drive chains.
2023/08/08	Personnel failed to wear high-temperature protective gear during disassembly and inspection of the GEAR PUMP end plate backflow clearance.	NT\$100,000	Required personnel to wear high- temperature protective gear.
2023/08/31	Personnel failed to wear high-temperature protective gear during the removal of a pressure transmitter.	NT\$100,000	Required personnel to wear high- temperature protective gear.

# 2023 Occupational Safety Violations and Corrective Actions

Penalty Date	Violation	Fine	Corrective Measures
2023/06/07	Off-spec materials classified as industrial waste were not included in the waste management plan. (Zhongli Plant)	NT\$6,000	Included off-spec materials in the waste management plan.
2023/06/15	Off-spec materials classified as industrial waste were not included in the waste management plan. (Guanyin Plant)	NT\$6,000	Included off-spec materials in the waste management plan.

# 2023 Environmental Violations and Corrective Actions

Penalty Date	Violation	Fine	Corrective Measures
2023/06/07	Off-spec materials classified as industrial waste were not included in the waste management plan. (Zhongli Plant)	NT\$6,000	Included off-spec materials in the waste management plan.
2023/06/15	Off-spec materials classified as industrial waste were not included in the waste management plan. (Guanyin Plant)	NT\$6,000	Included off-spec materials in the waste management plan.

# **1.2.2 Ethical Business Practices**

Shinkong Synthetic Fibers is committed to creating a highly ethical and responsible business environment, recognizing that business ethics are crucial for long-term corporate success and sustainable societal development. To this end, the company has established a **Business Ethics Policy** to ensure that all employees and related partners of Shinkong Synthetic Fibers (including subsidiaries)—including suppliers, agents, customers, and other collaborators—adhere to principles such as:

- ∉ Anti-corruption and anti-bribery,
- ∉ Avoiding conflicts of interest,
- ∉ Anti-fraud,
- ∉ Anti-money laundering,
- ∉ Prohibition of unfair competition,
- ∉ Ensuring information security.

The company is firmly committed to ethical business practices and implements a zerotolerance policy toward corruption, bribery, and unethical business conduct, upholding values of integrity, transparency, and fairness.

# **Business Ethics Policy: Directions and Objectives**

Ethics Item	Policy Direction	Objective
Anti-Corruption and Anti-Bribery	Strictly prohibit any form of corruption and bribery, including giving or receiving bribes, abuse of power, and offering kickbacks, to ensure integrity and transparency in internal and external interactions.	Ensure no incidents of corruption or bribery occur.
Avoiding Conflicts	Require employees to avoid conflicts of interest with the company, prohibiting	Ensure no conflicts of interest or
of Interest	actions that may harm the company's interests or create conflicts.	actions harmful to the company.
Anti-Fraud	Strictly prohibit any form of fraud, including falsification, forgery, and false advertising, ensuring honesty and fairness in internal and external transactions.	Ensure no fraudulent activities occur.
Anti-Money	Establish and implement effective anti-money laundering measures to prevent	Ensure no incidents of money
Laundering	the company from being a channel for money laundering or illicit funds.	laundering occur.
Prohibition of	Adhere to principles of fair competition, prohibiting improper practices such	Ensure no incidents of unfair
Unfair Competition	as defaming competitors, stealing trade secrets, and market distortion.	competition occur.
Ensuring Information Security	Protect company and customer information, including data protection and prevention of unauthorized access and use.	Ensure no information security incidents or privacy-related complaints occur.

*Note: This Business Ethics Policy applies to all employees and related partners of Shinkong Synthetic Fibers (including subsidiaries), including suppliers, agents, customers, and other collaborators.* 

# **Compliance and Ethical Business Practices**

In 2023, the Internal Audit Department conducted promotions on "Integrity Management, Anti-Corruption, and Anti-Bullying" during major company meetings, with participation from senior management and overseas subsidiary executives. Additionally, on the company's Employee Care Day, training sessions on social responsibility, human rights, ethical business practices, and business ethics were organized, with 2,055 participants achieving a 100% completion rate.

To implement integrity management and eliminate corruption, protecting the core company value of honesty and integrity, Shinkong Synthetic Fibers has committed to the following anti-corruption measures:

1. Anti-Corruption Guidelines: The "Anti-Corruption Management Guidelines" serve as the standard for preventing corruption. Relevant content is published on the company intranet, accessible to all employees (100% coverage).

2. **Diverse Communication Channels**: Employees can access regulatory updates through various channels, including plant posters, the intranet' s regulatory FAQs and guidance, internal emails, and educational articles, enhancing awareness on key issues.

3. **Integrity Commitment**: All new hires are required to sign an integrity commitment statement as a declaration of personal ethical conduct.

4. **Regular Training**: Quarterly onboarding training for new employees includes sessions on integrity management, anti-corruption, and professional ethics.

5. **Customized Training**: Current employees receive annual training and tailored programs based on their job responsibilities, delivered through face-to-face meetings, online courses (e.g., CommonWealth Magazine), and other formats.

6. **Self-Evaluation for Managers**: Department heads and above (approximately 240 employees, 10.7% of the workforce in 2023) complete self-assessment questionnaires to identify risks. Reports are presented to the Board, with zero tolerance for corruption if any issues are found.

7. Anti-Corruption Advocacy for Key Managers: Senior managers (plant and department managers) participate in anti-corruption sessions at least annually during key meetings, such as management conferences and rationalization meetings.

8. **Comprehensive Risk Assessments**: All company locations (domestic and overseas) achieved 100% completion of business ethics and anti-corruption risk assessments.

Through these efforts, Shinkong Synthetic Fibers enforces a zero-tolerance policy against corruption, ensuring ethical business practices. The company's guidelines also cover conflict of interest avoidance, political and charitable donations, and whistleblowing channels.

For more information, visit the company website: Shinkong Synthetic Fibers Ethical Business Guidelines

# 1.3 Risk Management

# 1.3.1 Risk Early Warning System

Shinkong Synthetic Fibers has implemented a **Risk Early Warning System** to identify and mitigate potential risk factors by collecting internal and external information and data. This system enhances the company' s ability to respond to potential risks, preventing operational difficulties and demonstrating corporate value.

Through a systematic mechanism of regularly tracking single or multiple risk items, qualitative and quantitative data analysis is used to effectively identify operational impacts that may arise during company operations. Preventative measures are proposed in advance.

The company's goal is not only to establish professional risk identification and assessment processes but also to continually optimize its risk management mechanisms. Financial, operational, product, disaster, and workplace safety risks are all included in the evaluation to improve decision-making effectiveness and increase corporate value.

A **Corporate Social Responsibility Risk Management Procedure** has also been established to enhance employees' awareness of human rights, labor, occupational safety, environmental protection, and ethical issues. For critical operational activities or high-impact potential incidents, risk assessment and identification are carried out. Continuous hazard identification, risk evaluation, and implementation of necessary control methods are employed to keep risks at an acceptable level.

The responsible unit systematically reviews and identifies potential risks within their business scope, prioritizes risk items, and selects the most critical risks. Aligning with the annual plan, specific and trackable leading indicators and corresponding measures are set. Each measure has a defined inspection frequency to ensure timely supervision, with designated personnel assigned as primary and supporting coordinators. Cross-departmental performance reviews are reported to the Board of Directors regularly. The company secretariat also facilitates communication on environmental and social issues among department managers, fostering internal consensus. Annual reviews of impacts, performance, and strategic goals are conducted to ensure alignment.

By managing risks through a common framework and systematic periodic reviews, the company ensures effective protective mechanisms during risk events. Sharing experiences and enhancing colleagues' risk response capabilities are key objectives of the Risk Early Warning System.

To respond promptly and strengthen resilience, all departments at Shinkong Synthetic Fibers establish measures to address abnormalities in key indicators, enhancing the completeness of the Risk Early Warning System.

The steps of the Risk Early Warning System process are as follows:

# **Risk Identification and Assessment Process**

### **1.Risk Identification**

A risk list is established annually, categorized by political, economic, social, technological, environmental, and legal factors to define the year' s risk factors.

### 2.Risk Assessment

Risk assessments are conducted using qualitative and quantitative methods by professional personnel from each department.

#### 3. Risk Response

Based on identified risks and assessment results, risk management strategies are developed, and corresponding standard operating procedures (SOPs) are formulated.

# 4. Monitoring and Improvement

The effectiveness of risk management is regularly tracked, with designated units empowered to make adjustments and optimize processes.

# Scope of the Risk Early Warning System

#### > Operations

- 1. Responding to regulatory changes
- 2. Ensuring the stability of raw material and supply chains
- 3. Innovating production and developing green products
- Disasters

- 1. Natural disasters: Typhoons, earthquakes, etc.
- 2. Man-made disasters: Accidental fires
- 3. Pollution disasters: Air and water pollution
- > Occupational Safety and Health
- 1. Human, machine, materials, methods, and environment management (5M).
- 2. Emergency response procedures for occupational safety incidents

### ➤ Finance

- 1. Fair presentation of financial statements
- 2. Compliance and integrity in information disclosure
- 3. Customer credit evaluation and accounts receivable management
- 4. Compliance in auditing and taxation
- 5. Capital raising and fund allocation
- 6. Capital expenditure control
- 7. Investment project evaluation
- 8. Insurance and hedging

# ➤ Business Ethics

- 1. Anti-corruption and anti-bribery
- 2. Avoiding conflicts of interest
- 3. Anti-fraud
- 4. Anti-money laundering
- 5. Prohibition of unfair competition
- 6. Ensuring information security

# > Export Trade Risk Management

To mitigate trade risks, the company adopts a stringent and cautious approach:

1. Regular updates on customer credit assessments, covering profitability, payment performance, and future prospects.

2. Timely adjustments to customer shipment limits based on the above evaluations, combined with accounts receivable insurance or other guarantees. Shinkong Synthetic Fibers maintains global trade partnerships and ensures compliance with international regulations to avoid sanctions or penalties. The company has also established an **Anti-Money Laundering (AML) and Counter-Terrorism Financing (CTF) Program**, conducting periodic large-scale audits and implementing corresponding standard procedures.

# 1.3.2 Climate Change Response

Climate change is no longer a personal issue but a global challenge that requires collective action. At Shinkong Synthetic Fibers, we deeply acknowledge this responsibility and are committed to addressing and resolving it. We are not only raising operational standards but also actively adopting climate-friendly business practices and contributing to environmental protection through innovative eco-friendly products.

In 2023, Shinkong Synthetic Fibers adopted the framework of the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), released by the Financial Stability Board (FSB), to disclose governance, strategies, risk management, metrics, and targets related to climate change. Through these efforts, we aim to turn "environmental protection," "energy conservation," and "carbon reduction" from mere slogans into tangible actions, joining hands with global efforts to create a sustainable future in the face of climate challenges.

# Governance

As the ultimate decision-maker for sustainability issues, the Board of Directors at Shinkong Synthetic Fibers is tasked with reviewing climate change countermeasures and serves as the highest supervisory body for climate management. Its responsibilities include reviewing annual risk management and execution reports to ensure the effective implementation of climate-related risk management systems.

The Sustainability Development Committee is responsible for executing annual identification of climate risks and opportunities, climate action measures, and target management. The committee reports operational outcomes related to climate change to the Board annually, ensuring a robust grasp of the company' s climate response while maintaining alignment between sustainability objectives and overall corporate strategy.

# Strategy

Shinkong Synthetic Fibers analyzes actual and potential climate risks and opportunities. Following the climate risk identification procedures, the company identifies risks and opportunities across its various business lines and assesses their financial impacts. A prioritization process is then applied to these risks and opportunities, culminating in the creation of a climate risk matrix.

# Climate Risk and Opportunity Matrix



# **High Risks**

1. Transition Regulation - Environmental regulations are becoming increasingly stringent - Environmental maintenance costs are rising.

# **Moderate Risks**

2. Transition Technology - Introduction of new technologies - R&D costs are increasing.

3. Transition Regulation - Carbon emission disclosures - Non-compliance will lead to penalties.

4. Transition Market - Rising raw material costs - Increased operational costs.

5. Physical Long-term - Drought - Increased water usage costs.

6. Physical Immediate - Typhoons and heavy rain - Equipment damage and operational interruptions.

7. Physical Immediate - Typhoons and heavy rain - Increased demand for water purification equipment.

# Low Risks

8. Physical Immediate - Typhoons and heavy rain - Employee injuries.

9. Physical Long-term - Rising average temperatures - Increased demand for cooling and refrigeration equipment.

10. Physical Long-term - Rising sea levels - Equipment damage and operational interruptions.

# **High Opportunities**

- 11. Resource Efficiency Recycling and reuse.
- 12. Market Development of new markets.

# **Moderate Opportunities**

- 13. Resource Efficiency Improved production efficiency.
- 14. Product Changes in customer preferences and demands.

# Climate Change Risks — Physical Disaster Risks

	Risk Identification	Operational Impact	Response Measures	2023 Management Costs
Chronic Progression	Average Temperature Increase	Increased Demand for Cooling Equipment in Factory Areas Increased Demand for Refrigeration Equipment in Production Processes Increased Demand for Cooling Equipment in Factory Areas Increased Demand for Refrigeration Equipment in Production Processes	Enhance Ventilation Equipment (Source: Guan-Yuan 55) Adopt Low-Energy Consumption Air Conditioning Equipment (Source: Yuan-Yi 241) Improve Equipment Efficiency to Reduce Power Consumption (Source: Yuan-Yi 2289 & Guan-Yuan 2009) Enhance Equipment Insulation to Reduce Heat Loss (Source: Yuan-Yi 1003)	10,256 Thousand NT Dollars Source: Yuan-Yi 4369 Source: Yuan-Er 1680 Source: Guan-Yuan 4262
	Sea Level Rise	Flooding of Plants and Equipment Causing Damage Disruption of Plant Operations	Promote Energy-Saving and Carbon Reduction Measures (Source: Yuan-Yi 836 & Guan-Yuan 186) Strengthen Water Conservation; Install Smart Water Meters for Factory Deep Wells (Source: Yuan-Er 1680) Implement Corporate Risk Adaptation Systems (Source: Guan-Yuan 2012) Coordinate with Government to Raise the Height of Sea Walls in Guanyin	
	Droughts	Increased Unit Cost of Process Water Higher Water Resource Management Costs	Industrial Area Independently Increase the Height of Flood Protection Walls	



# Climate Change Risks — Physical Disaster Risks

	Risk Identification	Operational Impact	Response Measures	2023 Management Costs
Acute and Severe	Typhoons and Heavy Rainfall	Power Outage Forcing Operational Interruption Damage to Plants and Equipment	Preparations for Power Equipment (Electricity Sector 6,763.5) Replacement and Upgrading Project for 69KV Substation Ultra-High Voltage Power Equipment Maintenance Project for High-Voltage Circuit Breakers in the Main Substation Manufacturing of Specialized Carts for High-Voltage Circuit Breakers (H/KGCB) in the Main Substation Replacement and Upgrading of Main and Sub Feed Line Panels for C-BANK Feed Lines Renovation of Underground Cable Trenches with Elevated Flooring in the First Substation Replacement of High-Voltage Disconnect Switches (D.S.) in the First Substation Replacement of Secondary Panels for L.C.C. B2.2 in the Fifth Substation Replacement of Abnormal Temperature Circuitry for L.C.C. C9.1 in the Fifth Substation	16,822 Thousand NT Dollars Electricity Sector: 7,718 Construction: 8,595 Source: Yuan-Er 146 Source: Guan-Yuan 363
		Flooding of Plants and Equipment Causing Damage Increased Water Turbidity Leading to Higher Water Treatment Demand Plant Damage Resulting in Injuries to Staff on Site	Leak Repair and Rain Cover Replacement for Discharge Pumps (Source: Yuan- Er 71) Drainage System Improvement, Waterway Cleaning and Repairs (Source: Yuan-Er 75 & Guan-Yuan 363) Installation of Waterproof Gates in Plants Enhancement of Waterproof Equipment and Measures Strengthening of Water Conservation Measures Introduction of Corporate Risk Adaptation Systems Replacement of Power Equipment and Generator #3 Cooling Tower Due to Collapse (Source: Yuan-Er 3591)	



# Climate Change Risks — Transition Risks

				2023
Risk Type	Risk Description	Operational Impacts	Mitigation Measures	Management Cost
				(NT\$ Thousands)
Degulatory	Amendments to	Increased demand for		
Regulatory	Environmental	<ul> <li>factory cooling systems</li> <li>Increased demand for</li> <li>refrigeration againment in</li> </ul>		240
RISKS	Policies processes		<ul> <li>Conduct regulatory tracking, identification, and response</li> </ul>	340
		<ul> <li>Government mandates require certain industries to</li> </ul>	<ul> <li>Plan greenhouse gas reduction strategies</li> <li>Continue greenhouse gas inventory</li> </ul>	GHG Inventory
	Enhanced Emission	<ul> <li>Obtain and use green electricity</li> <li>Obtain and use green electricity</li> <li>Pursue reductions to secure gov</li> </ul>		Third-Party
	Reporting	third-party verification, with future expansion to	incentives	Verification Fee
	Obligations	other industries. • Penalties may lead to increased costs		
Technological Risks	Increased Costs for New Technology Investments	<ul> <li>Rising demand for energy-saving and carbon-reduction technologies</li> </ul>	<ul> <li>Promote energy-saving and carbon-reduction measures</li> <li>Implement water-saving processes and projects</li> <li>Clean and maintain RO membranes in water treatment systems to improve water production and quality</li> <li>Enhance water treatment efficiency to</li> </ul>	130



# **Opportunities and Strategies for Climate Change**

	Opportunity Type	Potential Opportunity Description	Countermeasures
Resource Efficiency	•Higher efficiency in production •Recycling and reuse	<ul> <li>Process energy savings to reduce production costs</li> <li>PET resource recycling becomes a mainstream product</li> <li>Increase the proportion of in-plant scraps and off-spec materials for reprocessing</li> </ul>	<ul> <li>Energy management, variable-frequency energy-saving equipment improvements, and power regulation installation plans</li> <li>Recycling PET bottles into yarn</li> <li>Recycling PET fabrics into yarn</li> <li>Converting in-plant off-spec PET materials and scraps into ester pellets for self-use or sale</li> </ul>
Market	•Develop new markets •Eco-friendly raw and auxiliary materials	<ul> <li>Non-petrochemical raw materials</li> <li>Eco-friendly products</li> </ul>	<ul> <li>Research and promotion of biodegradable yarns</li> <li>Fluorine-free and carbon-reducing products</li> </ul>
Products	•Changes in customer demand ar	<ul> <li>Rising customer demand for green products</li> <li>Climate-adaptive products, e.g.:</li> <li>a. Thermal insulation and cooling</li> <li>b. Temperature-regulating fabrics</li> <li>c. Landslide prevention</li> </ul>	<ul> <li>Strengthen the promotion of green products</li> <li>Prioritize environmental friendliness in product development</li> <li>Use far-infrared hollow insulation yarns in heat-generating clothing</li> <li>Produce cooling garments with moisture- wicking and cooling yarns</li> <li>Apply high-strength industrial yarns to geotextiles</li> <li>Note: Refer to Section 2.2.1, "Climate Change Adaptation Product Series"</li> </ul>

**Note:** The financial impact of climate change management costs is approximately NT\$27,548,000.



### **Risk Management**

# **Identification and Assessment**

Shinkong Synthetic Fibers annually identifies and evaluates potential climate-related physical and transition risks that may arise during operations. The company assesses the potential impacts and influences of these risks and opportunities, discusses response strategies, and formulates follow-up control measures. These efforts are systematically integrated into our sustainability goals.

#### Management Mechanism

The Board of Directors considers the impacts of climate change as a significant risk to the company. The Sustainability Development Committee develops strategies and manages climate-related issues. Through greenhouse gas inventory and third-party external verification, a systematic approach is adopted to address these issues, with regular reporting of management outcomes.

### **Target Management**

To address the challenges and transition opportunities brought by climate change and to pursue sustainable development, Shinkong Synthetic Fibers has implemented comprehensive environmental management measures. The company has set reduction targets for energy consumption per unit of production and greenhouse gas emissions per unit of production. Various energy-saving projects have been launched, and their performance is reviewed regularly. Details on these targets and energy-saving achievements can be found in Chapter 4: Sustainability and Environmental Issues.

# 1. Energy Consumption Reduction Target per Unit of Production

Target	Short- and Medium-Term Goals (2025)	Long-Term Goals (2030)
Reduction Target	00/	1 5 9/
Note: Calculated based on 2018 as the baseline year.	870	15%

# 2. Greenhouse Gas Emission Reduction Target per Unit of Production

Target	Short- and Medium-Term Goals (2025)	Long-Term Goals (2030)
Reduction Target	70/	220/
Note: Calculated based on 2018 as the baseline year.	/ 70	2270

# 1.3.3 Internal Management

# Internal Control System

A comprehensive internal control system enhances internal self-management and monitoring, ensuring the company operates effectively. The company mandates all departments to autonomously and comprehensively conduct self-assessments of internal deficiencies. According to the "Internal Control System and Management Regulations," departments must complete reviews and rectify deficiencies within specified timeframes.

In addition to self-assessments by departments, the company has established an **Audit Office** under the Board of Directors, staffed with professional and impartial auditors. The Audit Office regularly or as needed reports its findings to the Chairman to assist the Board and management in examining and evaluating the effectiveness of the internal control system.

Independent from other departments, the Audit Office performs its duties with impartiality, ensuring unbiased evaluations. This contributes to the company' s overall operations, organizational effectiveness, and the consistent implementation of established systems.

In 2023, all departments successfully completed their annual internal audit tasks. The deficiencies identified during audits were rectified within the approved deadlines, achieving positive outcomes in internal auditing and optimization.

# 2. Sustainable Production

# **Management Guidelines**

# ∉ Key Topics: Environmental Products

✓ Policy Direction: Use recycled environmental materials for production and increase their share in revenue.

∉ Core Goal: Achieve 70% of annual revenue from environmentally friendly processed fiber products.

∉ Performance Results - Completed mass production of R-chip.

- ∉ Developed Infinity Garment.
- ∉ Conducted batch testing for chemical recycling of clothing.

∉ In 2023, environmentally friendly processed fiber products accounted for 68% of total revenue.

- ∉ 2023 R-PET sales reached 15,572 tons, up 29.4%.
- ∉ R-PET fabric sales totaled 62 tons.

∉ Expanded semi-chemical R-PET production in Thailand to an annual capacity of 210,000 tons in Q2 2023.

∉ Achieved mass production and shipment of R-PBT and R-TPEE products.

✓ Zhongli plant obtained TFDA certification for its 12,000-ton annual mechanical R-PET production.

∉ Thailand plant obtained US FDA certification for its 210,000-ton annual semi-chemical R-PET production. |

# **Action Plans**

∉ Establish a dedicated project development team within the R&D center to develop proprietary chemical recycling processes for clothing through patent and literature research.

∉ Secure long-term contracts to purchase recycled raw materials.

∉ Employ a bottom-up approach to product development by identifying opportunities through customer feedback, market trends, and technological advances, leading to the creation of new potential products. ∉ Establish a pilot factory for proprietary chemical recycling technology to support the global trend of fiber-to-fiber circular economy.

✓ Sign an MOU with Ambercycle to form a strategic partnership, leveraging Ambercycle's regenerated cycora® materials. Shinkong Synthetic Fibers will produce high-performance closed-loop recycled yarns to meet customer demands for circular economy, low carbon, and waste reduction.

### **Management Measures**

**Resources Allocated** 

- R&D project team. - Polymer testing plant. - Procurement and sales. - R&D and planning funds

Feedback Mechanisms

- R&D meetings. - Production-sales meetings. - Technical meetings.

**Evaluation Mechanisms** 

- Revenue reports. - Third-party laboratory testing. - Annual final reports.

# 2024 Goal

Achieve 70% of annual revenue from environmentally friendly products.

# **Management Guidelines**

# **Key Topic: Information Security**

Policy Direction: Ensure that all employees have a mission and shared understanding of implementing information security.

Core Goal: Prevent any complaints related to breaches of customer privacy or misuse of customer data.

Performance Results: Maintain ISO 27001 Information Security Management System certification with no reported security incidents.

# **Action Plans**

∉ Implement the ISO 27001 management system (ISMS) to establish, manage, and improve policies and objectives related to information security risks.

Execute ISMS policies, controls, processes, and procedures, evaluate the effectiveness of ISMS implementations regularly, and report the results to management for review.

### **Management Measures**

**Resources Allocated** 

- Dedicated budget for training. Project budget for ISO 27001 implementation.
- ISO 27001 task force (11 members).
- Three internal audit seed personnel. External consulting advisors.
- Deployment of cybersecurity systems and social engineering drills.

# Feedback Mechanisms

- Information Group contact email. - Complaint email system.

**Evaluation Mechanisms** 

- Internal audits and management reviews.
- External audits by third-party certification bodies.

# 2023 Goal

Take corrective and preventive actions based on ISMS internal audit findings, management reviews, or other relevant information to ensure the continuous improvement of ISMS.

# **Management Guidelines**

# Key Topic: Supplier Management

Policy Direction: Strengthen the supply chain to ensure consistent quality.

Core Goal: Achieve a 100% signing rate of social responsibility commitment letters from major suppliers.

Performance Results: 1. Conducted on-site audits and evaluations for three suppliers.

2. Collected 130 signed Social Responsibility and Supplier Behavior Commitment Statements from vendors.

# **Action Plans**

∉ Implement supplier management regulations.

∉ Promote Social Responsibility and Supplier Behavior Commitment Statements to suppliers.

Conduct on-site audits and evaluations of suppliers

# **Management Measures**

**Resources Allocated** 

- Corporate Social Responsibility Promotion Team. - Procurement Team.

Feedback Mechanisms

- Internal and external complaint mailboxes. - Supplier meetings.

**Evaluation Mechanisms** 

- Annual supplier evaluations.

# 2023 Objectives

1. Conduct on-site audits and evaluations for five suppliers.

Upload Social Responsibility and Supplier Behavior Commitment Statements to the SCM platform for supplier signing, and conduct self-assessments for 100 major suppliers.

# 2.1 Deepening Technology

# 2.1.1 R&D Investment

In pursuit of environmental friendliness and green products, Shinkong Synthetic Fibers actively invests in research and development, cultivates professional talent, establishes R&D centers, and procures various analytical instruments and testing equipment. These investments lay the foundation for innovation in R&D, focusing on four primary goals: "Change," "Progress," "Innovation," and "Green." The company is committed to developing highquality, high-performance, high-value-added, and environmentally friendly products, contributing to sustainability through continuous R&D efforts.

In the early stages, the cost of manufacturing green products was significantly high. To address this, Shinkong Synthetic Fibers has continuously adjusted its approach by collaborating with domestic industry-academia-government research institutions (such as the Taiwan Textile Federation, the Taiwan Textile Research Institute, the Industrial Technology Research Institute, and the Plastics Industry Development Center), introducing new technologies to accelerate innovation and improve technical capabilities effectively.

Shinkong Synthetic Fibers also maintains strong partnerships with international brands, working together to develop cutting-edge technologies and products. The company collects insights on future market needs and forward-looking products through exhibitions, which are then incorporated into new product development meetings. During these meetings, products are rigorously evaluated, with the R&D center and production units jointly discussing production feasibility. If a project shows potential, it follows these development steps:

1. Include it as a development project.

2. Conduct small-scale sampling upon development completion (responsible unit: production unit).

3. Test samples with customers, collecting feedback on user experience.

4. After repeated testing, begin small-scale production, with downstream production for final products.

5. Gradually scale up production upon customer acceptance.

6. Officially enter mass production and sales, categorizing the product as a successful new development.

This step-by-step bottom-up development model reflects Shinkong Synthetic Fibers' commitment to rigorous R&D, environmental responsibility, and consumer satisfaction.

# **R&D** and Innovation Investment

Year	R&D Expenditure	Revenue	R&D-to-Revenue Ratio (%)
2021	141,674	25,915,403	0.55
2022	176,353	28,012,162	0.63
2023	224,216	21,818,314	1.03
Unit: NT\$ thousand			
Note: R&D-to-Revenue Ratio = R&D Expenditure ÷ Revenue.			

# **Revenue Contribution from Innovative Products**

# ➤ Fiber Business

Revenue from environmentally friendly fiber processing products totaled NT\$1.883 billion, accounting for 68.0% of revenue, representing a 10% annual growth rate.

# **R&D** Innovation Achievements and Patents

In a rapidly changing world, only continuous progress can keep pace with market dynamics. This belief reflects the entrepreneurial spirit championed by Shinkong Synthetic Fibers' founder: "Maintaining the status quo means falling behind; only through continuous development can progress be achieved."

The company's dedication to product innovation and R&D has yielded remarkable results. From 2000 to 2023, Shinkong Synthetic Fibers accumulated a total of 37 invention patents.

# 2.2 Green Innovation

### 2.2.1 Green Innovation - Climate Adaptation Product Series

### Shinhot Thermal Fiber:

With superior far-infrared emissivity, this fiber can increase fabric temperature by 3 – 5°C compared to conventional PET fibers at the same fabric weight. Its Y+ hollow cross-section enhances warmth retention and moisture-wicking, providing a cozy and warm experience in winter while reducing the need for higher indoor heating temperatures.

### Shincool Cooling Fiber:

Developed to address global warming and rising energy costs, this hydrophilic cooling fiber reduces body temperature by  $1 - 2^{\circ}$ C when worn and regulates humidity effectively. Indoor air conditioning can be set  $1^{\circ}$ C higher, potentially saving 3 - 5% on electricity bills.

# Solarcool Near-Infrared Reflective Cooling Fiber:

Effectively reflects near-infrared rays, blocking heat from entering garments. It also features UV protection, reducing the harm of ultraviolet rays on the skin.

# 2X DRY (2.0) Quick-Dry Fiber:

This fiber evaporates sweat rapidly, carrying heat away from the body at twice the drying rate of conventional polyester, ensuring a comfortable and breathable experience during summer.

# BREEZE Cooling and Breathable Fiber:

Lightweight and breathable with a natural linen texture, this fiber quickly disperses heat and evaporates sweat, providing a cool and dry feel in summer.

# **CoolTouch Series Fiber:**

Features a specialized cross-section design for moisture-wicking and sweat absorption. The reduced contact area between fiber and skin enhances comfort and dryness during summer.

# **CoolTouch Thermo Fiber:**

Combines cooling and warmth-retention capabilities, regulating body temperature and humidity for year-round comfort.

# Sigma Vaporush Fiber:

Offers excellent moisture absorption and loft, improving fabric breathability and heat dissipation for a cooler, non-stuffy wearing experience.

# Marvel Transform Moisture-Responsive Fiber:

This fiber dynamically adjusts to temperature and humidity. During physical activity, it absorbs sweat, elongates, and enhances fabric breathability, reducing discomfort from excessive sweating. When dry, the fiber reverts to its original state, forming a permanent, reversible, moisture-responsive smart fiber.

### **Recycled Thermoplastic Polyester Elastomer:**

Made from recycled PET bottles, this elastomer retains its superior mechanical properties while embodying eco-friendly and circular economy principles.

### **Recycled Waterproof and Breathable Polyester Pellets:**

Produced from recycled PET bottles, these pellets maintain excellent waterproof and breathable performance, aligning with green and circular economy values.

# 2.2.2 Green Innovation - Circular, Sustainable, and Energy-Saving Products

#### **RECOTEX**:

Made from recycled PET bottles through processes such as crushing, cleaning, and pelletizing. The resulting fibers are regenerated to reduce petroleum resource consumption, energy use, and CO2 emissions.

#### Flash Dye Low-Temperature and Low-Pressure Dyeable CD Fiber:

Achieves dye depth equivalent to high-temperature, high-pressure dyeing at 98°C under normal temperature and pressure, significantly reducing energy consumption during the dyeing process. Compatible with natural fibers and nylon for interwoven dyeing.

#### Dope Dye Polyester Fiber:

Incorporates color masterbatch during the spinning process, eliminating the need for post-dyeing treatments. This saves auxiliary agents, water, and energy while addressing wastewater treatment challenges, making it an environmentally friendly and energy-saving product.

#### **Recycle PBT Fiber**:

Produced from recycled PET bottles through depolymerization, pelletizing, and fiber manufacturing. This recycled PBT fiber supports circular regeneration and features low-temperature, low-pressure dyeability, reducing energy consumption and reliance on petroleum resources.

#### Infinite Clothes:

Co-developed with Shinkong Textile, the "Infinite Clothes" project uses recycled fab-

rics, which are shredded and pelletized to produce fabric-recycled fibers. This process achieves zero waste and 100% material recycling.

#### 2.2.3 Green Innovation - Eco-Friendly and Non-Toxic Products

#### Shin Lotus Fluorine-Free Water-Repellent Fiber:

This fiber incorporates non-fluorine-based hydrophobic agents, providing durable water repellency and quick-drying properties. Its functionality remains effective even after repeated washing.

#### Antimony-Free Catalyst Polyester Fiber:

Conventional polyester production uses trace amounts of antimony (Sb) catalysts, a heavy metal. While minimal antimony poses no immediate harm to humans or the environment, concerns about long-term accumulation have emerged. The company has actively scaled up the production of antimony-free polyester fibers, offering consumers a sustainable, eco-friendly alternative. In 2023, production of this series reached 15,550 metric tons, a 34% increase compared to 2022.

#### **BPA-Curb Recycled PET Fiber:**

Bisphenol A (BPA) is an endocrine disruptor with potential long-term impacts on human liver and kidney functions, as well as reproductive, neurological, immune, metabolic, and cardiovascular systems. Recycled polyester products may inadvertently mix with BPA-containing polycarbonate or epoxy resins. By employing BPA-Curb technology, the BPA content is effectively controlled below the international standard of 1 ppm, ensuring the safety of recycled polyester-based fiber products.

#### Highlights of Green Products (Feature Column)

#### **Recycled Thermoplastic Polyester Elastomer**

Thermoplastic Polyester Elastomer (TPEE) is a block copolymer composed of short, rigid chain segments (crystalline phase) and long, flexible chain segments. Its unique chemical structure endows TPEE with the elasticity and softness of rubber, as well as the rigidity and ease of processing of thermoplastic resin.

TPEE exhibits excellent mechanical strength, including high tensile, tear, and impact resistance, as well as wear resistance, creep resistance, fatigue properties, and resistance to chemicals, oils, and weathering. It also maintains good elasticity at low temperatures, making it widely used in automotive components, communication cables, industrial and sports products, waterproof breathable membranes, biomedical materials, and polymer modifiers. Additionally, its thermoplastic recyclability has made it a highly regarded eco-friendly material in recent years.

With the rise of the circular economy, "Recycled Thermoplastic Polyester Elastomer" has become a sought-after green product. Leveraging its established expertise in polyester depolymerization and copolymer modification, Shinkong Synthetic Fibers successfully developed recycled TPEE using PET bottle flakes as raw material. The product has been successfully mass-produced and is now being marketed, providing customers with eco-friendly, carbonreducing product options.

#### **Recycled Waterproof and Breathable Polyester Pellets**

Building on the success of "Recycled Thermoplastic Polyester Elastomer," Shinkong Synthetic Fibers extended its recycling technology to develop waterproof and breathable polyester pellets. These pellets can be tailored to customer requirements for recycled content and breathability characteristics. The material is soft, comfortable, waterproof, and breathable. It can also be integrated with polyester outer fabrics, melt-blown laminated membranes, and seamless adhesive waterproof strips to create fully recyclable polyester outdoor apparel.

布層

High Moisture-Permeable

高透濕TPEE膜層

# ●熔噴貼合TPEE膜層

Meltblown Laminated TPEE Film Layer



# 2.2.4 Performance of Eco-Friendly Products

In 2023, revenue from eco-friendly products (processed fibers) amounted to NT\$1,883,574 thousand. The company has obtained certifications such as the "OEKO-TEX Standard 100," "Global Recycle Standard (GRS)," "Green Leaf Testing Certification for Chemicals," and the "Taiwan Green Mark," continuing its efforts to innovate green products and promote sustainable living.

### **Eco-Friendly Product Revenue**

Year	Revenue (NT\$ thousand)
2021	2,455,691
2022	2,105,732
2023	1,883,574

### **Eco-Friendly Processed Fiber Production**

Year	Quantity (Tons)
2021	20,838
2022	20,574
2023	19,372

#### Recycled Long-Fiber Bottle-Grade Polyester Pellets Production

Year	Quantity (Tons)
2021	2,640
2022	1,705
2023	1,425

### **Green Product Certifications**

### **Polyester Pellet Products**

- 1.The Zhongli Plant's annual production of 12,000 tons of mechanically recycled R-PET received official approval from the Ministry of Health and Welfare's Food and Drug Administration on March 17, 2023, for use as raw materials in PET recycled pellets suitable for manufacturing food-grade containers and packaging.
- 2.The Thailand Plant's annual production of 210,000 tons of semi-chemically recycled R
   -PET was formally approved by the U.S. FDA on August 30, 2023, for use in food-grade containers.



### **Fiber Products**

# **OEKO-TEX® STANDARD 100 Certification**

The OEKO-TEX® STANDARD 100 label is one of the most well-known certifications in the global textile industry. This certification examines whether textiles and garments contain harmful substances that could affect human health, serving as a reference for consumers when purchasing eco-friendly textiles. Shinkong' s certified products include textile yarns, with the certification valid until May 15, 2024.

Additionally, Shinkong has obtained the annual Green Product GRS (Global Recycle Standard) certification under GRS4.0. Certified products include CHIP (100% post-consumer recycled polyester pellets), STAPLE (100% post-consumer recycled short fibers), and FILAMENT (33%– 100% post-consumer recycled long fibers), with validity from June 2022 to June 2023.



# 2.3 Customer Relations

#### 2.3.1 Customer Relationship Maintenance

#### **Customer Service**

Shinkong Synthetic Fibers upholds the mission, "Customers come for the price, stay for the service." Across the company, from sales to all personnel, the team promptly responds to customer inquiries and provides professional assistance to enhance customer technology, fostering a win-win scenario and earning customer trust and satisfaction.

#### Pre-Sale and After-Sale Services

Shinkong offers comprehensive customer service. Before product sales, the company works with customers to determine optimal production methods. During and after product usage, regular visits and communication are conducted to enhance customer confidence and satisfaction. Shinkong effectively leverages customer service personnel, in-house technical support, R&D talent, and advanced equipment to meet customer needs, solve material and technical challenges, and grow alongside its clients.

The company has established an after-sales service team comprised of experienced technical experts. This team addresses issues faced by downstream customers during production, providing technical support with the goal of "promptly resolving production challenges and building trust in the company's products." The team actively participates in customer production activities and shares product application knowledge to resolve any issues customers encounter.

#### **Customer Satisfaction Surveys**

Customer feedback on products and services serves as an important operational benchmark for Shinkong. Annual customer satisfaction surveys are conducted to enhance product competitiveness, aiming to continuously improve satisfaction levels and strengthen relationships, achieving a win-win partnership for mutual growth.

Each business division, both domestic and international, formulates specific evaluation criteria and weights based on customer needs. In addition to routine visits for understanding customer demands and feedback, Shinkong conducts one to two annual satisfaction surveys. The results are analyzed, and action plans are developed to address areas of dissatisfaction. These measures improve internal operations, elevate company reputation, and enhance service quality. In the event of complaints, the company prioritizes them by forming a
dedicated service team, dispatching after-sales personnel, on-site production staff, and technical experts to address issues promptly on location.

### **Customer Satisfaction Analysis**

Shinkong Synthetic Fibers demonstrates its commitment to customer service through product quality and delivery timeliness. To meet customer expectations, the following aspects are included in customer satisfaction analysis:

1. The stability of product quality.

2. Whether the specifications, variety, and new product development capabilities meet customer demands compared to competitors.

3. The adequacy of customer service personnel in addressing complaints, fulfilling requests, and providing timely services.

4. Customer satisfaction with the delivery time of received goods.

5. The ability of service personnel to accommodate special requests (e.g., urgent same-day shipments or changes to shipment content).

6. Customer satisfaction with the packaging and appearance of products.

7. Customer satisfaction with the professionalism of sales personnel.

8. Customer satisfaction with the service attitude of sales and related personnel.

9. Customer satisfaction with the problem-solving abilities of sales personnel.

10. Customer satisfaction with the timeliness and accuracy of billing processes.

11. Customer satisfaction with the accuracy, completeness, and timeliness of documentation.

In 2023, customer satisfaction across departments averaged **9.1 out of 10**. Key contributing factors included the accuracy and timeliness of billing and documentation, which received high praise. However, areas such as product quality and complaint handling require further improvement.

# 2.3.2 Information Security Management

Establishing comprehensive policies, objectives, processes, and procedures for information security is a responsibility every enterprise must uphold. The primary goal is to protect customer privacy and confidential business information. Shinkong Synthetic Fibers has built a robust information protection network both internally and externally.

Internally, the company regularly conducts information security training and disseminates announcements of the latest internal updates to raise employee awareness and strengthen internal information security management. Externally, Shinkong has adopted the **ISO 27001 Information Security Management System**, conducting regular internal and external audits to ensure the system' s integrity.

In 2023, a social engineering exercise was conducted involving 350 employees. Each participant received emails representing four different scenarios, totaling 1,400 emails. The exercise tracked behaviors such as viewing emails, clicking links, or opening attachments. Results showed that the rates of these behaviors were all below 5%, indicating a basic level of awareness among employees regarding social engineering emails. The company plans to continue enhancing staff awareness to safeguard customer and corporate confidentiality.

Shinkong is committed to ensuring the confidentiality, integrity, and effectiveness of information. Through comprehensive protection planning, the company aims to protect the privacy and security of customers, suppliers, and individuals. In 2023, no complaints were reported regarding breaches of customer privacy or data violations, reflecting the effectiveness of Shinkong's privacy measures.

# Shinkong' s Information Security Philosophy

- 1. Identify information security control points.
- 2. Establish management mechanisms for hardware and software systems.
- 3. Conduct information security training.

4. Implement appropriate management procedures and regulate access to network services.

#### Key Information Security Enhancements in 2023

- 1. Regular analysis and feasibility assessment of information security operations.
- 2. Procedure manual development.

- 3. Asset inventory and risk management.
- 4. Information security education and training.
- 5. Internal audits.
- 6. Vulnerability scanning and social engineering exercises.
- 7. External audits.
- 8. Improvements to audit findings.

2023 Social Engineering Exercise Results

ltem	Total Tests	Recorded Cases	Percentage
Email Viewed	1,400	58	4.14%
Link Clicked	1,400	25	1.79%
Attachment Opened	1,400	23	1.64%



# 2.4 Sustainable Supply Chain

## 2.4.1 Green Procurement

In alignment with the United Nations' **SDGs (Sustainable Development Goals)**, Shinkong Synthetic Fibers is committed to building a green supply chain. By adopting energy-saving and low-carbon green production methods, the company incorporates environmentally friendly raw materials—characterized by "low pollution, energy efficiency, and recyclability"—into its production processes, aiming to reduce environmental pollution and lessen the impact on the planet.

In 2023, Shinkong procured 43,960 tons of eco-friendly raw materials, marking a 7.4% increase compared to 2022. For three consecutive years, green procurement expenditures have exceeded **NT\$800 million**. Since signing the "Corporate and Group Green Procurement Commitment" in 2012, Shinkong has been recognized for 11 consecutive years with the "Green Procurement Excellence Award."

In the context of dwindling global resources, Shinkong strives to reduce unnecessary resource waste and minimize environmental pollution, achieving the goals of a circular economy while fulfilling its corporate mission of sustainable development.

# 2.4.2 Supplier Management

# Sustainable Procurement Policy

Shinkong Synthetic Fibers adheres to the principle of sustainable operations, considering the environmental, social, and economic impacts throughout the lifecycle of its products and services while implementing sustainable procurement actions. Partnering with suppliers, Shinkong strives to maintain labor rights, protect the environment, promote business ethics and fair operations, and improve procurement performance. These efforts aim to enhance the competitive edge of the supply chain and advance toward a sustainable supply chain.

During the procurement process, we prioritize:

- 1. Commitment to environmental issues and safeguarding the environment.
- 2. Focus on climate change and reducing greenhouse gas emissions.
- 3. Monitoring material sources, prioritizing recycled and recyclable materials.
- 4. Compliance with international standards and local regulations.
- 5. Upholding human rights and promoting labor rights.

- 6. Emphasizing occupational safety and ensuring personnel health.
- 7. Adhering to business ethics with the highest standards of integrity.

Communicating and responding to the needs and expectations of stakeholders.

# Sustainable Procurement Policy Directions

Execution Items	Policy Description	Target Setting
Supplier Compliance with	When establishing partnerships with suppliers, focus on their compliance with labor and human rights standards including prohibiting child labor and forced	No incidents of child labor or forced labor; suppliers failing to provide a safe and healthy work
Standards	labor, and providing a safe and healthy work environment.	upon inspection, or they will be disqualified as suppliers.
Gradually Increasing the Proportion of Recycled and Eco-Friendly Materials	Gradually increase the procurement of recycled and eco-friendly materials to reduce the demand for natural resources and promote a sustainable circular economy.	Prioritize the procurement of green, recycled, and eco-friendly materials based on the sales volume of operating units.
Supporting the Sustainable Development of Local Suppliers	Encourage and support local suppliers in achieving sustainable development goals through technical guidance, training, and resource support.	Assist one local supplier annually in upgrading technology (training).

# Supplier Management

Shinkong Synthetic Fibers' growth is not only due to its internal efforts but also its collaboration with outstanding partners who share mutual benefits. Currently, the company has approximately 1,800 suppliers, including raw materials, packaging, equipment, parts, and chemical additive suppliers. Committed to sustainable corporate development, Shinkong views strong supplier relationships as a key factor. The company works tirelessly with partners to build a socially friendly and environmentally harmonious industrial chain.

To identify likeminded and suitable green partners, the company requires all new suppliers to undergo due diligence before formal cooperation. Assessment criteria include:

- ∉ Product quality
- ∉ Technical capabilities
- ∉ Delivery capacity

∉ Corporate social responsibility (evaluating social and environmental aspects to ensure new suppliers comply with legal requirements, social expectations, environmental protection, business ethics, and social responsibility in their products and services).

In 2023, the company added 198 new suppliers, all of whom completed 100% evaluation.

Additionally, Shinkong conducts annual evaluations of its existing suppliers. In 2023, all suppliers passed the evaluation, and no suppliers were found to have committed major violations related to environmental or social issues. Should serious violations be identified during the assessment, the company will demand immediate improvements or, in severe cases, terminate the partnership. Evaluations cover product quality, pricing, delivery timelines, ESG sustainability, environmental compliance, business ethics, and human rights issues (e.g., child labor, forced labor, freedom of association, discrimination, harassment).

Shinkong Synthetic Fibers also requires all suppliers to adhere to its Supplier Code of Conduct, including compliance with local laws (e.g., minimum wages, no excessive overtime) and standards for human rights, labor rights, environmental considerations, and business ethics. In 2023, all major suppliers, such as those providing raw materials, packaging, and large equipment parts, signed the "Social Responsibility and Supplier Code of Conduct Declaration," and no related major violations were reported.

# 3. Sustainable Workforce

Management Guidelines	Details
Key Topics	Talent Development
Policy Direction	Cultivate employees to acquire new skills through education and training.
Core Goals	- Average employee training hours exceeding 20 hours annually.
Performance Outcomes	- Average employee training hours reached 25.24 hours.
Action Plan	In 2023, a training and performance system was implemented to provide employees with diverse learning methods. The training model transitioned to a hybrid virtual-physical format. Course materials were digitized or supplemented with digital learning resources, enabling employees to learn flexibly via the New Fiber Cloud platform and adjust their learning schedules as needed.
Resource Allocation	- Human Resources Department - IT Department
Feedback Mechanisms	Increase in training hours.
Evaluation Mechanisms	- Training effectiveness evaluation
2023 Goals	Each department continues to develop employees' professional skills, with an annual training plan implementation rate exceeding 80% across the company.

#### **Management Guidelines**

Major Topic: Human Rights Protection

**Policy Direction:** Uphold the "people-oriented" principle and comply with relevant laws and regulations

Core Objective: Promote corporate social responsibility and labor rights advocacy

#### Performance Outcome:

- ∉ Zero incidents of violations regarding labor treatment and human rights
- ∉ Human Rights Policy Advocacy in 2023: Reached 2,055 participants, totaling 2,749 hours, covering 100% of employees

#### Action Plan:

1. Promote the content of human rights-related documents during department meetings or at other arranged times.

2. Record the advocacy completion and retain it in the training records.

#### How to Manage Resources Invested:

- ∉ Human Resources Department
- ∉ Corporate Social Responsibility Promotion Team

Feedback Mechanism: Complaint mailbox

Evaluation Mechanism: Review of complaint incidents

2023 Goal: Zero occurrences of human rights violations

#### **Management Guidelines**

Major Topic: Occupational Safety and Health

**Policy Direction:** Continuously comply with workplace safety regulations, eliminate hazards, and commit to continuous improvement and the prevention of injury and accident incidents **Core Objective:** Continue promoting the ISO 45001 Occupational Health and Safety Management System

#### Performance Outcome:

- ∉ Passed ISO 45001 follow-up audit
- ∉ Proposed improvement plans to reduce hazard factors

#### Action Plan:

- ∉ Implement the ISO 45001 management system, following the PDCA model, to complete various improvement measures for preventing occupational hazards
- ∉ Entrust third-party certification bodies to conduct audits of the ISO 45001 Occupational Health and Safety Management System

# How to Manage

#### **Resources Invested:**

- ∉ Budget for safety and health programs
- ∉ Audit Department

#### Feedback Mechanism:

- ∉ Complaint mailbox
- ∉ Safety and Health Management Improvement Summary
- ∉ Labor-management meetings

#### **Evaluation Mechanism:**

∉ Review meetings for target plans

- ∉ Internal audit
- ∉ External audit

# 2023 Goal:

∉ Continue progressing towards the zero-injury target

Annual occupational environment improvement strategy

# 3.1 Employee Management

### 3.1.1 Employee Structure

Shinkong Synthetic Fibers regards every employee as a member of this big family. It is our duty and responsibility to create a good, safe, equal, and diverse work environment for employees who are like family members. We hope that our employees can grow together with the company in an inclusive and open workplace. In 2023, the company had 1,940 employees, with approximately 82% male and 18% female.

#### **Employee Information by Gender and Region**

#### Taiwan

Category	Male	Female	Total
Number of Employees	1,599	341	1,940
Permanent Employees (Local Full-Time Employees)	1,104	307	1,411
Temporary Employees (Migrant Workers, Contract Employees)	478	22	500
Employees Without Guaranteed Hours (Part-Time Students, Interns)	17	12	29
Full-Time Employees (Permanent + Temporary)	1,582	329	1,911
Part-Time Employees (Without Guaranteed Hours)	17	12	29

#### Non-Employee Workers

Category	Service Scope (Work Type)	Quan tity	Contract Conditions
Labor Agency	Dormitory Management	5	Signed through a labor agency
Labor Dispatch	On-site Production Operations	30	Signed through a dispatch company
Labor Dispatch	TruckDriver	10	Signed through a dispatch company
Contractor	Security Guard	9	Signed through a security company
Contractor	Catering Service	10	Signed through a catering company
Contractor	Outsourced Cleaning	5	Signed through a contracting company
Contractor	Pallet Heat Treatment Operations	1	Signed through a contracting company
Contractor	Pallet Maintenance Operations	1	Signed through a contracting company
Contractor	PTA Unloading Operations	8	Signed through a contracting company

# 3.1.2 Talent Recruitment

In response to the trend of digital media, Shinkong Synthetic Fibers also uses social media and websites for corporate image promotion and talent recruitment activities, while creating more opportunities to attract talent. In terms of physical activities, Shinkong Synthetic Fibers primarily recruits through campus recruitment, government-organized joint or individual recruitment events, and internal referrals. In 2023, the company participated in six recruitment activities, attracting talent from all sectors.

Participated in campus recruitment fairs and diverse recruitment activities organized locally in Taoyuan City:

- ∉ 04/22 Chung Yuan Christian University
- ∉ 04/28 TICC Overseas Chinese Students Job Matching Event
- ∉ 05/03 Ming Chi University of Technology, Lunghwa University of Science and Technology
- ∉ 05/11 Chien Hsin University of Science and Technology

Taoyuan City's 2023 Youth Workplace Internship Program Campus Recruitment and Overseas Chinese Students Job Matching Event



The company has participated in the "Happy Enterprise" voting event organized by 1111 Job Bank for three consecutive years from 2021 to 2023. In this event, job seekers and netizens vote for their ideal "Happy Enterprises." With its courage in pursuing external challenges, the company has won the "Gold Award for Manufacturing Industry" as a "Happy Enterprise" for three consecutive years.

Shinkong Synthetic Fibers has been awarded the 1111 Job Bank "Happy Enterprise Gold Award for Manufacturing Industry" for the third consecutive year. The company upholds the philosophy of "suitability for talent" and "making the best use of talent." It supports and follows various international human rights principles, ensuring that during the recruitment, employment, training, remuneration, promotion, dismissal, or retirement processes, job seekers and employees are not discriminated against based on race, class, nationality, language, ideology, religion, political affiliation, birthplace, gender, sexual orientation, age, marital status, appearance, physical or mental disability, zodiac sign, blood type, status as a labor representative, or former union membership. All procedures are carried out fairly, openly, objectively, and solely based on merit. In 2023, there were no incidents or complaints related to discrimination.







#### Number and Proportion of New Employees in 2023

Age Group	Gender	Number	Proportion
	Male	83	21.6%
Under 30	Female	8	15.4%
	Subtotal	91	20.9%
	Male	70	7.4%
31-50	Female	11	7.1%
	Subtotal	81	7.4%
	Male	3	1.1%
Over 50	Female	0	0.0%
	Subtotal	3	0.7%
Total		175	9.0%

#### Note:

1. The number of new employees refers to the number of official employees of the company.

2. The proportion is calculated by dividing the number of new hires by gender and age group by the total number of employees in that gender and age group at the end of the year.

The overall proportion is calculated by dividing the total number of new hires by the total number of employees at the end of the year.

#### Age Group Gender Number Proportion 66 17.2% Male 6 11.5% Under 30 Female 72 16.5% Subtotal Male 88 9.3% 31-50 16 10.3% Female Subtotal 104 9.5% Male 0.4% 1 0 Over 50 Female 0.0% Subtotal 0.2% 1 177 Total 9.1%

# Number and Proportion of Resigned Employees in 2023

#### Note:

1. The number of resigned employees refers to the number of official employees of the company.

2. The proportion is calculated by dividing the number of resignations by gender and age group by the total number of employees in that gender and age group at the end of the year.

The overall proportion is calculated by dividing the total number of resignations by the total number of employees at the end of the year.

#### 3.1.3 Compensation and Benefits

To attract top talent, a comprehensive compensation package is essential. Whether it's "salary" or "benefits," the company offers conditions that exceed legal requirements. Adhering to the spirit of equal pay for equal work and gender equality, we never discriminate based on gender, race, religion, political beliefs, or marital status.

The compensation for new employees is determined based on four key aspects: "educational and professional background," "specialized knowledge and skills," "professional experience," and "individual performance." After hiring, the company also regularly reviews the salary levels of employees at various levels, providing annual salary adjustments and promotions based on work performance, to reward the efforts of our employees and ensure remuneration is aligned with their contributions. This performance-based compensation system adjusts salaries based on individual and organizational performance, providing a motivational, variable pay structure.

Moreover, Shinkong Synthetic Fibers allocates part of its net profit as employee compensation and continues to sign collective agreements with labor unions. The company's Articles of Association clearly stipulate the number of bonus days based on company profits, with additional bonus days determined by employee performance evaluations and reward records. To show appreciation for employees' hard work, Shinkong Synthetic Fibers also promotes a favorable retirement plan, allowing eligible employees to apply and prepare for the next phase of their lives.

Shinkong Synthetic Fibers not only offers a competitive compensation package, maintaining an above-average industry standard to attract talent, but also has effective mechanisms for salary adjustments and promotions to retain talent, as well as comprehensive benefits and retirement plans to care for our people.

#### Female-to-Male Salary Ratio

Job Level \Year	2021	2022	2023
Manager Level and Above	85%	84%	80%
Staff	90%	90%	88%
Operators	86%	94%	76%

**Note:** The calculation is the average salary of females in each job level divided by the average salary of males in the same job level.

#### Comparison of Salaries to Market Levels

Item/Year		2021	2022	2023
Average Annual Regular Salary Above Market Level	Male	28%	33%	23%
Average Annual Regular Salary Above Market Lever	Female	Female	23%	27%
Entry-Level Salaries Above Minimum Wage Ratio		32.5%	28.3%	22.7%

#### Note:

1. Market salary data source is the minimum wage announced by the Ministry of Labor.

2. The comparison is between the company's starting salary for new employees and the minimum wage according to company regulations.

Ratio of the Highest Individual Salary to Median Employee Salary and Pay Raise Rate in
 2023

Item	Ratio
Ratio of Highest Individual Salary to Median Employee Salary	3.23:1
Ratio of Highest Individual Salary Pay Raise to Median Employee Pay Raise	4.62:1

Note: No pay raise for median employees.

#### Average and Median Annual Salary of Non-Managerial Employees

Year		2021	2022	2023
Average Appual Salary of Non-Managerial Employees (NT\$)	А	761,181	743,871	650,624
Average Annual salary of Non-Managenaremployees (NT#)	В	834,094	805,421	633,472
Median Annual Salany of Non-Managerial Employees (NT\$)	А	610,819	617,995	635,817
median Annual Salary of Non-Managenal Employees (N 19)	В	688,121	677,390	603,859
Number of Non-Managerial Employees	А	1,764	1,788	1,685
Number of Non-Managenar Employees	В	1,276	1,303	1,264

#### Note:

A: Excluding assistant managers and above

B: Excluding assistant managers and above, as well as foreign employees The figures include variable bonuses.

# 3.2 Talent Development

# 3.2.1 Training and Competency

# Development of New Employees' Skills and Experience Sharing

New employees at the company undergo a six-month training and mentorship program. During this period, they are guided by experienced employees to integrate into the team, helping them adapt steadily to both work and life. New employees are introduced to Shinkong Synthetic Fibers' core values and corporate culture through vocational training and general training programs. Their respective units also arrange various professional training projects to develop their skills and knowledge, while a variety of activities promote interaction among new employees.

Talent management and development are key management issues for the company. The company's competitiveness comes from the simultaneous growth of both employees and the organization. In response to changes in industry labor demands, the company adopts a human resources rotation system, plans talent retention strategies, develops succession plans, conducts competency assessments, and periodically reviews human resource needs. The company formulates training programs for core competencies and for senior, mid-level, and frontline managers, and plans short-, medium-, and long-term staffing strategies. In line with the company's future development goals, specialized courses are provided to enhance organizational efficiency, maximize the synergy of human resources, and ensure the company maintains a well-prepared workforce. Moreover, corporate culture, knowledge, and experience are turned into valuable, shareable, and transferable assets.

The company's management has consistently supported talent development. Notably, this year, the company introduced a training and performance evaluation system and created the new "Shinkong Cloud" platform, fundamentally transforming the traditional one-off course model. The company plans to fully integrate departmental training resources and learning materials into the platform. This reorganization will enable better long-term tracking and assessment of career development and learning paths for all employees, ensuring that corporate culture and professional knowledge become valuable and transferrable experiences.

In addition to regular job-specific training, the company has also offered a variety of courses this year, such as international economic trend lectures, ChatGPT trend seminars, R&D patent courses, and courses on using the training and evaluation systems. In response to the global focus on green transformation, Shinkong has established a carbon neutrality project team and developed multiple carbon neutrality training courses, including greenhouse gas reduction technology assessment, low-carbon green supply chain management, and practical carbon offsetting. These exercises were conducted over several months and successfully obtained certification, meeting the standards set by the Environmental Protection Administration.

The Shinkong Cloud platform will continue to expand, with plans to introduce new content like a "New Employee Learning Map" and a "Manager Learning Map." The former provides new employees with a clear path for career growth, helping them integrate into Shinkong and addressing retention challenges. The latter equips managers with resources to develop management skills, enabling them to lead their teams through organizational transformation. Since the platform introduced blended learning that combines both online and offline training, more employees have become familiar with using the system and have shown increased motivation for self-learning, aligning with our talent development goals. We aim to develop professionals with strong skills, who can support the company' s ongoing growth and help maintain its competitive advantage.



#### Long-Term Development of Management Executives

To cultivate management executives and enhance organizational capabilities, Shinkong Synthetic Fibers established the Shinkong Enterprise University EMBA Credit Program in 2008 in collaboration with the Department of Business Administration at Chung Yuan Christian University. Since its inception, the program has successfully trained six cohorts, with a total of 212 graduates completing the EMBA credit program. (The sixth cohort, consisting of 34 participants, held their graduation ceremony on July 12, 2022.)

The seventh cohort of the Shinkong Enterprise University EMBA Credit Program began in September 2022, continuing the collaboration with Chung Yuan Christian University.

Shinkong Synthetic Fibers received the TTQS (Talent Quality-management System) bronze certification in 2022.

The company is actively committed to talent development, focusing on its internal training system, and was recognized in 2023 by the Workforce Development Agency of the Ministry of Labor, under the Taoyuan-Hsinchu-Miaoli District Recharge and Take Off Project, as an outstanding training unit and selected as a successful case for 2023.



Professional Competency Training Program

#### Senior Management Competencies (Department Head and Above)

- ∉ Business acumen, crisis management, decision-making ability
- ∉ Innovative management, strategic thinking, visionary leadership

# Mid-Level Management Competencies (Plant and Section Supervisors)

- ∉ Crisis management, cost management, performance management
- ∉ Cross-team collaboration, talent development, leadership charisma

# Entry-Level Management Competencies (Section Chiefs, Group Leaders)

- ∉ Problem-solving, team building, cost management
- ∉ Performance management, work guidance, motivating others



# Comprehensive Training Framework of Shinkong Synthetic Fibers

Training Program	Description
New Employee Training	Includes "General Training Courses" and "Professional Training Courses"
	- General Training Courses: Basic training conducted on the day of joining, after one month, and after three months.
	- Professional Training Courses: Hiring units provide guidance to new employees on work operations and adapting to their living environment based on job specialties and application fields.
On-the-Job Training	Various training programs are arranged irregularly by each department, including professional skills, job expertise, safety and environmental protection, SOP guidance, etc.
External Training	Departments nominate employees for external training based on business needs to stay updated with the latest market or technical trends and enhance competitiveness.
Management Skills	Includes "Level-Based Training" and "Function-Based Training":
	- Level-Based Training: Conducted in accordance with company policies, offering training at different levels.
	- Function-Based Training: Conducted to meet the business needs of personnel in different functional roles.
Professional Technical Seminars	Personnel engaged in related business are assigned to attend and acquire certification, which allows them to participate in externally organized courses or training.
Language Training	Offers training in English and Japanese through "online courses" or "corporate group classes":
	- English: E-learning English courses available anytime, anywhere, with subsidies upon reaching learning standards.
	- Japanese: Corporate group classes are provided for business purposes.
Company Plant	Internal plant internships provide practical application opportunities, deepening understanding and expanding
Internship	knowledge, to better prepare employees for future rotations or internal management roles.
Others	Conduct ad-hoc seminars to respond to global situations, socio-economic developments, trending topics, and the latest technologies, keeping up with current trends.

#### Average Training Hours for Employees

In 2023, Shinkong Synthetic Fibers' employees had an average of 25.24 training hours per person (males: 26.95 hours, females: 19.30 hours). Due to the introduction of the training platform this year, integrating both in-person and online courses, the overall employee training hours increased compared to 2022.

**Note 1:** Training participants include new hires and resigned employees for that year

Category	Gender	2021	2022	2023
	Female	16.64	21.89	57.03
Managers	Male	29.64	31.43	37.08
	Total	28.34	30.44	39.62
	Female	9.21	11.16	16.57
Staff	Male	17.66	19.26	23.56
	Total	15.97	17.66	21.98
	Female	6.87	9.29	10.58
Operators	Male	4.86	7.12	42.16
	Total	4.99	7.32	31.06
	Female	9.49	11.65	19.30
All Employees	Male	14.30	17.23	26.95
	Total	13.59	16.32	25.24

Training Type	Item	Taipei	Zhongli Plant	Guanyin Plant	Total
New Employee Training	Hours	47.4	436.3	123	606.7
new Employee fraining	Participants	39	70	17	126
EMBA	Hours	2,208	3,984	576	6,768
LINDA	Participants	12	21	3	36
ESG Training	Hours	246	1,712.6	790.5	2,749.1
	Participants	149	1,491	415	2,055
Occupational Safety and Health Training	Hours	533	7,253.0	1,928.3	9,714.3
	Participants	328	5,575	953	6,856
Specialized Training	Hours	4,232.2	9,816.6	3,620.6	17,669.4
	Participants	1,831	6,594	1,844	10,269

# Training Hours and Participants by Plant

Note: ESG training includes courses on topics such as social responsibility, human rights, integrity management, and business ethics.

#### 3.2.2 Performance Evaluation

The assessment results of annual performance goals are an important basis for promotions and terminations, and they also influence salary adjustments, bonuses, and advancement. The company carefully evaluates each employee's performance to respond to their efforts. Through the establishment of "Annual Performance Goals," Shinkong Synthetic Fibers monitors employees' work status and motivates them to not only realize their potential but also improve their work skills. Performance evaluations are conducted annually for all employees who have worked for at least six months. Regular employees, those who have resigned, or those on unpaid leave are not required to participate in the evaluation.

Shinkong Synthetic Fibers' evaluation process sets different standards for different "job levels" and "units," ensuring they match the level and specific job requirements. These standards include the skills needed for the role, job performance indicators, and necessary competencies. The performance indicators cover aspects such as annual employee contributions, achievement of work objectives, and overall skills improvement. Tailoring reasonable standards for different roles and job levels helps ensure that employee performance aligns with the company' s goals and direction, allowing both employees and the company to make progress and grow together. In addition to individual employee evaluations, management's ability to support employees in meeting their targets, improving work efficiency, and effectively managing operational costs is also assessed.

The company places particular emphasis on fairness in performance assessments, ensuring no differences or unfair practices based on gender, age, or other non-work-related factors.

In 2023, all personnel required to undergo the annual performance evaluation completed their assessments.

#### **Performance Evaluation**

Category	Male Employees	Female Employees	Total	
	Total Employees	Evaluated	Participation Rate (%)	
Managerial	169	169	100%	
Non-Managerial	1,430	923	65%	
Subtotal	1,599	1,092	68%	

#### Notes:

1. Employee numbers are based on active employees as of December 31, 2023.

Employees who have not worked for six months or more and migrant workers are not included in the annual performance evaluation.

# 3.2.3 Industry-Academia Collaboration

# Shinkong Synthetic Fibers Industry-Academia Collaboration Initiatives:

1.Collaboration with the Department of Industrial Engineering at Chung Yuan Christian University:

The company partnered with the Department of Industrial Engineering at Chung Yuan Christian University to provide summer internship opportunities. Under the guidance of CIO Luo from the Information Department, the interns presented their results at the end of the program. Notably, intern Chen Hao-En received Honorable Mention in the "Deerfield Internship Program" organized by Taoyuan City. This initiative helped strengthen the employer brand and established a foundation for attracting fresh graduates and industry-academia interns.

2. Practical Lectures by Industry Professionals:

Section Chief Hsieh from the R&D Center delivered lectures on "Sustainable Development in the Polyester Industry" at National Taiwan University of Science and Technology and National Taipei University of Technology. Representatives from the Human Resources Department also participated in these sessions to introduce the company. Alumni testimonials further enhanced Shinkong's employer branding and recruitment appeal.

#### 3.School Factory Visits:

Students from King Mongkut's University of Technology Thonburi, a sister school of Ming Chi University of Technology, visited Shinkong's polymerization plant.











# 3.3 Employee Care

#### 3.3.1 Human Rights Protection

The company consistently implements human rights protection measures, not only adhering to relevant regulations but also formulating internal policies to provide workers with a safe and harmonious working environment. Additionally, it actively encourages business partners to value human rights issues, working together to uphold the "people-centered" principle.

# Supporting International Human Rights Conventions Protecting Workplace Human Rights

The company supports the principles of the United Nations **Global Compact**, respects international human rights, and ensures that internal operations comply with human rights standards. Regarding labor, the company aligns with the goals outlined in the United Nations **Universal Declaration of Human Rights** and the **International Labour Organization Conventions**, prohibiting all forms of discrimination, forced labor, and the employment of child labor. It also respects employees' freedom of association and the right to collective bargaining.

In terms of the work environment, the company is committed to providing a safe and healthy workplace, continuously improving workplace safety and hygiene in compliance with relevant regulations, preventing accidents, reducing occupational hazards, and promoting employees' physical and mental well-being.

The company ensures that its human rights practices comply with laws and company policies, offering workers a secure and harmonious workplace. It also urges business partners to prioritize human rights protection, aligning with the company's stance. Commitments include:

- 1. Employment must be voluntary.
- 2. Any form of forced labor is prohibited.

3. Child labor is prohibited; during onboarding, employees receive training on the policy against child labor, and control measures are implemented during recruitment to prevent inadvertent use of child labor.

4. Protection of female employees.

5. Ensuring employees' wages meet or exceed the statutory minimum and providing benefits. 6. Guaranteeing employees at least 24 hours of rest after every six consecutive workdays.

7. Respecting privacy, eliminating workplace violence, and preventing harassment or unlawful discrimination. This includes prohibiting harassment, abuse, corporal punishment, verbal insults, and psychological pressure, while providing effective grievance mechanisms.

8. Offering equal employment and career development opportunities, without discrimination based on race, class, language, ideology, religion, political affiliation, nationality, gender, sexual orientation, age, marital status, appearance, disabilities, zodiac sign, blood type, union membership, or any legally protected status. The company strives to create a dignified, safe, and equitable workplace.

## **Respecting Freedom of Association and Collective Bargaining Rights**

The company abides by labor laws, respecting employees' rights to freedom of association and collective bargaining. It maintains open communication channels with employees, fostering a workplace environment that promotes harmonious labor relations.

## **Ensuring Information Security**

To protect human rights and privacy, the company has implemented comprehensive controls for the lawful collection, processing, and storage of employees' personal data, as well as the safety of personnel and equipment. Security mechanisms are in place for systems development, database management, networks, personal computers, storage media, and more, preventing the theft, alteration, destruction, loss, or leakage of personal data to ensure its safety.

#### Human Rights Training

To enhance employees' awareness of human rights protection and effectively prevent human rights violations, Shinkong Synthetic Fibers conducts annual training sessions covering human rights topics for all employees, whether new hires or current staff. Training is delivered flexibly through physical or online sessions, considering employees' work environments and schedules.

The training covers topics such as workplace sexual harassment prevention, labor rights, non-discrimination, anti-forced labor, and diversity and inclusion. In addition to training, the company regularly promotes human rights topics during monthly meetings, fostering effective communication with employees to raise awareness of these crucial issues and prevent human rights violations.

In 2023, the company promoted corporate social responsibility and labor human rights, including awareness of human rights policies, child labor, anti-slavery, anti-discrimination, forced labor, human trafficking, sexual harassment, and company grievance channels. A total of 2,055 employees participated in 2,749 training hours.

Training Category	Item	Taipei	Zhongli Plant	Guanyin Plant	Total
ESG Training	Hours	246	1,712	790	2,749
	Participants	149	1,491	415	2,055

Statistics on Human Rights Advocacy Across Locations

**Note:** ESG training covers topics such as corporate social responsibility, human rights, integrity management, and business ethics.

# Human Rights Due Diligence Process

To assess risks and potential impacts related to human rights at Shinkong Synthetic Fibers, the company conducts regular human rights due diligence. Drawing on widely recognized international social responsibility standards such as **Sedex** and **EcoVadis**, we have developed a specialized human rights investigation and evaluation tool to identify critical risks within the workplace and supply chain.

If any human rights risks, potential issues, or violations are identified during the due diligence process, we actively implement mitigation or remedial measures. Through this process, the risks, potential impacts, or violations identified, along with the effectiveness of human rights governance measures, are reviewed regularly. The findings are used to update and improve Shinkong's human rights management policies or procedures, ensuring continuous enhancement of our human rights protection efforts.

#### Human Rights Due Diligence Procedure

#### 1. Review of Human Rights Policies and Standards:

Shinkong Synthetic Fibers adheres to the objectives of international human rights declarations and frameworks, including the **United Nations Universal Declaration of Human Rights**, **United Nations Global Compact**, **United Nations Guiding Principles on Business and Human Rights**, and the **International Labour Organization** conventions. Based on these declarations and principles, the company formulates human rights policies, continuously monitoring global human rights trends and standards. It evaluates whether to revise policy content or incorporate new human rights issues into risk assessments.

# 2. Identification of Human Rights Risks:

Identify actual and potential human rights risks related to the company's activities and operations. This includes common international human rights issues and determining the risks faced by the company across various areas.

#### 3.Assessment of Human Rights Risks:

Evaluate the severity and likelihood of identified actual and potential human rights issues. Factors considered include the number of people affected (scope), the seriousness of the impact (scale), and the probability of each risk occurring. Each issue is assigned a risk level, with the company prioritizing those identified as the most severe.

## 4. Development of Mitigation and Remediation Measures:

Establish specific management goals and formulate corresponding strategies for mitigating risks and providing remedies. Assess whether the company' s management systems, processes, and methods align with its human rights management objectives, updating them as necessary if shortcomings are identified.

## 5. Execution and Monitoring of Improvement Plans:

Implement necessary corrective actions based on management review reports, continuously tracking their effectiveness and completion status.

# 6.Education, Training, and Information Disclosure:

Conduct internal education and training on human rights topics, promote grievance mechanisms, and publicly disclose the company's progress in human rights management to ensure effective communication with stakeholders.

#### Human Rights Risk Mitigation and Remediation Measures

Stakeholder Type	Issue	Risk Mitigation Measures	Remediation Measures
Wor Hou Employees Chile Labo	Working Hours	Training: All new employees are required to complete onboarding training to ensure awareness and understanding of relevant policies. Communication: Shinkong respects employees' freedoms and rights, holding regular labor- management meetings to understand employee needs and expectations regarding work conditions and environment. Employees can confidentially express suggestions or concerns via email or phone without fear of retaliation.	<ol> <li>Policy Adjustment: Weekly monitoring of overtime hours; notify supervisors if overtime exceeds 36 hours to adjust scheduling.</li> <li>Response Measures: (1) Monthly review of attendance records; HR proactively addresses anomalies with relevant departments. (2) Employees can raise concerns about their rights through labor- management meetings, complaint hotlines, or suggestion boxes.</li> </ol>
	Wages and Benefits	Training: All new employees are required to complete onboarding training to ensure awareness and understanding of relevant policies.	Response Measures: (1) Post-payroll processing reviews to address and improve any salary-related issues reported by employees or banks. (2) Employees can report and resolve wage and benefit issues through labor-management meetings, complaint hotlines, or suggestion boxes.
	Child Labor	Training: New employees are informed about the policy against child labor during onboarding training. All employees receive annual training on human rights topics through courses such as "Corporate Social Responsibility Code and Legal Policies," with materials accessible on the company's internal website.	<ol> <li>Policy Adjustment: Regular review and updates to the company's child labor prohibition and remediation policies, including grievance, disciplinary, and whistleblower protection mechanisms.</li> </ol>
		Communication: Shinkong respects employees' freedoms and rights, holding regular labor- management meetings to understand employee needs and expectations regarding work conditions and environment. Employees can confidentially express suggestions or concerns via email or phone without fear of retaliation.	2. Response Measures: (1) Employees can report and address related concerns through labor- management meetings, complaint hotlines, or suggestion boxes. (2) In cases of misuse, work is immediately halted, verification and health checks are conducted, all wages are settled, and further remedial actions are implemented.

#### 3.3.2 Employee Benefits

#### Comprehensive Employee Benefits:

One of the company's distinguishing features is its strong employee welfare program, developed collaboratively through the "Employee Welfare Committee." The committee discusses welfare systems, the use of welfare funds, and organizes various welfare activities each year, such as employee trips and annual family day events. Starting in 2023, two-day trip options were added, giving employees greater flexibility in travel arrangements. Additionally, the company provides fitness and sports equipment, including a multifunctional sports court at the Zhongli plant, offering employees a space to relieve stress and stay physically active.

# **Employee Clubs and Activities:**

In 2023, the number of employee clubs reached a record high, totaling 11 clubs, including tennis, shrimp fishing, softball, basketball, and camping clubs. The company allocates an annual budget to support club activities, encouraging vibrant events to promote employee interaction, strengthen bonds, and enhance camaraderie through diverse recreational activities.

## Welfare Statistics:

- o Employee cash gifts (three major festivals): NT\$7,348,400
- o Club subsidies: NT\$1,054,750
- o Club participation: 2,223 person-times
- o Employee trips:
- + 2,012 person-times (Leofoo Village one-day trip)
- + 699 person-times (Formosan Aboriginal Culture Village Xitou two-day trip)
- + 761 person-times (Hualien Taitung three-day trip)
- + Total: 3,472 person-times (including employees and family members)
- + Annual family day events: 1,700 person-times
- + Scholarships for outstanding children: NT\$250,000
- + Scholarships for special needs children: NT\$40,000
- + Marriage, funeral, hospitalization, and serious illness subsidies: NT\$388,400
- + Birthday gifts: NT\$1,476,800

Mid-Autumn Festival and year-end party souvenirs: NT\$1,904,940





Supporting the Eden Social Welfare Foundation and Caring for Disadvantaged Groups During the Mid-Autumn Festival, Shinkong Synthetic Fibers extended heartfelt blessings by purchasing 1,936 Mid-Autumn gift boxes from Eden Bakery & Café, a facility under the Eden Social Welfare Foundation. This initiative combined warm greetings with acts of charity, demonstrating the company's commitment to social welfare while caring for employees. Through these efforts, Shinkong contributes to building an inclusive society. Additionally, the company's support for products from Taoyuan Sheltered Workshops earned recognition from the Taoyuan City Government Labor Bureau, which awarded Shinkong the "Gold Quality Award" in April 2024.



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茲感謝 新光合鐵欣泛亞聚酯工業股 份有限公司 熱心公益,支持財團法人伊 甸社會福利基金會附設伊甸烘焙咖啡屋之 烘焙產品,嘉惠身心障礙朋友,共同散播愛 與關懷,創造有愛無礙社會,勘為社會之典 範。

特致此狀 以資讚揚

财团法人伊甸社會福利基金會 董事长福纪琼 中華民國一一二年九月六日





#### **Employee and Family Care**

Caring for employees and their families is the cornerstone of Shinkong Synthetic Fibers' approach to employee well-being. Recognizing that new employees require time to adapt to the work environment and culture, the company has implemented five key support measures tailored for new hires. Additionally, the company offers educational scholarships and grants for eligible employees' children, providing care, assistance, and encouragement. The details are as follows:

## **1.Supporting New Employees**

Shinkong cares for new employees through five areas: environmental adaptation, team interaction, job training, lifestyle adjustment, and mentoring relationships. The company provides timely support and access to service information. Through a mentoring program, new employees receive guidance and support from their departments and the HR team, fostering engagement and helping them adapt more quickly to the workplace.

#### 2. Educational Assistance Grants

For children of employees who die in the line of duty or while employed, the company provides educational assistance grants to help their families. These grants are also extended to children from low-income households or those affected by sudden family hardships (e.g., major disasters) to ensure they can complete their education without financial concerns.

#### **3.Academic Excellence Scholarships**

To encourage employees to cultivate outstanding and high-achieving children, the company offers a variety of scholarships. For example, children admitted to prestigious schools such as National Taiwan University receive congratulatory entrance awards and scholarships. Additionally, scholarships are awarded to children who demonstrate excellent academic performance during their studies, providing them with further encouragement to maintain exceptional results and strive for continuous improvement.





#### Comprehensive Marriage and Parental Care Benefits

At Shinkong Synthetic Fibers, treating employees with kindness and care extends to their families. The company aims to support employees during every significant life stage, offering comprehensive marriage and parental care benefits. This ensures employees can focus on their work without worries, knowing their family needs are fully supported.

Item	2021	2022	2023
Number of employees eligible for parental leave			
Male	103	110	90
Female	18	22	14
Total	121	132	104
Actual applications for parental leave			
Male	3	2	1
Female	3	3	2
Total	6	5	3
Employees expected to return to work after parental leave (a)			
Male	2	3	1
Female	2	3	2
Total	4	6	3
Employees who actually returned to work after parental leave (b)			
Male	2	3	1
Female	2	3	2
Total	4	6	3
Return-to-workrate (%) = b/a			
Male	100%	100%	100%
Female	100%	100%	100%
Total	100%	100%	100%
Employees who returned to work the previous year (c)			
Male	1	2	4
Female	1	2	4
Total	2	4	8
Employees who returned to work the previous year (c)			
Male	1	2	4
Female	1	2	4
Total	2	4	8
Employees retained one year after return (d)			
Male	1	2	3
Female	1	2	3
Total	2	4	6
Retention rate (%) = d/c			
Male	100%	100%	75%
Female	100%	100%	75%
Total	100%	100%	75%

#### Definition of employees eligible for parental leave:

According to Article 16 of the Gender Equality in Employment Act, employees who have worked for at least six months are eligible to apply for parental leave without pay for each child under the age of three, with a maximum duration of two years. The above figures represent employees who meet these eligibility criteria.

#### Caring for Migrant Workers (Special Feature)

To provide comprehensive care and support for foreign colleagues working far from home, Shinkong Synthetic Fibers has implemented several assistance measures to ensure they feel a sense of belonging and receive proper support in both their work environment and daily life in Taiwan. Key initiatives include offering quality accommodations, promoting physical and mental well-being, enhancing communication and interaction, and prioritizing meal quality:

# **Providing Quality Accommodations**

The company offers comfortable and well-equipped dormitories to ensure that both local and foreign employees feel secure and at ease. Each resident is provided with sufficient personal space, while communal areas include sports facilities, lounges, and food outlets for relaxation and dining. Additionally, security personnel provide 24-hour protection to ensure the safety of all employees.

# Promoting the Physical and Mental Well-Being of Foreign Employees

Working far from home, foreign employees may experience stress due to differences in nationality, language, and culture. To alleviate such challenges and support their well-being, the company assigns translators to assist foreign colleagues from different backgrounds, providing daily life guidance and facilitating communication between foreign and local employees. Regular cultural exchange activities, such as family days and employee trips, are also organized to help employees achieve work-life balance and maintain overall health.

#### **Enhancing Communication and Interaction**

The company addresses the needs and suggestions of foreign employees across various aspects, including food, clothing, housing, transportation, education, and entertainment. Employees can express their opinions through suggestion boxes, forums, and Line groups. In 2023, the company held 1 - 2 exchange meetings per month for foreign employees, with translators facilitating communication between employees, HR managers, and department representatives. Feedback gathered during these sessions is documented and tracked for follow-up actions. During meetings, government

regulations, company policies, and recent initiatives are explained, along with awareness campaigns on anti-drug policies, fire safety, and crime prevention. Outstanding employees are also recognized and rewarded with festive treats during these events.

# **Prioritizing Meal Quality for Employees**

A good diet is essential for employee health and work performance. Through the "Food Supervision Committee," quarterly meetings are held with representatives from both local and foreign employees to review and discuss meal quality improvements, with food vendors participating to enhance the effectiveness of discussions. A dedicated instant messaging group enables real-time communication with meal suppliers, ensuring quick adjustments when needed.

To ensure food safety, the company leverages government resources by participating in Taoyuan City's "One Enterprise, One Food Safety Volunteer" program in 2023. This initiative provides training for corporate food safety volunteers, offering updates on food safety regulations and best practices. Participants also learn from other companies' approaches to food safety, restaurant management, and ingredient traceability. Improvements made as part of this program, including infrastructure upgrades and public disclosure of ingredient sources, earned the company an "Excellence Award" from the Taoyuan City Government.





In 2023, the company employed a total of 500 foreign migrant workers. With the aforementioned support measures, these workers received comprehensive assistance for both their work at Shinkong Synthetic Fibers and their lives in Taiwan. This care and support in an unfamiliar environment enabled them to excel in their roles.

## **Dormitory Environment Improvements (Special Feature)**

The company remains committed to enhancing dormitory environments. Recent improvement projects include:

#### **1.Living Spaces:**

Since April 2019, the company has progressively renovated dormitories at the Zhongli plant. By December 2020, renovations for dormitories housing Vietnamese employees were completed, and improvements for Thai employees' dormitories began in April 2022. The total expenditure reached approximately NT\$9.6 million. In 2023, renovations were completed for the 1st and 2nd floors of Building C for local employees, along with waterproofing upgrades for the roof of Building B. Improvements included walls, floors, windows, doors, beds, and cabinets, creating a more comfortable living space. Additionally, bathroom facilities were upgraded, including urinals, sinks, plumbing, and partitions, with a total cost of about NT\$8 million, resulting in brighter and cleaner spaces.

#### 2.Sports and Recreation:

In addition to the multifunctional sports court, completed in June 2019, which supports volleyball, basketball, and tennis, the company upgraded the dormitory area's soccer field in March 2021 at a cost of approximately NT\$380,000, offering employees a spacious area for exercise. Indoor facilities were also improved, with NT\$400,000 invested in upgrading the dormitory's recreational fitness zone. Employees now have access to badminton courts, billiard tables, and various fitness equipment.

#### 3.Catering to Dietary Needs:

To accommodate the tastes of migrant workers, the company provides meals featuring flavors from their home countries. Cooking spaces tailored for Thai and Vietnamese employees were completed in July and September 2021, respectively, with a total investment of approximately NT\$1.35 million.

#### 4.Relaxation Spaces:

Improvements to dormitory courtyard lawns and pathways were completed in August 2021, December 2021, and March 2022, with a total cost of approximately NT\$3.58 million. These enhancements added greenery to the surroundings and included the installation of umbrella-shaded seating areas, creating a tranquil environment for employees to relax and unwind.



#### 3.3.3 Retirement Planning

Shinkong Synthetic Fibers recognizes the dedication of its employees and provides favorable retirement plans for retiring staff, allowing those with retirement plans to apply as needed. All retirement schemes comply with the Labor Standards Act and the Labor Pension Act, as detailed below:

Retirement System under the Labor Standards Act:

The company allocates 9% of total monthly wages into a retirement reserve account at the Bank of Taiwan. A Labor Retirement Reserve Supervisory Committee was established on December 25, 1986, to oversee the allocation and disbursement of retirement funds. The committee convenes regularly to report on the status of the retirement reserve account, ensuring the smooth disbursement of pensions and the adequacy of funds in the account. Currently, the retirement reserve fund under the old system amounts to approximately NT\$760 million. Each year, the account balance is reviewed to confirm it meets the retirement needs of employees eligible in the coming year. If there is a shortfall, it is supplemented by the end of March in the following year to ensure sufficient allocation and safeguard employees' rights.

#### Labor Pension Act:

In accordance with the labor pension contribution wage classification table, 6% of monthly wages is contributed to the individual employee retirement accounts at the Bureau of Labor Insurance. For employees who voluntarily contribute to their retirement accounts, the company deducts and remits these contributions on their behalf to the individual accounts at the Bureau of Labor Insurance.

Shinkong Synthetic Fibers has established comprehensive employee retirement regulations that clearly define eligibility criteria, application procedures, pension calculation standards, and disbursement methods. These regulations are updated in line with legal changes to ensure employees can apply for the most favorable retirement plans available.

# 3.4 Labor-Management Communication

#### 3.4.1 Communication Channels

Shinkong Synthetic Fibers values employees' feedback and participation, providing multiple channels to ensure effective communication between labor and management. For new employees, the Chairman and General Manager take a personal interest in understanding
their thoughts and ideas by attending orientation meetings. In 2023, two such meetings were held for new employees, with a total participation of 58. Additionally, 35 forums were held for migrant workers, attended by 2,913 participants.

To help new employees transition smoothly and reduce turnover rates, the company assigns mentors from their departments to guide them in work and life during their first six months. This support ensures that new hires adapt to both workplace and personal challenges effectively.

For all employees, the company employs various mechanisms to facilitate labormanagement communication. Physical suggestion boxes are placed in frequently accessed areas, alongside an online platform and a "1199" hotline, offering diverse channels for employees to raise concerns. These initiatives enable the company to receive timely feedback. Employees can also voice their opinions through self-organized unions, the Welfare Committee, or at events like union representative assemblies, board meetings, labormanagement meetings, and interviews or discussions. In 2023, Shinkong Synthetic Fibers Group organized 16 labor-management meetings, addressing employee concerns without any major complaints reported.

These interactive efforts demonstrate the company's commitment to caring for employees and fostering diverse communication channels. The process ensures alignment with the company's overall development goals and fosters mutual understanding.

## **Migrant Worker Forums**

### **Employee Feedback and Human Rights Grievance Channels**

- ∉ Employee suggestion box
- ∉ Complaint hotline: 0800-588100 (1199)
- ∉ Union hotline: (03) 493-2131 ext. 1192
- ∉ Labor Representative Assembly: (03) 493-2131 ext. 1192
- ∉ Zhongli HR unit extension: (03) 493-2131 ext. 1121
- ∉ Guanyin HR unit extension: (03) 483-6745 ext. 2120

### Domestic intermediary Chi Chien toll-free hotline: 0800-555-897

### 2023 Labor-Management Meetings: Frequency and Participation

Company	Meetings Held	Participants	Frequency
Shinkong Zhongli	4	32	Quarterly
Shinkong Guanyin	4	28	Quarterly
Xin Fanya	4	34	Quarterly
Shinkong Industrial	4	14	Quarterly
Total	16	108	

## 2023 Other Communication Forums or Meetings: Frequency and Participation

Communication Forums or Meetings	Times Held	Participants
Advanced Training Forums for New Employees	2	58
Migrant Worker Forums	35	2,913
Food Supervision Committee	12	126

**Note:** Some training sessions, forums, and meetings were postponed or canceled due to pandemic considerations.

# Union Organization and Notification of Major Operational Changes

Shinkong Synthetic Fibers ensures employees' freedom of association and supports their right to join affiliated unions. In 2023, the company had a total of 1,860 employees, of which 1,459 were union members, representing a participation rate of 78.4%. The affiliated unions play a vital role in gathering opinions and reaching consensus. The company values employees' rights and feedback, engaging in thorough communication with unions regarding internal policies and decisions. These discussions are conducted in advance through labor-management meetings or collective bargaining agreements. The company strictly refrains from intervening in the establishment, operation, or management of unions or collective negotiations.

When there are significant changes in operational methods or decisions affecting employees' rights, the company promptly convenes meetings with supervisors, union representatives, and employees to communicate such changes. Notifications are completed in accordance with collective agreements and relevant legal regulations. Meeting discussions and decisions are documented and made public. In compliance with the Labor Standards Act and other related laws, the company ensures proper advance notice periods to minimize any major impacts on employees' work.

# 3.5 Workplace Safety

## 3.5.1 Employee Health Management

## Employee Health Philosophy

Employees are the company's greatest asset. Shinkong prioritizes creating a hopeful and dynamic work environment that extends beyond professional responsibilities, encouraging employees to lead harmonious and fulfilling lives. Through care initiatives, welfare systems, and corporate activities, the company helps employees work joyfully and live happily.

In addition to providing support systems for employees and their families, the company organizes various activities such as employee trips, family days, and club events. Diverse lectures and courses are also offered, enabling employees to explore new life experiences outside of work.

The company employs dedicated workplace health care personnel and appoints certified occupational medicine specialists and trained labor health service physicians for on-site services. By promoting workplace health, the company achieves the following benefits:

1. Reduced employee turnover and sick leave rates, along with increased productivity and product quality.

2. Lower health insurance costs and fewer workplace accidents.

3. Enhanced employee well-being through stress reduction, improved job satisfaction, and better health.

Improved corporate image and competitiveness, with benefits extending to employees' families and communities, ensuring the workplace remains a healthy environment that fosters both physical and mental well-being, ultimately maximizing company profits.

## Prevention of Occupational Diseases

To prevent occupational diseases, the company prioritizes identifying and assessing workplace risks to formulate preventive strategies. For health promotion, health checkups, employee interviews, and managerial care are conducted to collect and analyze potential health risks, followed by health promotion activities.

In compliance with regulatory requirements, health checkups are conducted regularly for employees aged 40 and above, totaling 734 in 2023. Employees working in special environments (e.g., noise, dust, special chemicals, organic solvents, ionizing radiation) are provided with specialized health checkups. These screenings include tests for noise, dust, organic solvents, and other relevant factors. Senior staff at the company and its subsidiaries undergo health checkups every two years.

In 2023, a total of 1,169 specialized health checkups were conducted for personnel in highrisk workplaces. Additionally, 44 catering staff from the Bottle Manufacturing Section underwent health examinations. Of those tested for noise-related issues, 34 were classified under Level 4 health management, with six reclassified to Level 2 after reevaluation. Among them, 28 employees were advised by occupational health specialists to wear protective equipment (e.g., earplugs) consistently. The participation rate for all health examinations reached 98%.

The company also provides discounted medical services for employees and their families through partnerships with Shinkong Hospital and other designated medical facilities. These benefits cover outpatient visits, hospitalizations, and health checkups.



## Employee Health Management

1. Conduct health examinations in compliance with regulatory requirements; proactively arrange specialized health checkups for employees working in hazardous environments, implement graded health management, and legally track examination results.

2. Reimburse actual medical expenses for employees affected by occupational injuries.

3. Equip large-scale factory sites with sports facilities, including multifunctional courts, table tennis rooms, badminton courts, and fitness centers; regularly organize competitions and distribute prizes.

4. Establish medical rooms and deploy medical personnel at factory sites to provide medical consultation services, health guidance clinics, and preventive healthcare activities. Collaborate with local health authorities and nearby medical institutions to conduct colorectal cancer screenings and health seminars.

To boost influenza vaccination rates, provide welfare subsidies of NT\$500 per dose and arrange for hospitals to administer vaccines on-site. In 2023, a total of 217 employees across the company (including factories and subsidiaries) received influenza vaccinations between January and December.



## Employee Physical and Mental Health Promotion

1. Organized supportive group activities focused on weight loss.

2. Promoted running, walking, blood pressure monitoring, and fitness exercises as individual and group activities to cultivate a culture of physical fitness among employees.

3. Conducted biannual blood donation events at the Zhongli plant medical room. To encourage participation, the Welfare Committee provided additional souvenirs: 150 bags on March 8 and 146 bags on September 7, representing a 30 – 40% increase in donations compared to previous years.

4. Hosted hiking and regular employee travel events while fostering community relationships through neighborhood engagement programs.

5. Established various employee clubs, including tennis, bowling, softball, badminton, hiking, and shrimp fishing. Factory activity centers are equipped with fitness equipment to support employees' physical activities.

During Family Day events, invited staff from Lianxin Hospital to provide health education and promote employee health awareness.



Prevention of Health Hazards and Diseases

1. Conduct monthly visits by occupational medicine specialists and health service physicians to identify and address workplace hazards, and provide employees with personalized health education and guidance.

2. Utilize the Excyman Standalone Health Management System to analyze employees' historical health data, identify high-risk individuals, and ensure factory health staff provide focused care and monitoring.

3. Use digital bulletin boards, email, noticeboards, and audiovisual systems to promote health-related messages and initiatives.

4. Follow up on health check results to ensure employees take greater notice of abnormal health indicators and take corrective actions.

5. Implement updates to occupational safety and health law with four newly required plans. Promote workplace maternal health protection by conducting risk assessments to eliminate hazards, adjusting work conditions, or reassigning tasks. Employees are informed of relevant information after medical confirmation of their health status, with full respect for their willingness to work in certain roles, ensuring adequate protection for maternal health.

Prevention of High-Risk or Specific Diseases

To effectively prevent occupational diseases, the company provides regular health checkups for employees and ensures workers engaged in hazardous tasks are equipped with appropriate safety protective gear. Targeted health checkups and health management systems ranging from Level 1 to Level 4 are implemented to prevent occupational illnesses and ensure employee health and safety.

At the Zhongli plant, for example, Level 4 management includes visits from occupational specialists to inspect work sites. Hearing protection plans are implemented and continuous-ly improved, with regular follow-ups and adjustments to employees' work areas as necessary.

In alignment with the Ministry of Health and Welfare' s initiative to promote the NHI Easy Access App, the company encourages employees to take an active interest in their health and fosters a healthier workplace environment. In 2023, the Zhongli plant received recognition from Lianxin International Medical Center as an Outstanding Unit for Anti-Drug Education Promotion for its exceptional efforts in this area.



## 3.5.2 Safe Workplaces

Providing a healthy and safe workplace is essential for employees to work with peace of mind, which in turn enhances operational performance. Shinkong Synthetic Fibers is committed to adhering to international occupational safety and health management systems and standards, fulfilling corporate social responsibility. In addition to ensuring product safety, maintaining the safety of employees, contractors, plant facilities, and surrounding communities is both a social responsibility and a key indicator of corporate competitiveness.

According to experts, unsafe behaviors account for 88% of workplace accidents. In response, the plant introduced an Unsafe Behavior Reporting Platform in 2022, encouraging employees to report and implement improvements. During the first year, 87 reports were submitted, a significant achievement. The ongoing promotion of this initiative aims to correct unsafe practices and reduce workplace accidents further.

Weekly Safety Care Activities are held every Wednesday during morning meetings, where employees share insights from their work experiences to remind others of safety precautions. These activities foster mutual safety awareness, with senior management actively participating to show their support.

To advance workplace safety, the company has integrated digital tools, including pre-work safety video training and AI-based recognition of personal protective equipment (PPE), providing employees with enhanced resources to work securely.

The company has established a Safety and Health Committee and implemented a comprehensive safety and health policy to provide a safe and healthy work environment for all stakeholders. By actively preventing accidents and continuously improving workplace safety, the company strives for the ultimate goal of "zero disasters and zero accidents."

Shinkong adheres to safety, fire prevention, and health regulations, with full employee participation and individual accountability for safety responsibilities. The company communicates its safety and health policies to employees, contractors, clients, suppliers, and other stakeholders, such as community residents, ensuring shared understanding and compliance.

Key Safety and Health Policy Objectives:

- 1. Compliance with occupational safety regulations.
- 2. Elimination of hazardous factors.
- 3. Commitment to continuous improvement.

Prevention of injuries and accidents.







# Work Environment Monitoring

To thoroughly understand employees' working environments and assess exposure to hazardous factors, Shinkong Synthetic Fibers regularly commissions external professional monitoring firms to conduct workplace environmental assessments. These evaluations cover noise, carbon dioxide levels in air-conditioned work areas, dust, specific chemicals, and organic solvents.

For areas with high noise levels, soundproofing materials such as acoustic panels have been installed to reduce noise. Additionally, workers are required to wear appropriate protective equipment, and all other measurements have been confirmed to fall below regulatory standards.

In dust-prone areas, the company has installed local exhaust systems to minimize dust pollution. However, the company is not complacent and continues to seek better methods and equipment to further enhance the quality of employees' working environments.



# Occupational Safety and Health Management System

To create a safe working environment and safeguard the safety and health of workers (including non-employee workers) and stakeholders, Shinkong Synthetic Fibers has implemented the Occupational Safety and Health Management System (OSHMS). This system governs occupational safety and health management, worker participation, consultation, and contractor safety management at all facilities, in accordance with the system's standards.

# Timeline of OSHMS Implementation:

∉ 2012: Shinkong Synthetic Fibers initiated the implementation of OSHMS.

*∉* 2013: Achieved OHSAS 18001 certification for occupational safety and health management.

*∉* 2014 – 2019: Underwent annual external follow-up or recertification audits to ensure system functionality.

*∉* 2019: Updated the OSHMS in line with revised standards and completed external recertification audits by the end of the year.

- ∉ 2020: Obtained ISO 45001 certification.
- ∉ 2021 2022: Successfully passed follow-up audits.
- ∉ 2023: Passed recertification audits.

Worker Type	Taipei Office Employees	Zhongli/Guanyin Plant Full-Time Employees	Part-Time Employees (Interns, Trainees)	Outsourced Dormitory Management	Labor Dispatch (Production, Transport)	Contractors (Security, Catering, Cleaning, Pallet Treatment, PTA Unloading)
Number of Workers	189	1,722	29	5	40	34
Total Workers	2,019					
Coverage (%)	0	85.29%	1.44%	0	0	0

## Scope of Workers Covered by OSHMS

## Notes:

∉ Currently, 86.73% (85.29% + 1.44%) of workers are covered under the OSHMS.

∉ The Taipei Office, primarily administrative, is not included in the OSHMS.

Non-employee workers are excluded from Shinkong's audits as their parent companies have already implemented their own systems.

# Hazard Identification, Risk Assessment, and Incident Investigation

By conducting risk assessments, the company can establish comprehensive and appropriate occupational safety and health management plans or systems. This effectively controls hazards and risks, reduces the likelihood or severity of potential incidents, and improves safety and health management performance, contributing to sustainable operations.

To this end, the company has established the "**Procedures for Hazard Identification and Risk Assessment in Environmental, Safety, and Health**" under its Occupational Safety and Health Management System. Through this system, routine and non-routine tasks in the workplace are comprehensively assessed for potential hazards or incidents. Control measures are then planned and implemented based on risk assessment results to reduce operational risks and minimize the occurrence of injuries.

In accordance with Article 2 of the Occupational Safety and Health Act, any illness, injury, disability, or death resulting from workplace factors such as buildings, machinery, equipment, raw materials, chemicals, gases, vapors, dust, or activities is classified as an occupational hazard. If such an event occurs, the responsible unit must immediately notify the accident supervisor and the Occupational Safety Office. Necessary first aid and medical measures are provided based on the situation.

Subsequent investigation reports, including improvement measures, must be submitted to the Occupational Safety and Health Committee for review and discussion to prevent the recurrence of similar incidents.

### Change Management

The purpose of change management is to minimize the introduction of new hazards and occupational safety and health risks into the workplace due to changes such as technology, equipment, facilities, work practices, procedures, or design standards. The company has established a "**Change Management Procedure.**" When changes involve systems, organizational structures, personnel tasks, machinery, chemicals, raw materials, working conditions/ methods, areas, safety facilities, or construction work, the department applying for the change must designate a project personnel to complete the "Process Change Control Form." This form is submitted to the Occupational Safety Office to conduct a safety and health impact assessment and confirm feasible preventive measures.

The project personnel follows the "Environmental, Safety, and Health Hazard Identification and Risk Assessment Management" procedure to perform hazard identification and risk assessment. They propose specific and feasible safety prevention and control plans, which must be approved before implementation.

### Source Management

To effectively manage high-risk operations, the company implements hazard identification and risk assessment for such tasks, establishing standard operating procedures to guide employees. For example, in the **Confined Space Hazard Prevention Plan**, it specifies that if ventilation systems fail, the workspace is contaminated with hazardous substances, protective or rescue equipment malfunctions, or alarms sound—indicating risks such as oxygen deficiency, poisoning, fire, or explosion—the on-site supervisor must immediately cease operations and evacuate workers to a safe location to ensure their safety.

## Occupational Safety and Health Committee

The company has an Occupational Safety and Health Committee, which convenes at least once every three months. The meetings are chaired by the highest-ranking plant supervisor and include plant managers, security supervisors, safety and health personnel, medical staff, and worker representatives, with labor representatives making up at least one-third of the committee.

The committee discusses all plant safety and health activities, reviews implementation plans and outcomes, and investigates accidents involving personnel or equipment. Supervisors responsible for incidents are required to attend, provide explanations, and present improvement measures. Through comprehensive reviews and corrective actions, the company aims to prevent recurrence.

The committee also emphasizes the importance of continuous process and technical improvements to ensure a safe working environment.

## Key Discussion Topics:

- 1. Recommendations for occupational safety and health policies.
- 2. Proposals for occupational safety and health management plans.
- 3. Review of recent safety and health education and training plans.
- 4. Work environment monitoring results and corresponding actions.
- 5. Health management, occupational disease prevention, and health promotion.
- 6. Safety and health proposals, self-inspections, and safety audits.
- 7. Preventive measures for mechanical or raw material hazards.
- 8. Occupational accident investigation reports.
- 9. On-site safety and health management performance.

Contractor safety and health management.

# Safety and Health Education, Training, and Promotion

To enhance employees' knowledge and awareness of workplace safety and strengthen their ability to respond to disasters and accidents, employees are required to attend occupational safety training courses organized by the Occupational Safety and Health Administration (OSHA). Additionally, employees regularly participate in industry or academic seminars and observation meetings on environmental protection.

External experts and scholars are invited to the plant to conduct training on occupational safety techniques, knowledge, experience, and regulations. Periodic meetings with internal unit managers or internal email campaigns are used to promote safety awareness and exchange technical knowledge, fostering a culture where safety becomes a daily habit.

In alignment with OSHA' s promotion of inherent safety design principles, the company conducts hazard identification among operators, implements factory safety management, and focuses on risk prevention at the source to eliminate potential harm.

In 2023, external instructors conducted several professional on-the-job safety and health management training sessions in the latter half of the year, including certification training. The engaging and professional instruction deepened employees' understanding of safety and health principles and improved their management skills.

Beyond regular, specialized, and on-the-job safety training, each department is tasked with integrating safety and health training into daily operations. Training results are recorded in the company' s internal system for future reference. In 2023, the total number of safety and health training hours amounted to 5,732 hours.



# Safety Protection and Disaster Drills

The company requires each department to identify high-risk operations with a high potential for severe injuries and conduct hands-on SOP drills for these tasks. Occupational Safety personnel participate in these exercises, and other departments are invited to observe and learn. Additionally, operational safety procedures are gradually being transformed into instructional videos, serving as reminders for current employees and essential training materials for new hires.

In addition to routine drills within departments, the company organizes inter-facility mutual support fire drills. These exercises involve personnel and equipment collaboration with nearby facilities, fostering a collective effort to prevent disasters.

The company continues its efforts to prevent occupational accidents by improving hardware, such as regular inspections of plant tanks and pipelines. Each facility arranges periodic inspections and schedules repairs as needed. After natural disasters like earthquakes, buildings undergo immediate inspections, and any damage is promptly repaired. AED devices are also installed to prevent fatal incidents.

On the software side, the company strengthens SOP management for safety activities, encourages reporting of hazards and unsafe behaviors, and actively promotes emergency response drills. These drills are recorded as videos for future training, helping employees become familiar with disaster response and enabling swift and effective actions during emergencies to mitigate damage.

According to regulations, fire extinguishers must be inspected regularly but have no specified expiration date. For dry powder extinguishers, performance checks must be conducted every three years. This involves a comprehensive examination of all components and extinguishing agents. If defects are found, repairs or replacements are made. As long as the extinguishing agent shows no signs of solidification, foreign objects, sediment, discoloration, turbidity, or odors, it can continue to be used.

The company follows regulations by outsourcing fire extinguisher inspections to certified agencies to ensure fire safety in the plant. In addition to routine inspections of fire extinguishers and hydrants, the company enhances flammable material isolation and hazardous material management. Fire detectors are regularly tested and reported by each unit, while the Occupational Safety department conducts spot checks to ensure fire alarm systems are functioning correctly. The company collaborates with the Taoyuan City Fire Department's Fourth Brigade for expanded fire evacuation and rescue drills, demonstrating a commitment to safeguarding public property and safety alongside local authorities.

Through fire safety training, employees are educated by professionals on fire prevention, firefighting, and evacuation techniques. This ensures that small sparks are extinguished before escalating into major fires, protecting the safety of the factory and its workers.









# **Fire Safety Training**

Through **Fire Safety Training**, employees enhance their disaster response capabilities by learning proper fire escape techniques and understanding fire prevention management requirements specific to the workplace. This training aims to prevent and mitigate the effects of fires, earthquakes, and other disasters, ultimately protecting lives and reducing damage.

### Basic Life Support (CPR + AED)

To strengthen employees' awareness of emergency response and safety crisis management, the company provides **First Aid Skills Training**. This program teaches essential first aid knowledge and Basic Life Support (BLS) techniques, enabling employees to respond effectively to emergencies in daily life. These skills contribute to promoting physical and mental health, preventing injuries, fostering risk awareness, and minimizing the severity and frequency of accidents.







### Occupational Injury Statistics Over the Years

Item	2021	2022	2023
Working Hours (hours)	4,114,000	3,994,000	3,852,000
Number of Fatalities from Injuries	0	0	0
Fatality Rate	0	0	0
Number of Severe Injuries	0	0	0
Severe Injury Rate	0	0	0
Recordable Injuries	3	5	4
Recordable Injury Rate	0.73	1.25	1.04

Note:

There were no incidents of occupational injury-related deaths in 2023.

The number of severe occupational injuries was zero, with the rate also being zero.

In 2023, there were 4 recorded injury incidents. The types of incidents were: entanglement

injuries (2 cases) and burns (2 cases). The recordable occupational injury rate was 1.04.

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The total working hours in 2023: 1,926 (number of employees) * 250 (working days) * 8 (hours) = 3,852,000 (hours).
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The calculation of both the severe occupational injury rate and the recordable occupational injury rate adopts the per-million work hours method.

Definition of severe occupational injuries: injuries where the health condition prior to the incident has not been restored for more than six months.

Recordable occupational injuries = disabilities + severe occupational injuries + deaths.

Near-miss incidents: refers to incidents caused by human error or accidents where personnel were only startled without injury, or property damage was minor (or no property loss occurred).

In 2023, there were 87 recorded near-miss incidents.

NMFR =  $(87 \times 1,000,000) / (1,997 \times 250 \times 8) = 21.78$ .

# 2023 Occupational Injury Incidents and Countermeasures

Date	Incident Description	Improvement Measures
2023/06/01	During maintenance on the AFK #15 blower of the false twister machine, the worker's left hand was accidentally caught in the motor drive chain while moving.	Installed protective covers at motor drive chain areas prone to entanglement injuries.
2023/07/13	While disassembling the CP-8 P-320 GEAR PUMP end plate clearance plug, residual polymer inside sprayed out and caused burns.	Mandated the use of high-temperature protective gear for high-temperature tasks.
2023/08/07	During the removal of a pressure transmitter, residual polymer sprayed out and caused burns due to the worker not wearing high-temperature protective gear.	Reinforced the requirement to wear high- temperature protective gear during such operations.
2023/12/16	While grinding a NIP ROLLER, the worker pressed the start button before removing their left hand, resulting in the left index finger being pinched in the grinder fixture.	Added a dual-hand operation safety switch.

# 3.5.3 Contractor Safety and Health Management

To ensure that contractors carry out self-directed safety management during construction or operations within the plant, avoiding injuries, fatalities, or equipment damage, the company has established the "**Contractor Work Entry Management Regulations**." This policy applies to external contractors who undertake operations within the plant under agreements defined by Article 490 of the Civil Code.

The management regulations cover contractors' safety and health management capabilities, occupational incident reporting, hazardous operation controls, education and training, emergency response, and safety and health performance evaluations. A contractor management plan is formulated to ensure contractors and their workers comply with occupational safety and health laws and adhere to safety management requirements set by the company.

Contractors must ensure that machinery, equipment, tools, workpieces, gas cylinders, solvents, and other hazardous chemicals classified under CNS15030 standards meet regulatory requirements. Proof of compliance must be submitted to security personnel for verification before entering the plant.

## **Contractor Safety Measures and Training**

Work safety is the company's highest guiding principle. Before entering the plant, all contractor employees must complete occupational safety and health training, pass a test, and sign a confirmation. Shinkong Synthetic Fibers organizes quarterly safety training sessions and follow-up tests for contractors to reinforce safety awareness and minimize occupational incidents.

Beyond safety education, supervisors accompany contractors during every entry and provide pre-task safety briefings to highlight potential workplace hazards. This ensures that contractors are aware of the risks and prioritize safe operations. Occupational safety personnel and department supervisors also conduct unscheduled audits of contractor work. Any identified anomalies are immediately addressed, with corrective plans implemented and completed to maintain safety.

Contractor equipment, vehicles, materials, hot work equipment, and electrical devices are subject to safety inspections before entry. The mental state of contractor personnel is also evaluated to ensure compliance with the company's safety guidelines, preventing unsafe practices.

To enhance engineering safety management, the company's IT team has developed a reporting system for daily safety checks, which supervisors use to log their observations. Over the past three years, two occupational incidents involving contractors were recorded. These events highlight the need for continued efforts in contractor management. The company emphasizes collaboration between its personnel and contractors to improve safety awareness and ensure compliance with occupational safety regulations, striving to prevent workplace accidents.

ltem	2021	2022	2023
Number of Fatalities from Injuries	0	1	0
Number of Severe Injuries	0	0	0
Number of Recordable Injuries	0	2	0
Recordable Injury Rate	0	5.29	N/A

Contractor Occupational Injury Statistics Over the Years

### Notes:

1. Contractor work hours tracking began in 2021. Total work hours for 2023 amounted to 189,080.

2. **Severe Occupational Injury Definition**: An injury where recovery to pre-injury health takes longer than six months.

Recordable Injuries: Includes fatalities, severe injuries, and disabilities.

## 4. Sustainable Environment

### **Management Policy**

Key Topics	Energy Management		
Policy Direction	- Research and improve to promote energy conservation and waste reduction.		
	- Embrace innovative thinking focused on environmental quality.		
	- Develop a smart, eco-friendly, non-toxic green energy industry.		
Core Objectives	- Innovate to achieve energy conservation and waste reduction.		
	- Achieve an annual energy-saving rate of 1% to ensure reasonable and efficient energy use, reduce costs, and carbon		
	emissions, and enhance product competitiveness for sustainable operations.		
Performance Results	- In 2023, 64 voluntary greenhouse gas reduction initiatives were implemented.		
	- Achieved savings of NT\$10.128 million, equivalent to approximately 3,649,000 kWh.		
	- Total electricity consumption in 2023 decreased by 34,663,000 kWh (-9.45%) compared to 2022.		
	Departments are required to reference past practices (e.g., insulation improvements, air compression energy savings, waste heat recovery, use of high-efficiency equipment, water resource recycling, energy-efficient lighting, energy		
Action Plan	control, equipment upgrades, variable frequency energy savings, power regulation) or propose innovative energy-		
	saving solutions. Approved proposals are implemented and tracked for 12 months, with results reviewed in energy-		
	saving meetings.		

# Management Approach

### **Resources Invested:**

- o Energy Conservation Promotion Committee.
- o KM platform for knowledge sharing.

### Feedback Mechanisms:

- o Energy-saving meetings.
- o Proposal and suggestion improvement platform.

### **Evaluation Mechanisms**:

- o Review results during energy-saving meetings.
- o Conduct internal and external audits.
- o Utilize the Industrial Energy Conservation Services Network/Industrial Energy Platforms.
- o Monitor through the Voluntary Greenhouse Gas Reduction Information Platform.

### 2024 Goals

1. Achieve an annual energy-saving rate of over 1%.

2. Apply innovative thinking to ensure reasonable and efficient energy use, reduce consumption, and lower costs.

Uphold corporate social responsibility by committing to energy conservation and carbon reduction for sustainable operations.

### **Management Policy**

Key Topic	Water Resource Management	
Policy Direction	- Understand water, use water wisely, cherish water resources for sustainable water management.	
Core Objective	- Reduce water consumption by 10%.	
Performance Results	- Annual water savings of 12,626 tons/year.	
Action Plan	- Install smart water meters.	

### Management Approach

### **Resource Allocation:**

o Installation costs for smart water meters: NT\$1,680,000.

### Feedback Mechanism:

o Improvement proposal platform.

### **Evaluation Mechanisms**:

o Central monitoring system with automatic alerts to prevent excessive groundwater extraction.

o Flow meters to calculate water usage and minimize losses caused by pipeline leaks.

### 2024 Target

Achieve a 10% reduction in water consumption.

## **Management Policy**

Key Topic	Greenhouse Gas Management		
Policy Direction	- Comply with regulations, conserve energy, reduce waste, prevent pollution, and continuously improve.		
Core Objective	Reduce annual carbon emissions by more than 12.10% compared to the previous year.		
Performance Results	- Total greenhouse gas emissions: 287,701 metric tons CO2e.		
Action Plan	<ul> <li>Comprehensive energy-saving and emission-reduction projects (e.g., energy-efficient air compression, waste heat recovery, high-efficiency equipment adoption, water recycling, energy-efficient lighting, energy management, equipment upgrades, variable frequency energy savings, and power regulation).</li> </ul>		
	- Conduct regular greenhouse gas inventories.		

### Management Approach

### **Resources Invested:**

- o Shinkong Synthetic Fibers ERP platform.
- o Safety and Environmental Protection Team.
- o One designated inventory expert in each relevant unit.

### Feedback Mechanism:

- o Improvement proposal platform.
- o Internal inventory operations held annually from April to July at the Zhongli Plant.

### **Evaluation Mechanisms**:

o Greenhouse gas inventory and review based on ISO 14064-1 standards.

o Data submission to the National Greenhouse Gas Registration Platform managed by Taiwan's Environmental Protection Administration.

### 2023 Goals

∉ Continuously promote various energy-saving measures to achieve a 1% electricity savings target.

∉ Introduce new energy-saving technologies, such as carbon fiber wind turbines and magnetic levitation chillers.

∉ Implement low-grade heat recovery systems, such as hot air recovery in ester pellet drying systems.

∉ Develop green energy initiatives, including solar power plants.

Transition steam boilers to gas-fired systems.

## **Management Policy**

Key Topic	Pollution Prevention and Waste Management	
Policy Direction	- Prevent pollution, conserve energy, and reduce waste to create a better environment.	
Core Objective	- Reduce air pollution emissions.	
Performance Results	- Achieved third-party ISO 14001 Environmental Management System audit verification.	
	- In 2023, air pollution emissions decreased by 31% compared to 2022.	
	- Air pollution emissions per unit production in 2023 decreased by 22.7% compared to the previous year.	
	- Air pollution emissions per unit production in 2023 remained consistent with 32.6% from the previous year.	
Action Plan	- Strengthen process control in production units to prevent anomalies.	
	- Conduct unscheduled audits to verify operational data accuracy.	
	- Regularly review and update outdated equipment.	
	- Establish air pollution reduction projects under the ISO 14001 Environmental Management System.	
	- Engage third-party verification organizations to complete ISO 14001 system audits.	

### Management Approach

### **Resource Allocation:**

- o Budget allocation for air emission reduction projects.
- o ISO 14001 Environmental Management System Implementation Team.
- o Audit Office.

### Feedback Mechanism:

- o Internal and external complaint mailboxes.
- o Environmental management improvement plan compilation table.

### **Evaluation Mechanisms**:

o Review and assessment meetings for targeted plans.

Internal and external audits.

# **4.1 Green Operations**

# 4.1.1 Environmental Data Overview

# 2023 Environmental Data Summary

(Data consolidated from Zhongli and Guanyin Plants; excludes Taipei Headquarters)

- ∉ Energy Consumption: 3,082.9 TJ
- ∉ Electricity Saved through Energy-Saving Measures: 3,694 MWh
- ∉ Energy Savings as a Percentage of Energy Consumption: 0.99%
- ∉ Greenhouse Gas Emissions: 287,701 metric tons CO2e
- ∉ Water Withdrawal: 1,875,000 cubic meters
- ∉ Water Savings: 472,900 cubic meters
- ∉ Water Savings as a Percentage of Water Withdrawal: 25.2%
- ∉ Wastewater Discharge: 435,000 cubic meters
- ∉ Recycled Water: 735,000 cubic meters
- ∉ Water Recycling Rate at Zhongli Plant: 90.58%

Water Recycling Rate at Zhongli Plant (excluding circulation water): 63.8%

# 2023 Energy Consumption by Business Unit

Business Unit	Consumption (TJ)	Percentage
Chemical Fiber	855.6	28%
Plastics	2,227.3	72%
Total	3,082.9	100%

# 2023 Energy Consumption by Energy Type

Energy Source	Consumption (TJ)	Percentage
Electricity	1,316.4	42.7%
Natural Gas	1,279.4	41.5%
Coal	436.3	14.2%
Heavy Oil	41.0	1.3%
Diesel	9.6	0.3%
Total	3,082.9	100%

Note: Energy values and oil equivalents were calculated based on the "Energy Product Unit Heat Value Table" announced by the Bureau of Energy, Ministry of Economic Affairs (2019 Energy Balance Sheet Revision). The average calorific value of natural gas is based on 2022 CPC data; coal calorific value is certified by an external auditing firm. Source: <u>Ministry of Eco-</u> nomic Affairs, Bureau of Energy Website.

### **Energy Consumption per Unit of Production**

Business Unit	2018 (Baseline)	2022	2023
Chemical Fiber	8.47	9.65	6.36
Plastics	2.78	2.55	2.73

Unit: GJ/ton

### 2023 Energy-Saving and Carbon Reduction Measures and Achievements

∉ **Total Proposals**: 78 energy-saving improvement projects proposed, requiring an investment of approximately NT\$18.454 million.

✓ Projected Results: Expected annual savings of 6,062 MWh and economic benefits of NT\$19.568 million.

- ∉ Actual Achievements:
- o Completed Projects: 64
- o Economic Benefits: NT\$10.358 million.
- o Electricity Saved: 3,694 MWh (equivalent to 13.3 TJ).

Greenhouse Gas Emissions Reduced: 1,829 metric tons CO2e.

### 4.1.2 Sustainable Operations

Shinkong Synthetic Fibers actively reduces costs, decreases energy consumption, and minimizes carbon emissions to enhance product competitiveness and achieve sustainable operations. Over 120 countries worldwide, including the EU, Japan, and South Korea, have pledged to achieve net-zero carbon emissions by 2050, while China has set its target for 2060. In 2023, Taiwan amended the Greenhouse Gas Reduction and Management Act to the Climate Change Response Act, showcasing its determination to promote carbon reduction measures and address the challenges of net-zero emissions and carbon pricing.

Shinkong Synthetic Fibers takes responsibility for energy conservation and carbon reduction, embedding climate change as a core responsibility in its "Corporate Social Responsibility Policy" and "Environmental Protection Policy." The company is committed to mitigating global climate change and setting an example in environmental stewardship.

The company improves energy efficiency to reduce consumption and actively expands the use of renewable energy sources, such as solar, wind, hydropower, tidal energy, and geothermal energy. To combat climate change, Shinkong Synthetic Fibers introduced the ISO 50001 Energy Management System in 2023, assessing energy use and establishing baseline management for major energy-consuming equipment. Alongside setting executable energy -saving goals and implementing systematic energy consumption control, the company continually develops new technologies, upgrades, and replaces process equipment to reduce energy use. Process information, including energy consumption and power generation, is integrated into the system, allowing real-time employee access and serving as an internal evaluation metric.

To align with energy-saving policies, Shinkong integrates data from intelligent systems, achieving a balance between environmental sustainability and operational continuity. In 2023, the company maintained a 1% electricity saving rate across its plants, developing 78 energy-saving proposals focusing on production processes, equipment management, and facility lighting.

To tackle challenges such as the high costs and long payback periods of replacing old, inefficient equipment, Shinkong prioritizes process integration to improve utility demands and avoid excessive energy use. For air compression systems, new energy-saving equipment was introduced in 2023, replacing compressors in the headquarters and DTY-6 units to enhance operational efficiency. The STX-9#3 air compressor replacement was paired with existing variable-frequency compressors for stable and efficient compressed air supply.

In the chilled water systems, centrifugal chillers were replaced with magnetic levitation chillers, and improvements were made to the STX-8 chilled water booster pump #1.

### **Renewable Energy Usage**

Recognizing the increasing challenges of promoting energy conservation in the future, Shinkong Synthetic Fibers is committed to advancing renewable energy initiatives. The company is implementing a plant-wide heat transfer boiler fuel substitution plan, transitioning from oil to gas, to reduce carbon emissions and improve air quality. Other measures include the reuse of low-grade heat sources, establishing feasible energy management regulations, and obtaining environmental certifications. In February 2015, the company successfully registered an offset project with the Environmental Protection Administration (EPA).

In 2024, Shinkong Synthetic Fibers plans to comply with regulatory requirements for purchasing green energy to fulfill obligations for major electricity users, aiming to purchase **6,762,583 kWh of green energy**. Additionally, the company has actively invested in green energy development, allocating **NT\$690 million in 2023** to solar power companies, with total assets reaching **NT\$2.421 billion**. Solar power generation in 2023 achieved a total capacity of **75.93 MW**.

# 2023 Solar Power Generation Performance

Unit: MW

Sector	Operational	Under Construction	In Application	Total
Power Generation	5.41	32.06	12.18	26.28
Total	5.41	32.06	12.18	75.93

# **Energy Conservation Promotion Committee**

To fulfill corporate social responsibility and achieve environmental sustainability, Shinkong Synthetic Fibers established the **Energy Conservation Promotion Committee** to address society's concerns about energy conservation and carbon reduction. This committee integrates resources across the company' s plants to coordinate water conservation, energysaving, carbon reduction, and pollution prevention efforts.

The committee is chaired by the General Manager, who oversees communication and strategic planning while collaborating with upstream and downstream partners to implement energy-saving measures comprehensively. Since August 2015, the company has complied with the Environmental Protection Administration (EPA) requirements by completing greenhouse gas inventories and commissioning third-party verifications. The results are publicly available on the EPA website for transparency.

In May 2022, the company established the **Carbon Neutrality Promotion Center** to further its carbon reduction initiatives, including green energy development, promoting the circular economy, disclosing product carbon footprints, and developing low-carbon green products. These actions anticipate international carbon footprint regulations and aim to achieve the company's reduction targets.

### **Energy Management Measures**

### Target Tracking:

Continuously operate the Energy Conservation Promotion Committee, regularly tracking and reviewing energy-saving target progress.

## **Execution Details**:

Define implementation methods for achieving energy-saving goals, including performance evaluation, review mechanisms, and integrating all results into incentive systems.

## Mechanism Development:

Establish a comprehensive product energy consumption timeline and regular evaluation mechanisms.

### Trend Introduction:

Incorporate energy-saving technologies aligned with green energy advancements to improve overall energy efficiency and align with global trends.

## Smart Management:

Implement cloud-based intelligent energy-saving systems to provide real-time energy consumption data, effectively reducing production energy costs.

## **Energy Project Management Process**

(Details not provided; recommend supplementing if required.)

## **Energy Conservation Improvement Incentive Program**

To reinforce its green image and embed an energy-saving culture within the company, Shinkong Synthetic Fibers established the Energy Conservation Improvement Incentive Program in 2018. This program rewards employees with bonuses and certificates to enhance their participation and sense of accomplishment, thereby fostering innovation across all plants and departments.

Each year, proposals are evaluated, and awards are granted to the top three plants with the highest efficiency improvements and one recipient of the Best Creativity Award. In 2023, the

company focused on three core pillars: process improvements, equipment upgrades, and energy management, with electricity conservation as the primary area of focus.

In 2023, 78 energy-saving proposals were submitted with an estimated investment of NT\$18.45 million. Upon completion, these initiatives are projected to save 6,062 MWh/year and 505,538 NM<sup>3</sup> of natural gas, delivering an annual benefit of NT\$19.57 million.

Achievements in 2023:

∉ 64 energy-saving measures implemented, generating NT\$10.36 million in benefits.

∉ Reduced electricity consumption by 3,649 MWh, equivalent to avoiding 1,807 metric tons of CO2e emissions.

Category	Proposals	Projected Benefits (NT\$ 1,000/year)	Projected Investment (NT\$ 1,000)	Expected Savings (MWh/year)	Expected CO2 Reduction (metric tons/year)
Energy Management	6	333	192	130	1,014
Process Improvements	62	15,085	6,529	4,208	2,082.9
Equipment Upgrades	10	4,150	11,732	1,724	853.3
Total	78	19,568	18,454	6,062	3,000.6

### 2023 Energy-Saving Proposals Overview

### Notes:

1. The table summarizes the 2023 proposals for process improvements, equipment upgrades, and energy management, including the number of proposals, investments, and projected benefits.

2. Each kilowatt-hour of electricity generates 0.495 kg of CO2e (based on the "111th Annual Electricity Carbon Emission Factor" announced by the Bureau of Energy, Ministry of Economic Affairs).

Baseline year: 2018, with total electricity consumption of 426,106 MWh.

# Energy and Resource Reduction Goals and Initiatives

To facilitate resource reduction, Shinkong Synthetic Fibers established specific energy reduction targets in 2023, using 2018 as the baseline year. These targets are categorized into short-term (2022), mid-term (2025), and long-term (2030) goals, covering unit energy consumption per production output, water usage, and total waste generation.

Building on these reductions, Shinkong is actively implementing energy-saving measures across its production sites. Emphasizing industrial smartization, the company has introduced advanced infrastructure such as smart meters and real-time monitoring platforms for energy consumption and operational data, ensuring continuous oversight of equipment efficiency.

Following effective energy and resource control, the Energy Management Database established in 2018 has become instrumental in enabling "intelligent," "efficient," and "precise" energy management. By leveraging a transparent energy management platform, Shinkong accurately tracks production capacity, equipment performance, and energy utilization. This data forms a solid foundation for expanding renewable energy adoption, reducing electricity purchases and carbon emissions, and enhancing energy efficiency through low-grade heat recovery and reuse measures. These initiatives are expected to be completed within three years.

Additionally, to advance greenhouse gas emission reductions, optimize water treatment and recycling, and meet ongoing green procurement demands, Shinkong has collaborated with financial institutions through sustainability-linked loans. By the end of 2023, the loan balance exceeded NT\$600 million, supporting various equipment investments and green initiatives.

## **Unit Energy Consumption Reduction Targets**

Category	Short-Term Target (2022)	Mid-Term Target (2025)	Long-Term Target (2030)
Reduction in Unit Energy Consumption (%) <i>(Baseline year: 2018)</i>	3%	8%	15%

### Annual Data Overview

Year	2018 (Baseline Year)	2023
Production Volume (1,000 tons)	1,035	949
Total Energy Consumption (TJ)	3,546.5	3,082.9
Unit Energy Consumption (TJ/1,000 tons)	3.4266	3.2486
Reduction Compared to 2018	_	5.19%
Reduction Target	_	3%

# **Energy-Saving Highlights**

1. Replacing inefficient air compressors and ice-making machines.

2. Upgrading dehumidifier compressors.

3. Converting cooling tower fans to direct-drive systems and switching to lightweight FRP blades.

- 4. Implementing waste heat recovery for spinning dryers.
- 5. Modifying catalyst addition methods in polymerization processes.
- 6. Adjusting mixer operations to reduce daily operating hours.
- 7. Optimizing compressed air usage by reducing nozzle size or pressure to lower unit energy consumption.
- 8. Introducing lighting control systems and replacing fixtures with LED lights.

Upgrading to IE4 energy-efficient motors.

# 4.2 Resource Management

## 4.2.1 Water Resource Management

With increasing demand for industrial water, power generation, and domestic use, water scarcity has become a norm in Taiwan. Starting February 1, 2023, a water consumption fee was imposed on high-volume water users with monthly usage exceeding 9,000 tons. Shinkong Synthetic Fibers' Zhongli plant primarily relies on groundwater, and all groundwater usage is subject to the announced water consumption fee rate of NT\$3 per ton. In 2023, Zhongli plant's water usage totaled **354,569 tons**, resulting in a payment of **NT\$574,976** in water consumption fees.

In response, Shinkong Synthetic Fibers has actively implemented water reduction measures across all plants since 2018. Guided by the principles of **source reduction** in processes and **end-of-pipe control**, the company has strengthened its water resource management practices.

Key measures include:

- 1. Groundwater Source Management:
- o Daily meter readings and regular monitoring of dynamic and static water levels.

o Installation of **smart flow meters** at deep wells, enabling centralized monitoring of daily water usage. This system allows for immediate detection and response to abnormal usage or pipeline leaks.

## o Compliance and Oversight:

o Proactive submission of water usage plans as required by government regulations.

o Regular monthly energy-saving meetings to evaluate water usage and conservation outcomes across all facilities.

## o Water Reuse and Efficiency:

o Exploring alternative water sources to reduce resource wastage risks.

o Accelerating water recycling processes and improving water use efficiency.

For wastewater that cannot be reused, such as polluted water containing heavy metals, the company employs professional wastewater treatment facilities. After purification processes that meet regulatory standards, the water is discharged responsibly.

By rationally managing, scheduling, and allocating water resources, Shinkong ensures that water extraction does not adversely affect local ecosystems or community living standards.

The company actively controls extraction volumes and implements proper water withdrawal methods to minimize environmental impact.

### Water Resource Management Measures

### Water Reduction

∉ Implementation of water-saving equipment.

### Water Resource Management

- ∉ Installation of **smart water meters** and flow gauges at all deep wells.
- ∉ Regular measurement of dynamic and static water levels.
- ∉ Scheduled maintenance of deep wells during winter months as per planning.

### Water Recycling

- ∉ Reuse of backwash water from water treatment tanks to improve water efficiency.
- ∉ Recycling of once-through cooling water at operation sites.

### Water Reduction Goals

Category	Short-Term Goal	Mid-Term Goal	Long-Term Goal
	(2022)	(2025)	(2030)
Reduction in Water Intake Per Unit Output (%)	3.5%	10%	20%

Note: Targets are calculated based on 2018 as the baseline year.

## 2023 Plant Water Resource Optimization Measures

Shinkong Synthetic Fibers has actively promoted industrial intelligence, integrating smart electricity meters, real-time operational monitoring of equipment energy consumption, and data-driven operational efficiency analysis. These intelligent systems extend to water resource management.

Since groundwater is the primary water source for the Zhongli plant, the company has implemented comprehensive water-use planning and recycling measures to maximize water usage and minimize evaporation losses. Post-optimization, the company established an **energy management database** and a **transparent energy management platform**, enhancing intelligence, efficiency, and accuracy in managing plant capacity, equipment, and energy resources. These efforts increased resource utilization efficiency and supported sustainable water use, with the Zhongli plant achieving a water recycling volume of **472,940 tons** in 2023.

### Water Recycling Volume and Ratios (2021-2023)

Year	2021	2022	2023
Recycled Water Volume (tons)	406,148	455,468	472,940
Water Savings as a Percentage of Total Water Intake (%)	21.1%	23.3%	25.2%

*Note: Water savings ratio (%) = recycled water volume / groundwater usage (Zhongli + Guanyin plants).* 

### 2023 Water-Saving Achievements

- 1. Installation of Backwash Water Recycling Tanks:
- o Recycled **330,447 tons** of sediment-treated backwash water for reuse.
- o Conductivity Management of Cooling Towers:

o Conductivity was concentrated to **2,000 μs/cm** before discharge, achieving concentration multiples of **4.5 to 5 times**.

### o Effluent Recycling:

o Recycled **735,160 tons** of effluent for use in air pollution control equipment scrubbers, sludge dewatering filter cloth cleaning, and irrigation.

- o Non-Contact Cooling Water Recycling:
- o Recycled **142,493 tons** from polymerization plants and fiber testing machines.
- o Water-Saving Devices:

Installed water-saving devices on sink faucets across all plants.

# Historical Water Usage (2021-2023)

Unit: Million Liters

Plant	Source	2021	2022	2023
Zhonali	Groundwater	1,670	1,663	1,651
Znongi	Tap Water	25	20	21
Guanvin	Groundwater	252	244	183
Guariyin	Tap Water	23	22	20
Total	Groundwater	1,922	1,907	1,834
1 otal	Tap Water	48	42	41

Notes:

1. Tap water is solely for drinking purposes.

All sourced water is freshwater (≤1,000 mg/L total dissolved solids).

## Unit Water Consumption per Production Unit

Year	2018 (Baseline Year)	2023
Plant	Zhongli + Guanyin	Zhongli
Production Volume (kT)	1,035	884
Water Usage (Million Liters)	1,991	1,672
Unit Water Usage (Million Liters/kT)	1.924	1.89

# Water Usage Reduction Compared to 2018 Baseline (kT): 115 2025 Reduction Target: 10%

## Explanation:

Shinkong Synthetic Fibers not only implements proactive groundwater management but also evaluates and reviews water usage and conservation results in monthly energy-saving meetings. The company actively explores alternative water sources to minimize waste. Due to the lower production volume caused by the suspension of certain units at the Guanyin plant in 2023, the fixed basic water usage led to slightly higher unit water consumption when compared to the baseline year.

## Water Recycling and Reuse Volumes

#### Unit: Million Liters

Year	Discharged Water Reuse Volume	Equipment Cooling Water Recovery	Backwash Water Recovery	Total
2021	760	137	270	1,167
2022	741	138	318	1,197
2023	735	142	330	1,207

## Water Recycling Rate

Year	Water Recycling Rate (%)
2021	90.2%
2022	90.4%
2023	90.5%

### **Calculation Formula:**

## Water Recycling Rate Excluding Circulating Water

Voor	Water Recycling Rate	
rear	(Excluding Circulating Water, %)	
2021		60.7%
2022		61.3%
2023		63.8%

**Calculation Formula:** 

## 4.2.2 Material Recycling Management

Our company prioritizes the safe use of raw materials and actively promotes packaging material recycling. Starting from the source, we aim to reduce resource consumption, enhance waste reuse ratios, and create a circular economy for effective resource recycling and reuse. To minimize raw material usage, reduce resource consumption, and mitigate environmental damage, the company seeks opportunities for internal reuse of all raw materials after a series of manufacturing processes.

For instance, pallet recycling from customers represents a positive cycle of resource reduction. Our company has established a robust recycling management mechanism to increase recovery rates. In 2023, the company recycled **12,941 plastic pallets** and **44,451 wooden pallets**, achieving an overall average pallet recovery rate of **99.6%** across all production sites. After effective recycling, the company also employs professional recycling technologies to regenerate waste resources into products for downstream use, internal applications, or sales to other enterprises. In 2023, **21,883 pallets** were repaired and reused within the company. If certain waste resources cannot be reused internally or revitalized as products, recycling for reuse is prioritized to prevent secondary environmental harm while maximizing economic and cost benefits.
## Zhongli Plant

Category		Shipment Quantity	Recovery Quantity	Recovery Rate
2022	Domestic/Export Plastic Pallets	10,870	11,420	105%
2022	Domestic Wooden Pallets	36,940	40,286	109%
2023	Domestic/Export Plastic Pallets	15,101	12,941	86%
2025	Domestic Wooden Pallets	31,573	30,019	95%

### **Guanyin Plant**

Category		Shipment Quantity	Recovery Quantity	Recovery Rate
2022	Domestic Wooden Pallets	9,564	14,286	149%
2023	Domestic Wooden Pallets	10,961	14,432	132%

*Note:* Recovery rate = Annual Recovered Pallet Quantity ÷ Annual Shipped Pallet Quantity

## 4.2.3 Greenhouse Gas Management

Greenhouse gases are one of the primary causes of global warming. Shinkong Synthetic Fibers actively participates in initiatives to reduce greenhouse gas emissions and complies with the *Greenhouse Gas Emission Reporting and Management Regulations* and the *Regulations Governing the Fixed Pollution Sources Required to Report Greenhouse Gas Emissions*. The company is committed to continually reducing emissions and mitigating climate change as part of its responsibility for sustainable operations. To this end, Shinkong Synthetic Fibers has improved its product processes, enhanced product resilience to climate impacts, and reduced the environmental impact of its operations, fulfilling its commitment to environmental sustainability.

Since the Environmental Protection Administration of the Executive Yuan issued two related greenhouse gas reporting regulations at the end of 2012, Shinkong Synthetic Fibers immediately established the "Greenhouse Gas Inventory Promotion Team" to inventory greenhouse gas emissions within its plants and verify relevant operations. The company also regularly logs greenhouse gas inventory data in compliance with legal requirements. All operations and emission data are conducted in accordance with the ISO 14064-1 standard and are verified by the third-party organization DNV (Det Norske Veritas), meeting the reasonable assurance level recognized by the Ministry of Environment of the Executive Yuan. In 2023, the company conducted an internal audit of its greenhouse gas emissions. Scope 1 emissions amounted to approximately 106,602 tons of carbon dioxide equivalent (CO2e), accounting for 37.1% of the company's total emissions. Scope 2 emissions totaled approximately 181,099 tons of CO2e, representing 62.9% of total emissions. For Scope 3 "Other Indirect Emissions," due to difficulties in collecting and calculating the necessary data and challenges in ensuring accuracy, the company adopted a qualitative inventory approach, referencing methods widely used internationally. The relevant items were explicitly listed in the year's inventory checklist and emission source identification table but were not included in the emissions inventory calculations in accordance with ISO 14064-1 standards.

### **Reduction Targets, Implementation Measures, and Achievements**

Shinkong Synthetic Fibers is actively advancing energy-saving and carbon reduction efforts, aiming to achieve a 7% reduction by 2025, a 22% reduction by 2030, and net-zero emissions by 2050. The company adopts a green business model through green procurement, fuel substitution, enhanced energy efficiency, recycling of waste products, and the development of eco-friendly products, integrating energy conservation and carbon reduction into its sustainability policy. To further its efforts, the company allocated approximately NT\$18.45 million in 2023, continuously investing in improving processes, air conditioning, air compressors, and lighting systems at its facilities to enhance energy efficiency and voluntarily reduce greenhouse gas emissions. In 2023, Shinkong submitted 64 voluntary greenhouse gas reduction measures, reporting these in March 2024. These measures achieved an annual electricity saving of 3,649,666 kWh, an energy saving of 13.3 TJ, and a carbon reduction of 1,807 tons. Between 2019 and 2023, cumulative greenhouse gas reductions amounted to 27.18%.

## Greenhouse Gas Emissions

*Unit: Metric Tons of CO2e Unit: Metric Tons of CO2e/Per Million Revenue* 

Year	Scope 1 Emissions	Scope 2 Emissions	Total	Revenue	Intensity
2021	133,797 (36.7%)	231,162 (63.3%)	364,959	25,915	14.0829
2022	123,911 (37.9%)	203,281 (62.1%)	327,192	28,012	11.6804
2023	106,602 (37.1%)	181,099 (62.9%)	287,701	21,818	13.1864

### Notes:

1. The operational control approach was adopted, and the scope includes only the Zhongli Plant (including Shin Pan Asia) and the Guanyin Plant, excluding the Taipei headquarters.

2. Gases considered include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.

3. Global Warming Potential (GWP) values are referenced from the *IPCC Fifth Assessment Report 2013*.

4. Scope 1 emissions use factors from the *EPA Greenhouse Gas Emission Factor Management Table 6.0.4*.

5. Scope 2 emissions reference the power emission factor of 0.495 kg CO2e, published by the Ministry of Economic Affairs' Bureau of Energy in 2023.

6. The company uses 2018 as the baseline year for carbon emissions, setting short-term (2025) and mid-term (2030) targets based on timelines.

The 2023 inventory methodology complies with *ISO 14064-1:2018*, the *Greenhouse Gas Protocol—Corporate Accounting and Reporting Standard*, and the *Greenhouse Gas Inventory Operations Guide*. Verification was conducted by DNV, with further details in the appendix *2023 Greenhouse Gas Inventory and Assurance Results*.

## Greenhouse Gas Emissions Per Unit of Production

Unit: Metric Tons of CO2e

Plant	2021	2022	2023	
Zhongli (Third-party Verified)	289,416	271,749	243,427	
Guanyin (2021 Self-assessed)	58,647	55,357	44,111	
Total	348,063	327,106	287,538	

### Production (Metric Tons/Year):

Plant	2021	2022	2023	
Zhongli (Third-party Verified)	962,595	911,677	861,838	
Guanyin (2021 Self-assessed)	130,196	116,860	65,072	
Total	1,092,790	1,028,537	926,910	

## CO2e Emissions Per Unit of Production:

Plant	2021 2022		2023
Zhongli	0.3007	0.2981	0.2825
Guanyin	0.4504	0.4737	0.6779
Total	0.3185	0.3180	0.3102

## Greenhouse Gas Reduction Targets Per Unit of Production

Target Type	Target Type 2023 Target		Mid-term Target (2030)	
Energy Use Reduction	4% (Achieved)	7%	22%	

Note: Reduction targets are calculated based on the baseline year of 2018.

### Annual Data

Year	2018 (Baseline Year)	2023
Production (1,000 tons)	1,035	927
Total CO2 Emissions (Metric Tons/Year)	336,836	287,538
CO2 Emissions Per 1,000 Tons	325.45	310.19
Reduction from Baseline Year (2018)	_	4.69%
Target Reduction	_	4%

### Notes:

The POLY95 pilot machine at the Guanyin Plant began operations in August 2022, leading to increased energy consumption and higher carbon emissions.

## 4.3 Pollution Control

### 4.3.1 Wastewater Discharge Management

Effective wastewater management starts with comprehensive source control, implementing optimal pollution prevention measures. To professionalize source control, Shinkong Synthetic Fibers has established dedicated departments and personnel for wastewater management. The company employs physical and chemical treatments such as neutralization, sedimentation, and flotation, as well as activated sludge biological treatment to properly process wastewater. Treatment methods are tailored to the characteristics of wastewater sources from each plant. Treated wastewater must meet national effluent standards before being discharged, in compliance with water pollution prevention regulations. Discharges are directed into rivers, including Taoyuan's Laojie River. Wastewater from the Guanyin Plant is routed through the industrial park's sewage treatment facility before being discharged into nearby water bodies.

The company conducts regular training programs for responsible units and employees to enhance professional expertise, ensuring that water discharged into receiving water bodies meets effluent standards.

### Wastewater Management Measures

### Wastewater Monitoring

- o Management by certified Grade A wastewater personnel.
- o Effluent discharge data linked to the Environmental Protection Bureau.
- o Daily operation records completed and reported.
- o Quarterly water quality inspections reported to regulatory authorities.
- o Establishment of wastewater monitoring systems.

### Personnel Training and Equipment Maintenance

- o Management and operations personnel obtaining professional certifications.
- o Scheduled maintenance of equipment according to planned schedules.

Water pollution prevention awareness campaigns.

## Wastewater Discharge Volume by Production Site

Unit: Tons

Year	Zhongli Plant	Guanyin Plant
2021	383,082	127,739
2022	375,148	138,174
2023	326,493	108,908

## Wastewater Discharge per Unit of Production

Unit: Tons

Year	Zhongli Plant	Guanyin Plant
2021	0.39	1.11
2022	0.40	1.18
2023	0.37	1.67

## 4.3.2 Air Pollution Emission Management

Shinkong Synthetic Fibers is committed to continuous improvement, strengthening process control and implementing plans to upgrade outdated equipment. In 2023, air pollution emissions decreased by 31% compared to the previous year, primarily due to lower detected calculation values in 2023. Air pollution emissions per unit of production also fell by 22.7% compared to the previous year. The company is actively collaborating with CPC Corporation, Taiwan, and other public agencies to apply for an extension of a new natural gas pipeline to the plant. Once operational, the plant can replace coal-fired boilers, further advancing its air pollution reduction goals while improving the environment and air quality in the surrounding area.

The company regularly conducts source detection in compliance with regulations, ensuring that pollutant emissions meet or exceed government standards. Air pollution control equipment is equipped with monitoring systems and reporting mechanisms, providing early warnings in case of abnormalities to effectively handle pollutants. Shinkong continues to invest in equipment upgrades to ensure compliance with emission standards, enhancing the confidence of residents in the vicinity of its plants.

## Air Pollution Monitoring and Detection

To monitor pollutant emission sources in real-time, Shinkong Synthetic Fibers has installed continuous emission monitoring systems (CEMS) across all production units, enabling continuous tracking of gas emissions. The company has also established the "Shinkong Synthetic Fibers Environmental and Safety Network" system, featuring real-time monitoring and anomaly reporting mechanisms. A large screen in the office provides remote oversight of air pollution control equipment to ensure normal operation and maintain air quality in surrounding areas.

To prevent odors from affecting nearby residents, the company conducts daily patrols around the production processes and factory perimeter. These odor inspections are carried out every two hours, 12 times a day. The results are immediately consolidated and reported daily. If odors are detected, immediate corrective action is taken, and plant supervisors are required to submit an improvement report within a specified timeframe.

Additionally, the company maintains a complaint hotline, provided during community meetings, allowing nearby residents to report odor issues directly. Residents can contact the plant by dialing (03) 4932131, extension 1145, to report odors immediately.

(Remote monitoring of air pollution control equipment status via Environmental and Safety Network)



# Zhongli Plant + Guanyin Plant: Emission Volumes of Particulate Matter, SOx, NOx, and VOCs over the Past Seven Years (tons)

Year	2017	2018	2019	2020	2021	2022	2023
Particulates	11.1	9.3	8.4	7.8	9.2	8.6	6.6
SOx	23	15.5	12.2	12.1	13.1	16.8	5.2
NOx	128.6	85.8	77.4	79.9	101.4	88.6	63.4
VOCs	18.3	15.4	16.6	16.6	13.6	13.5	12.2
Total	181	126	114.6	116.4	137.3	127.4	87.4

### Zhongli Plant + Guanyin Plant: Air Pollutant Emissions per Unit of Production

Year	2017	2018	2019	2020	2021	2022	2023
Total Emissions (Tons)	181	126	114.6	116.4	137.3	127.4	87.4
Production (Tons)	462,766	505,393	470,395	454,609	551,715	514,566	456,925
Emissions/Production (Tons/Ton)	0.00039	0.00025	0.00024	0.00026	0.00025	0.00025	0.00019

## 4.3.3 Waste Management

Shinkong Synthetic Fibers values sustainability and environmental protection, adhering strictly to regulations in waste management. The company goes beyond legal compliance by incorporating self-imposed standards outlined in its *Corporate Social Responsibility Policy*, requiring all facilities to effectively manage waste and minimize environmental impacts during production processes.

In waste handling, the company truthfully reports waste quantities and entrusts certified vendors for removal and processing, ensuring compliance with regulatory reporting and transport procedures. Shinkong actively explores ways to reduce waste and enhance recycling. By implementing source-based classification and control, the company improves waste management efficiency. In addition to using eco-friendly raw materials in production, Shinkong strengthens waste sorting to increase the recyclability of production waste.

In 2023, the company focused on promoting waste reuse. D-category waste decreased by 49%, representing a reduction of 1,491.67 tons compared to the baseline year. Meanwhile, the proportion of R-category reusable waste rose from 48% to 79% of total waste. These results reflect the company's adherence to the 4R principle (Reduce, Reuse, Recycle, and Recover) and its ongoing collaboration with certified processors to explore reuse possibilities. Internally, Shinkong promotes environmental awareness among employees through active

campaigns on waste sorting and recycling. These efforts demonstrate Shinkong' s commitment to addressing climate change and other environmental issues, ensuring a sustainable future for the next generation.

For hazardous waste, which primarily originates from laboratories, the company stores small quantities until they accumulate sufficiently to be handled by certified Taiwanese contractors for halogenated organic liquid waste. All hazardous waste is outsourced for treatment; the company does not perform direct processing. Recognizing that mitigating climate change and global warming is a shared responsibility, Shinkong ensures full compliance with waste management laws, accurate reporting, and strict adherence to disposal protocols, relying on certified vendors for waste handling.

### Waste Management Measures

- 1. Centralized waste handling areas.
- 2. Dedicated personnel to manage waste collection sites.
- 3. Implementation of strict recycling and sorting practices.

Regular cleaning and disinfection of waste collection sites.

### Core Philosophy of Waste Management:

Comprehensive Storage, Rigorous Transportation, and Strict Classification

### **D-Category Waste Reduction Targets**

Target Type	Short-term (2023)	Mid-term (2025)	Long-term (2030)
Reduction Rate	3%	5%	10%

### Note: Baseline year is 2020.

Year	2020 (Baseline Year)	2023
D-Category Waste (Tons)	3,021.47	1,529.78
Reduction from Baseline Year (%)	_	49%
Target Reduction (%)	_	2%

	2021		2022		2023				
	Disposal Method	Waste Type	Weight (Tons)	Disposal Method	Waste Type	Weight (Tons)	Disposal Method	Waste Type	Weight (Tons)
General Industrial Waste from	Incineration	D-Category	1,796.87	Incineration	D-Category	2,755.60	Incineration	D-Category	1,124.82
External Contractors)	Recycling	R-Category	4,403.04	Recycling	R-Category	3,163.81	Recycling	R-Category	5,257.05
General Industrial Waste from	Incineration	D-Category	243.65	Incineration	D-Category	537.81	Incineration	D-Category	404.96
External Contractors)	Recycling	R-Category	32.24	Recycling	R-Category	332.44	Recycling	R-Category	597.38
Zhongli Plant and Guanyin Plant	Incineration	D-Category	2,040.52	Incineration	D-Category	3,293.41	Incineration	D-Category	1,529.78
Combined	Recycling	R-Category	4,435.28	Recycling	R-Category	3,496.25	Recycling	R-Category	5,854.43
Hazardous Industrial Waste from Zhongli Plant (All Handled by External Contractors)	Incineration	B-Category	0	Incineration	B-Category	0.00073	Incineration	B-Category	0
Hazardous Industrial Waste from Guanyin Plant (All Handled by External	Incineration	B-Category	0	Incineration	B-Category	0	Incineration	B-Category	0
Zhongli Plant and Guanyin Plant Combined	Incineration	B-Category	0	Incineration	B-Category	0.00073	Incineration	B-Category	0

Note: Hazardous waste includes halogenated organic liquid waste.

## 5. Local Engagement

Unlike factories located in industrial zones, Shinkong Synthetic Fibers operates in a mixed residential and commercial area. Despite being surrounded by residential neighborhoods, there are few complaints from residents about the impact of production on the local environment and daily life. This is largely due to the company' s strict monitoring of environmental data to prevent pollution. Additionally, Shinkong actively participates in neighborhood activities to educate the public about its production processes and protective measures, fostering a sense of trust. The company also considers the perspectives of nearby residents, assisting with local initiatives such as environmental cleanups and mosquito control, strengthening ties with the community and fostering a sense of mutual recognition and support.

Shinkong Synthetic Fibers embraces its responsibility to support local culture, participate in community events, and care for vulnerable groups. The company has established long-term sponsorship projects, including an annual donation of NT\$20,000 to the Guangren Community Care Center and NT\$10,000 to the Yimin Neighborhood Watch Team. Shinkong also actively participates in local events such as Mid-Autumn Festival gatherings, Double Ninth Festival celebrations, Lantern Festival riddle activities, and nearby temple festivals, offering the necessary assistance to strengthen its positive image and build a robust communication bridge with the community.

### Scholarship Support for Low-Income Students in Neighboring Areas

Shinkong Synthetic Fibers has allocated funds for a scholarship program for low-income households in neighboring communities. The program is open to students from Guangren, Songwu, Yimin, and Pingxing communities, from elementary through high school, who are from low-income or underprivileged families. The program has supported a total of 116 students across high school, middle school, and elementary school, with total financial assistance amounting to NT\$468,000.



## Sponsorship of Songwu Elementary School Dance Team

To nurture athletic talent and demonstrate corporate social responsibility, Shinkong Synthetic Fibers sponsors the Songwu Elementary School Dance Team with an annual donation of NT\$100,000. This initiative helps outstanding students develop their athletic skills and cultivate constructive interests.

## **Charitable Contributions**

Shinkong Synthetic Fibers	Activity/Event	Contribution Amount (NT\$)
	Guangren Community Care Center	20,000
Neighborhood	Sponsorship of Mid-Autumn and Double Ninth Elderly Celebrations (Guangren, Songwu, Yimin, Pingxing, Gaoshuang neighborhoods)	48,720
Schools	Songwu Elementary School Dance Team Sponsorship	100,000
Shinkong Securities (a subsidiary of Shinkong Synthetic Fibers)	Activity/Event	Contribution Amount (NT\$)
	Sponsorship of subtropical ecological art lectures and exhibitions	150,000
Arte	Sponsorship of Chen Jiuxi Gongbi Painting Exhibition	300,000
Arts	Radio Taiwan's "Good Times Heard" charity concert	50,000
	Sponsorship of INKLiterary Monthly magazine	600,000
Total		1,268,720

## Appendix - GRI Standards Cross-reference Table

### Statement of Use:

Shinkong Synthetic Fibers has reported the content for the period from January 1 to December 31, 2023, in accordance with the GRI Standards.

### GRI 1 Used:

GRI 1: Foundation 2021

### Applicable GRI Sector Standards:

None

GRI	Standards	Disclosure	Index

GRI and Disclosure Content Chapter Topic		Page	Omission Explanation
GRI 2: General Disclosures 2021			
Organization and Reporting Practices			
2-1 Detailed Information about the Organization	1.1.1 About Shinkong Synthetic Fibers	19	
2-2 Entities Included in the Sustainability Report	About This Report	1	
2-3 Reporting Period, Frequency, and Contact Point	About This Report	1	
2-4 Restatements of Information	About This Report	1	
2-5 External Assurance	About This Report	1	
Activities and Workers			
2-6 Activities, Value Chain, and Other Business Relationships	1.1.2 Business Overview	24	
2-7 Employees	3.1 Employee Management	78	
2-8 Workers Who Are Not Employees	3.1 Employee Management	78	
Governance			
2-9 Governance Structure and Composition	1.1.4 Board Structure	34	
2-10 Nomination and Selection of the Highest Governance Body	1.1.4 Board Structure	34	
2-11 Chair of the Highest Governance Body	1.1.4 Board Structure	34	
2-12 Role of the Highest Governance Body in Overseeing Impact Management	Sustainability Blueprint, 1.1.4 Board Structure	7 34	
2-13 Delegation of Responsibility for Managing Impacts	Sustainability Blueprint, 1.1.4 Board Structure	7 34	
2-14 Role of the Highest Governance Body in Sustainability Reporting	Sustainability Blueprint	7	
2-15 Conflicts of Interest	1.1.4 Board Structure	34	

GRI and Disclosure Content	Chapter Topic	Page	Omission Explanation
2-16 Communication of Critical Concerns	1.1.4 Board Structure	34	
2-17 Collective Knowledge of the Highest Governance Body	1.1.4 Board Structure	34	
2-18 Evaluation of the Performance of the Highest Governance Body	1.1.4 Board Structure	34	
2-19 Remuneration Policies	1.1.4 Board Structure	34	
2-20 Process for Determining Remuneration	1.1.4 Board Structure	34	
2-21 Annual Total Compensation Ratio Strategy, Policies, and Practices	3.1.3 Compensation and Benefits	82	
2-22 Statement on Sustainable Development Strategy	Message from the Chairman	3	
2-23 Policy Commitments	3.3.1 Human Rights Protection	92	
2-24 Embedding Policy Commitments	3.3.1 Human Rights Protection, 2.4.2 Supplier Management	92 72	
2-25 Processes to Remediate Negative Impacts	Stakeholder Engagement, 1.1.5, 1.2.1, 1.2.2, 1.3.1, 2.3, 2.4.2, 3.3.1, 3.4, 3.5, 4.1, 4.2, 4.3		12,38,40,43,45, 68,7292,104,107, 128,136,145
2-26 Mechanisms for Seeking Advice and Raising Concerns	3.4.1 Communication Channels	104	
2-27 Compliance with Laws and Regulations	1.2.1 Compliance	40	
2-28 Membership in Associations Stakeholder Engagement	1.1.2 Business Overview	24	
2-29 Approach to Stakeholder Engagement	Stakeholder Engagement	12	
2-30 Collective Bargaining Agreements	3.4.1 Communication Channels	104	

## GRI 3: Material Topics 2021

GRI Disclosure	Relevant Section	Page Reference	Notes on Omissions
3-1 Process for Determining Material Topics	Material Topics Management	8	
3-2 List of Material Topics	Material Topics Management	8	

## List of Material Topics

Custom Material Topic	Corresponding GRI Standards and Disclosure	Chapter Topic	Page Reference	Notes on Omissions
Corporate Governance	3-3 Material Topics Management	1. Sustainable Governance	19,40,45	
Green Products	3-3 Material Topics Management	2. Sustainable Production	59,61,68,72	
Pollution Prevention	3-3 Material Topics Management	4. Sustainable Environment	128,136,145	

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	1. Sustainable Governance	19,40,45	
GRI 201: Economic	201-1 Direct Economic Value Generated and Distributed	1.1.3 Financial Performance	33	
Performance 2016	201-2 Financial Implications and Other Risks and Opportunities Due to Climate Change	1.3.2 Climate Change Response	48	
	201-3 Defined Benefit Plan Obligations and Other Retirement Plans	3.3.2 Employee Benefits, 3.3.3 Retirement Planning	96,104	
	201-4 Financial Assistance Received from Government			No financial assistance received from the government.

## Material Topic: Business Performance

## Material Topic: Ethical Business Practices

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	1. Sustainable Governance	19,40,45	
GRI 205: Anti- Corruption	205-1 Operations Assessed for Risks Related to Corruption	1.2.2 Ethical Business Practices	43	
2016	205-3 Confirmed Incidents of Corruption and Actions Taken	1.2.2 Ethical Business Practices	43	

## Material Topic: Energy Management

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	4. Sustainable Environment	128,136, 145	
GRI 302: Energy 2016	302-1 Energy Consumption Within the Organization	4.1.1 Environmental Data Overview	128	
	302-3 Energy Intensity	4.1.1 Environmental Data Overview	128	
	302-4 Reduction of Energy Consumption	4.1.2 Sustainable Operations	129	

## Material Topic: Water Resource Management

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	4. Sustainable Environment	128,136, 145	
GRI 303: Water and Effluents	303-3 Water Withdrawal	4.2.1 Water Resource Management	136	
2018	303-4 Water Discharge	4.2.1 Water Resource Management	136	
	303-5 Water Consumption	4.2.1 Water Resource Management	136	

## Material Topic: Greenhouse Gas Management

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	4. Sustainable Environment	128,136, 145	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG Emissions	4.2.3 Greenhouse Gas Management	141	
	305-2 Energy Indirect (Scope 2) GHG Emissions	4.2.3 Greenhouse Gas Management	141	
	305-3 Other Indirect (Scope 3) GHG Emissions	4.2.3 Greenhouse Gas Management	141	Qualitative inventory only; detailed in the annual inventory list and emission source identification table.
	305-4 GHG Emissions Intensity	4.2.3 Greenhouse Gas Management	141	
	305-5 Reduction of GHG Emissions	4.1.2 Sustainable Operations	129	

## Material Topic: Waste Management

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	4. Sustainable Environment	128,136, 145	
GRI 306: Waste 2020	306-1 Waste Generation and Significant Waste-Related Impacts	4.3.3 Waste Management	148	
	306-2 Management of Significant Waste- Related Impacts	4.3.3 Waste Management	148	
	306-3 Waste Generated	4.3.3 Waste Management	148	

## List of Material Topics

## Material Topic: Supplier Management

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	2. Sustainable Production	59,61,68,72	
GRI 308: Supplier	308-1 New Suppliers That Were Screened Using Environmental Criteria	2.4.2 Supplier Management	72	
Environmental Assessment 2016	308-2 Negative Environmental Impacts in the Supply Chain and Actions Taken	2.4.2 Supplier Management	72	
GRI 414: Supplier Social	414-1 New Suppliers That Were Screened Using Social Criteria	2.4.2 Supplier Management	72	
Assessment 2016	414-2 Negative Social Impacts in the Supply Chain and Actions Taken	2.4.2 Supplier Management	72	

## Material Topic: Occupational Health and Safety

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	3. Sustainable Workforce	78,84,92, 104,107	
GRI 403: Occupational	403-1 Occupational Health and Safety Management System	3.5.2 Safe Workplaces	111	
Health and Safety 2018	403-2 Hazard Identification, Risk Assessment, and Incident Investigation	3.5.2 Safe Workplaces	111	
	403-3 Occupational Health Services	3.5.1 Employee Health Management	107	
	403-4 Worker Participation, Consultation, and Communication on Occupational Health and Safety	3.5.2 Safe Workplaces	111	
	403-5 Worker Training on Occupational Health and Safety	3.5.2 Safe Workplaces	111	
	403-6 Promotion of Worker Health	3.5.1 Employee Health Management	107	
	403-7 Prevention and Mitigation of Occupational Health and Safety Impacts Directly Linked by Business Relationships	3.5.3 Contractor Safety and Health Management	122	
	403-8 Workers Covered by an Occupational Health and Safety Management System	3.5.2 Safe Workplaces	111	
	403-9 Work-Related Injuries	3.5.2 Safe Workplaces	111	
	403-10 Work-Related III Health	3.5.2 Safe Workplaces	111	

## Material Topic: Talent Development

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	3. Sustainable Workforce	78,84,92, 104,107	
GRI 404: Training and	404-1 Average Hours of Training Per Year Per Employee	3.2.1 Training and Competency	84	
Education 2016	404-2 Programs for Upgrading Employee Skills and Transition Assistance Programs	3.2.1 Training and Competency	84	
	404-3 Percentage of Employees Receiving Regular Performance and Career Development Reviews	3.2.2 Performance Evaluation	89	

## Material Topic: Human Rights Protection

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	3. Sustainable Workforce	78,84,92, 104,107	
GRI 406: Non- discrimination 2016	406-1 Incidents of Discrimination and Corrective Actions Taken	3.3.1 Human Rights Protection	92	
GRI 408: Child Labor 2016	408-1 Operations and Suppliers at Significant Risk for Incidents of Child Labor	3.3.1 Human Rights Protection	92	
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and Suppliers at Significant Risk for Incidents of Forced or Compulsory Labor	3.3.1 Human Rights Protection	92	

## Material Topic: Information Security

	Corresponding GRI Standard and Disclosure	Relevant Section	Page Reference	Notes on Omissions/Supplements
GRI 3: Material Topics 2021	3-3 Material Topics Management	2. Sustainable Production	59,61, 68,72	
GRI 418: Customer Privacy 2016	418-1 Substantiated Complaints Concerning Breaches of Customer Privacy and Losses of Customer Data	2.3.2 Information Security Management	70	

## Appendix - SASB Cross-reference Table

Indicator Code	Metric	Relevant Section/Response	
Disclosure Topic:	Energy Management	•	
	(1) Total Energy Consumption	(1) Total Energy Consumption: 3458.7 TJ	
RT-IG-130A.1	(2) Percentage of Energy Consumed from Purchased Electricity	(2) 41.76%	
	(3) Percentage of Energy Consumed from Renewable Sources	(3) No renewable energy used	
Disclosure Topic:	Employee Health and Safety	n.	
	(1) Total Recordable Incident Rate (TRIR)	3.5 Occupational Health and Safety	
RT-IG-320a.1	(2) Fatality Rate		
	(3) Near Miss Frequency Rate (NMFR)		
Disclosure Topic:	Materials Sourcing	n.	
RT-IG-440a.1	Description of Management of Risks Associated with Critical Materials	Shinkong Synthetic Fibers does not use Au, Ta, Sn, W, Cobalt, or similar materials.	
Disclosure Topic:	Fuel Economy & Emissions		
RT-IG-410A.1	Fuel efficiency weighted by sales volume of medium/heavy-duty trucks		
RT-IG-410A.2	Fuel efficiency weighted by sales volume of non-road equipment		
RT-IG-410A.3	Fuel efficiency weighted by sales volume of stationary generators		
	Emissions weighted by sales volume for the following product types:	Not applicable, as Shinkong's products are non-powered industrial	
	(1) NOx and (2) PM emissions from:	products.	
RT-IG-410A.4	(a) Marine diesel engines		
	(b) Rail locomotive diesel engines		
	(c) Medium/heavy-duty road engines		
	(d) Other non-road diesel engines		
Disclosure Topic:	Remanufacturing Design and Services		
RT-IG-440b.1	Revenue from remanufactured products and services	In 2023, the annual production volume of remanufactured products (e.g., eco-friendly processed yarn) was 19 tons. Sales figures are confidential.	
Disclosure Topic: Activity Metrics			
RT-IG-000.A	Production volumes for each product category	1.1.2 Business Overview	
RT-IG-000.B	Number of employees	3.1.1 Employee Structure	

Indicator Code	Metric	Relevant Section/Response
Disclosure Topic: Activity		
Metrics		
RT-IG-000.A	Production volumes for each product category	1.1.2 Business Overview
RT-IG-000.B	Number of employees	3.1.1 Employee Structure

## Appendix - TCFD Recommended Disclosure Cross-reference Table

Aspect	TCFD Recommended Disclosure	Relevant Section	Page Reference
Governance	Describe the board's oversight of climate-related risks and opportunities.	1.3.2 Climate Change Response	48
Governance	Describe management's role in assessing and managing climate- related risks and opportunities.	1.3.2 Climate Change Response	48
	Describe the climate-related risks and opportunities identified over the short, medium, and long term.	1.3.2 Climate Change Response	48
Strategy	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	1.3.2 Climate Change Response	48
	Describe the resilience of the organization's strategy, considering different climate-related scenarios, including a 2°C or lower scenario.	Scenario analysis planned for 2023	
	Describe the organization's processes for identifying and assessing climate-related risks.	1.3.2 Climate Change Response	48
Risk Management	Describe the organization's processes for managing climate-related risks.	1.3.2 Climate Change Response	48
management	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	1.3.2 Climate Change Response	48
	Disclose the metrics used to assess climate-related risks and opportunities in line with its strategy and risk management process.	1.3.2 Climate Change Response	48
Metrics and Targets	Disclose Scope 1, Scope 2, and, if applicable, Scope 3 greenhouse gas (GHG) emissions and the related risks.	4.2.3 Greenhouse Gas Management	141
	Describe the targets used by the organization to manage climate-	1.3.2 Climate Change Response,	48
	related risks and opportunities and performance against these targets.	4.1.2 Sustainable Operations	129

### Appendix - Third Party Verification Statement

# afaq

## Independent Assurance Statement

### SHINKONG SYNTHETIC FIBERS CORPORATION'S 2023 SUSTAINABLITY 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 SHINKONG SYNTHETIC FIBERS CORPORATION's Sustainability Report of 2023 (hereinafter referred to as "the Report") but was not involved in any way in its preparation.

AFNOR GROUP and SHINKONG SYNTHETIC FIBERS CORPORATION (hereinafter referred to as "SSFC") are independent entities. AFNOR ASIA LTD., was commissioned by SSFC to conduct the assessment and assure the Sustainability Report of 2023 was in accordance with AA1000 Assurance Standard (v3) and the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards).

#### SCOPE

SHINKONG SYNTHETIC FIBERS CORPORATION is responsible for reporting fairly on the economic, environmental and social aspects of operating activities and performance of various operating sites in Taiwan in sustainability reports in accordance with the declared sustainability reporting standards.

AFNOR Asia is responsible for:

- Evaluating the accordance of the Report with the Type 1 of AA1000 Assurance Standard (v3) based on the AA1000 Accountability Principles (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 SSFC.





#### 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**

- The inclusivity, materiality, responsiveness, and impact in the Report were assessed according to the principles of management process against AA1000 Assurance Standard (v3).
- 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.
- The mechanism of communication and response to the interest of stakeholders was verified through discussion and interview with the management team, however, the assessment team did not make any direct contact with external stakeholders.
- The qualitative and quantitative information produced, collected, and disclosed by the Report was reviewed through a validated sampling plan.
- The documents, materials and information related to the report were examined and reviewed by interviewing the responsible persons of each group of SSFC.
- Interviews with members of the organization related to sustainable development management and report writing, including representatives of all levels and departments.
- All documents, data and information related to the preparation of this report were checked by the verification team through interviews with relevant personnel.
- Check the sufficiency and completeness of supporting materials and evidence for the content of the report.

#### CONCLUSION

### AA1000 Accountability Principles

#### Inclusivity

SSFC has continued to seek the participation of stakeholders and established major sustainability themes to develop and achieve responsible and strategic responses to sustainability. The report fairly reports and discloses environmental, social and governance information, covers the





issues expected by stakeholders, and supports the achievement of the company's strategies, goals, standards and performance.

#### Materiality

SSFC has published information on relevant sustainable development issues, allowing stakeholders to judge the company's governance and performance. The report has presented the decision-making mechanism for materiality issues implemented by the company, effectively focusing on sustainable issues of concern to all stakeholders.

#### Responsiveness

SSFC has developed and implemented a stakeholder response mechanism through communication channels to provide timely responses to issues of concern to stakeholders. Through continuous engagement with stakeholders, the organization will develop various policies, norms, codes and goals that meet the expectations of stakeholders.

#### Impact

SSFC has adopted the monitoring and measurement of risks and opportunities for the impact on the overall environment during its operations; identified various risks and opportunities to formulate action plans, and responsibly demonstrated its management, communication and improvement of its sustainable performance. In the future, the organization can continue to provide resources to support the identification, measurement, assessment and management of impacts.

#### Global Reporting Initiative Sustainability Reporting Standards

Based on the results of the review, we confirmed that the general disclosure and specific disclosure content of the report and the necessary management policy disclosure of major topics have complied with the requirements of GRI Standards. In the future, the organization can continue to compile the management content of major themes and the disclosure of relevant information of each base according to reporting requirements, fully present the context of sustainability, and provide sufficient and comparative information to stakeholders.

#### **ASSURANCE OPINION**

AFNOR GROUP has developed a complete sustainability reporting assurance standard based on the verification guidelines of the AA1000 Assurance Standard (v3) and the GRI Standards.





Based on the sufficient evidence provided by SSFC and the facts seen during on-site verification, we adhere to the principle of fairness and issue a statement on the global sustainability reporting standards followed by the organization.

In our opinion, the information and data presented in the Report by SSFC provides a fair and balanced representation. We believe the focuses on economic, social, and environmental matters in SSFC in 2023 are well represented.

#### 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 SHINKONG SYNTHETIC FIBERS 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 :

Patrick Ni The Director for Certification and Assessment Jul.08.2024

AFNOR Asia Ltd.—20F, No. 102, Chung Ping Rd., Taoyuan, Taiwan Tel. : +886 3 2208080, Fax : +886 3 2204866, http://www.asia.afnor.org



AA1000 Licensed Report 000-84/V3-070I5





## Independent Assurance Opinion

Verification Opinion No.: C663854-2023-AG-TWN-DNV Issued date: 15 March, 2024 Page 1 of 2

This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2023) of

### Shinkong Synthetic Fibers Corporation Taipei Company

#### Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Shinkong Synthetic Fibers Corporation Taipei Company ('the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2023) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed in Appendix A. The Reporting Boundary for the verification including direct GHG emissions and removals,

indirect GHG emissions from imported energy. The further descriptions for the Reporting Boundary listed in Appendix B.

#### Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019

#### Verification Opinion

It is DNV's opinion that the Inventory Report (2023), which was published on February 7, 2024 (Final Version), is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

 For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2023) were verified with reasonable level of assurance.

Also, the GHG information as stated in Appendix B and C has been verified during the process.

Chien Yi Jerry Huang GHG Verifier

Jongthing

Place and date: Taipei, 15 March, 2024 For the issuing office: DNV Business Assurance Co., Ltd. 29Fl., No. 293, Sec. 2, Wenhua Rd., Banqiao District, New Taipei City 220, Taiwan

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Management Representative

Lack: of fulfilment of conditions as set out in the Certification Agreement m ay render this Certificate invalid. This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion. 立思感國際驗證股分預公司,新止市板幅医文化路二段 293 號 29 儀, TEL: + 886-2-82537800, website: www.dnv.com/tw DNV ZNATV-OP-F50, Rev 10, 2023-2



## 溫室氣體排放量

查證聲明書

聲明書編號: C662255-2023-AP-TWN-TAF 地點和日期: 台北,中華民國 113 年 06 月 03 日 頁數: 2之1頁

事業連絡資訊

## 新光合成纖維股份有限公司中壢廠

通訊地址:桃園市平鎮區廣仁里延平路三段二二三號 聯絡電話:03-4932-131

#### 查證結果摘要

茲證明本案符合環境部現行規定,查證結果發現未違反實質性限制,符合環境部認可之合理保證等級。

### 查證準則

氣候變遷因應法、溫室氣體排放量盤查作業指引、溫室氣體排放量盤查登錄及查驗管理辦法、溫室氣體認證 機構及查驗機構管理辦法等法令規章,環境部發布之事業溫室氣體排放量資訊平台之相關最新規定。

#### 查證範圍

涵蓋新光合成纖維股份有限公司中堰廠(工廠登記編號: 99623862 / 管制編號: H5100952 ):桃園市平鎮區廣 仁里延平路三段二二三號擁有與經營之化纖和塑膠兩大類製造廠,共計1處設施

#### 盤查期間

自中華民國112年1月1日至12月31日



This Verification Opinion is based on the information made available to us and the engagem ent conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion. 查檢機構: 立息或醫療驗證最份有限公司, 新先亨板錄圖文化路二段 293 歲 29 樣. Tel.: +886-2-82537800. www.dnv.com.tw

DNV ZNATW-OP-F56, Rev.11, 2024-04



## 溫室氣體排放量

## 查證聲明書

聲明書編號: C663852-2023-AP-TWN-TAF 地點和日期: 台北, 中華民國 113 年 04 月 22 日 頁數: 2之1頁

#### 事業連絡資訊

### 新光合成纖維股份有限公司觀音廠

通訊地址:桃園市觀音區樹林里15鄰國建三路九號 聯絡電話:03-4836745

#### 查證結果摘要

茲證明本案符合行政院環境部現行規定,查證結果發現未違反實質性限制,符合行政院環境部認可之合 理保證等級。

#### 查證準則

氣候變遷因應法、溫室氣體排放量盤查作業指引、溫室氣體排放量盤查登錄及查驗管理辦法、溫室氣體 認證機構及查驗機構管理辦法等法令規章,環境部發布之事業溫室氣體排放量資訊平台之相關最新規 定。

#### 查證範圍

涵蓋新光合成纖維股份有限公司觀音廠(工廠登記編號: 99622217/ 管制編號: H5303524 ):桃園市 觀音區樹林里15鄰國建三路九號擁有與經營之人造纖維加工絲廠,共計1處設施。

#### 盤查期間

本 林

自中華民國112年01月01日至112年12月31日

查验機構簽章:
立思或國際驗證股份有限公司
AFRA ENTRA
<b>謝禄章</b> 總經理
查證聲明書絃發日期: 中導民國 113 年 04 月 22 日

This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion. 查驗機構: 立息或國際驗證服份有限公司, 新此市板構造文化路二段 293 號 29 樣. Tel.: +886-2-82537800. www.dnv.com.tw

DNV ZNATW-OP-F56, Rev.9, 2021-7



