



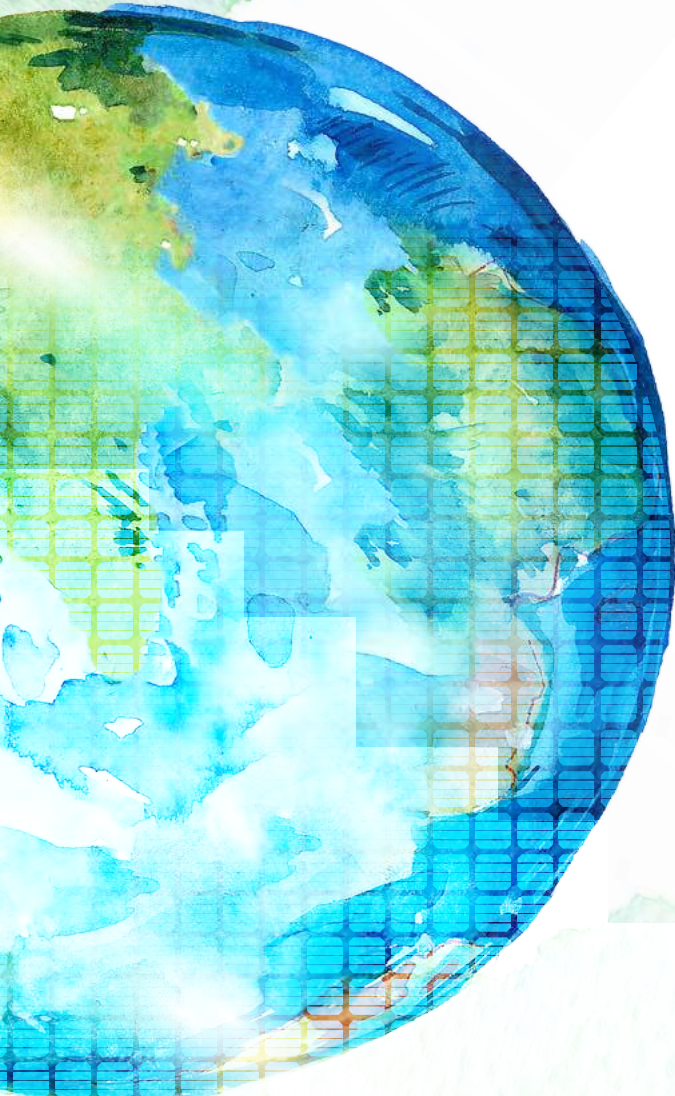
Sino-American Silicon Products Inc.



Renewable Energy Total Solution Provider

2024 Sustainability Report

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About This Report

Report Axis

The principal business activities of Sino-American Silicon Products Inc. (SAS) and its subsidiaries encompass research and development, design, manufacturing, and sales of semiconductor silicon materials and components, photovoltaic and communication wafer materials, as well as providing technical services for the integration and installation of photovoltaic power generation systems. Since 2017, SAS has proactively prepared a Corporate Social Responsibility (CSR) report, which was rebranded as the Sustainability Report in 2021. Leveraging extensive and sustained engagement with local communities and stakeholders, SAS discloses pertinent information related to material topics in corporate governance, economic performance, environmental stewardship, and human rights. In addition to reporting on actions and improvements, the report articulates the company's long-term vision and objectives for sustainable development.

Report Editing and Finalization

SAS compiles and organizes relevant information and edits its ESG report by following organizations and procedures as below.

● Sustainability Reporting Task Force

The principal members of the Sustainability Reporting Task Force include the President's Office and the Environment, Health & Safety Management Department. This task force is responsible for advancing initiatives related to energy and environmental matters, overseeing comprehensive planning, compiling and organizing relevant information, facilitating communication and integration among stakeholders, and ensuring the accuracy and quality of report editing and revisions.

● Editing Procedures, Review, and Finalization

The initial draft of the President's Office and the Environment, Health & Safety Department shall be distributed to all unit members (Sustainable Development Committee members) and the Audit Office for review, and then delivered to the Chairperson (Corporate Sustainable Development Committee Chairperson) for publication finalization after review.

Report Reference

The content structure of this report is prepared with reference to the following standards

- Global Reporting Initiative (GRI) – GRI Standards: 2021
- Sustainability Accounting Standards Board (SASB) – Semiconductors Sustainability Accounting Standard 2023
- Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies
- Task Force on Climate-Related Financial Disclosures (TCFD) Framework

The report also addresses material topics of concern to stakeholders. Based on the results of its materiality analysis, SAS discloses and responds to these topics in the relevant sections.

Report Boundaries and Reporting Period

The reporting period and scope of this CSR report released by Sino-American Silicon (SAS) are defined as follows:

Publication time: August 2025

Coverage time: January 1 to December 31, 2024

Scope of coverage: This report covers the performance data of SAS (including the headquarters, Chunan Branch, Yilan Branch, and Hsu-Hsin Branch), its subsidiaries (including Actron Technology (hereinafter referred to as "Actron")), Taiwan Speciality Chemicals Corporation (hereinafter referred to as "TSC"), and Advanced Wireless Semiconductor Company (hereinafter referred to as "AWSC"), and GlobalWafers Co., Ltd. (hereinafter referred to as "GlobalWafers").

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- The financial data in this report is consistent with the consolidated financial scope presented in the Company's annual report. The entities covered in this report account for over 80% of the consolidated revenue. The financial data is verified by KPMG according to International Financial Reporting Standards (IFRS), and the calculation unit is New Taiwan Dollar (NT\$).
- Environmental performance is primarily disclosed for SAS, its subsidiaries (GlobalWafers, Actron, TSC, and AWSC), and other subsidiaries (with Sustainable Energy Solution (SES) disclosing only GHG emissions).
- Performance related to people (including human rights) is primarily disclosed for SAS and GlobalWafers.

Considering that some subsidiaries have separately prepared their own sustainability reports, the relevant content and disclosures in this report focus primarily on SAS. The internal units provide the relevant performance data, compiled, and presented in an internationally accepted indicator calculation method.

Going forward, SAS will publish a sustainability report annually and make the electronic version of the sustainability report and related policies available for download and viewing.

Previous publication time: August 2024

Report Assurance

The Enterprise Sustainability Committee of SAS has been verified by a third-party independent verification agency in order to strengthen the GRI Standards compliance for this report while enhancing the transparency and credibility of the sustainable management information. This report has been verified by DQS Taiwan Inc., in accordance with the GRI Standards: 2021 requirements and the AA1000 AS v.3 2020 Type 1 moderate assurance level. The verification statement is provided in the appendix. Financial performance data presented in this report is based on information publicly disclosed and certified by certified public accountants and is consistent with the data presented in the Company's annual report.

Contact

Should you have any comments or suggestions regarding this report, please feel free to contact us in one of the following ways:

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As the effects of climate change intensify, a global consensus has emerged recognizing the urgent need for an energy transition to address these challenges. Renewable energy stands at the core of this transformation and is essential for achieving carbon neutrality. Net-zero carbon emissions have become an international objective. Although Taiwan lacks fossil fuel resources, its abundant wind and solar assets make it exceptionally well-suited for renewable energy development. SAS positions itself as a comprehensive provider of green-energy solutions, with a business scope that includes green power generation, energy storage, power retail, and energy distribution. Through concrete initiatives, SAS supports both global and national efforts toward a net-zero transition, pledging that the entire SAS Group and its subsidiaries will reach 100% renewable energy usage by 2050.

Beyond corporate sustainability, SAS is also dedicated to its social responsibilities, emphasizing strong corporate governance, environmental stewardship, and employee welfare. The Company aims to foster a positive influence within both the industry and broader society, promoting sustainable values such as economic growth, environmental protection, and social advancement.

Rising Revenues and Sustainable Governance

In 2024, despite hurdles such as project development delays and competition from low-cost imports, SAS drew on its vertically integrated energy value chain to strengthen its downstream operations in power-plant maintenance and green energy sales, effectively meeting the rising demand for renewables among Taiwanese enterprises. Building on its established presence and strong reputation in the renewable energy sector, the group's green energy subsidiary, Sustainable Energy Solution (SES), successfully entered the market by combining company-owned solar plants with diverse green energy sources. SES now offers a broad range of green power services and became Taiwan's first electricity retailer to secure a corporate PPA for offshore wind, cementing its status as a leading renewable energy supplier. In addition, SAS expanded its green power market share by integrating Anneal Energy, providing clients with more comprehensive green energy solutions. Beyond renewables, SAS has diversified into fields such as semiconductors, automotive components, specialty gases, compound materials, and chemicals. Even in a challenging 2024 environment, group subsidiaries AWSC, Actron Technology Corp., and TSC delivered strong results, with Actron Technology Corp. and TSC reaching record highs in both revenue and profit, and AWSC posting its second-best revenue to date. These achievements continue to drive the group's steady growth.

1. Consolidated operating income reached NT\$79.68 billion, reflecting a 2.8% decrease year-over-year.
2. Consolidated operating profit stood at NT\$24.27 billion, down 9.0% from the previous year.
3. Net profit attributable to the parent company was NT\$5.35 billion, representing a 45.7% decline year-over-year.
4. After-tax earnings per share were NT\$9.24.
5. The company was honored with the "Corporate Governance Appraisal for Listed Companies - Top 5% Group" distinction for the eleventh consecutive year.

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In recent years, as global awareness of climate change has grown, green electricity has emerged as a future energy trend. With the Taiwanese government streamlining interagency coordination, tightening import regulations, and businesses upholding ESG commitments, Taiwan's renewable energy market is poised for steady growth. SAS's strategy aligns closely with the nation's net-zero emissions targets, focusing on developing high-efficiency products and building clean-energy power systems. The company is also expanding grid infrastructure through investments in energy storage and microgrids, and energizing green power trading via its electricity retail subsidiary, thereby delivering integrated green energy solutions. By aligning with policy directions and strategically expanding its operations, SAS is creating sustainable momentum for a brighter future. In terms of corporate governance, we consistently refine our practices to reinforce our dedication to sustainable operations.

Forward-looking and Industry-leading Technologies

In response to growing global environmental challenges and energy shortages, the transition to renewable energy has become imperative. To meet its carbon reduction goals, the SAS R&D team remains dedicated to advancing high-quality solar cell technology. In 2024, ongoing enhancements to P-type monocrystalline cells elevated their mass-production average conversion efficiency to 23.48%. The Yilan Branch invested in a new solar cell production line employing the N-type TOPCon process, accelerating industrial upgrades to align with international trends and address both domestic and overseas demand. SAS is equipped to provide customers with high-efficiency solar cells featuring superior bifaciality, reduced degradation, and enhanced low-light performance. N-type TOPCon products have reached a mass-production conversion efficiency of 25.40%, with capacity expanded to 400 MW to satisfy market requirements while progressing toward a target efficiency of 25.70%. Additionally, drawing on extensive R&D expertise, the company rapidly develops solar cell products tailored to diverse customer needs.

Smart Transformation, Reshaping Growth - Shaping an Intelligent Net Zero Era

Reflecting on 2024, global conditions remained volatile, with the year marking the hottest on record. The Global Risks Report identified armed conflict as the top risk, followed by extreme weather events and geo-economic tensions, underscoring that climate change and geopolitical instability are now the world's two primary crises. Environmental concerns remain at the forefront across all sectors, as the world continued to experience severe weather throughout the year. In addition to climate risks, environmental pollution—considered a short-term risk—and the loss of biodiversity and ecosystem collapse—seen as long-term threats—are challenges humanity must address. Looking ahead, the SAS Group will continue to prioritize its core business while enhancing revenue and profitability, and will focus on energy conservation and carbon reduction. Guided by its established net-zero roadmap, the company is committed to achieving the 2050 net-zero target through ongoing energy-saving initiatives and green power procurement. Starting in 2025, SAS will also respond to global risk trends by addressing biodiversity and ecosystem issues.

The theme for the 2025 Davos Agenda, "Collaboration for the Intelligent Age," highlights the rapid evolution of technology and the swift advancement of artificial intelligence (AI), which are reshaping the world. SAS recognizes the need to embrace smart technologies to build an intelligent future and leverage innovative solutions to tackle climate change and accelerate net-zero progress. In pursuit of smart transformation and sustainable growth, SAS remains focused on its core solar business—delivering high-quality, high-efficiency solar products, developing and selling green power, and advancing energy storage and vehicle electrification. The company also strengthens Taiwan's domestic energy supply chain through local sourcing and partnerships, aiming to maximize the benefits of vertical integration and capture opportunities in the renewable energy transition. Moving forward, SAS will further expand vertical integration within the energy sector, enhance product development and integration efficiency, secure working capital, increase market investments, and adapt its industrial strategy in response to geo-economic and technological shifts, positioning itself as a leader in the intelligent age.

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Employee Care, Public Welfare, and Building Inclusive Teams

SAS has established a Human Rights Declaration and is dedicated to fostering a safe, healthy, and welcoming workplace. The company is committed to respecting and prioritizing employee well-being, strictly adhering to government labor regulations, maintaining a comprehensive compensation and benefits system, ensuring a supportive work environment, and safeguarding workplace safety. Recognizing that true innovation stems from each individual's unique background and perspective, SAS has issued a Diversity, Equity, and Inclusion (DEI) Declaration, underscoring its commitment to a diverse, equitable, and inclusive culture. The company values employee feedback and conducts annual Employee Satisfaction surveys to gauge staff sentiment and needs, using this input to develop targeted strategies and improvements. SAS supports a diversified recruitment approach, believing that mutual respect spurs greater productivity and creativity. The company emphasizes employee career development and overall well-being by offering diverse training programs and promoting work-life balance. Through a variety of healthcare initiatives and wellness activities, SAS prioritizes employee health and fosters a positive, healthy workplace, striving for excellence alongside its workforce amid intense global competition.

Beyond creating a vibrant workplace, SAS aims to enrich employees' lives physically and mentally. The company encourages a fulfilling work-life experience through care programs, support systems, and company activities. By organizing trips, welfare events, and a range of seminars and courses, SAS enables employees to enjoy a broad spectrum of experiences outside of work.

In terms of social responsibility, SAS channels its philanthropic efforts through charitable initiatives and support for underprivileged communities, guided by a spirit of compassion and accountability. The company actively participates in public fundraising, such as the "Caring for the Rural Areas and the Vulnerable" campaign, providing matching donations alongside employees to amplify their impact. These actions reflect SAS's commitment to social care, tangible corporate social responsibility, and its ongoing pursuit of sustainable operations.

Chairperson of SAS



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2024 Key Indicators and Recognitions



Top 5% in Corporate Governance Evaluation among OTC-listed companies for 11 consecutive years



Received the TPEX Market Capitalization Contribution Award and the TPEX Governance Leadership Award



High-quality solar photovoltaic products Taiwan Excellent PV Award



Exemplary Unit Selection for Promoting Workplace Equality Excellence Award



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**Carbon Disclosure Project (CDP)
Climate Change Questionnaire
rating B
Water Security Questionnaire
rating A-**



**The Yilan branch office passed
the RBA VAP audit
Silver Medal**



**Chunan Branch Company
Continue to maintain green factory
certification**



**Outstanding Enterprise Award for
Industrial Waste Reduction and
Circular Economy Performance
Excellence Award**



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Economic Aspect

Corporate Governance Appraisal

- 2024** • Ranked among the top 5% of all TPEX-listed companies in the 11th Corporate Governance Evaluation.
- 2023** • Ranked among the top 5% of all TPEX-listed companies in the 10th Corporate Governance Evaluation.
- 2022** • Ranked among the top 5% of all TPEX-listed companies in the 9th Corporate Governance Evaluation.
- 2021** • Ranked among the top 5% of all TPEX-listed companies in the 8th Corporate Governance Evaluation.
- 2020** • Ranked among the top 5% of all TPEX-listed companies in the 7th Corporate Governance Evaluation.
- 2019** • Ranked among the top 5% of all TPEX-listed companies in the 6th Corporate Governance Evaluation.
- 2018** • Ranked among the top 5% of all TPEX-listed companies in the 5th Corporate Governance Evaluation.
- 2017** • Ranked among the top 5% of all TPEX-listed companies in the 4th Corporate Governance Evaluation.
- 2016** • Ranked among the top 5% of all TPEX-listed companies in the 3rd Corporate Governance Evaluation.
- 2015** • Ranked among the top 5% of all TPEX-listed companies in the 2nd Corporate Governance Evaluation.
- 2014** • Information disclosure appraisal A+
Ranked among the top 5% of all TPEX-listed companies in the 1st Corporate Governance Evaluation
- 2013** • Information disclosure appraisal A

Operating Revenue (Consolidated Revenue)

NT\$ 100 million



Earnings per EPS

Unit: NTS



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Economic Aspect

❖ Debt to Asset Ratio

Unit: %



❖ Return on Assets

Unit: %



❖ Return on Equity

Unit: %

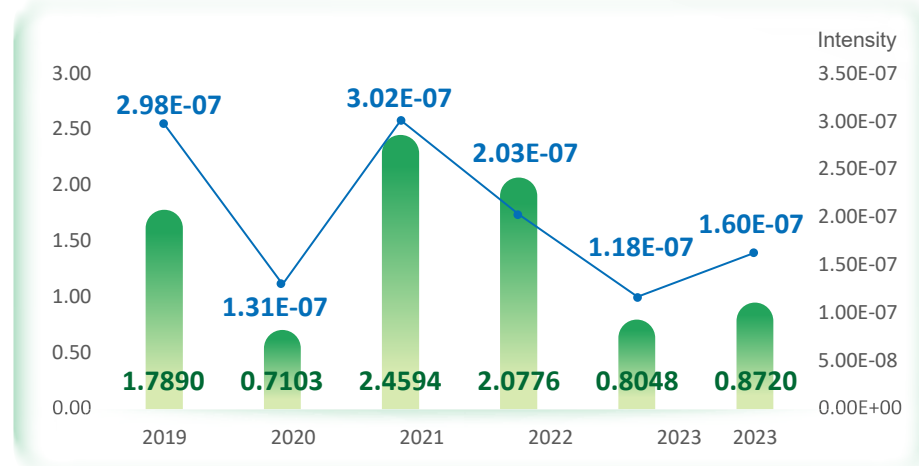


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Environmental Aspect

VOC Emissions

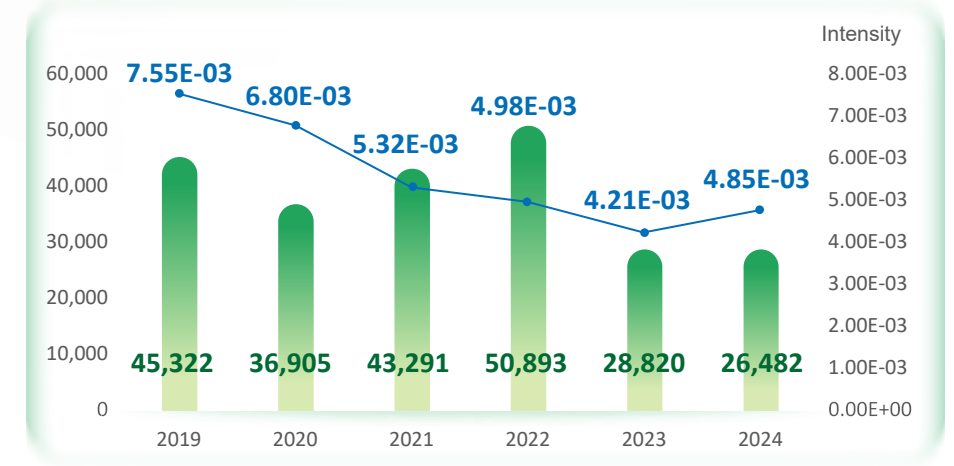
Unit: ton /yr



Note: Intensity: VOC Emissions (ton)/revenue (KNTD)

Carbon Emission

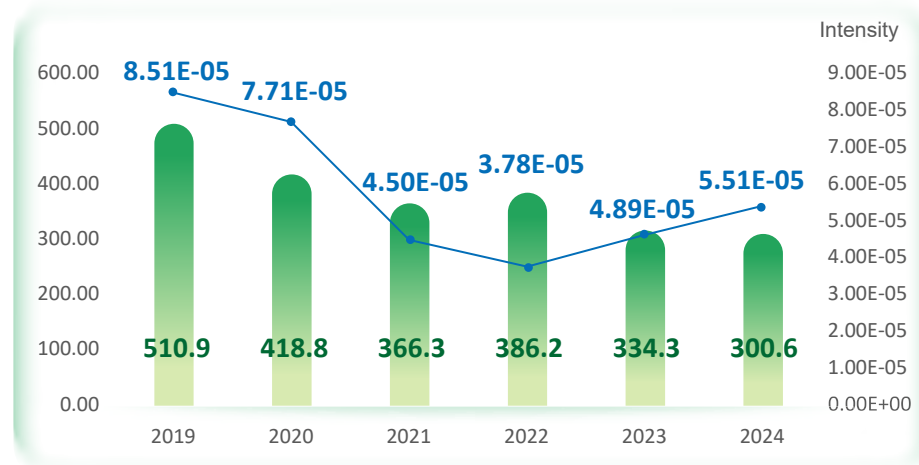
Unit: ton CO₂e/yr



Note: Intensity: Carbon Emission (tonCO₂e)/revenue (KNTD)

Water Withdrawal

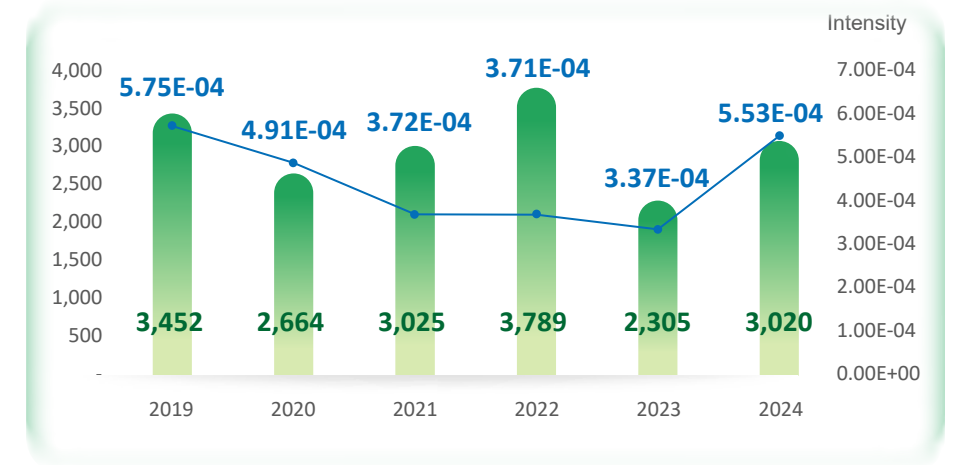
Unit: 10⁶ L



Note: Intensity: water withdrawal quantity (10⁶ L)/revenue (KNTD)

Waste Output Quantity

Unit: ton



Note: Intensity: Amount (ton)/revenue (KNTD)



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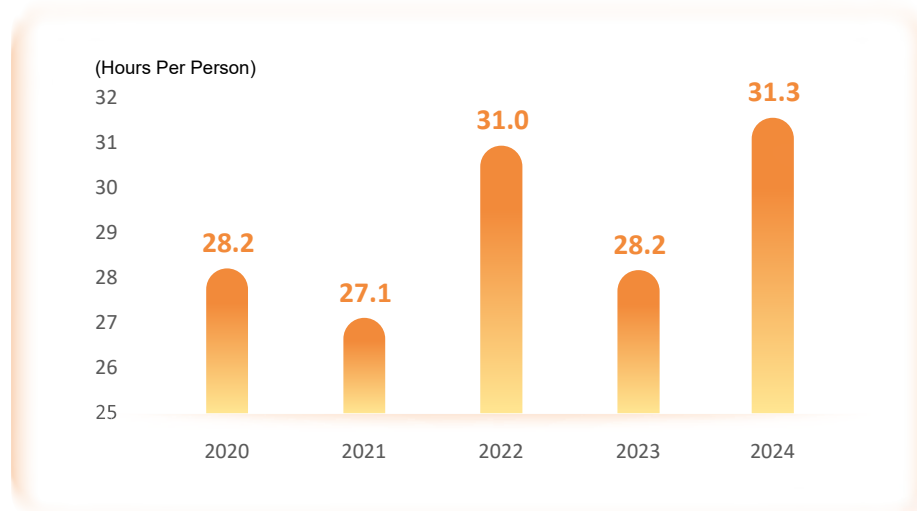
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People

Education and Training Hours

Unit: hour



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SAS

Company Profile

Sino-American Silicon Products Inc. (SAS), headquartered in Hsinchu, Taiwan, oversees the Group's strategic management and planning. In addition to its established renewable energy operations, SAS actively seeks and invests in companies with high growth potential. Leveraging the synergy across the Group, SAS facilitates the business expansion of its affiliates, creating multiple growth engines, building a robust foundation for sustainable development, and broadening its global presence. The Group comprises three major growth engines: the Semiconductor Business Group, the Renewable Energy Business Group, and the Automotive Component Business Group.

Founded on January 21, 1981, SAS began as a specialized wafer manufacturer. Today, SAS operates through its semiconductor and solar energy business groups. On October 1, 2011, SAS spun off its semiconductor silicon wafer business into GlobalWafers Co., Ltd. ("GlobalWafers"), shifting its primary focus to solar energy. It now manages vertically integrated manufacturing, including solar silicon ingots, wafers, cells, and modules, as well as downstream power generation systems, establishing itself as one of the nation's most comprehensive vertically integrated companies.

SAS prioritizes advanced R&D and consistently launches next-generation, high-efficiency solar cell products, a key factor in attracting niche customers. Through vertical industry integration, SAS maximizes the benefits of upstream, midstream, and downstream synergy while expanding the global deployment of terminal solar systems. The company is dedicated to advancing the solar energy and green environmental sectors, enhancing value for stakeholders and employees alike.

On August 1, 2014, SAS acquired Sunrise Global Solar Energy Co., Ltd., a leading solar cell producer. In parallel, Sunrise Global acquired Aleo Solar GmbH, a German solar module manufacturer, on May 16, 2014.

In 2015, SAS engaged in global solar power plant investments through its subsidiary SAS Sunrise Inc., constructing a 50MW solar plant in Palo, Leyte, the Philippines, which commenced commercial operation in May 2016.

By 2022, SAS had established Sustainable Energy Solution Co., Ltd. (SES), securing an electricity retail license and entering the liberalized green power market. With extensive expertise in solar energy, SES provides comprehensive green energy services, including diversified renewable energy planning, buyer-seller alignment, and integrated green power procurement solutions. In November 2024, SES, SAS, and CIP's Fengmiao Phase 1 Offshore Wind Farm signed a corporate power purchase agreement (CPPA), the first such agreement for Phase 3 zone development. This diversified green power portfolio—combining offshore wind for nighttime supply and solar PV for daytime—ensures stable green energy, supporting supply chain partners and advancing net-zero commitments.

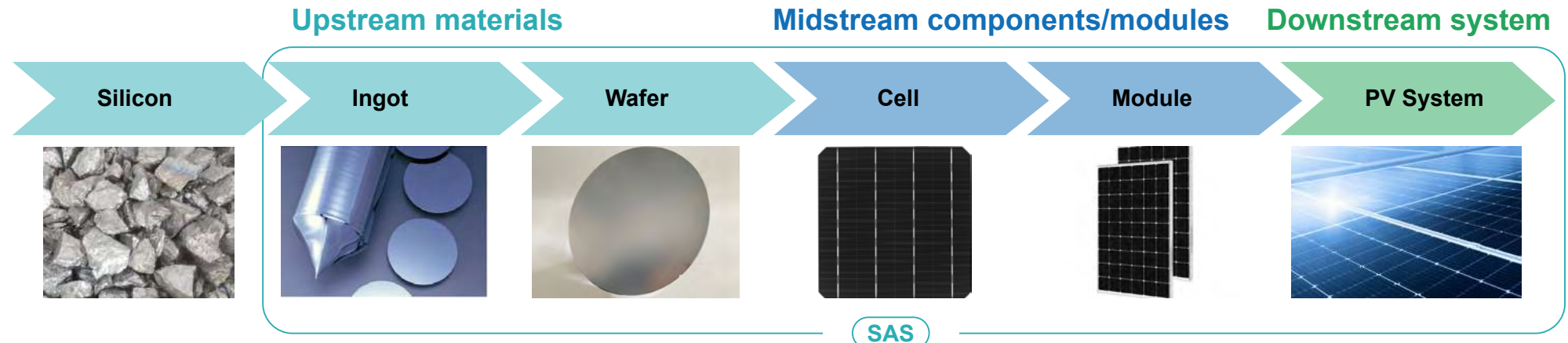
In 2024, SAS further expanded its green power portfolio by investing in Anneal Energy, acquiring a 45% stake and becoming its largest institutional shareholder. Anneal focuses on Type III solar PV projects for the service, telecommunications, and financial sectors, while SES develops Type I projects primarily for electronics and semiconductor clients. By integrating customer needs and resources, SAS enhances operational scope, pioneers green power dispatch in electricity retail, and delivers diverse, high-quality clean energy solutions to support enterprises in their energy transitions and sustainability goals.

Led by GlobalWafers, the Semiconductor Business Group acquired Denmark's Topsil Semiconductor Materials A/S and SunEdison Semiconductor Limited in 2016, broadening its range to include CZ wafers, large-diameter epitaxial wafers, polished silicon wafers, SOI wafers, and FZ semiconductor wafers. By combining GlobalWafers' operational strengths and product diversity with SunEdison's global reach and R&D, the Group has established a comprehensive portfolio. With headquarters in Hsinchu, Taiwan, the Group operates across Taiwan, China, Japan, South Korea, Malaysia, the United States, Italy, Denmark, and Singapore. The Automotive Component Business Group, led by Actron Technology, manufactures automotive diodes and power-related components, capturing key powertrain markets and adapting to the growing demand for vehicle electrification.



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❖ SAS Basic Information

Date of Establishment	January 21, 1981
Capital	NT\$ 6.41 billion
Main Product and Technology	Solar ingots, solar wafers, solar cells, solar modules, solar power generation system operations, and silicon material application products
Number of employees	SAS (headquarters & Chunan, Yilan, Hsu-Hsin branches): 574 employees ^{Note}
Chairperson & CEO	Hsiu-Lan Hsu
Vice Chairperson / Deputy CEO	Tang-Liang Yao
President	Cheng-Chien Chen
Headquarters	Hsinchu Science Park, No. 8, Industrial East 2nd Road, East District, Hsinchu City
Operating Bases	Headquarters: No. 8, Industrial East Road 2, Hsinchu Science Park, Taiwan, R.O.C. Chunan Branch: No. 6, Kejung Rd., Chunan Science Park, Chunan, Miaoli County, Taiwan, R.O.C. Yilan Branch: No.1 Sec. 2 Ligong 1st Rd., Wujie Township, Yilan 268, Taiwan, R.O.C SAS Hsu-Hsin Branch: No. 6, Kejung Rd., Chunan Science Park, Chunan, Miaoli County, Taiwan, R.O.C
Affiliated Enterprises	SAS affiliates operate in semiconductor and wafer manufacturing, solar cell and module production, solar power system services, and renewable energy sales.

Note: The number of employees is calculated based on those still working at the headquarters and branch as of 2024.12.31 (excluding subsidiary employees).

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❖ Shareholders Structure

Structure Quantity \ Shareholders	Governmental Institutes	Financial Institutes	Other Juridical Persons	Natural Persons	Foreign Institutes and Foreigners	Total
No. of People	5	39	476	107,383	406	108,309
Shareholding	3,048,450	157,149,200	87,655,036	278,870,800	114,498,165	586,221,651
Shareholding Percentage	0.48%	24.51%	13.67%	43.48%	17.86%	100.00%

Data base date: 2025.3.29

SAS manufactures efficient solar wafers, cells, and modules with a focus on integrity and meeting challenges. By expanding into system integration, SAS has achieved vertical integration and strengthened its position as a leading domestic green energy provider. The company continually seeks new growth opportunities and aims for sustainable development alongside its customers and suppliers. SAS primarily sells products in Asia, Europe, America, and other regions, and is dedicated to advancing environmental protection and becoming a top global green energy technology leader.

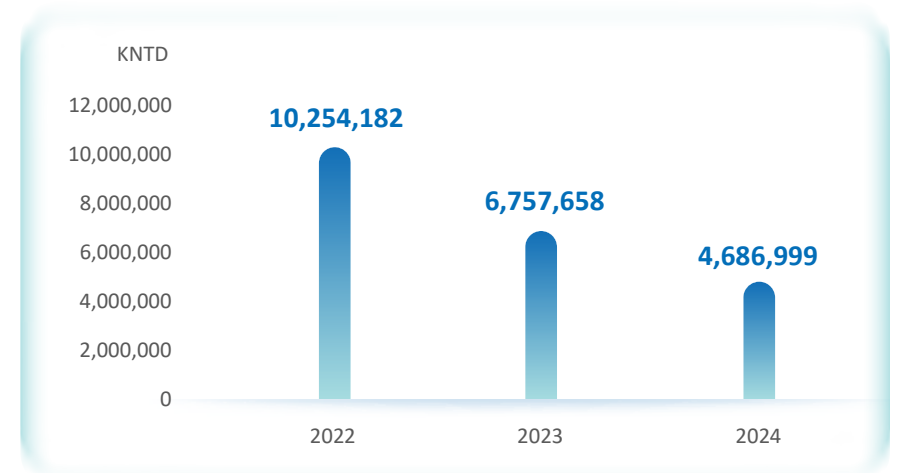
Market and Services

Renewable energy industry

● Product Sales

As national energy strategies are increasingly refined and executed, and in light of the Russia-Ukraine conflict prompting global reassessment of energy cost allocation and accelerated decarbonization efforts, the renewable energy sector continues to demonstrate robust growth. Among these, the solar photovoltaic industry—underpinned by mature technological foundations—has emerged as a leading clean energy solution. In 2023, Taiwan amended its Renewable Energy Development Act, mandating the installation of renewable energy generation facilities above a specified capacity in all new, expanded, or renovated buildings. This legislative revision is anticipated to drive stable growth in photovoltaic system installations. The SAS Group is strengthening its solar supply chain and, alongside ongoing research and development, has introduced high-conversion-efficiency M10 N TOPCon products to improve the cost-performance ratio of its solar solutions. Beyond supplying advanced monocrystalline cells, modules, and comprehensive power plant operation and maintenance services, the Group is actively expanding into the energy storage and green power retail markets. By leveraging synergies across its operations and pursuing both technological innovation and scale differentiation strategies, the SAS Group aims to establish a strong and enduring competitive advantage.

❖ Energy revenue Renewable



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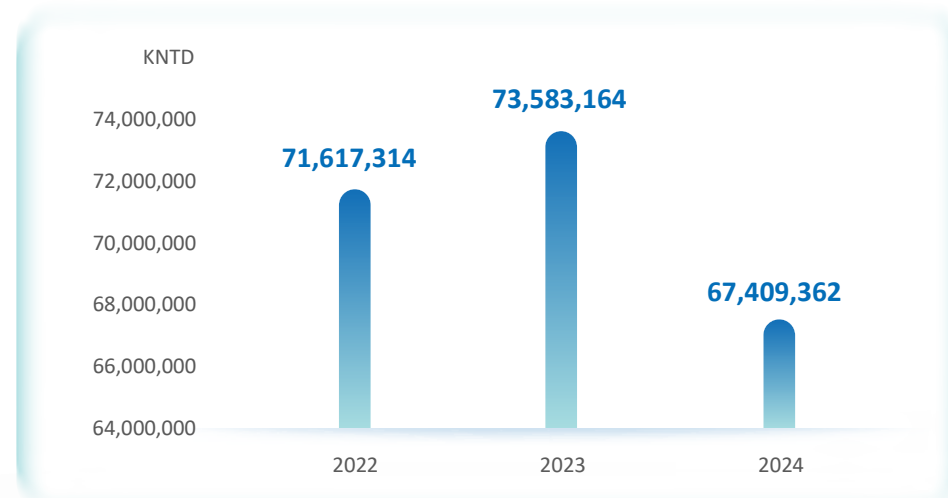
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Semiconductor Industry

Product Sales

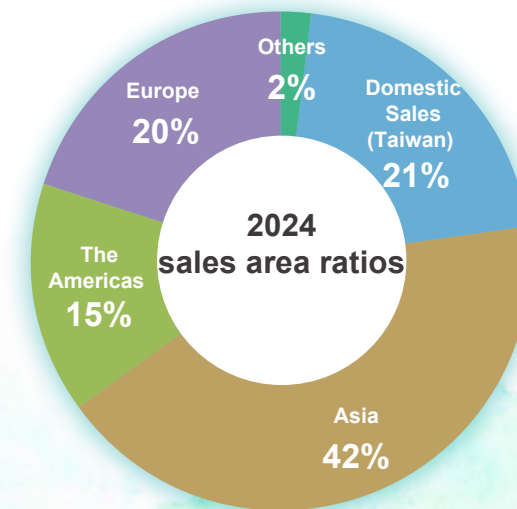
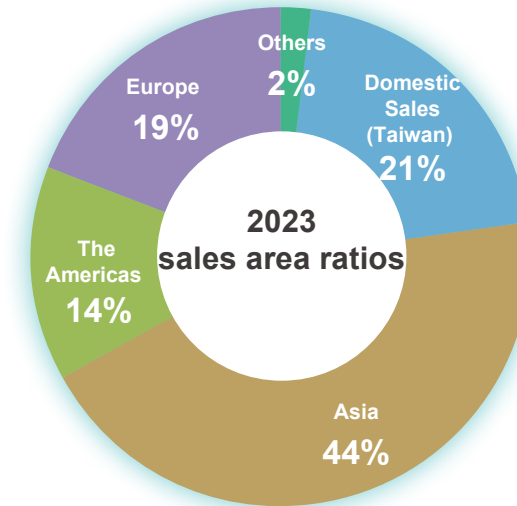
Due to uncertain global end-consumer demand, the semiconductor industry has experienced slow recovery and weaker overall growth momentum. GlobalWafers Group, a subsidiary, has responded by utilising long-term customer contracts, redeploying production capacity worldwide, and allocating resources flexibly across global sites. These efforts are intended to maintain consistent shipments while improving quality and customer satisfaction in response to market needs.

❖ Semiconductor industry revenue



Proportion of consolidated revenue by sales region

Through its mergers and acquisitions over the years, SAS Group has effectively acquired established customer orders and expanded its global sales network. As a result, the proportion of sales revenue across different regions has become more balanced and stable.



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Company Philosophy

SAS follows a set of principles that include integrity, ongoing innovation, customer satisfaction, and contributing to society. The company seeks to deliver quality products, technologies, and services, and aims for sustainable operations and growth in collaboration with customers and suppliers. SAS states its goals as creating value for shareholders and employees while meeting its corporate social responsibility commitments.



Honesty and Integrity

SAS follows regulations, upholds integrity, and is committed to ethical management.



Constant Innovation

The company drives competitiveness by quickly developing new high-performance products and advancing technology through innovation.



Customer Satisfaction

SAS forms cooperative relationships that benefit both the company and its customers, supporting shared growth.



Giving Back to Society

SAS supports social welfare and environmental causes, helping the community and fulfilling its corporate responsibilities.

Participation in External Associations

Associations/Organizations	Participant	Members	Roles
Taiwan Photovoltaic Industry Association	●	●	Chairperson
Solar PV Generation System Association	●	●	Vice Chairperson
Chinese Professional Management Association		●	
Taiwan Science Park Association of Science and Industry	●	●	Supervisor
Taiwan Climate Partnership		●	
The 8th Taiwan Mergers & Acquisitions and Private Equity Council (2024 to 2025)	●	●	Vice Chairperson
Taiwan Computer Emergency Response Team / Coordination Center (TWCERT/CC)		●	
Science Park Information Sharing and Analysis Center (SP-ISAC)		●	

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Sustainable Management

Sino-American Silicon Products Inc. (SAS) operates according to a business philosophy based on integrity, professionalism, innovation, and service. The company aims to achieve mutual growth with customers, pursue excellence with employees, and maximize shareholder value. SAS also addresses social responsibilities while working toward sustainable corporate operations to contribute to economic growth, environmental protection, and social progress.

SAS has established the Corporate Social Responsibility Best Practice Principles to guide compliance with corporate social responsibility requirements, promote economic, environmental, and social development, and support sustainable development objectives. These principles are intended to facilitate the active integration of corporate social responsibility into business operations, align with international standards, fulfill corporate citizenship obligations, contribute to national economic development, and improve quality of life for employees, communities, and society. Corporate social responsibility is pursued through the implementation of corporate governance, environmental sustainability measures, social welfare initiatives, and strengthened information disclosure regarding corporate social responsibility activities.

Sustainable Organization

To achieve the goal of sustainable operation and fulfill corporate social responsibility, SAS established the "Corporate Sustainable Development Committee" in April 2016 as the highest-level corporate social responsibility implementation organization for the Company. The organizational structure of the committee is shown in the figure below. The committee chair was originally held by the president but was switched to the board's chairperson in June 2020 due to organizational changes. The committee members comprised of department heads in order to coordinate the development direction of the Company's corporate social responsibility and sustainability goals. To reflect the international development trends and high attention to ESG governance, the sustainability organization was renamed the "ESG Committee" in 2022. The board's chairperson still holds the committee chair position to facilitate the promotion and strengthen the implementation of sustainable goals. (Sustainable Development Best Practice Principles, please refer to the [website](#).)

In 2024, to deepen the culture of corporate sustainability governance, SAS established the Sustainable Development Organizational Charter. In November, the Board of Directors approved the renaming of the sustainability organization to the "Corporate Sustainable Development Committee," which serves as SAS's highest-level internal sustainability management and oversight body. The Chairperson continues to serve as the chairperson, the President as the vice chairperson, and a new position of Chief Sustainability Officer was created, held by Executive Vice President Hao-Chun Shih. Under the Corporate Sustainable Development Committee, five sub-committees have been established: Sustainable Operation, Green Manufacturing, Sustainable Supply Chain, Social and Corporate Care, and Corporate Governance and Risk Management. Each sub-committee is composed of the heads of related business and appoints representatives to form implementation taskforce to execute various sustainability projects, in order to implement environmental, social and governance activities. In addition, to enhance the disclosure of sustainability information, SAS established the Sustainability Information Management Procedures in 2024. The purpose is to standardize the procedures for compiling the sustainability report and related tasks, ensuring the completeness, accuracy, and reliability of sustainability information throughout its sourcing, collection, recording, processing, preparation, approval, and publication. This aims to improve the credibility and consistency of sustainability information.

The Corporate Sustainable Development Committee reports to the Board of Directors on a quarterly basis, providing information on the key implementation activities, annual goals, the outcomes for the year. Key implementation matters in 2024 include: the GHG inventory and verification progress of the Group's branches and subsidiaries; the FSC requirements for ESG disclosure by TWSE/TPEX listed companies; the preparation and verification of the 2023 sustainability report; the impact of carbon fees, progress on the adoption of IFRS S1/S2; the establishment and submission of SBT; and the organization reform towards sustainability. In the event of a significant issue, an extraordinary motion may be proposed to the Board of Directors. The Committee is supervised by the Board of Directors, which oversees the formulation and implementation of sustainability goals (including the preparation and verification of the sustainability report) and provides relevant advice and guidance based on the Committee's report.

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Identify Key Topics

SAS employs the four-step methodology detailed in GRI 3: Material Topics 2021 to refine its process for identifying material topics. The assessment of materiality is guided by the level of stakeholder concern and the severity of both internal and external impacts on sustainability issues. This approach facilitates the identification and evaluation of key issues across the governance, economic, environmental, and social (including human rights) dimensions relevant to SAS. Sustainability issues are subsequently prioritized based on the significance of their impact. Issues determined to have high impact and strong influence are designated as material topics; these are addressed in this report with corresponding management approaches and regularly monitored targets. Additional issues that hold relatively high significance are also disclosed, though they are not assigned specific management actions or targets and remain under continuous observation.

1. Understand the organization's context

● 7 Major Categories of Stakeholders

SAS has outlined seven primary categories of stakeholders based on its business activities and relationships. Considering the Company's operational characteristics and following cross-departmental discussions, the identified stakeholders are: employees, customers, investors, suppliers, government agencies, media, and communities/non-profit organizations. Engagement with these stakeholders is carried out to facilitate the recognition of impacts associated with sustainability matters.

● Source of Sustainability Issues

According to the SASB classification, SAS is categorized within the semiconductor industry. The Company refers to international sustainability standards and frameworks, United Nations Sustainable Development Goals (SDGs), responsible investment principles, industry developments, and stakeholder engagement processes to compile 22 sustainability-related topics.

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International Sustainability Standards and Regulations

With reference to international sustainability standards such as the GRI Sustainability Reporting Standards, the Responsible Business Alliance (RBA), the Task Force on Climate-related Financial Disclosures (TCFD), and the Carbon Disclosure Project (CDP)

Sustainable Development Goals (SDGs)

Evaluate the 17 SDG goals and their 169 targets, and select actions where SAS can make a contribution

Responsible Investment

With reference to rating indicators such as the Dow Jones Sustainability Index (DJSI), MSCI ESG Leaders Indexes, FTSE4Good Index, and the Sustainability Accounting Standards Board (SASB)

Industry Development Trends

Sustainability issues of concern among international sustainability leaders, the information technology industry, and other cross-industry sectors

Issues of concern to stakeholders

Sustainability issues of concern to stakeholders such as employees, customers, supply chains and business partners, investors, governments and NGOs, and the media

❖ Sustainability Issues

 **Governance**

- Corporate Governance
- Economic Performance
- Risk Management
- Legal Compliance
- Integrity & Ethics
- Information Security and Personal Data Protection

 **Economic**

- Sustainable Supply Chain Management
- Innovation Management
- Green Product Design
- Customer Relationship Management

 **People**

- Workplace Health and Safety
- Talent Attraction and Retention
- Talent Development
- Workforce Diversity in the Workplace
- Human rights
- Social Participation

 **Environment**

- Energy Management
- Climate Change Strategy and Carbon Management
- Waste Management
- Water Management
- Air Pollution Control
- Biodiversity

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2. Identification of Concerns and Impacts

● Sustainability Issues of Concern

Develop a questionnaire covering 22 topics and invite stakeholders (including employees, customers, investors, suppliers, and government agencies) to complete it to understand their areas of concern, thereby facilitating the subsequent assessment and quantification of the impacts of each sustainability issue.



中美矽晶永續議題調查 SAS Survey on Sustainability Issues(2025)

中美矽晶在太陽能供應鏈穩健經營。除提供高品質電池、模組及下游電機組件外，亦積極佈局儲能、再生能源等領域。在致力於企業永續經營的同時，中美矽晶也不忘所負的社會責任，致力在公益治理、環境保護、員工關懷等面向，發揮中美矽晶在產業與社會中的正向影響力，期望能創造經濟成長、環境保護及社會進步的永續價值。

中美矽晶定期蒐集利害關係人的期待與回饋，依據永續議題關注度做為年度永續報告書的報導參考。為維持評估結果的客觀性，中美矽晶邀請利害關係者透過問卷方式蒐集對永續議題關注度。

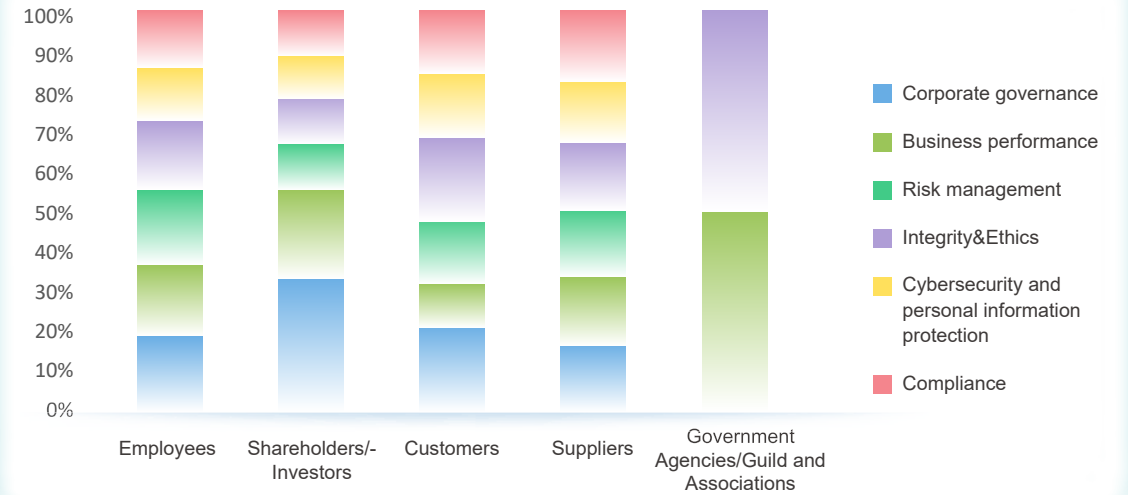
Sino-American Silicon Products Inc. ensures the steady operation of PV supply chains by providing high-performing monocrystalline cells and modules for the operation of downstream power plants, and also by supporting the deployment of energy storage and renewable energy. While striving for corporate sustainability, SAS also committing to its social responsibilities. We endeavor to bring positive impacts to both society and industry by devoting ourselves to the domain of corporate governance, environmental protections, employee care, etc. Furthermore, we expect to cultivate sustainability value while pursuing economical growth.

Sino-American Silicon Products Inc. regularly collects the expectations and feedback from stakeholders and uses them as a reference for reporting in the annual sustainability report based on the degree of attention to sustainability issues. In order to maintain the objectivity of the assessment results, we invite stakeholders to complete a questionnaire to collect their concerns on sustainability issues.

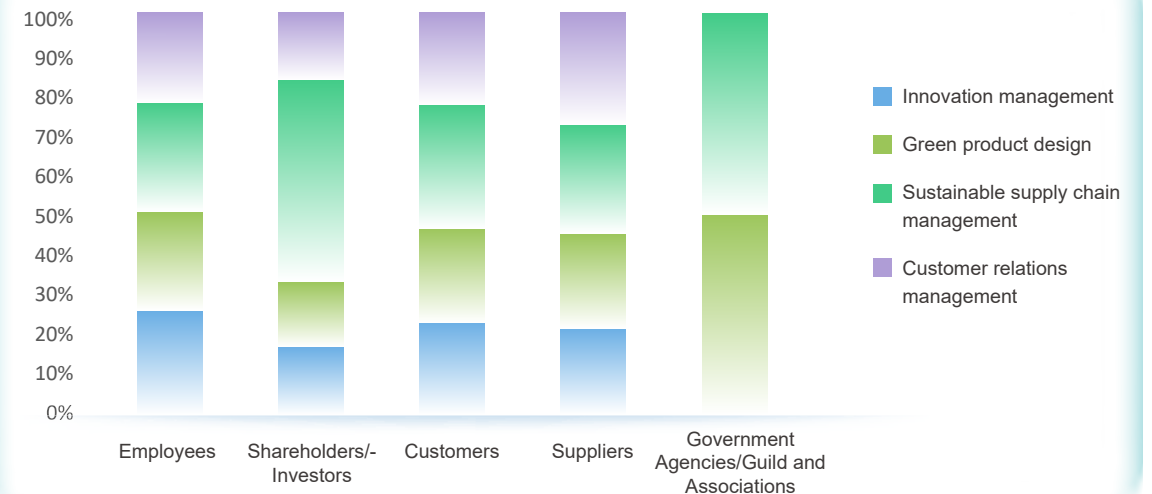
開始

調查結果僅供中美矽晶製成股份有限公司作為永續報告書參考。
The survey is only for reference in the sustainability report of Sino-American Silicon Products Inc.

❖ Sustainability Issue - Governance

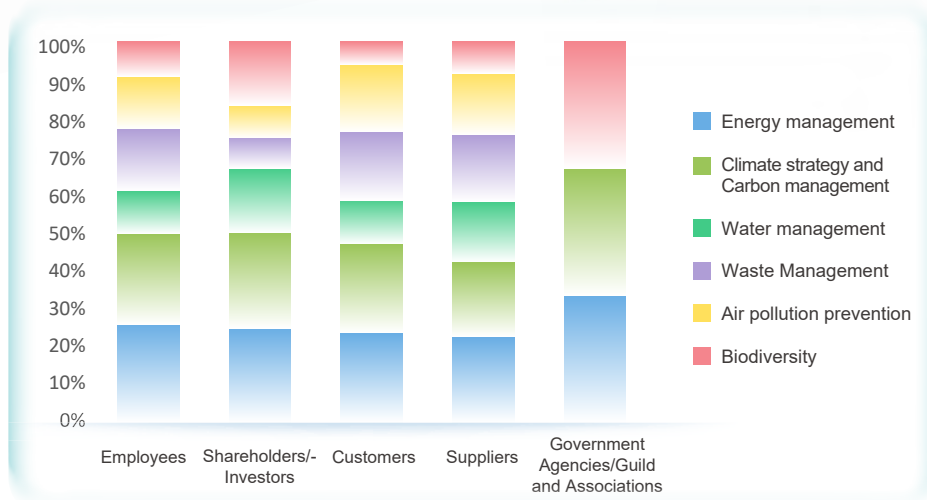


❖ Sustainability Issue - Economic

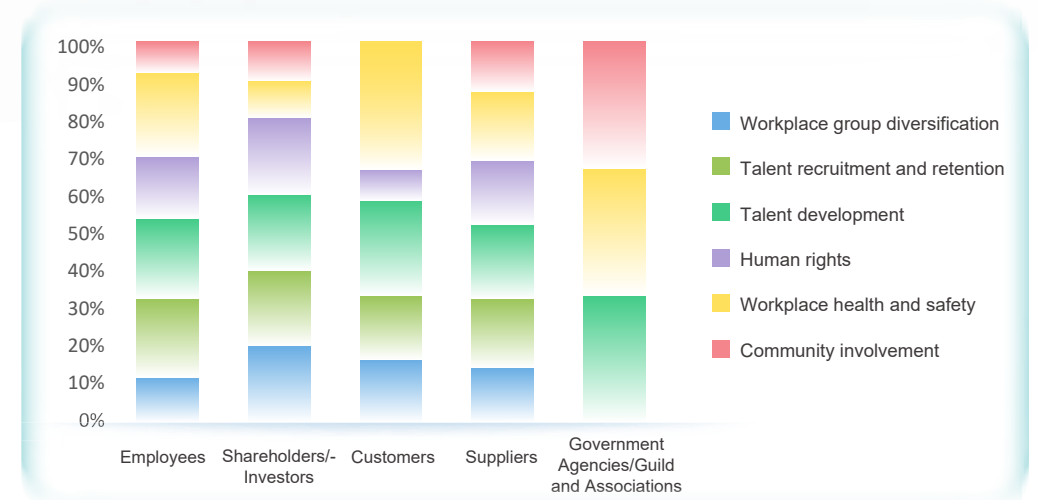


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❖ Sustainability Issue - Environment



❖ Sustainability Issue - People



● Internal and external impacts

In alignment with GRI Universal Standards GRI 3: Material Topics, a questionnaire entitled "Internal Impact of Sustainability Issues on SAS" was developed. Company management, including section managers through to Vice Presidents, were requested to evaluate the potential internal operational impacts over the next five years in governance, economic, environmental, and people-related domains, drawing upon their expertise, prior business experience, and familiarity with the Company's strategic direction. This evaluation encompassed both positive and negative effects. Furthermore, through the "External Impact of Company Operations" questionnaire, members of the Corporate Sustainable Development Committee were asked to assess the Company's external impacts from two perspectives: the external parties affected (such as the value chain, investors, government entities, the general public, and ecosystems) and the nature of these impacts (including supply chain output value, social cost of carbon, human health or medical costs, quality of life, and natural resources and ecosystems).



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3. Assessment of significance

The results of the three questionnaires—"Focus on Sustainability Issues," "Internal Impact on SAS," and "External Impact of Company Operations"—revealed the top ten sustainability issues for each, with a total of 16 significant issues identified for SAS in 2024.

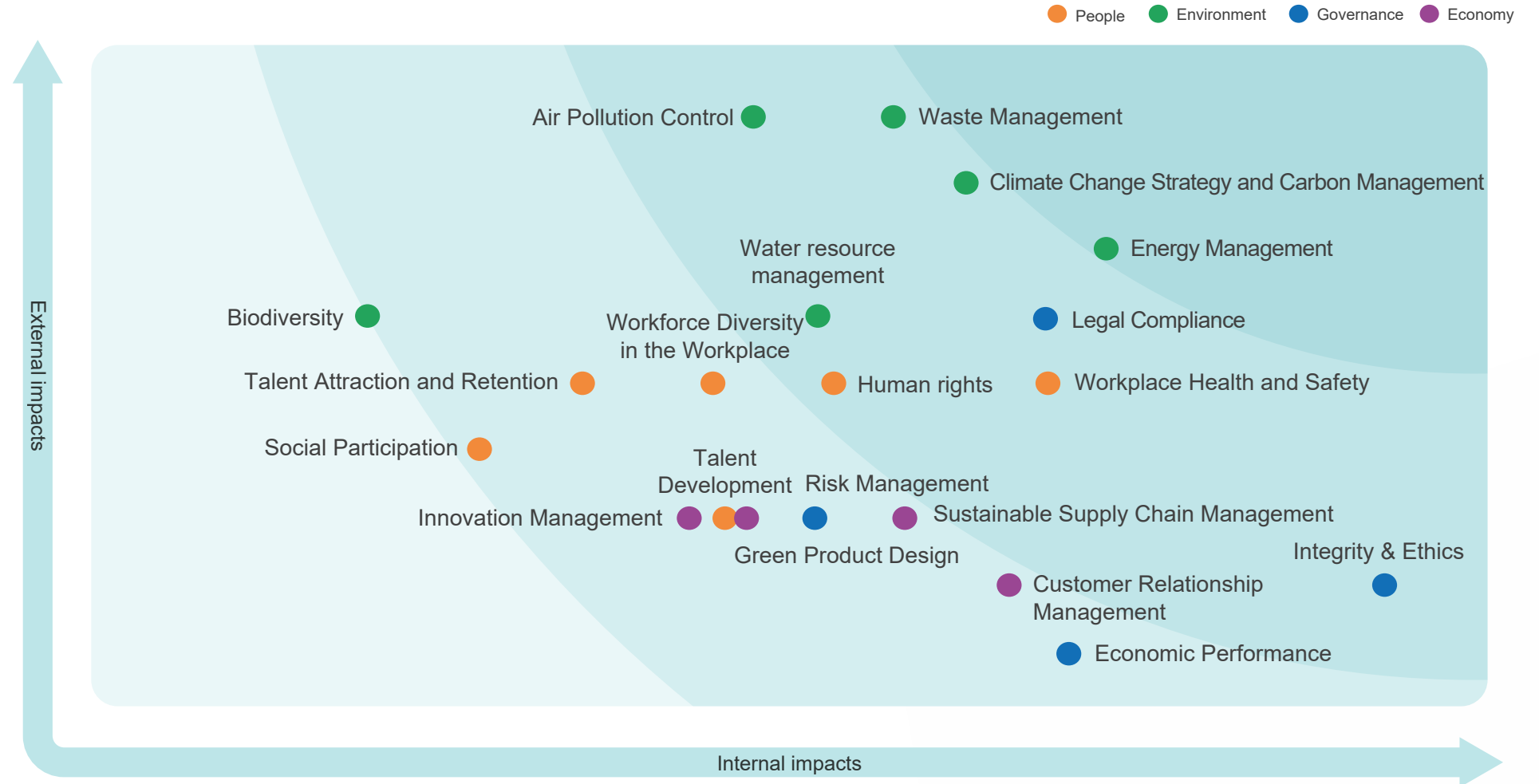


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4. Ranking of significant impacts

SAS identified 16 key sustainability issues for 2024 using a matrix that considered three significance dimensions. Issues were ranked by impact and influence, and after consultation with the Corporate Sustainable Development Committee, 7 material topics were selected (with legal compliance and human rights as core management items). This report covers these topics with relevant policies and targets, while other issues are summarized or omitted.

❖ Material topic matrix



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❖ Stakeholders' Engagement



Employees

Significance to SAS

Employees represent the Company's most valuable assets. Supporting and investing in our employees ensures mutual growth and alignment between the Company and its workforce.

Communication Frequency / Method

- Various Organization Meetings/ Irregular
- Company Notice Board / Irregular
- Internal Website and Emails / Irregular
- Performance Appraisal Interviews / Once Per Year
- Labor-management Meetings / 4 Times Per Year
- Employee Satisfaction Survey
- Various Complaint Boxes or Hotlines/ Irregular

Issues of concern

- Talent Attraction and Retention
- Talent Development
- Workplace Health and Safety

Our Responses

Employees are the Company's most important asset, and the Company attaches great importance to communication channels with employees. In 2020, we will construct a human resources area, increase the consultation options and paths for colleagues, and regularly hold labor-management meetings to listen to the voices of colleagues.

- To attract and retain outstanding talents, the Company has offered competitive salaries and set the salary adjustment standards each year according to the relevant data.
- The Company has established an exclusive restaurant to provide employees with free meals during their working hours. In addition to labor insurance, the Company also provides group insurance, childcare leave, and other benefits that are better than those required by the law; and established a welfare committee to help employees to obtain more benefits such as employee travel, year-end party, emergency relief, sickness subsidies, and special contract stores.
- The Company adheres to the concept of "Ensuring the Safety and Health of the Employee Work Environment," and uses the organization system operation to create a healthy and safe working environment for employees.



Shareholders/ Investors

Significance to SAS

All shareholders are the company's investors. The company will handle all disclosed information with fairness as the principle.

Communication Frequency / Method

- Shareholders' meeting, institutional investors conference, domestic investment institute seminars, and face-to-face communication meetings / a total of 7 meetings were held in 2024
- Company Annual Report / Once Per Year
- News announcement on company websites and the Market Observation Post System / Irregular
- Collecting and replying to messages via telephone or emails / Irregular

Issues of concern

- Economic Performance
- Sustainable Supply Chain Management
- Corporate Governance
- Climate Change Strategy and Carbon Management

Our Responses

- Continue to use our stable financial structure and rich management experience to practice performance management and operational improvement, and improve the overall operational performance.
- Establish and strengthen close interaction and communication channels with investors, domestic and foreign media, cooperation, and major shareholders.
- Continue to improve corporate governance performance and realize the commitment of sustainable operation.
- Establish a supplier evaluation and management process to implement supplier localization.
- Establish a climate risk identification process to regularly assess the likelihood, impact level (including financial impact), and time horizon of climate-related risks and opportunities relevant to SAS.

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Customers

Significance to SAS

Company's main source of revenue

Communication Frequency / Method

- Business Meetings / Irregular
- Customer Satisfaction Survey / Twice a Year
- Customer Audit / Irregular
- Customers Quality Meeting / Once a Month
- Telephone or E-mail Appeals or Complaints / Irregular

Issues of concern

- Information Security and Personal Data Protection
- Integrity & Ethics
- Workplace Health and Safety

Our Responses

- Continuously operate the ISO 27001: 2022 Information Security Management System to manage and protect information assets.
- "Integrity management is achieved by the compliance with laws and regulations." So, the Company has actively organized education and training as well as integrity management policy advocacy, promoted the integrity policy and its importance to directors and employees.
- Adhere to the concept of "Ensuring the Safety and Health of the Employee Work Environment," and use the organization system operation to create a healthy and safe working environment for employees.



**Suppliers/
Contractors**

Significance to SAS

Are the Company's partners and need to maintain the same ideals as ours in order to provide services in line with our needs.

Communication Frequency / Method

- Business Meetings / Irregular
- On-site Audit / Irregular
- Collecting and replying to messages via telephone or emails / Irregular

Issues of concern

- Information Security and Personal Data Protection
- Suppliers / Contractors Management Regulations

Our Responses

- Continuously operate the ISO 27001: 2022 Information Security Management System to manage and protect information assets
- Establish a supplier evaluation management process
- Formulate contractor management procedures and establish a contractor construction management system to systematically manage all contractors who have entered the plants

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Significance to SAS

We need to maintain open and pleasant communication relationship to express our determination of complying with regulations

Communication Frequency / Method

- Correspondence of Official Documents, Meetings (Public Hearings or Conferences) / Irregular
- Communicating and Meeting with Associations or Unions / Irregular
- Unscheduled Plant Audit / Irregular

Issues of concern

- Economic Performance
- Integrity & Ethics
- Energy Management

Our Responses

- Continue to use our stable financial structure and rich management experience to practice performance management and operational improvement, and improve the overall operational performance.
- "Integrity management is achieved by the compliance with laws and regulations." So, the Company has actively organized education and training as well as integrity management policy advocacy, promoted the integrity policy and its importance to directors and employees.
- Operate the energy management system to systematically monitor and continuously improve energy use efficiency



Significance to SAS

We establish a contact channel with the media to provide non-scheduled, correct, fair, and objective industry and corporate news.

Communication Frequency / Method

- Publish news / average of 2 to 3 press releases each quarter
- Occasionally receive interviews by the media and provide industry news / Irregular

Issues of concern

- Company Development Direction
- Economic Performance

Our Responses

- Contact the media occasionally to let media professionals understand the Company's industry and operating performances through interviews.
- Issue a press release on revenue and investor conference.
- Provide transparent information disclosure to comply with the completeness, real-time, and fairness principles.



Significance to SAS

- Collaborate with local charitable organizations or rural schools to provide support for disadvantaged groups and under-resourced entities
- Organize environmental protection activities on an irregular basis to contribute to environmental efforts and support local environmental organizations and groups in preserving the environment.

Communication Frequency / Method

Mobilize group personnel to participate proactively/ 1-2 times a year

Issues of concern

- Charitable organization project activities
- Enhancing education and implementing infrastructure improvements for rural schools
- Beach Cleaning Activities

Our Responses

- Regularly adopt areas in need of environmental maintenance and announce activity information to recruit more volunteers to join in cleaning the environment.
- Maintain irregular contact with charitable organizations and conduct interviews to help beneficiary groups understand the resources the group can provide.

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❖ Description of Changes in Material Topics

Aspects	2023 Material Topics	2024 Material Topics	Description of changes
Governance	Economic Performance	-	Outside the ranking
	Risk Management	Risk Management	Unchanged
	Legal Compliance	Classified as a fundamental management item	Unchanged
	Corporate Governance	-	Outside the ranking
Environmental Aspect	Energy Management	Energy Management	Unchanged
	-	Waste Management	Newly added in 2024
	Climate Change Strategy and Carbon Management	Climate Change Strategy and Carbon Management	Unchanged
	-	Water resource management	Newly added in 2024
Social Aspect	Talent Development	-	Outside the ranking
	Talent Attraction and Retention	-	Outside the ranking
	Workplace Health and Safety	Workplace Health and Safety	Unchanged
Economic Aspect	Sustainable Supply Chain Management	Sustainable Supply Chain Management	Unchanged

❖ Boundary and scope of material topics

○ Indicates the scope of disclosure

Material topics	GRI Standards	SASB Standards	Value Chain - Suppliers	Value Chain - Company operations							Value Chain - Products and services	Corresponding chapters in the Report
				SAS				Subsidiary		Other subsidiaries		
				Headquarters	Chunan Branch Company	Yilan Branch Company	Hsu-Hsin Branch	GlobalWafers	TSC AWSC			
Risk Management	GRI 2: General Disclosures	-	○	○	○	○	○	○	○	○	○	1.3 Risk Management
Energy Management	GRI 302 Energy	TC-SC-130a.1		○	○	○	○	○	○		○	3.1 Energy Management and Development 3.1.3 Renewable Energy Development
Climate Change Strategy and Carbon Management	GRI 305 Emissions	TC-SC-110a.1 TC-SC-110a.2	○	○	○	○	○	○	○	○	○	Climate Change Risks and Actions
Waste Management	GRI 306 Waste	TC-SC-150a.1		○	○	○	○	○	○			3.3.3 Waste Management
Water resource management	GRI 303 Water and effluents	TC-SC-140a.1		○	○	○	○	○	○			3.2.1 Water Resources Management
Workplace Health and Safety	GRI 403 Occupational health and safety	TC-SC-320a.1 TC-SC-320a.2		○	○	○	○	○				5.1 Safe Workplace 5.2 Health Promotion and Care
Sustainable Supply Chain Management	GRI 204 Procurement practices GRI 308 Supplier Environmental Assessment GRI 414 Supplier Social Assessment	TC-SC-440a.1	○	○	○	○	○	○	○			2.5 Value Chain Management



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Impact Management of Material Topics

+ indicates positive impact - indicates negative impact ● indicates direct impact ○ indicates indirect impact

Material topics	Significance to SAS (operational importance)	Having significant impact	SAS	Suppliers	Investors	Customers	Employees	Governmental institutes	Communities	Media	Mitigation measures	GRI Topic Categories
Governance and economic issues												
Risk Management	Conduct risk identification and assessment in accordance with procedures, categorize risks, manage them by level and hierarchy, and report regularly to the Board of Directors.	<ul style="list-style-type: none"> + Implement risk identification and evaluation - High-risk status of the MIS 	●	●	○	●	●		●		Implement the ISO 27001:2022 Information Security Management System (ISMS) to manage and protect information assets, and continuously safeguard their confidentiality through mechanisms of planning, establishment, execution, and oversight.	2 General Disclosures
Sustainable Supply Chain Management	Important operational partners who, through close collaboration, promote corporate sustainability and create a win-win sustainable supply chain	<ul style="list-style-type: none"> + Increased procurement demand drives supply-demand relationships and boosts output value - Environmental impacts arising from emissions generated during the supply chain production process 	●	●		○					Establish a supplier evaluation mechanism to regularly manage, assess, guide, and track suppliers' improvement progress; new suppliers must pass the supplier assessment and sign and comply with the Supplier Code of Conduct and the Supplier Commitment	204 Procurement practices 308 Supplier Environmental Assessment 414 Supplier Social Assessment
Environmental Issues												
Climate Change Strategy and Carbon Management	GHG emissions from the Company's production and manufacturing operations accelerate global climate change, and extreme weather could bring significant potential impacts on production operations.	<ul style="list-style-type: none"> + Reduce the impacts of climate change - Climate action failed 	●	○	○	○			○		Continuously optimize energy-use equipment and improve energy efficiency to conserve energy and reduce carbon emissions, introduce renewable energy, and declare the Group's RE100 commitment. The Group has entered the fields of green power development and sales, expanding its clean energy business portfolio and becoming a comprehensive provider of green energy solutions.	305 Emissions







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Material topics	Significance to SAS (operational importance)	Having significant impact	Stakeholders							Mitigation measures	GRI Topic Categories
			SAS	Suppliers	Investors	Customers	Employees	Governmental institutes	Communities		
Energy Management	Reducing energy consumption lowers operating costs, yielding greater profits and enhanced competitiveness. Enhancing energy efficiency is a key measure for reducing energy consumption and lowering GHG emissions.	+ Renewable energy layout - Energy resources consumption	●							Continuously improve energy performance in accordance with the PDCA spirit of the ISO 50001 Energy Management System, enhance energy efficiency, promote regional energy integration, and develop green energy to reduce environmental impact.	302 Energy
Waste Management	Reduce waste generation at the source during operations and ensure proper disposal of the resulting waste	+ Circular economy to reduce waste volume - Improper waste disposal pollutes the environment, indirectly affecting the Company's reputation	●	○	○	○				Improve process design to reduce raw material consumption. Increase in-plant recycling and reuse Optimize waste disposal contractor management.	306 Waste
Water resource management	Utilize water resources during the manufacturing process and promote water-saving measures, discharging wastewater	+ Reduce water consumption and wastewater discharge - Discharging wastewater that does not meet standards directly impacts the environment	●	○	○					Give priority to source reduction in processes, segregation of waste liquids, and reclassification treatment principles. Promote water-saving measures to reduce wastewater discharge.	303 Water and effluents
Social Issues											
Workplace Health and Safety	Ensure employee safety and health while maintaining stable and normal production operations of the Company.	+ Stable productivity - Employee health	●			●				Identify various risks, formulate contingency measures early, establish the Company's business continuity management plan, and conduct disaster response drills	403 Occupational health and safety















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Material Topics and Sustainability Goals





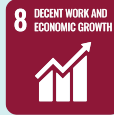





Governance	Topic - Management Performance, Legal Compliance			
SDGs	Strategies	2024 Targets	Achieved/Not achieved	2025 Long-term Goals
	<ul style="list-style-type: none"> Uphold the corporate culture of ethical management Promote the long-term integrity management policy Strengthen information disclosure transparency 	<ul style="list-style-type: none"> Maintain ranking in the top 5% of all listed OTC companies during Corporate Governance Evaluation 		<ul style="list-style-type: none"> Maintain ranking in the top 5% of all listed OTC companies during Corporate Governance Evaluation
	<ul style="list-style-type: none"> Continuous education, training, and advocacy Regular self-evaluation system for reviewing legal compliance Strengthen internal organization and rectification Implement cross audits within the group to discover potential risks and improve internal management 	<ul style="list-style-type: none"> Continuously monitor updates to domestic and international regulations and provide training to employees when significant changes occur. 		<ul style="list-style-type: none"> Continuously monitor updates to domestic and international regulations, expand the notification scope to companies included in the Group's consolidated financial statements, and provide training to employees when significant changes occur. Incorporate foreign regulations into training content and implement in 2026.
	<ul style="list-style-type: none"> Adjust strategy according to the market Innovative R&D, reduce costs, and accumulate strength 	<ul style="list-style-type: none"> A personal data inventory was conducted at the Taiwan plant, and no violations of personal data regulations have occurred. Continuous operating profit Maintain a good financial structure 	Not achieved Note 1	<ul style="list-style-type: none"> Overseas affiliates comply with local regulations; after conducting a personal data inventory, delete any personal data that should not be retained and establish a register. Ensure that no violations of personal data regulations occur.
Governance	Topic - Risk Management (Information Security)			
SDGs	Strategies	2024 Targets	Achieved/Not achieved	2025 Long-term Goals
	<ul style="list-style-type: none"> Establish risk management policies and procedures. Conduct risk identification and assessment in accordance with procedures, categorize risks, manage them by level and hierarchy, and report regularly to the Board of Directors. Strengthen information security protection measures and establish a comprehensive backup system. Implement the ISO 27001: 2022 certification for its Information Security Management System (ISMS) to manage and protect its information assets. The Company continues to safeguard the confidentiality, integrity, and availability of information assets through mechanisms of planning, establishment, execution, and monitoring. 	<ul style="list-style-type: none"> 2024 Non-Material Topics Goals are still set: Passed the ISO 27001:2022 Information Security Management System certification. 	-	<ul style="list-style-type: none"> 2025 Goal: Maintain the validity of the ISO 27001:2022 certification. Long-term goal: Successfully pass the ISO 27001:2022 recertification and renewal.



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Environmental				
Topic - Energy Management, Climate Change Strategy and Carbon Management				
SDGs	Strategies	2024 Targets	Achieved/ Not achieved	2025 Long-term Goals
  	<ul style="list-style-type: none"> In terms of climate change "mitigation" actions, start from greenhouse gas/carbon footprint inventory to GHG reduction implementation Actively achieve the greenhouse gas emission reduction goal through green design, green factory, energy management, efficient energy creation, energy conservation, as well as energy conversion products and solutions Collaborate with the renewable energy development and obtain international green power certifications as the main development direction to create a clean and green energy environment in response to the climate change related challenges 	<ul style="list-style-type: none"> Establish a carbon risk management system and procedures 		<ul style="list-style-type: none"> Implement IFRS S1/S2 Sustainability Disclosure Standards 100% renewable energy use by 2050: Renewable energy use target achievement phases: 20% by 2030, 35% by 2035, 50% by 2040, 100% by 2050
 	<ul style="list-style-type: none"> Continue to introduce the concepts of product life cycle and circular economy 4R, develop product process design and development from the ecological consideration perspective, implement green design and clean production, improve process designs and technologies, increase unit production capacity, and reduce raw material consumptions 	<ul style="list-style-type: none"> Chunan Branch annual power saving rate > 1% Yilan Branch annual power saving rate 1.5% 	 	<ul style="list-style-type: none"> Chunan Branch annual power saving rate > 1% Yilan Branch annual power saving rate > 1.5%
  	<ul style="list-style-type: none"> Set improvement goals every year and continue to implement water recycling and waste reduction measures to facilitate environmental management system promotions Install sufficient pollution prevention equipment with considerable processing capacity to reduce the harmful impacts on the environment Conduct regular maintenance and inspection for pollution prevention and control equipment to maintain equipment treatment efficiency Assign professional personnel to operate in accordance with relevant regulations 	<ul style="list-style-type: none"> Chunan Branch recycled over 50% of the wastewater from drilling process Achieve 100 % compliance with emission standards for pollution control equipment at the Chunan and Yilan branches. Reduce the influent volume to the biological wastewater system at the Yilan branch by more than 50 % through wastewater segregation. 	  	<ul style="list-style-type: none"> Chunan Branch recycled over 50% of the wastewater from drilling process Recycle 1,200 tons of cooling tower discharge water each month at the Yilan branch for reuse.

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Environmental	Topic - Energy Management, Climate Change Strategy and Carbon Management			
SDGs	Strategies	2024 Targets	Achieved/ Not achieved	2025 Long-term Goals
	<ul style="list-style-type: none"> Transfer traditional cleaning and disposal into the concept of effective resource management in order to reduce waste generation. Enhance audit management on waste clearance companies to ensure that waste is disposed in an appropriate manner. 	<ul style="list-style-type: none"> Chunan and Yilan Branch's waste recycling rate for the whole plant has reached 85% 		<ul style="list-style-type: none"> Chunan and Yilan Branch's waste recycling rate for the whole plant has reached 90%
People	Topic - Talent Development, Talent Attraction and Retention			
SDGs	Strategies	2024 Targets	Achieved/ Not achieved	2025 Long-term Goals
	<ul style="list-style-type: none"> Planning the next year's education and training based on the Company's operating goals, various department KPIs, functional requirements, etc. Review the class performance and the goal achievement status each quarter as a reference for future improvement. 	<ul style="list-style-type: none"> Education and training program implementation rate 100% 		<ul style="list-style-type: none"> All employees must complete at least one DEI-related training Managers and above must undergo multi-faceted assessments All employees must receive at least one hour of human rights-related training
	<ul style="list-style-type: none"> A comprehensive performance-linked remuneration system Provide subsidies for in-service employees to pursue further education Sign contracts with key executives Through employee stock ownership trust Present long-service award plaques 	<ul style="list-style-type: none"> Maintain a turnover rate between 5 % and 10 % 	Not achieved Note 2	<ul style="list-style-type: none"> Turnover rate between 5% and 10%
People	Topic - Workplace Health and Safety			
SDGs	Strategies	2024 Targets	Achieved/ Not achieved	2025 Long-term Goals
 	<ul style="list-style-type: none"> Foster a friendly working environment to ensure workplace safety, care for employees' physical and mental well-being, and promote health initiatives that balance work and life. Continuously promote an occupational safety and health management system; focus on social expectations, management level, and employee participation; and look at occupational safety and health under the perspective of sound operation and sustainability 	<ul style="list-style-type: none"> Disclose information on occupational injuries and occupational diseases Obtain approval and perform record filing for process changes at Category A hazardous workplaces Health promotion courses or activities \geq 10 sessions 	  	<ul style="list-style-type: none"> Reduce the disabling injury frequency rate (FR) by 20 % (< 6.12) Achieve 100 % assessment completion among emergency response team members



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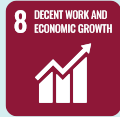

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Economic		Topic - Sustainable Supply Chain Management		
SDGs	Strategies	2024 Targets	Achieved/ Not achieved	2025 Long-term Goals
	<ul style="list-style-type: none"> Practice product safety and non-toxic requirements from upstream supply chain Produce customized polysilicon related application products through technical cooperation Establish product quality monitoring mechanism and early warning system Collect customer feedbacks on service, quality, cost, innovation, etc., as the direction of continuous improvement 	<ul style="list-style-type: none"> Achieve a score above 8.5 in the quality dimension of the customer satisfaction survey at the Chunan and Yilan branches Achieve a score above 8.5 in the service dimension of the customer satisfaction survey at the Chunan and Yilan branches 	<ul style="list-style-type: none"> ✓ ✓ 	<ul style="list-style-type: none"> Achieve a score above 8.5 in the quality dimension of the customer satisfaction survey at the Chunan and Yilan branches Achieve a score above 8.5 in the service dimension of the customer satisfaction survey at the Chunan and Yilan branches
	<ul style="list-style-type: none"> Require suppliers, in accordance with SAS's Supplier Code of Conduct and Supplier Commitment, to pledge anti-bribery and anti-corruption practices, compliance with social and environmental responsibilities, exclusion of conflict minerals, adherence to trade regulations, avoidance of infringing products, prohibition of silicon products containing forced-labor elements, and compliance with green procurement, thereby improving management performance and reducing operational risks. 	<ul style="list-style-type: none"> Require all new suppliers to sign SAS's Supplier Code of Conduct and Supplier Commitment, achieving a 100 % completion rate. 	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> Require all new suppliers to sign SAS's Supplier Code of Conduct and Supplier Commitment, achieving a 100 % completion rate.
	<ul style="list-style-type: none"> Enhance sustainability management practices by continuously evaluating and monitoring suppliers across the quality, environmental, and social dimensions. Implement supply chain localization to shorten material transportation costs, enhance delivery flexibility, reduce inventory turnover levels, and eliminate unnecessary costs; it also lowers supply chain carbon emissions, promotes green industry development, and creates local employment opportunities. Advocate climate change mitigation actions to suppliers. 	<ul style="list-style-type: none"> Annual audit Achieve a 100 % compliance rate for supplier improvements verified through written review Achieve a 100 % compliance rate for supplier improvements verified through on-site audits Increase the proportion of local procurement Achieve a 70 % proportion of localized procurement by value Achieve an 80 % proportion of localized procurement by value, excluding silicon raw materials At least 5 suppliers obtain ISO 14064-1 certification, GHG inventory verification, or ISO 14067 product carbon footprint verification certificates 	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ 	<ul style="list-style-type: none"> Annual audit Achieve a 100 % compliance rate for supplier improvements verified through written review Achieve a 100 % compliance rate for supplier improvements verified through on-site audits Increase the proportion of local procurement Achieve a 75 % proportion of localized procurement by value Achieve an 85% proportion of localized procurement by value, excluding silicon raw materials At least 8 suppliers obtain ISO 14064-1 certification, GHG inventory verification, or ISO 14067 product carbon footprint verification certificates

Note 1: The subsidiary GlobalWafers Co., Ltd. suffered a information security incident in which the information system at an overseas plant was hacked, resulting in the leakage of personal data belonging to Taiwan employees. Subsequent improvement measures include: Enhancing security controls over network and information infrastructure; strengthening cybersecurity protections, including regularly updating firewalls and antivirus software, restricting information access rights, and improving hardware and software defenses; as well as refining cybersecurity training to raise employees' information security awareness and enable them to identify phishing attacks and other external threats.

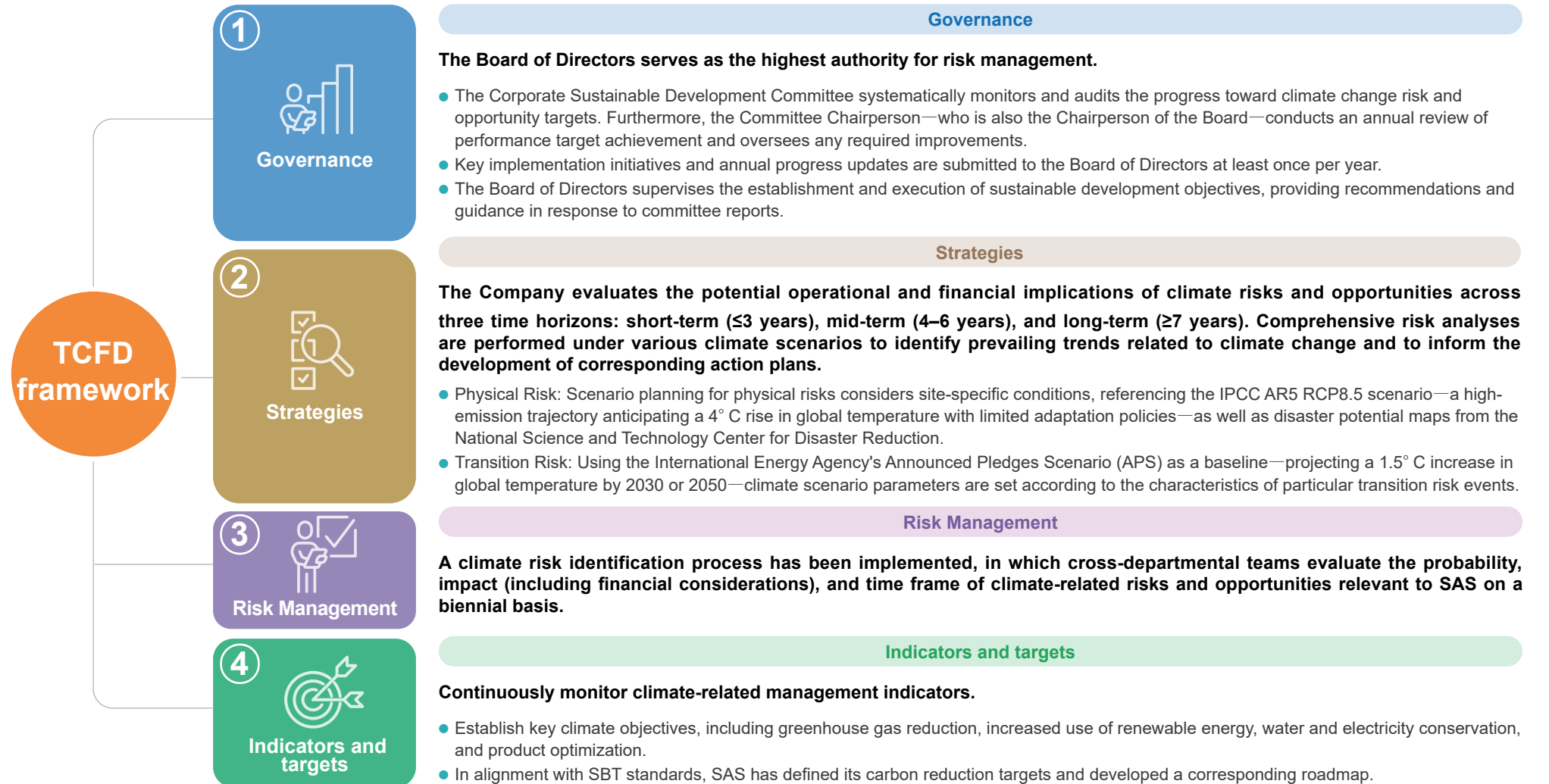
Note 2: The average turnover rate in 2024 was 11.09 % (Chunan + Yilan), exceeding 10 %, mainly due to unfavorable industry conditions affecting capacity planning and resulting in workforce adjustments.



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Climate Change Risks and Actions

SAS monitors risks and opportunities related to climate change, considering the increasing occurrence of extreme weather events and changes in the low-carbon market. Using guidance from the Task Force on Climate-related Financial Disclosures (TCFD), the company has established a process for assessing climate-related risks and opportunities. By working with relevant departments, SAS collects information on policy and regulatory developments, technological and market trends, reputational factors, and physical risks. The company conducts climate risk and opportunity assessments to understand external environmental and market conditions and incorporates these findings into its business strategy planning.



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Climate Change Risk and Opportunity Evaluation

SAS undertakes biennial assessments of climate-related risks and opportunities in alignment with the TCFD framework. By engaging departmental representatives to systematically evaluate external developments in policy and regulation, technology, market dynamics, reputation, and climate hazards—as well as internal operational strategies—SAS identifies physical and transitional risks along with corresponding opportunities.

❖ Climate Change Risk and Opportunity Evaluation Process



Notes: The following scenario assessments and identification of risks and opportunities are based on data from the previous year. During the preparation of this report, we have been continuously refining the TCFD-related evaluation mechanisms, working to establish more detailed measurement indicators and to develop corresponding adaptation and mitigation plans. As the evaluation process is still ongoing, further improvements will be made based on internal evaluation results and market trends, with relevant information to be updated in the next annual report.

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❖ Climate Change Evaluation Scenarios

Type	Evaluated Parties	Evaluation method	Climate Scenarios	Scenario Summary Description
Physical risks	Taiwan Production Sites of SAS	Disaster risk model	Based on the IPCC AR5 RCP8.5 scenario, which describes a future without climate policies, three climate scenarios for 2035 were identified: flooding, drought, and high temperatures. Using disaster potential maps and related research data from the National Science and Technology Center for Disaster Reduction, the probabilities and possible magnitudes of these climate events under the RCP8.5 scenario were assessed. Assumptions regarding potential situations at plant sites were developed, reflecting future physical risks derived from the estimated magnitudes of these climate disasters.	<ul style="list-style-type: none"> ● Flooding: When the 4-hour duration of rainfall reaches 650 mm, no flooding occurs at the plant site. ● Drought: In 2035, there is a 33.5% probability of experiencing more than 51 consecutive days without rainfall in the Miaoli area, reaching the scale of a drought. ● High temperature: In 2035, there is a 9.6% probability of experiencing a high temperature of 37.25° C in the Hsinchu area.
Transformation risks	Taiwan Production/ Operational Sites of SAS	Qualitative and quantitative evaluation of low-carbon transformation risks	According to the Announced Pledges Scenario (APS) from the IEA, the projected global temperature increase is 1.5°C, with future periods identified as either 2030 or 2050. Subsequent climate scenarios are determined based on the specific characteristics of each transition risk event.	<ol style="list-style-type: none"> 1. Policy and regulations <ul style="list-style-type: none"> ● Carbon fee: Under the IEA WEO 2021 APS scenario, the carbon price is set at USD 120 per ton by 2030. ● Total GHG emissions cap: Nationally Determined Contributions (NDCs) ● Renewable energy deployment: The Group has set a phased RE target of achieving RE20 by 2030. 2. Technology <ul style="list-style-type: none"> ● Low-carbon technology transformation: Based on a linear regression of the average carbon reduction cost reported by voluntary reduction companies, the estimated carbon reduction cost for enterprises in 2030 is approximately NT\$9,000 per metric ton of CO₂e. ● Future operational strategy of the Company
Transformation Opportunities	Taiwan Production/ Operational Sites of SAS	Qualitative and quantitative evaluation of low-carbon transformation risks	In consideration of anticipated trends in both domestic and international policy development, as well as the Company's current position and future operational strategies.	<ul style="list-style-type: none"> ● Nationally Determined Contributions (NDCs) ● National Renewable Energy Development Policies and Targets

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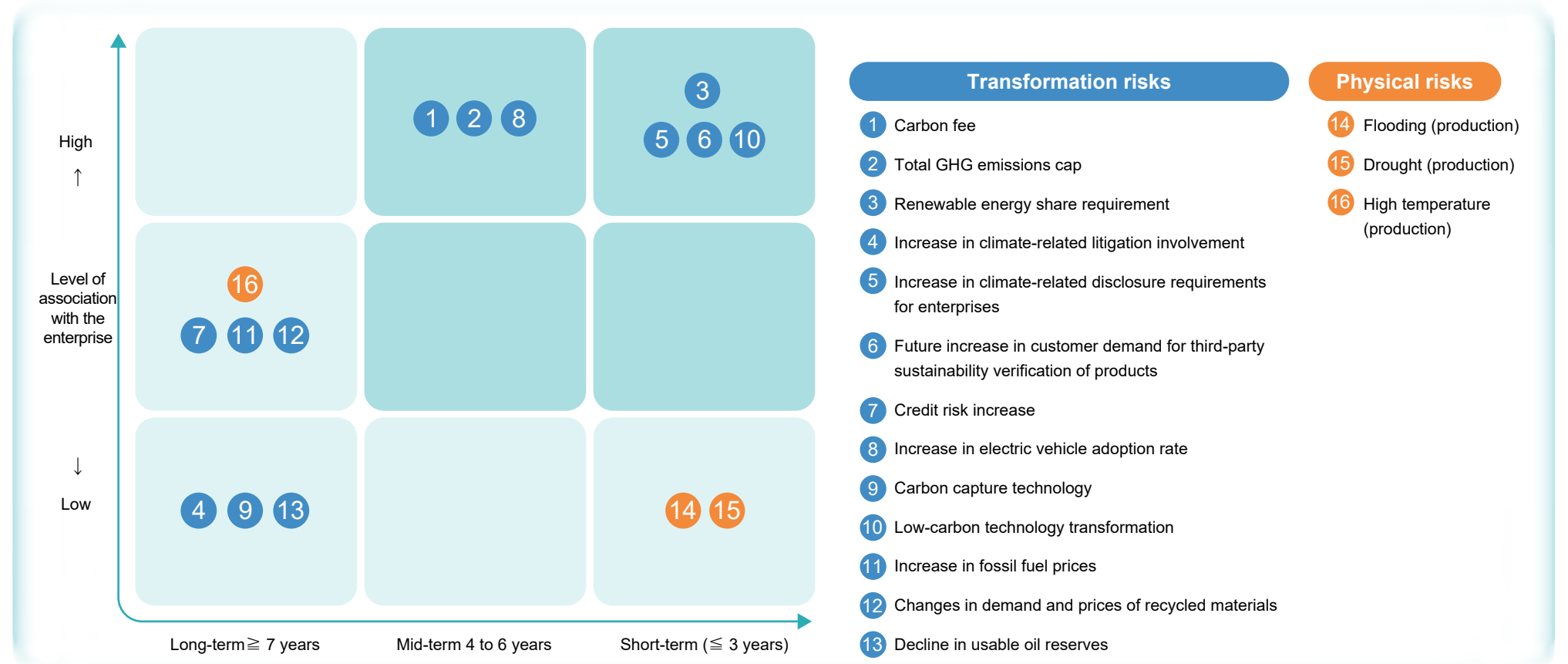
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Climate change risks and opportunities - Risks

In identifying transitional risk events pertinent to the manufacturing sector, we referenced the World Energy Outlook (WEO) 2021 published by the International Energy Agency (IEA), Energy Technology Perspectives (ETP) 2021, and relevant research reports from other reputable organizations. To address challenges linked to extreme weather (physical risks) and trends in low-carbon transformation associated with climate change, the Company conducted an impact assessment on its operations. This approach enables a comprehensive understanding of the short-, medium-, and long-term effects of various climate-related concerns.

By systematically reviewing risks relating to policy and regulation, technology, market dynamics, and reputation, we compiled a list comprising 13 transition risk issues and 3 acute physical risk events. Of these, 7 transition risks and 1 significant acute physical risk event were deemed material.

Climate change risk matrix



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❖ Potential financial impacts of climate change risks and corresponding response strategies

Type	Risks	Potential financial impacts	Time scale	Level of association (impact)	Response strategies	Financial impact of the strategy
Physical risks	High temperature (production)	Elevated ambient temperatures diminish the cooling performance of air conditioning units and impose greater demand on these systems, subsequently increasing total energy consumption and associated electricity expenses.	Long	Medium	<ol style="list-style-type: none"> 1. Install backup systems for critical energy-consuming equipment. 2. Implement an energy management system to monitor and measure the energy efficiency of major energy-consuming equipment and to plan various energy-saving initiatives. 	Investments in various energy-saving measures and equipment increase operational costs.
Transformation risks	Carbon fee	Being subject to domestic and international carbon emission regulations and paying carbon fees (or taxes) increases operational costs.	Medium	High	<ol style="list-style-type: none"> 1. Low-carbon technology transformation 2. Replace company vehicles with electric vehicles 3. Purchase renewable energy 	Investments in various low-carbon measures, including technology transition, replacement of energy-intensive equipment, and the purchase of renewable energy, increase operational costs.
	Total GHG emissions cap	If carbon emissions exceed the regulatory cap, carbon fees will be imposed, resulting in increased operational costs.	Medium	High		
	Renewable energy share requirement	Installing renewable energy facilities or purchasing green power results in a higher unit cost of electricity compared to the Taipower's rate, thereby increasing electricity expenses.	Short	High	Purchase green power and certificates from renewable energy generation sites	Investing in renewable energy generation sites increases operational costs.
	Increase in climate-related disclosure requirements for enterprises	External stakeholders are increasingly focused on the Company's climate actions. Failure to disclose relevant information may damage the corporate image and hinder related investment and financing activities.	Short	High	Expand and enhance the sustainability-related information on the Company's official website	Increase spending on the optimization and maintenance of the Company's official website.
	Future increase in customer demand for third-party sustainability verification of products	In response to customer requirements, implement relevant sustainability projects and undergo third-party verification. Failure to do so may result in a reduction in orders and a potential decline in revenue.	Short	High	To meet customer needs and expectations, implement relevant projects and undergo third-party verification, which also helps enhance external stakeholders' trust in the Company's disclosed information.	Implementing relevant projects and undergoing third-party verification results in consulting and verification expenses, thereby increasing operational costs.
	Increase in electric vehicle adoption rate	To mitigate the impact of carbon regulations, low-carbon measures must be implemented, which generate related investment expenditures and increase operational costs.	Medium	High	Replace company vehicles with electric or hybrid vehicles to reduce carbon emissions	Purchasing electric or hybrid vehicles increases management costs.
	Low-carbon technology transformation	Developing new technologies and implementing mass production require time to optimize capacity and quality. During the early stages of product development, breakeven may not be achieved, potentially causing financial burdens.	Short	High	Integrate internal and external resources to accelerate new technology development timelines and optimize cost control	Developing low-carbon products increases R&D expenditures as well as costs related to resource integration and management.

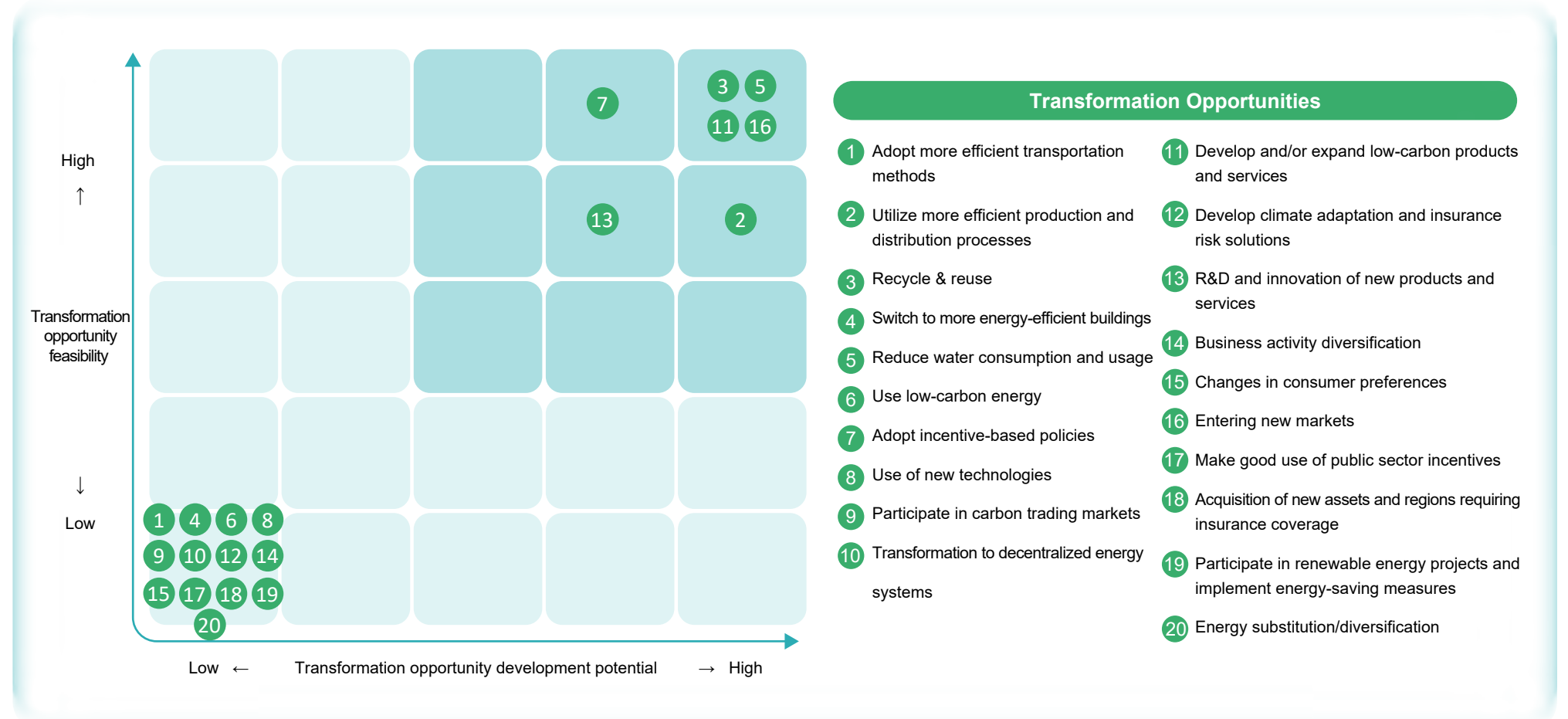


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Climate change risks and opportunities - Opportunities

To address transformation risks and meet rising renewable energy demand in Taiwan—driven by regulations like RE100 and supply chain needs—SAS expects growth in its solar installation and renewable power sales businesses. After analyzing 20 issues related to resource efficiency, energy, products, markets, resilience, and trends, we identified 7 key transformation opportunities linked to climate change.

❖ Climate change opportunity matrix



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❖ Potential financial impacts of climate change opportunities and corresponding response strategies

Type	Opportunities	Potential financial impacts	Response strategies	Financial impact of the strategy
Resource efficiency	Utilize more efficient production and distribution processes	The Company develops low-carbon transition or energy-saving technologies to reduce electricity expenses.	Continuously promote energy management systems, replace outdated energy-consuming equipment, and invest in low-carbon technology research and development.	Investing in various energy-saving improvement projects and low-carbon technologies increases capital expenditures.
	Recycle & reuse	Increasing the use of recycled silicon reduces the consumption of pure silicon, lowers direct costs, and also decreases indirect GHG emissions.	Within the quality standards acceptable to customers, continuously increase the usage ratio of auxiliary materials to reduce the demand for pure materials.	Increase silicon auxiliary material procurement costs
	Reduce water consumption and usage	Recycle and reuse water resources to reduce water costs.	<ol style="list-style-type: none"> The Company's proposal improvement system enables each department to identify opportunities for improvement and conduct management tracking based on the benefits of the proposed improvement projects. Regularly compile, review, and disclose water resource information for plant sites. 	Investing in water recycling equipment increases capital expenditures.
Energy source	Adopt incentive-based policies	Plan a supplier sustainability incentive program to enhance the Company's GHG reduction performance, respond to customer expectations, and thereby increase Company revenue.	Increase suppliers' procurement volumes or provide other incentives to achieve carbon management and reduction effectiveness within the supply chain.	Increasing the proportion of low carbon raw material procurement indirectly raises raw material procurement costs (the suppliers' carbon reduction costs are passed on).
Products and services	Develop and/or expand low-carbon products and services	Expanding solar installation business increases revenue.	Increase annual project installation capacity progressively and treat it as an operational goal.	Increase project installation expenditures and operation and maintenance costs.
	R&D and innovation of new products and services	Innovation in solar cell technology and increased sales demand boost revenue.	Adjust production capacity based on market conditions and treat it as an operational goal.	Increase R&D expenditures for solar cell technology.
Market	Entering new markets	Based on recent renewable energy trends and policy forecasts, there will be market demand for green power, which will support the Company's renewable energy power sales business and increase revenue.	Increase renewable energy power sales annually based on market trends and renewable energy installation capacity.	Implementing policy plans increases labor and management costs.



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Climate Change Actions and Targets

Amidst the rising prevalence of extreme climate events and increasingly rigorous global sustainability policies, the pursuit of "net zero" emissions has emerged as a primary objective for governments and corporations alike. Supporting or achieving net zero transition is now imperative for corporate responsibility. SAS will evolve from being a regulated emitter to serving as a proactive leader in climate change solutions. We adhere to the Science-Based Targets (SBT) framework and integrate our internal business strategy to formulate the Net Zero Transformation Roadmap.

● Category 1 & Category 2

The goal is to achieve a 42% reduction in Category 1 and Category 2 GHG emissions by 2030, relative to the baseline year of 2022. As electricity consumption (Category 2) constitutes our principal source of GHG emissions, decreasing energy usage and enhancing operational efficiency are central to our carbon mitigation approach. This target will be met through four key initiatives: optimizing processes to boost product efficiency, upgrading equipment to maximize energy performance, replacing legacy systems and maintaining current facilities, and procuring renewable energy sources.

● Category 3 to Category 6

The Company is committed to reducing other indirect greenhouse gas emissions by 25% by 2030, compared to the 2022 baseline. These indirect emissions predominantly originate from upstream purchases, especially critical raw materials such as polysilicon and wafers, which collectively contribute over 95% of emissions from purchased goods and more than 90% of total other indirect emissions. As such, priority will be given to managing the carbon footprint associated with these materials. Suppliers will be progressively required to conduct carbon inventories and implement emission reduction initiatives. Preference will be shown to suppliers demonstrating quantifiable progress in carbon reduction efforts.

Target Scope (Base year: 2022)	Short-term (1 to 3 years)	Mid-term (3 to 10 years)	Long-term (over 10 years)
Category 1 & 2 Reduction Targets	<ul style="list-style-type: none"> Achieve more than 2% electricity savings annually compared to the previous year. 	<ul style="list-style-type: none"> Achieve more than 2% electricity savings annually compared to the previous year. 2030: RE20 2030: Reduce Category 1 + 2 emissions by 42% compared to the base year. 	<ul style="list-style-type: none"> 2035 : RE35 2040 : RE50 2050 : RE100
Category 3 to 6 Reduction Targets	<ul style="list-style-type: none"> The proportion of pure silicon used in the crystal pulling process is less than 50% 	<ul style="list-style-type: none"> 2030: Reduce total Category 3 to 6 emissions by 25% compared to the base year 	--
Progress of phased implementation of reduction targets	<p>2024</p> <ul style="list-style-type: none"> Annual energy saving rate: A 1.8% reduction compared to the previous year (falling short of the 2% target). *Reasons for shortfall: The thermal field of the crystal growth furnace was damaged during the earthquake. After repairs, its heat retention capacity did not fully return to the optimal state, which impacted energy efficiency. Ratio of pure silicon used in ingot: 36.8% (meeting <50% target) Category 1 and Category 2 emissions: A 48% reduction compared to the base year Category 3 to Category 6 emissions: A 65% reduction compared to the base year 	--	--

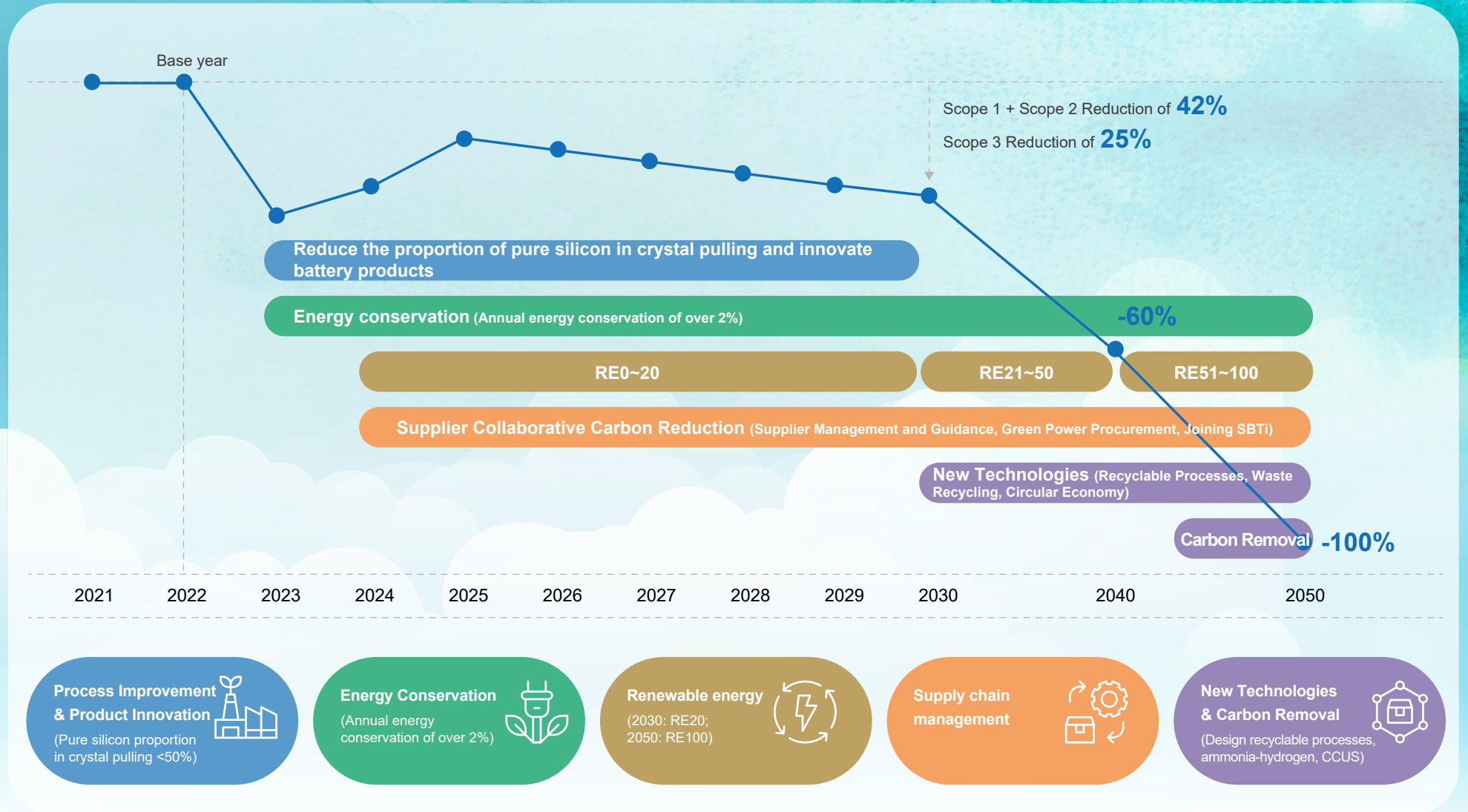
Internal Carbon Pricing

To strengthen the internalization of carbon management and encourage informed low-carbon decision-making, SAS introduced an internal carbon pricing mechanism in 2024, serving as a reference for investment and equipment replacement decisions. The carbon fee rate is modeled on the European Union's Carbon Border Adjustment Mechanism (CBAM) and will be adjusted annually to reflect international developments. This internal carbon fee is determined by greenhouse gas emissions from Scope 1 and Scope 2 categories. By simulating the financial implications of carbon costs, the mechanism encourages all departments to consider low-carbon strategies in energy utilization and equipment planning. The implementation of this approach is intended to heighten the Company's climate risk awareness, foster organizational change, and improve readiness for future tightening of carbon regulations.



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SAS 2050 Net-zero Roadmap



Note: Carbon emissions paths are estimated based on future operating strategies and carbon reduction actions.



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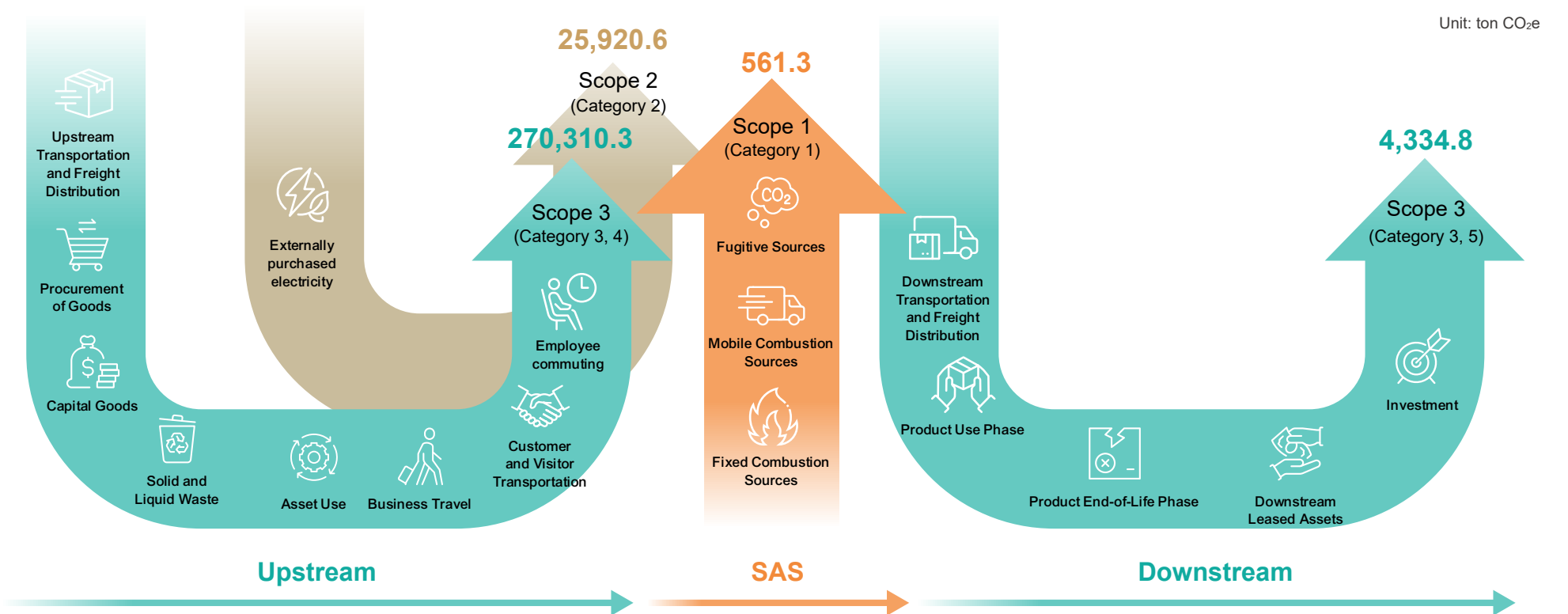
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Carbon Emission Management

Since 2021, SAS has systematically promoted and completed comprehensive greenhouse gas (GHG) emissions inventories and registries in accordance with ISO 14064-1:2018. The reporting boundary encompasses the headquarters, Chunan Branch, Yilan Branch, and Hsu-Hsin Branch, designating 2022 as the baseline year. Annual inventories of GHG emissions at each facility are conducted and verified by independent third parties to ensure robust monitoring and to assess the effectiveness of emissions reduction initiatives.

SAS utilizes the Operational Control Method to define its organizational boundaries. GHG emissions associated with company operations are categorized as direct emissions (Scope 1), energy indirect emissions (Scope 2—arising from purchased energy), and other indirect emission sources (Scopes 3 to 6). Emissions quantification follows the ISO 14064-1 standard, encompassing seven GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). The primary calculation method involves the application of standardized emission factors, referencing authoritative sources such as the Ministry of Environment's GHG Emission Factor Management Table version 6.0.4 (June 2019), the Ministry of Environment's carbon footprint calculation service platform, the ITRI's DoITPro database, and relevant literature. SAS incorporates Global Warming Potential (GWP) values from the IPCC AR6 (2021) in its calculations. Reported GHGs include CO₂, CH₄, N₂O, and HFCs; no emissions have been recorded for perfluorocarbons.

2024 GHG emissions of SAS



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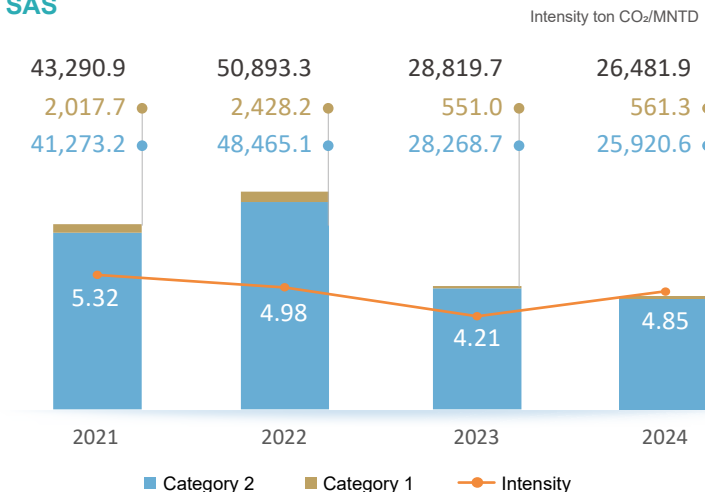
● **Category 1 & 2**

In 2024, SAS reported Category 1 (direct GHG emissions) totaling 561.3 tons of CO₂e and Category 2 (indirect GHG emissions from purchased energy) totaling 25,920.6 tons of CO₂e. These figures reflect an 8.1% decrease compared to the previous year and a 48.0% reduction from the base year.

Regarding emission intensity, carbon emissions per unit of revenue in 2024 were 4.85 tons CO₂e per NT\$ million, marking a 15.1% increase over the previous year. This increase is primarily attributable to shifts in the market environment, which resulted in decreased industry demand and impacted revenue performance. Nevertheless, when compared to the base year (2022), emission intensity decreased by 2.6%, illustrating the sustained effectiveness of the Company's carbon reduction initiatives and its ongoing commitment to lowering carbon emission intensity.

❖ **Category 1 & 2 Emission Volume**

● **SAS**



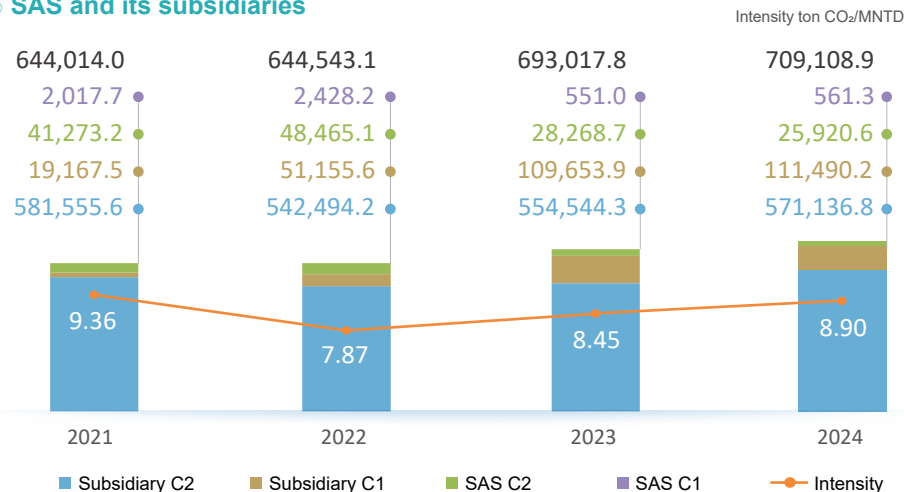
Note :

1. Scope of SAS :
2021 - Chunan Branch (Plant 2), Yilan Branch (Plants 1 & 3)
2022 and 2023 - Headquarters, Chunan Branch (Chunan Plant, Plant 2), Yilan Branch (Plants 1 & 3), Hsu-Hsin Branch.
2. Scope of subsidiaries: (in accordance with the years included in the consolidated financial statements)
2021 - GlobalWafers (TSC and SES not yet inventoried)
2022 - GlobalWafers, TSC, SES, and AWSC (newly added subsidiaries in that year)
2023 - GlobalWafers, TSC, AWSC, SES, and Actron Technology Corp. (newly added subsidiary in that year)
2024 - GlobalWafers, TSC, SES, AWSC, and Actron Technology Corp.

❖ **Category 1 & 2 Emission Source**

Emission Category		Emission Source
Type 1	Direct greenhouse gas emission	1.1 Fixed combustion direct emissions Fuel for generators, boilers, and lawn mowers
		1.2 Mobile combustion direct emissions Fuel for mobile equipment (office vehicles, stackers)
		1.4 Direct fugitive emissions from greenhouse gas releases by manual systems Greenhouse gases can be emitted from a range of sources, including septic systems, stationary pollution source discharge pipes containing volatile organic compounds (VOCs), wastewater processed through anaerobic treatment methods, fire suppression equipment, refrigerants, among others.
Type 2	Indirect greenhouse gas emissions from the input energy	2.1 Indirect emissions from the input energy Externally purchased electricity

● **SAS and its subsidiaries**



3. The electricity emission coefficient of Taiwan plants is based on the announcement by the Energy Administration, MOEA, which is 0.494 (kgCO₂e/kWh) for 2023.
4. GHG emission intensity: Total Category 1 & 2 emissions (tons of CO₂e) divided by revenue (NT\$ million); SAS's intensity uses parent company only revenue, while the intensity for SAS and subsidiaries (other subsidiaries) uses consolidated revenue.
5. SAS uses the Global Warming Potential (GWP) values from the IPCC Assessment Report AR6.



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● **Category 3 to Category 6**

In 2024, SAS reported a total of 274,645.1 tons of CO₂e emissions for Category 3 to Category 6 (other indirect GHG emissions), which is 1.8% lower than the previous year and 65.3% less than the base year.

❖ **Category 3 & 6 Emission Volume**

Unit: tons of CO₂e

Emission Category	2022	2023	2024
Category 3 Indirect GHG emissions from transport	1,132.760	624.145	1,409.455
3.1 Emissions from upstream transport and goods distribution	401.745	141.195	141.042
3.2 Emissions from downstream transport and goods distribution	300.461	170.199	55.494
3.3 Emissions from employee commuting	422.192	296.936	314.089
3.4 Emissions from customer and visitor transportation	Not quantified	Not quantified	Not quantified
3.5 Emissions from business travels	8.361	15.812	898.831
Category 4 Indirect GHG emissions from products used by the organization	785,531.825	274,252.774	268,956.358
4.1 Emissions from purchased goods	784,039.725	273,848.549	267,444.127
4.2 Emissions from capital goods	1,069.596	244.392	1,290.336
4.3 Emissions from solid and liquid waste handling	422.504	159.832	221.895
4.4 Emissions from asset use	Not quantified	Not quantified	Not quantified
4.5 Emissions from the use of services not described in the above subcategories	Not quantified	Not quantified	Not quantified
Category 5 Indirect GHG emissions from use of the organization's products	5,180.453	4,776.586	4,279.280
5.1 Emissions or removals during the product use phase	None	None	None
5.2 Emissions from Downstream Leased Assets	5,180.453	4,776.586	4,279.280
5.3 Emissions from Product End-of-Life Phase	Not quantified	Not quantified	Not quantified
5.4 Emissions from Investment	Not quantified	Not quantified	Not quantified
Category 6 Indirect GHG emissions from other sources	None	None	None
Total	791,845.038	279,653.505	274,645.093

Note: Scope includes SAS Headquarters, Chunan Branch (Chunan Plant, Plant 2), Yilan Branch (Plants 1&3), Hsu-Hsin Branch.



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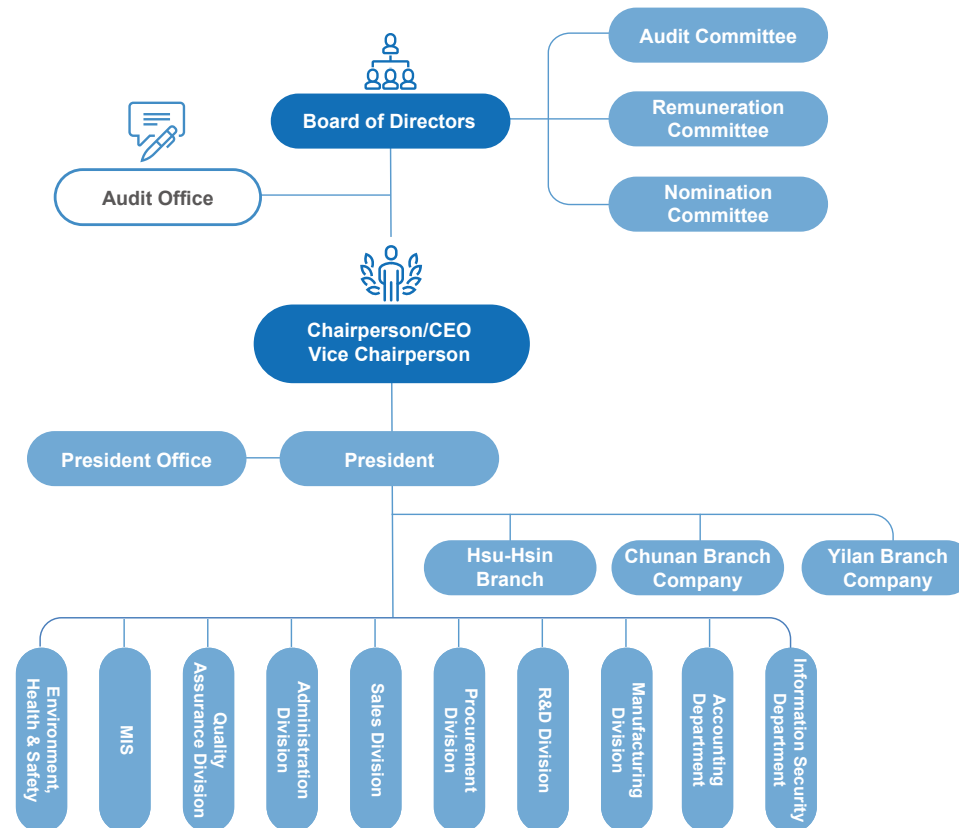
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1.1 Corporate Governance

Sino-American Silicon (SAS) has consistently advanced its ethical operations policy and enhanced information disclosure transparency to reinforce an ethical corporate culture. For 11 consecutive years, SAS has been ranked in the top 5% of all TPEX-listed companies in Corporate Governance Evaluation, demonstrating the company's steadfast dedication to sustainable business practices.

1.1.1 Corporate Governance Structure

❖ SAS Organizational Chart



Summary of key points for the corporate governance organization

- Among the 11 directors, 4 are independent directors.
- Among the 11 directors, 1 is a female director.
- The Audit Committee and Remuneration Committee both consist of independent directors.
- The Nomination Committee has 6 members of whom 4 are independent directors
- The organizational charter of all committees is publicly disclosed in the corporate website.
- The Board of Directors and functional committees conduct annual self-performance evaluations and commission an external independent organization to perform board performance assessments, with the evaluation results disclosed on the Company's website.
- A corporate governance supervisor has been established to implement corporate governance and strengthen the functions of the board of directors

Board Operations

SAS's board of directors comprises 11 members, including 4 independent directors, each bringing substantial expertise and experience to the Company. The directors' strong academic backgrounds and extensive industry knowledge empower them to effectively supervise management and make informed business decisions. All significant proposals requiring board approval are first submitted to the audit committee for preliminary review and discussion before being presented to the board for resolution. Board decisions are published on the Company's website to ensure transparency and safeguard shareholder interests.

To further enhance director competencies and legal understanding, the Company requires each board member to complete a minimum of six hours of relevant training annually. SAS has instituted the "Directions for the Implementation of Continuing Education for Directors," which addresses key areas in corporate governance, including finance, risk management, operations, commerce, law, accounting, and corporate social responsibility. For 2024, director training courses will cover subjects such as corporate governance, securities regulations, global and Taiwan economic outlooks, ESG, net-zero global initiatives, climate change, and additional sustainability issues.



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Board of Directors Member Diversification

The Company's "Corporate Governance Best-Practice Principles" has expressly defined the formation of the Board members and ability to be held by the members. The Company has also established the diversified policy for the Board members. The composition of the board of directors has been determined by taking diversity into consideration, and appropriate policy on diversity based on the Company's business operations, operating dynamics, and development has been formulated, as the following two general standards:

- I. Basic requirements and values: Gender, age, nationality, and culture.
- II. Professional knowledge and skills: A professional background (e.g., law, accounting, industry, finance, marketing, technology), professional skills, and industry experience.

The Company values gender equality for the board of directors, with a target of at least one female director. Going forward, the Company plans to actively increase the number of female directors, aiming to have at least one-third of the board seats held by either gender.

Board members possess diverse expertise and experience in operations management, industry knowledge, finance, and strategic management to implement the Company's board diversity policy. For details on directors' professional qualifications and the implementation of diversity, please refer to the Annual Report.

Board Member Recusal

The Rules of Procedure for Board of Directors Meetings and the organizational charter of the Audit Committee include the following provision: If a director or a juristic person represented by a director has an interest related to an agenda item, the director is required to disclose relevant details of the relationship at the meeting. When this relationship could potentially affect the interests of the Corporation, the director may present opinions and answer questions but is not permitted to participate in discussion or voting on the agenda item and must recuse themselves from both. Additionally, such directors may not vote as proxies for other directors.

SAS directors (including independent directors) are elected through a candidate nomination system in accordance with Article 192-1 of the Company Act. Shareholders elect directors from a nominated list, with each director serving a three-year term. In 2024, the SAS board of directors held nine meetings, with an average attendance rate of 95%. Further details regarding the board's organization, members' professional and educational backgrounds, and attendance records are provided below:

❖ Main academic (experience) background and attendance status of board members in 2024

Title	Name	Gender	Primary professional (educational) background	Actual no. of attendance	No. of presence by proxy	Actual presence (attendance) rate (%)	Notes
Chairperson	Hsiu-Lan Hsu	Female	MA in Computer Science from University of Illinois President of Sino-American Silicon	9	0	100%	Reelected on 2023.06.21
Vice Chairperson	Tang-Liang Yao	Male	MA Degree from the Graduate Institute of Management at Tamkang University Assistant Vice President of the Manufacturing Division of Lite-On Power Semi / President of Sino-American Silicon Products Inc.	9	0	100%	Reelected on 2023.06.21
Director	Ming-Kuang Lu	Male	Honorary Doctor of Engineering, NCTU / Honorary Doctorate of Engineering, Datong University / Completed Entrepreneur Training Course, NCCU MBA Program President of Lite-On Semiconductor Corp. / President of Lite-On Power Semi / Vice President of Silitek Corp. / Chairperson and CEO of SAS / Academician of ITRI	8	1	89%	Reelected on 2023.06.21
Director	Wen-Huei Tsai	Male	Accounting Department, National Chengchi University Director of Easywell biomedical Inc. / Director of Ene Technology Inc.	9	0	100%	Reelected on 2023.06.21



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Title	Name	Gender	Primary professional (educational) background	Actual no. of attendance	No. of presence by proxy	Actual presence (attendance) rate (%)	Notes
Director	Feng-Ming, Chang	Male	Master of Computer Engineering, USC / Master of Economics, Texas A&M University Director of TECO Electric & Machinery Co., Ltd. / Director of Syntec Scientific Corp.	8	1	89%	Reelected on 2023.06.21
Director	Kai Jiang Co., Ltd. Representative: Hau Fang	Male	MA in International Business Management from National Chengchi University Vice President of Taiwan United Medical Inc.	9	0	100%	Reelected on 2023.06.21
Director	Kun-chang Investment Company Representative: Edward Andrew Ou	Male	Department of Energy Economics, U.C. Berkeley Chairman of Edison's Co., Ltd. / Director of VIA Faith and Love Charity Foundation / Director of Chinese Christian Faith and Love Foundation	6	3	67%	Reelected on 2023.06.21
Independent Director	Jin-Tang, Liu	Male	Bachelor of Accounting, Tamkang University CPA of KPMG / 21st Council Member of CPA Associations R.O.C. (Taiwan) / Teaching Assistant, Tamkang University	9	0	100%	Reelected on 2023.06.21
Independent Director	Hou-Chung, Kuo	Male	PhD, Electrical Engineering and Computer Science, University of Illinois, Urbana-Champaign	9	0	100%	Reelected on 2023.06.21
Independent Director	Shao-Lun, Li	Male	PhD in Materials Science, University of California Executive Vice President of Lam Research / Director of TVBS / Supervisor of HTC Corporation / President of Chander Electronics corp.	9	0	100%	Reelected on 2023.06.21
Independent Director	Chien-Yung Ma	Male	Master of Material Science and Engineering, National Taiwan University/Ph.D. in Metallurgy from the University of Stuttgart, Germany Chairperson of Solar Applied Materials Technology Corp./Section Leader at the Institute of Materials and Optoelectronic, Chung-Shan Institute of Science & Technology/Director of Highlight Tech Corp./ Chairperson of Forcera Materials Co., Ltd.	9	0	100%	Elected on 2023.06.21

For information on directors concurrently holding positions at SAS and other companies, directors' remuneration, and board resolutions, please refer to [SAS's 2024 Annual Report](#).



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Remuneration Committee

SAS has established a Remuneration Committee to implement a systematic salary scheme. The Remuneration Committee is in charge of formulating and reviewing performance assessment and remuneration policies, systems, standards, and structures for directors and managers.

A total of 3 meetings were held in 2024, with an average attendance rate of 100%:

Remuneration Committee Charter For details on Remuneration Committee resolutions, please refer to the [SAS 2024 Annual Report](#)

Regular assessment of corporate governance and operational performance of directors and managers by the Remuneration Committee



Ensure that the performance of directors and managers are consistent to their personal remuneration.



Propose amendments and assist the board of directors in the implementation and evaluation of the Company's overall remuneration, welfare policies, and the remuneration of directors and managers



Evaluation and review for the future shall include sustainable performance within the scope of remuneration evaluation.



Remuneration Committee Charter



Audit Committee Charter



Nomination Committee Charter

Audit Committee

SAS has an Audit Committee composed entirely of independent directors to provide oversight as part of its corporate governance framework. The Audit Committee's responsibilities include reviewing and discussing financial reports, overseeing the qualification, selection, dismissal, independence, and performance of CPAs, evaluating public CPA expenses, implementing and amending the Company's internal control system, monitoring legal compliance, and identifying existing or potential risks for the Company. In 2024, the Committee convened nine times, with an average attendance rate of 97%.

For details on Audit Committee resolutions, please refer to the [SAS 2024 Annual Report](#)

Nomination Committee

SAS has established a Nomination Committee to enhance the effectiveness of the Board of Directors and reinforce corporate governance practices. The committee consists of six directors, including four independent directors. Its primary responsibilities include structuring and developing the board of directors and its various committees; identifying, evaluating, and recommending candidates for directorships and senior management positions, considering factors such as professional expertise, technical knowledge, experience, gender, diverse backgrounds, and independence requirements; and formulating as well as reviewing training and succession plans for directors and senior managers.

A total of one meeting was held in 2024, with an average attendance rate of 100%.Nomination Committee Charter

For details on Nomination Committee resolutions, please refer to the [SAS 2024 Annual Report](#)

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Performance Evaluation of the Board of Directors and Functional Committees

To implement corporate governance and improve the functions of the Board of Directors and its committees, the Company sets performance targets to support operational efficiency. According to the "Rules for Performance Evaluation of Board of Directors and Functional Committees," annual evaluations are conducted for the board and its committees. Results are compiled and submitted to the Board of Directors by the end of the first quarter of the following year. Additionally, the Board's performance is evaluated by external professional independent organizations or expert teams at least once every three years, with results also submitted to the Board.

● **Implementation status of the annual internal evaluation for the Board of Directors and functional committees:**

At the end of each year, the President Office coordinates the internal evaluation process. Internal questionnaires are collected, and evaluations are completed through self-assessment by board members and committee members. The scope includes evaluations of the entire Board, individual directors, and functional committees. Criteria include participation in company operations, decision-making quality, composition and structure, selection and training, and internal controls. In 2024, a sustainability-related ESG indicator was added to connect director performance with the Company's sustainable development objectives. The 2024 evaluation found that the Board and committees operated in accordance with corporate governance procedures.

● **Implementation status of external evaluation for the Board of Directors:**

In addition to internal assessments, in October 2024, the Company engaged the Taiwan Corporate Governance Association as an external independent evaluator for the Board's performance. The assessment covered five areas: board composition and division of responsibilities, guidance and oversight, authorization and risk management, communication and collaboration, and continuing education and self-control. Questionnaires and on-site visits were used for the review, with findings and recommendations provided by the Association.

The Company reported the above evaluation results to the Board of Directors on February 27, 2025. For the board performance evaluation results, please refer to [SAS website](#).

● **Linking Board Governance and Sustainability Performance**

The Company evaluates directors' performance and remuneration by considering not only customary industry standards and role-based compensation benchmarks but also operational outcomes and level of engagement. This includes factors such as attendance, communication frequency, contributions made, and both financial (e.g., revenue and profit attainment) and non-financial metrics (e.g., legal compliance, adherence to internal controls, ESG performance, and notable accomplishments). Remuneration decisions incorporate a thorough assessment of these elements along with an evaluation of future risks, ensuring alignment between compensation, managerial responsibilities, and overall director performance.

For non-financial measures, in support of the Company's commitment to sustainable development, ESG (Environmental, Social, and Governance) criteria are integrated into senior executive performance reviews—including those for the President, Vice President, and Plant Managers. The specific ESG indicators and their respective weightings are tailored for each executive according to their unique duties and scope of responsibility. Examples include domestic and international ESG ratings, climate change initiatives (such as greenhouse gas reduction, achievement of energy-efficiency and carbon-reduction targets, and ratio of renewable energy usage), and promotion of occupational health and safety. Achievement of these ESG objectives is incorporated into overall performance appraisals and directly influences remuneration decisions.

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Board of Directors

- Submission of motions to the board of directors for discussion in accordance with the laws
- Comply with Directors' Avoidance of Conflicts of Interest
- Review the Company's accounting system, financial status and financial reports, audit reports, and tracking status
- Board directors and certification accountants conduct communication. In events of new accounting bulletins or major adjustments in financial reports, there will be meetings for Q & A with accountants and for discussions
- Assessment and monitoring of existing or potential risks
- Whether board directors have all completed the training hours as required by governing authorities
- Attendance rate of each board meeting is 2/3 and above
- Over 1/2 directors attended the shareholders meeting
- Board directors and the company's management executive maintain an excellent communication channel.



Nomination Committee

- Provide due care as good managers, faithfully perform their duties, and submit their suggestions to the board of directors for discussion
- Seek, review, and nominate candidates for directors and senior managers based on the professional knowledge, technology, experience, gender, and other diverse backgrounds as well as independence needs of board members and senior managers.
- Construct and develop the organizational structure of the board of directors and the various committees; and conduct performance evaluations of the board of directors, committees, and directors in order to evaluate the independence of independent directors.
- Formulate and review director training and succession plans for directors and senior managers.



Remuneration Committee

- The Remuneration Committee Chairperson is able to direct meeting proceedings and thereby ensures effective and efficient discussions and resolutions.
- All Remuneration Committee members possess professional knowledge of the industry and compensation management competence.
- All remuneration committee members are all fully aware of the core targets of the organizational operation, and familiar with all remuneration plans within the company as well as all composition factors of the board directors' and managers' salaries.
- Formulate and regularly review the company's salary policies, systems, standards and structure.
- The assessment results of the board directors' and managers' performance indicators are applied as the key basis for remuneration planning and distribution so as to make objective and fair decisions.
- Formulate and regularly review the board performance assessment system to see if it connects with the payment guidelines for the board emoluments.
- Regularly report to the board of directors the remuneration committee's discussion and resolutions.



Audit Committee

- Clear understanding of the roles and responsibilities of the entire Audit Committee and its individual members.
- Regularly report to the board of directors the audit committee's activities, problems uncovered and relevant suggestions.
- All Audit Committee members possess professional knowledge of the industry including diverse experience and professional backgrounds.
- Annually and regularly review the audited and non-audited public funds and services provided by certification accountants and affirm the scope of audit services provided.
- Review, along with certification accountants, any audit-related problems and challenges, as well as response of the governing authorities.
- Regularly meet with internal auditor to assess the effectiveness of internal audit results. Meet with individual auditors at least once a year or whenever necessary.
- During the review process, the audit committee effectively identify and assess major risks and evaluate the necessary steps to take for risk control.
- Has evaluated and monitored the company's existing or potential risks.
- Review with prior approval of proposed transactions with interested parties to ensure conformity to relevant policies and report approved transactions to the board.

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1.1.2 Integrity & Ethics

Core Values

Honesty and integrity are fundamental values at SAS. To foster an environment grounded in ethical management, SAS has established comprehensive regulations and communication channels for all directors, executives, and employees. By implementing stringent management systems, the Company mitigates risks related to integrity while continuously adding value for customers and fulfilling its commitments to shareholders and stakeholders.

Internal Regulation System

SAS enforces integrity management through key internal policies such as the "Ethical Corporate Management Best Practice Principles," "Codes of Ethical Conduct," and the "Procedures for Ethical Management and Guidelines for Conduct." These documents outline precise expectations for directors, managers, and employees during business operations, including standards for integrity, ethical conduct, prohibition of undue hospitality or improper gain, protection of intellectual property rights, avoidance of anti-competitive practices, and management of conflicts of interest. All documents are accessible on both the Company's public and internal websites, ensuring that staff can regularly consult them to enhance compliance and ethical awareness.

For colleagues involved in marketing and procurement, the importance of ethics and integrity is reinforced through "Sales Management Measures" and "Procurement Management Measures." A robust legal compliance framework addresses issues like fair competition, due diligence, trade controls (including trading counterparts, subject matter, intended use, cash flows, and applicable trade restrictions), anti-corruption, anti-bribery, and mechanisms for preventing and managing conflicts of interest. SAS also employs supply chain oversight to ensure adherence to conflict-free mineral requirements.

All employees sign "Intellectual Property Rights and Confidentiality Agreements" upon joining, and marketing and procurement departments are required to execute non-disclosure agreements (NDAs) with partners to avoid unauthorized disclosure of proprietary information. Employees must not seek or collect confidential operational information unrelated to their duties, thereby safeguarding sensitive partner information. The Company has implemented "Personal Data Protection Management Measures," conducts regular audits of personal data, and rigorously upholds privacy obligations.

In 2024, SAS did not experience any legal cases or penalties associated with anti-competitive behavior.

Anti-Corruption Policies

SAS maintains a zero-tolerance stance towards corruption, as stated in its "Anti-Corruption Policy": no bribery, no acceptance of bribes, and no solicitation of bribes. This policy is detailed within the "Ethical Corporate Management Best Practice Principles" and the "Procedures for Ethical Management and Guidelines for Conduct," which stipulate that employees are prohibited from offering, promising, requesting, or receiving improper benefits during business activities. Specific procedures require employees to document and report incidents involving threats or offers of illicit benefits to their supervisor and the compliance unit; any unreturnable items must be submitted to the legal compliance office within three days of receipt. To align with the electronics industry's RBA Code of Conduct 8.0, SAS updated its "Procedures for Ethical Management and Guidelines for Conduct" in Q3 2024, introducing new thresholds for gifts: each gift's market value may not exceed NT\$800, and total annual benefits from a single party cannot exceed NT\$2,000, in line with customary business practices.

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In 2024, the Company delivered "Ethical Corporate Management" training to all new hires, aiming to reinforce correct principles, promote legal compliance, and appropriately manage corruption risk. Key guidelines include:

1. Be vigilant and cautious about all interests that may affect business decision-making.
2. Regardless of value, "no bribe offering, no bribe receiving, and no bribe demanding."
3. "No prior gifts and no subsequent gratuities."

SAS has adopted the "self-legal-compliance evaluation," "e-mail tracking," "qualitative interviews," "donation review," and other dishonest behavior risk assessment mechanisms to identify units and personnel with a higher risk of corruption. The marketing and procurement units are the first-line external contact units due to their business attributes, so they are faced with more internal/external incentives and opportunities for dishonest behaviors (i.e., cash, gifts, services, entertainment, facilitating fees). They are identified as having a higher risk of corruption by the Company. As such, SAS has stipulated the "anti-bribery and anti-corruption" clauses in the "Sales Management Measures" and "Procurement Management Process" measures to prohibit any bribery and corruption such as direct or indirect requests, appointments, deliveries, requests, or acceptance of bribes, any unreasonable gifts, entertainment, or other improper benefits from any third party. In case of violation, the violator must face criminal and civil liabilities in addition to punishment according to SAS's employee Reward and Punishment Provisions. If the Company has suffered damages due to such actions, the violator must also compensate SAS for the losses thus incurred.

In addition to the aforesaid internal risk control measures, SAS also urges all suppliers and customers to adopt the highest corruption prevention standards, and sign written "Supplier Code of Conduct" or "Customer Code of Conduct" to declare the "anti-bribery and anti-corruption" concepts to all of the Company's transaction partners. SAS requires that under no circumstances shall suppliers or customers offer or accept bribes to or from SAS or its representatives in order to influence transaction decisions. In addition, SAS shall also instruct its marketing and procurement personnel to fill-in the "Customer/Dealer/Agent Ethical Corporate Management Evaluation Form" and "Supplier Ethical Corporate Management Evaluation Form" before establishing business relationships, which shall serve as the basis of transaction risk evaluation.

The employees of SAS shall obtain a high level of knowledge about anti-corruption behaviors through continuous education and training. In 2024, there were no employee-related corruption incidents.

For Ethical Corporate Management Best Practice Principles and other internal regulations, please refer to the [SAS website](#).

Recusal for Conflicts of Interest

SAS attaches great importance to ethical integrity, and has formulated the "Ethical Corporate Management Best Practice Principles," the "Procedures for Ethical Management and Guidelines for Conduct," and the "Codes of Ethical Conduct" to clearly provide that when directors, managers, and other interested parties participating or attending a Board of Directors meeting have a conflict of interest with the proposals listed by the Board of Directors; the conflict of interest shall be explained to the Board of Directors. If such conflict of interest is harmful to the Company, said personnel shall be prevented and recused from discussion and voting, and shall not act on behalf of other directors to exercise their voting rights.

To effectively prevent conflicts of interest, SAS has stipulated that the its employees shall not use their positions in the Company to obtain improper benefits for the following persons or companies:

- Employee himself/herself, spouse, parents, children, or relatives within the second degree of kinship;
- Enterprises in which the aforementioned personnel directly or indirectly enjoy considerable financial benefits;
- An enterprise in which the employee serves concurrently as the Chairperson, director, independent director, or senior manager;

SAS has provided appropriate channels for directors, independent directors, or managers to proactively explain whether they have potential conflicts of interest with the Company. Additionally, in 2024, SAS, following the electronics industry's adoption of the RBA Code of Conduct 8.0, introduced the "Employee Conflict of Interest Declaration and Confirmation." This document is issued to new employees upon onboarding for signature. It is used to educate employees on key points and management measures for avoiding conflicts of interest, confirm the absence of conflicts, and ensure employees clearly understand their obligation to proactively report any conflicts of interest.

Insider Trading Prevention

To strengthen corporate governance and deter insider trading, SAS has established "Management Procedures for Preventing Insider Trading." These procedures prohibit insiders and related parties from trading Company securities when in possession of material, non-public information—either prior to its disclosure or within 18 hours thereafter. Directors, managers, and certain designated persons are also forbidden from trading Company shares during "closed periods" (30 days before annual and 15 days before quarterly financial announcements). The President's Office is responsible for notifying affected parties and reviewing compliance as part of monthly equity reporting.



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Reporting Channel and Informant Protection

The Company has enacted the "Measures for the Report on Illegal, Immoral and Dishonest Acts" to support ethical management and clearly define disciplinary and appeals processes. Multiple confidential reporting channels—including suggestion boxes, dedicated email addresses, and hotlines—are available via the internal website. SAS commits to protecting whistleblowers from retaliation. To comply with TPEX and TWSE/TPEX Listing requirements, SAS revised its reporting procedures in 2023 to explicitly permit anonymous submissions (Website: <https://www.saswafer.com/en/contact-us-3/>).

Investigators are obligated to assure whistleblowers of confidentiality regarding both identity and report content. When a violation is confirmed, appropriate disciplinary action is taken based on severity. The reporting process and contact points are outlined below:

1. Acceptance Unit and Accepted Party

Acceptance Unit	Accepted Party
Spokesperson	1. Shareholders, 2. Investors, 3. Other interested parties
Personnel manager	1. Company insiders, 2. Customers, 3. Suppliers, 4. Contractors
Legal Affairs and Independent Directors	Same as spokesperson and personnel supervisor accepted parties

2. Processing Unit and Procedure

The Accused	Processing Procedure	Processing Unit
General Employees	Money Case	Report to the President Human Resources Legal Affairs may assist
	Non-money Case	Report to the Chairperson Human Resources and Department Supervisors Legal Affairs may assist
Chairperson, Director, Senior Executive	Report Submission Independent Director or Audit Committee	Human Resources and Legal Affairs

3. Procedure for Management

Steps	Responsible Unit	Content
1. Investigate the Facts	Human Resources, Legal Affairs	<ul style="list-style-type: none"> ● Investigate the relevant facts immediately; if it is believed that there is indeed a risk of unethical behavior, submit the case to the Chairperson of the board of directors for case delegation. ● The relevant personnel handling the case shall issue a written disclosure to keep the identity of the informant and the content of the report confidential. ● Written records of report acceptance and investigation shall be kept for 5 years.
2. If verified to be true	Human Resources, Legal Affairs	<ul style="list-style-type: none"> ● The perpetrator is required to stop the relevant behaviors and shall be properly disciplined via the Company's internal procedures or legal procedures. ● Information such as the job title, date of violation, facts of violation, provisions violated, and handling status shall be disclosed on the Market Observation Post System. (the same shall apply to those receiving immunity from the board of directors) ● If necessary, report to the competent authority or transfer the case to the judicial authority for investigation. ● The relevant unit of the perpetrator shall review the internal control system and operating procedures, and propose improvement measures. ● The investigation results shall be recorded in writing and be kept for 5 years.
3. Relief	Human Resources	<ul style="list-style-type: none"> ● Give the perpetrator the opportunity to appeal and convene a Personnel Appraisal Committee hearing if necessary.
4. Report to the board of directors	Legal Affairs	<ul style="list-style-type: none"> ● Submit the case reported, the handling method, and the subsequent review and improvement measures to the board of directors.



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Personal Data Protection

To enhance personal data protection, SAS implemented its "Privacy Policy" in June 2024, governing all data capable of directly or indirectly identifying individuals from both internal and external sources. This policy is accessible on SAS's official website and outlines the standards and procedures employed in the collection, processing, usage, access, and disclosure of personal data. The policy encompasses three key areas: privacy protection; principles for the collection, processing, and use of personal data; and security protocols. Details are summarized below:

(1) Privacy Protection :

- The Company adheres strictly to all relevant privacy and personal data protection laws and regulations.
- All personnel are required to exercise diligence and confidentiality during processes involving personal data, thereby preventing unauthorized disclosures or access. The Company is committed to safeguarding the privacy attributes of personal data throughout its lifecycle.
- Employee access to personal data is determined by necessity and restricted to the minimum scope required for operational responsibilities, ensuring usage does not surpass the original collection purpose.

(2) Collection, Processing, and Use of Personal Data :

- Proportionality Principle: Personal data is collected, processed, and used only to fulfill legitimate business objectives, with strict limitations placed on type, volume, duration, and retention.
- Right to be Informed: Prior to data collection, the Company explicitly communicates the intent and scope to the data subject. When mandated by law, the subject is informed verbally or in writing regarding collection intent, duration, retention period, methods, recipients, and statutory rights. Where legal consent is required, it is duly obtained.
- Purpose Limitation: Usage of personal data is confined to the specific, original purposes of collection except where expanded scope is permitted by law or consent is granted by the data subject.

(3) Security Measures :

- All responsible units within the Company undertake reasonable actions to protect personal data security.
- In cases of data theft, alteration, damage, loss, unauthorized use, or leakage, prompt emergency measures are enacted and affected data subjects are notified alongside details of the incident and corresponding countermeasures.
- The Compliance Unit conducts regular audits and coordinates personal data protection training to ensure ongoing adherence to legal requirements across all data-related activities.

Beyond the aforementioned "Privacy Policy," the Company has instituted "Regulations for Personal Information Protection Management" to oversee data handling and regulate employee conduct associated with personal information collection, processing, and usage in business operations. Regular audits and bi-annual "Personal Information Protection Education and Training" sessions are held by the Compliance Unit. Each responsible unit maintains inventories of personal information associated with business activities to ensure compliance with the Personal Data Protection Act.

In 2024, training sessions and inventory reviews were conducted, and results were reported through a dedicated meeting to the Personal Data Protection Team. The following enhancements were introduced:

- High-risk custodial units (Human Resources, Marketing, Procurement) established comprehensive data inventories to facilitate timely notification of data subjects in the event of breaches, as stipulated by law.
- The "Information Security Incident Management Procedures" were amended to include Legal Affairs and Human Resources departments in the response team, thereby streamlining incident verification, communication, and reporting to regulatory authorities in accordance with statutory obligations.
- Amendments to the "Regulations for Personal Information Protection Management" now mandate completion and compliance review of a "Personal Data Usage Application Form" prior to any third-party data access.

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1.1.3 Professional Independent Internal Audit Operation

The Audit Office reports to the board of directors, acting to assist both directors and management in designing effective internal control mechanisms to promote efficient company operations and achievement of strategic objectives, including the following:

- Operational effectiveness and efficiency in areas such as profitability, performance, and asset protection.
- Reliability, timeliness, transparency, and regulatory compliance of both financial and non-financial reporting.
- Adherence to all applicable laws and regulations.

Internal auditors are expected to maintain objectivity and independence, exercising professional judgment and due care. Reports are regularly submitted to the Audit Committee (comprised of independent directors), and the audit supervisor attends board meetings to present findings. Audit staff must uphold integrity and ethical conduct, refraining from any actions that contravene the "Internal Audit Best Practice Principles" or the "Code of Ethics for Internal Auditors."

In response to evolving international capital markets, the corporate governance unit emphasizes not only operational outcomes but also corporate sustainability. Accordingly, the Audit Office participates in management and third-party assurance initiatives and supports responsible units in internal control system development, adjusting audit practices where necessary.

Implementation activities include:

- Internal control system setup and self-assessment: Assist managers in designing appropriate internal control mechanisms and conduct "Internal Control System Self-assessment." Each department shall evaluate the internal control status for its responsible area. The goal is to achieve the self-examination effect and strengthen the internal control concept for the evaluation department. To promote the applicability of self-assessment items, the internal auditors shall use electronic questionnaires to strengthen the connection between operations and processing efficiency in addition to referencing other internal company evaluation activity results to supplement the evaluation items.
- Annual audit plan development and execution: Risk-based audit plans are formulated and carried out for operating procedures, with identified deficiencies addressed via recommendations to improve control proficiency.
- Project audits and advisory services: Special inspections address risks such as fraud and corruption, with recommendations made to strengthen internal control rigor.
- Resolution and follow-up of audit issues: Improvement strategies are discussed with audited units, and progress is tracked to ensure effective remediation.
- Reporting: Audit results are communicated to the Audit Committee and board of directors, highlighting control weaknesses and facilitating improved supervision and governance.
- Subsidiary audit operations: Support is provided for subsidiaries in establishing audit mechanisms and performing self-assessments; findings are pursued until resolved, and annual plans are executed with follow-up as needed.



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1.1.4 Legal Compliance

SAS formulates policies and provisions in accordance with applicable domestic and foreign laws and regulations. The company requires all employees to adhere to relevant legal requirements through ongoing education, training, promotion efforts, and regular inventory and self-evaluation measures to maintain awareness of legal compliance and ethics. In 2024, SAS conducted several training sessions on compliance-related topics:



• **Internal personnel education and training :**

To address insider trading risks, the company schedules insider trading training for directors and department-level managers every two years. This training is also mandatory for new employees and newly appointed directors. Course materials are accessible via the internal employer system. Topics include insider trading regulations, disclosure requirements for material information, judicial interpretations, and obligations concerning changes in insider shareholding. In 2024, this training was completed by 18 new employees.



• **Personal data protection training :**

To support compliance with the Personal Data Protection Act, personal data protection training is held every two years for section-level supervisors company-wide. The program addresses collection, processing, and usage of personal data, statutory obligations, penalties, and case studies. In 2024, there were 87 participants.



• **Ethical corporate management education and training :**

The company provides ethical management training for directors and department-level managers every two years, and it is required for new employees and newly appointed directors. Materials are provided internally. The course covers trade secret protection, fair trading, anti-bribery, anti-corruption, conflict of interest prevention, export control, and other compliance issues relevant to the technology sector. In 2024, 18 new employees participated.

SAS also implements ongoing internal reviews and cross-auditing at each plant to identify potential risks and improve internal management. In 2024, three penalty cases within SAS's organizational boundary were recorded:

- GlobalWafers Co., Ltd. received a NT\$20,000 fine for violating Article 27, Paragraph 1 of the Personal Data Protection Act after an information security incident in an overseas plant resulted in the leakage of Taiwan personnel's data.
- The Taisil Branch of GlobalWafers Co., Ltd. received a NT\$60,000 fine for violating Article 37 of the Occupational Safety and Health Act by not reporting an employee's hospitalization within eight hours.
- The Taisil Branch of GlobalWafers Co., Ltd. received a NT\$100,000 fine for violating Article 24, Paragraph 2 of the Air Pollution Control Act due to a defect in the emergency response duct damper.

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SAS has established policies and guidance documents to comply with sector-specific regulations :

Securities regulations	<p>Robust management framework</p> <p>Sino-American Silicon is listed on the Taipei Exchange OTC market and must comply with the Securities and Exchange Act and related regulations.</p> <ul style="list-style-type: none"> ● The Office of the President has established effective communication channels with the appropriate regulatory authorities. ● Upon verification, the Legal Department shall monitor evolving legal trends, review new regulations and proclamations, and track legislative developments. The department is responsible for notifying relevant divisions to develop appropriate response measures as needed. Should inquiries arise from any division, the Legal Department will research applicable regulations and, after consulting and confirming with the competent authority, provide accurate and informed responses.
Labor Laws and Regulations	<p>Full compliance with labor laws</p> <ul style="list-style-type: none"> ● Set up work systems and management standards in accordance with labour laws and regulations, promote suitable labour conditions and effective communication mechanisms, and facilitate appropriate labour-management interactions among colleagues. ● Employee salaries and benefits are maintained in line with labour laws, and opportunities for talent development are provided. For significant changes related to pay, benefits, or leave, employees are informed beforehand via labour-management meetings, electronic newsletters, or HR board announcements, with the aim of ensuring their rights are protected.
Data management	<ul style="list-style-type: none"> ● Key policy documents: Staff Employment Contract, Business Confidentiality and Intellectual Property Agreement, Codes of Ethical Conduct. ● Management mechanism: Promote intellectual property and trade secret awareness through posters, slogans, employee training, and confidentiality agreements for relevant staff.
Personal Data Protection	<ul style="list-style-type: none"> ● Key Policy Documents: Privacy Policy, Personal Information Protection Management Regulations ● Management Mechanism: Implement periodic inventory audits and conduct training sessions regarding personal data within business operations to ensure that responsible departments collect, process, and utilize personal data in strict accordance with the Personal Data Protection Act.
Corporate governance / Supervision over subsidiaries	<ul style="list-style-type: none"> ● Key policy documents: Ethical Corporate Management Best Practice Principles, Codes of Ethical Conduct, and Procedures and Guidelines for Ethical Management. ● Management mechanism: Integrate applicable regulations into the training and educational programmes for employees, ensuring that all staff adhere to a well-defined code of conduct.
Environmental/OSH laws and regulations	<ul style="list-style-type: none"> ● Key policy documents: Identify and manage environmental, occupational safety, health laws, regulations, and related requirements. ● Management mechanism: Each month, review compliance with changes in environmental protection, occupational health and safety, energy management, and other related laws and regulations or requirements. Regularly assess compliance with other applicable regulatory requirements.

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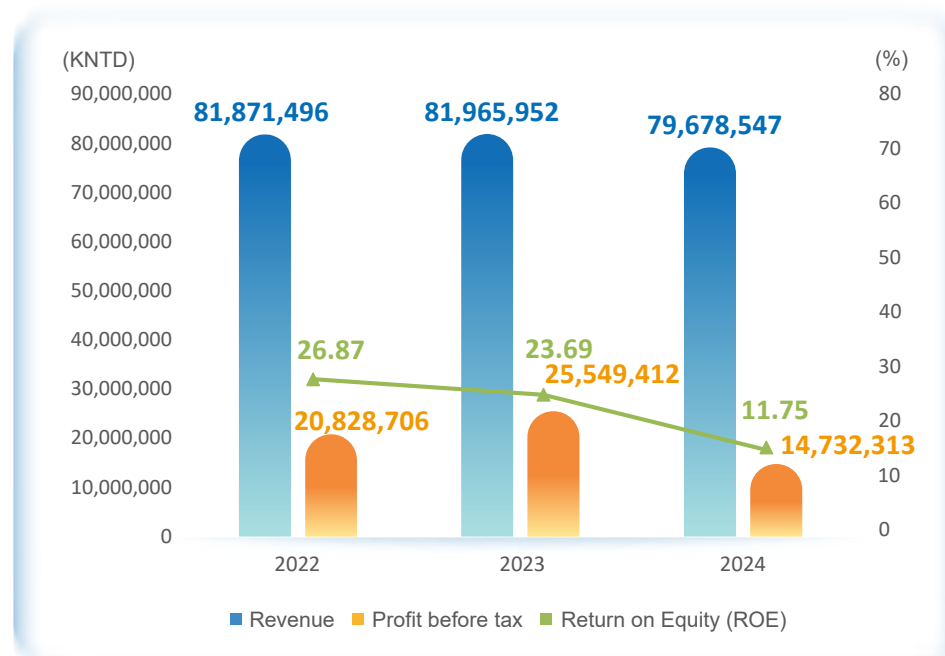
1.2 Operational Performance

In 2024, the renewable energy industry experienced growth as governments worldwide refined and implemented energy transition policies, leading to an increase in market size. SAS's solar business maintained its position in the supply chain and expanded its downstream system business while strengthening vertical integration to improve operating profit margins. The company continued to develop high-conversion-efficiency products to address market demand. Additionally, SAS expanded its presence in renewable energy. Its subsidiary, SES, integrated self-built solar power plants and developed various types of green energy, offering Taiwanese enterprises a range of green power services. SES became the first electricity seller in Taiwan to sign an offshore wind Corporate Power Purchase Agreement (PPA), establishing itself among Taiwan's renewable energy providers. These efforts supported SAS's role in the renewable energy sector and contributed to energy transition within the semiconductor supply chain. Despite uncertain end-market consumer demand in the semiconductor business, the subsidiary GlobalWafers secured long-term contracts and reallocated global production capacity to maintain stable shipments. In 2024, consolidated revenue was NT\$79.68 billion, net income attributable to the parent company was NT\$5.35 billion, and post-tax earnings per share were NT\$9.24. The decrease in SAS's net income after tax and earnings per share in 2024 compared to 2023 mainly resulted from valuation changes in Siltronic AG shares held by GlobalWafers and the impact of overseas exchangeable bonds issued based on those holdings. Excluding these non-operating, non-cash valuation effects, SAS's adjusted net income margin after tax for 2024 would be 19.15%, with earnings per share at NT\$12.29; GlobalWafers' adjusted net income margin after tax would be 27.2%, and earnings per share would be NT\$28.97.

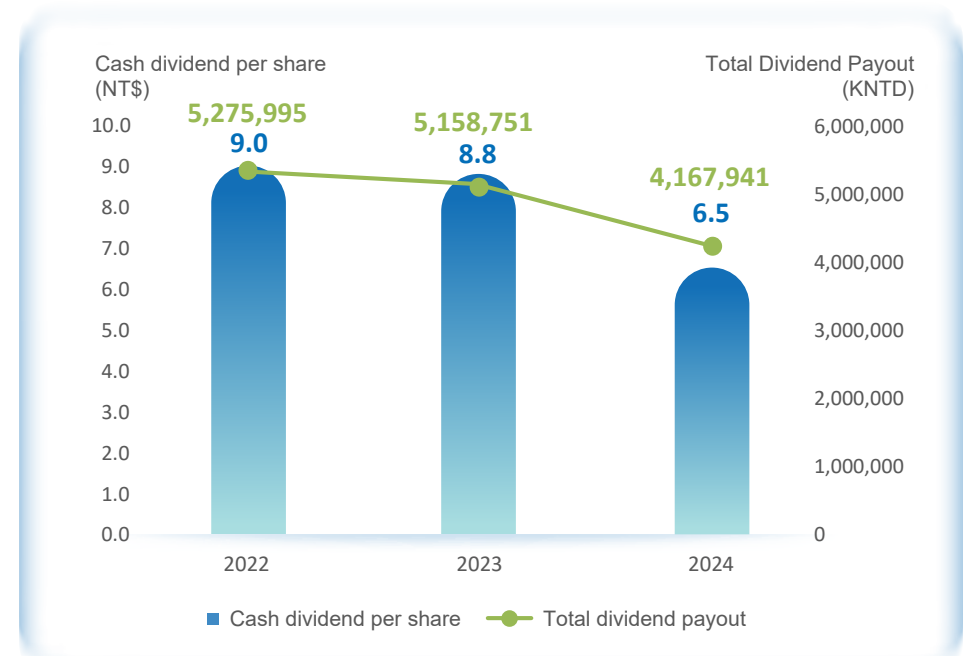
For details on the Company's operating performance and financial information, please refer to SAS Group 2024 Consolidated Financial Statements [Page No. 6](#).

In 2024, 100% of SAS's production capacity was sourced from its own facilities. For related production volume data, please refer to the Company's [Annual Report](#).

❖ Financial performance (Consolidated)



❖ Cash dividend



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❖ 2024 Economic Value Analysis

Unit: KNTD

Generated direct economic value	Annual report: income	79,678,547
Distributed economic value	Operational costs	55,403,820
	Employee salaries & benefits ^{Note 1}	17,041,661
	Payment to investors	5,587,836
	Payment to the government ^{Note 2}	5,035,207
	Community resources ^{Note 3}	15,496

Note 1: In 2024, the Human Capital Return on Investment (HCROI) was 5.20
 Note 2: Expenses include various taxes (house tax, land value tax, license tax, fuel tax, etc.) as well as customs duties and related fees.
 Note 3: Expenses include donations made for participation in public welfare activities.

Overall Economic Environment and Industry Trends

Global investment in clean energy technologies is projected to reach US\$670 billion by 2025, marking the first time such investments will surpass those in oil and gas, and underscoring a significant realignment of energy investment priorities. Key drivers of this transition include solar photovoltaics, wind energy, and Battery Energy Storage Systems (BESS). In alignment with international green transition efforts, the National Climate Change Policy Committee has established more ambitious carbon reduction objectives, targeting a decrease in carbon emissions of $28 \pm 2\%$ relative to 2005 levels by 2030. Solar power installations are expected to reach 3 GW, with offshore wind capacity expanding to 10.9 GW. This translates to an anticipated annual increase of 2.82 GW in solar and 1.17 GW in offshore wind installed capacity between 2025 and 2030, ensuring consistent policy support for renewable energy development. Moving forward, SAS will collaborate with the Group's affiliates in sectors including renewable energies, semiconductors, and automotive components, maintaining a focus on steady operational improvement and sustained positive performance.



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1.3 Risk Management

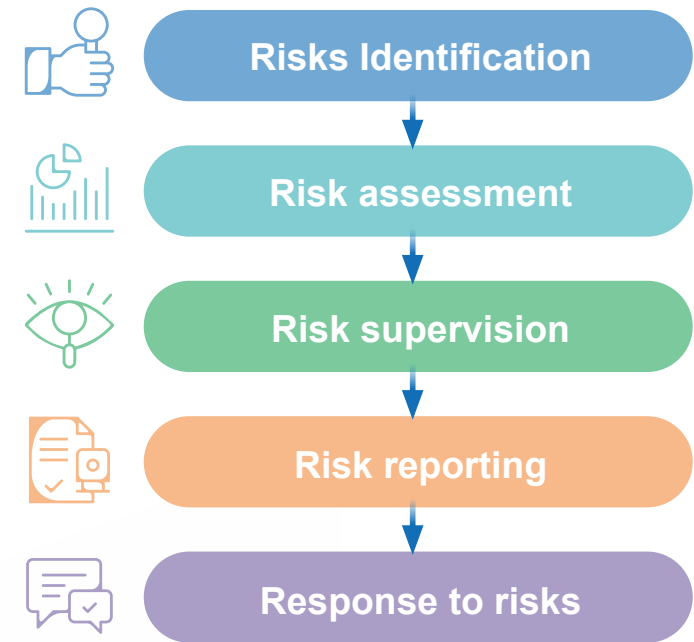
To address changes in the business environment and maintain continuous operations and development, SAS has established risk management policies and procedures to assess and monitor risk tolerance, current risk exposures, determine risk response strategies, and ensure adherence to risk management protocols.

Risk Management Organization Framework

- **Board of directors:** The board of directors is responsible for ensuring legal compliance based on the company's overall business strategy and environment. It oversees the implementation of risk management, identifies risks related to securities firms' operations, ensures the effectiveness of risk management practices, and holds ultimate responsibility for risk oversight.
- **Senior management:** This group implements the risk management directives set by the board of directors and manages cross-departmental coordination and communication regarding risk, with the goal of reducing strategic risk.
- **Various functional units:** These units analyze, manage, and monitor risks within their respective areas and are tasked with implementing risk control mechanisms and procedures effectively.
- **Internal audit:** Reporting directly to the board of directors, this independent unit assists in supervising risk management activities, examines the risk response and controls carried out by functional units, and provides recommendations for improving risk monitoring.
- **Risk management activities** are reported annually to both the Audit Committee and the Board of Directors. The Audit Committee supervises the implementation to help ensure effectiveness and compliance.
- **Supervisory unit:** The Audit Committee monitors the operation of risk management processes.

Risk Management Process

SAS's risk management process comprises risk identification, assessment, supervision, reporting, and response. This framework is designed to implement and support the company's risk management strategies in an effective and systematic manner.



SAS adheres to the "Regulations Governing Establishment of Internal Control Systems by Public Companies" issued by the Financial Supervisory Commission and has formulated comprehensive risk management policies and procedures as the foundation for its risk management framework. For quantifiable risks, SAS employs rigorous statistical analysis and advanced analytical techniques, applying a progressive approach to manage these exposures effectively. Qualitative methods are utilized to assess risks that are challenging to quantify, with textual descriptions articulating the likelihood and potential impact of such incidents. Relevant operational and risk management information is disclosed in the Company's [Annual Report](#) and on the corporate website.

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In reference to the 2025 Global Risks Report, SAS recognizes misinformation and disinformation, extreme weather events, and interstate armed conflict as the top three short-term (within two years) global risks. With respect to operational impacts, information security remains a primary concern. SAS has established targeted risk strategies and implementation mechanisms to mitigate potential impacts across business operations, ensuring robust risk control. The Company maintains vigilant monitoring of evolving risks stemming from extreme weather conditions and geopolitical tensions, adjusting responses proactively as needed. (Source: The Global Risks Report 2025, 20th Edition, World Economic Forum)

Information Security

1.Information Security Organization: On March 1, 2023, SAS established the Information Security Committee (ISC), followed by the formation of Information Security Task Forces at each subsidiary in April 2023. These entities are responsible for advancing information security policies, coordinating relevant resources, and overseeing the execution of information security management programs. The ISC convenes regular meetings on a quarterly basis to monitor task force progress and track related initiatives at all facilities.

In October 2024, SAS achieved ISO 27001:2022 certification for its Information Security Management System (ISMS), affirming the Company's commitment to safeguarding information assets. Protection of confidentiality, integrity, and availability is ensured through systematic planning, implementation, operation, and review processes.

2.Information Security Governance and Continuous Improvement: SAS has developed an Information Security Policy and corresponding management procedures, incorporating the Plan (P), Do (D), Check (C), Act (A) cycle to drive continuous improvement and attainment of security objectives.

- Regular security assessments such as vulnerability scanning and system updates are performed.
- Data protection is reinforced through systematic backups, secure storage protocols, strict access controls, and robust password policies.
- Workforce measures include ongoing employee training, targeted awareness campaigns, supplier access controls, and simulated social engineering exercises.
- Network defenses encompass firewall rule audits, secure remote access solutions, real-time traffic and anomaly monitoring, and periodic business continuity drills.
- Information security risk is integrated into key performance indicators, with defense capabilities and organizational resilience prioritized alongside profitability.

3. Information Security Updates and Awareness Training:

- In 2024, designated information security personnel completed an average of 40 hours of specialized professional training.
- All employees participate in regular information security awareness programs.
- SAS is an active member of both the Taiwan Computer Emergency Response Team/Coordination Center (TWCERT/CC) and the Science Park Information Sharing and Analysis Center (SP-ISAC), facilitating the exchange of insights regarding emerging threats such as DDoS attacks, ransomware, social engineering, website skimming, and system vulnerabilities.
- Through annual collaborations with leading cybersecurity vendors and dedicated joint projects, SAS remains vigilant to new information security issues and develops appropriate response plans. Comprehensive drills—including DDoS and APT simulations—are conducted to enhance staff readiness and enable prompt detection and mitigation of security incidents.



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Products Services and Value

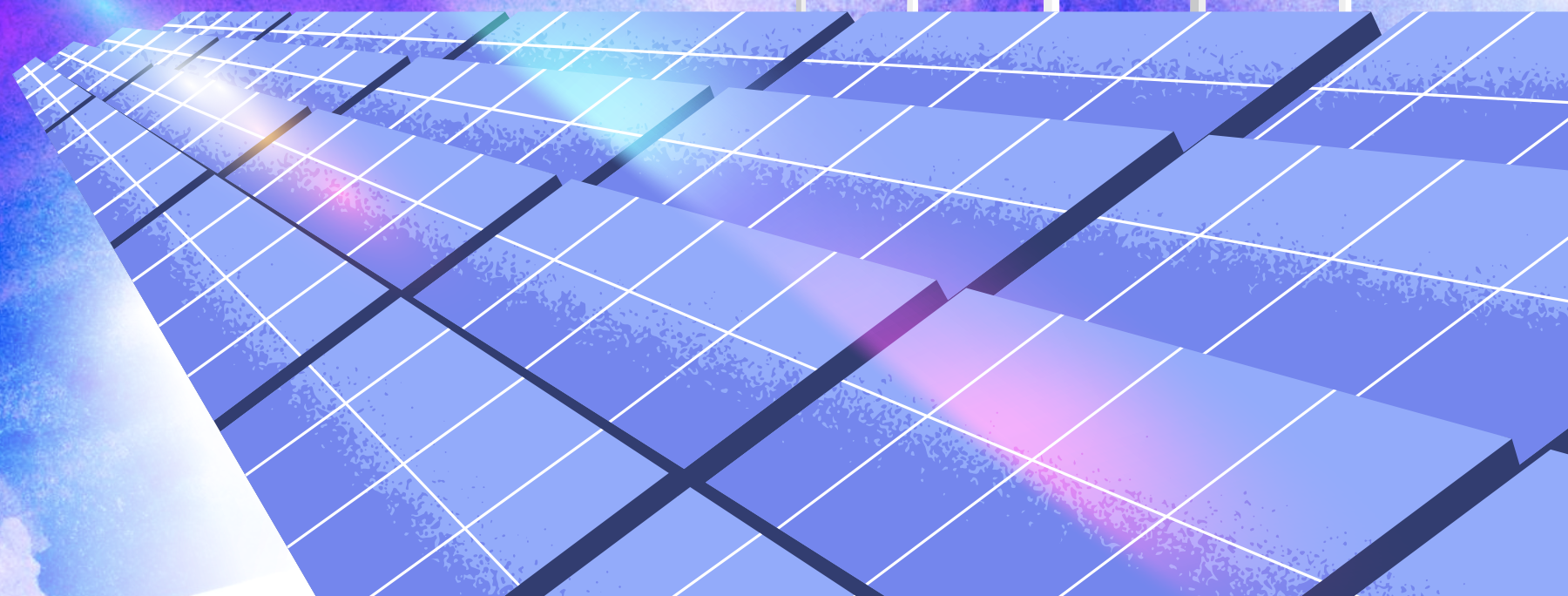
2.1 Innovation Management

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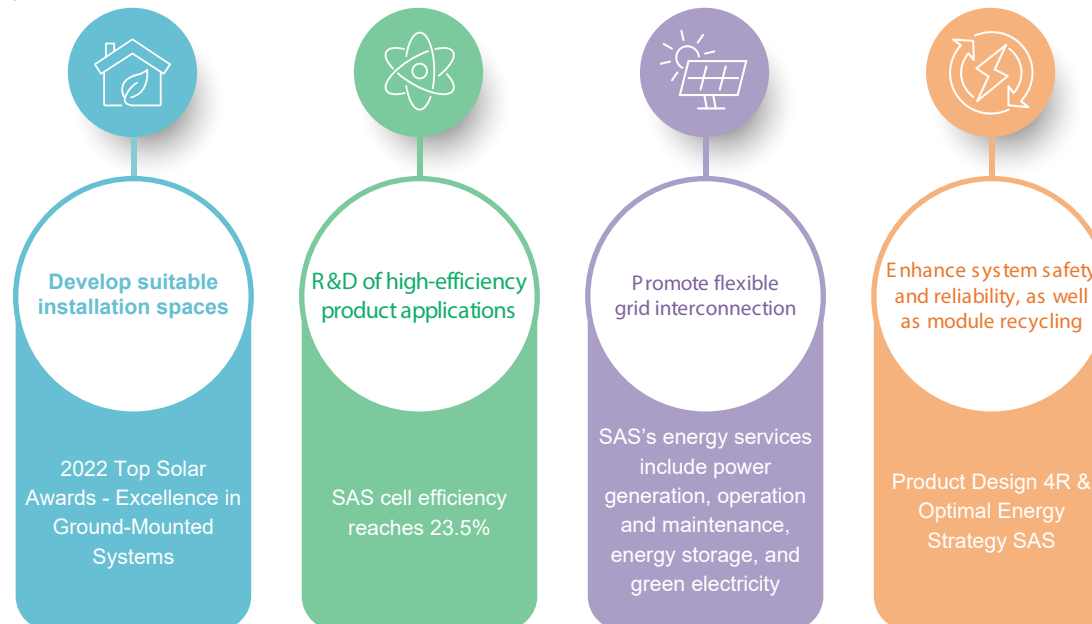
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2.1 Innovation management

Maintaining the Company's Role as an Energy Supplier

The frequency of global warming and extreme weather events has increased in recent years, leading nearly 200 countries at COP28 to commit to transitioning toward energy systems that do not rely on unabated fossil fuels. Additionally, approximately 100 countries have pledged to triple the use of renewable energy globally by 2030 to support efforts to keep temperature rise below 1.5°C. These developments reflect a growing international focus on renewable energy and present ongoing challenges related to energy transition. In this context, SAS has implemented vertical integration across the solar industry chain, with business operations spanning solar materials, cells, modules, photovoltaic power plant development, operations and maintenance, green energy resale, energy storage, and energy IoT solutions. The company continues to develop new approaches to provide customers with green energy solutions. To align with the trend toward global energy transition, SAS is investing in the development of second- and third-generation semiconductor materials to pursue new business opportunities and sales channels. The company's core services currently center on supplying energy materials, including solar materials and wafers, to related industries for the manufacture of solar cells and modules, supporting investments in the renewable energy market. A renewable energy retail company has also been formed to supply green electricity for both internal group requirements and external demand. In the semiconductor sector, SAS offers gallium nitride power semiconductor technologies and solutions for consumer products, communications, and automotive electronics, with consideration for both environmental protection and energy efficiency, in accordance with the company's carbon reduction objectives.



In a competitive market, SAS's products and services adhere to relevant regulations and international trade standards and implement environmentally focused strategies. SAS encourages the use of green energy among its suppliers and customers with the aim of contributing to sustainable industry practices. The company invests in green energy and the semiconductor sector and has made independent commitments regarding environmental responsibility and sustainability. SAS has announced a target of using 100% renewable energy by 2050, aiming to guide related industry chains toward clean energy adoption.

Innovation and Development of Products and Technologies

To comply with domestic policies, facilitate energy transition, and support the target of 20 GW of installed solar photovoltaic capacity by 2025 while utilising land efficiently, SAS prioritises research and development of next-generation technologies. The company focuses on producing high-efficiency solar cells that support energy conservation, carbon reduction, and sustainable business operations. In 2022, SAS upgraded its production line and invested in developing and manufacturing large-size M10 solar cell processes. With the adoption of CELCO P+ process technology, mass production achieved an efficiency rate of 23.40%. This production capacity allows for the generation of 370 MW of electricity per year, corresponding to a carbon reduction of 229,440 metric tons. As demand in Taiwan shifted toward larger solar products in 2023, SAS designed, developed, and began large-scale production of M10 solar cells to increase available options. In 2024, the company advanced the development of N-type TOPCon solar cells, achieving a mass production efficiency of 25.40%; this production can yield 400 MW annually, reducing carbon emissions by 252,498 metric tons. N-type TOPCon solar cells provide higher carrier lifetime and are resistant to light-induced degradation, which increases efficiency and stability, potentially improving project power output and lowering installation

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costs. To align with global solar industry developments and address both domestic and international requirements, SAS's P-type and N-type cells received recognition in the cell category of the 2024 Taiwan Excellent PV Award from the Bureau of Energy, MOEA.



Product Innovation

Through ongoing R&D and previous advancements, including work on silicon-based applications and ultra-high-efficiency monocrystalline silicon solar cells, SAS has produced solar cell products adapted to a variety of customer requirements. In 2024, SAS upgraded its production line and produced an ultra-high-efficiency large-size N-type TOPCon monocrystalline silicon solar cell (M10) with a conversion efficiency of 25.40%. The company projects that by 2025, the average mass production conversion efficiency of these cells will reach 25.70%.

"Enhancing Innovation Capability" and "Strengthening Confidentiality Mechanism" are two main management strategies at SAS. For innovation capability, in addition to internal research, SAS builds technological skills through collaboration with academic institutions and strategic partnerships. Green technology proposals are incorporated as intellectual property to expand the company's patent portfolio, supporting ongoing operations. Regarding confidentiality, SAS implements controls over business secrets and establishes protocols for email and electronic storage device usage to protect key technologies. In 2024, SAS successfully completed the Taiwan Intellectual Property Management System (TIPS) audit and verification, further consolidating its intellectual property management.

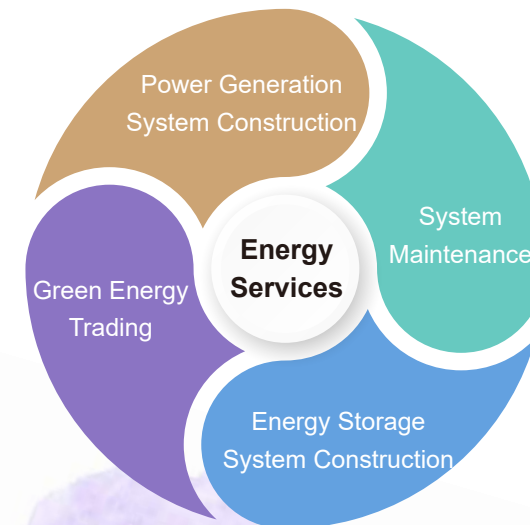
Involvement in the Renewable Energy Market

The renewable energy generation industry is expanding globally. SAS has participated in the solar energy sector for several years, beginning its involvement in the solar power generation industry through its Hsu-Hsin Branch in 2015. In 2020, the Yilan Branch established a Power Station Development Department to increase activity in Taiwan's renewable energy market. The company engages in planning and investing in rooftop, ground-mounted, and floating solar power plants, resulting in an expanded presence in the renewable energy sector.

SAS adjusts its renewable energy services in accordance with government energy policies and currently operates in four principal areas: power generation, operation and maintenance, energy storage, and green electricity. With respect to operation and maintenance, a new service site opened in Taoyuan in 2023, enabling coverage of northern, central, southern, and eastern Taiwan, including Yilan, Taoyuan, Miaoli, and Kaohsiung. Additionally, the company launched a 1.5 MW energy storage system at its Yilan Branch facility into the electricity market in 2023 to support grid stability and develop solar-plus-storage integrated solutions.

To address the rising number of solar power plants under management, SAS increased its operation and maintenance engineering staff in 2024, enhanced training and evaluation protocols, and adjusted organizational operations to improve energy management services. As renewable energy capacity grows, energy storage systems contribute to grid stability and reserve capacity. SAS plans to continue allocating resources to support the development of energy management solutions.

❖ Four Core Services of Renewable Energy



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Solar Power Deployment and Achievements

By the end of 2024, SAS installed around 162.5 MW of solar systems worldwide, generating 189,714,749 kWh per year and reducing CO₂e by about 93,719 metric tons.

❖ Solar power generation system construction (including commissions)

Investors	2024 Device capacity (MW)	2024 Power generation (kWh)
SAS	52.8	63,442,279
Affiliated companies of the SAS Group	29	30,943,565
External customers	80.7	95,328,905
Total	162.5	189,714,749

Note: Carbon dioxide emissions: Because solar power is used to replace public electricity sales, carbon dioxide emission reduction is estimated based on the Electricity Carbon Emission Coefficient (Electricity Carbon Emission Coefficient for Public Electricity Sales Sector) of 0.494 kgCO₂e/kWh as announced by the Bureau of Energy, MOEA, in 2023.

Collaborative Initiatives for Green Energy Promotion

In 2023, SAS partnered with Hitachi Air Conditioning to install a solar power system with a total capacity of 9.6 MW at the "Hitachi Air Conditioning Taoyuan Factory," Taiwan's largest air conditioning manufacturing site. Of this capacity, 8.2 MW has been successfully grid-connected, with the remaining 1.4 MW scheduled for completion in the first half of 2025.

Additionally, SAS is cooperating with high-speed rail parking lot operators to deploy solar-powered parking facilities at the Taichung, Chiayi, and Tainan High Speed Rail Stations. The cumulative installed capacity is expected to reach 7.6 MW. Notably, the 2 MW solar-powered facility at Chiayi High Speed Rail Station was connected to the grid in 2024, while the remaining locations are slated for completion by year-end 2025.

Expansion of Green Electricity Services and Strategic Partnerships

To address growing corporate demand for renewable energy, SAS established its subsidiary, Sustainable Energy Solution Co., Ltd. (SES), in 2021 to provide green electricity transfer services and tailored solutions. In 2024, SES achieved a significant increase in transfer volumes, placing fifth nationally. Beyond solar power, SAS has proactively pursued offshore wind power purchase matching to facilitate enterprise carbon reduction objectives. The Company also integrated Annreal Energy, an electricity retailer with strong market potential, to broaden its green electricity portfolio and offer clients more comprehensive solutions.

Deployment of Electric Vehicle Fast-Charging Infrastructure

Recognising the rapid growth of the electric vehicle sector, SAS has invested in charging infrastructure construction. In 2023, the Company completed the development and operation of two fast-charging stations located at a supermarket and a tourist facility. To meet evolving market demands and customer requirements, SAS intends to continually evaluate possible expansions of its fast-charging station network, enhancing service convenience and supporting carbon emission mitigation within transportation.

Looking forward, SAS remains committed to advancing its renewable energy operations and expanding an array of sustainable energy products and services, partnering with clients to pursue net-zero emissions and a more sustainable future.



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2.2 Customer and Product Services

Customer Service

SAS focuses on delivering services designed to meet customer needs, viewing service quality as an important factor in customer satisfaction and retention. The company follows a sustainable operations philosophy, aiming to balance business performance with engagement of customer feedback and meeting their requirements for long-term support.

SAS manufactures solar wafers and batteries. Since 2019, the company has prioritized developing applications based on silicon material technology and completed upgrades to production lines for large-size M10/G12 solar cells in 2023. In 2024, SAS began providing large-size M10 Topcon high-efficiency monocrystalline cells, supplying the market with updated process technologies and customized product services. By adopting a customer-oriented approach and applying relevant expertise, SAS seeks to address customer needs and provide comprehensive services intended to align with operational objectives.

Product Quality and Customer Satisfaction

SAS maintains policies aimed at "customer satisfaction, requirements conformity, total quality control, and ongoing improvements" to encourage confidence in its products and services. It prioritizes delivering services and products that meet defined standards. The company organizes specialized teams for product development, cost management, manufacturing, quality assurance, and customer service. These teams respond to customer issues and feedback to support problem resolution.

Regular meetings with customers are conducted to facilitate communication regarding production, sales quality, and engineering topics. Collaborative product development and technical exchanges with the supply chain are pursued to improve product power conversion. Efforts are also made to manage social resources efficiently and to minimize environmental impact. The overall aim is to maintain collaborative relationships and optimize customer experience related to SAS products, technologies, and services.

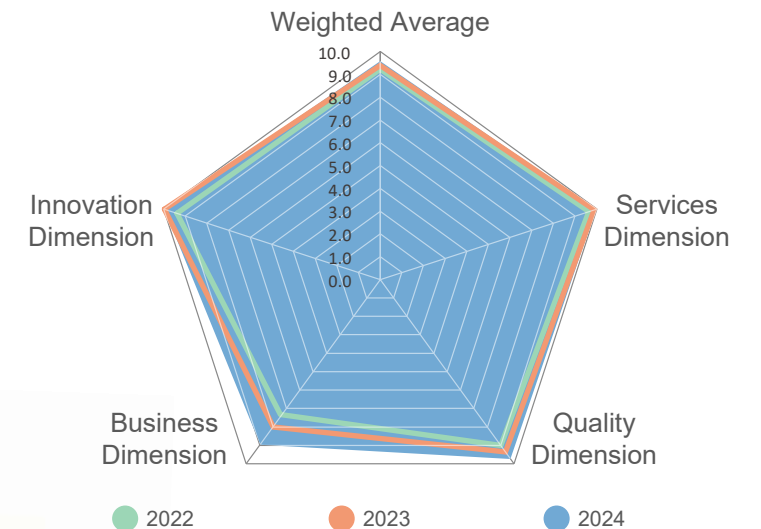
SAS administers customer satisfaction surveys twice per year. After compiling customer feedback, dedicated teams hold meetings to identify areas for improvement using this input. For lower satisfaction items, follow-up interviews clarify gaps, and strategies are developed to address shortcomings. The company seeks to implement actions based on feedback, supporting ongoing partnerships and sustainable development.

Polysilicon Products Customer Satisfaction

In 2022, SAS encountered various challenges, including decreased global market demand, rising raw material costs, higher logistics expenses, and domestic electricity rate increases. In response, the company focused on cost reduction through internal process improvements, second-source verification, and regular cost reviews, aiming to adapt to market developments and maintain competitiveness. SAS continued efforts to balance cost with quality to sustain customer satisfaction.

Customer satisfaction with polysilicon products increased from 2022 onward. By 2024, the weighted average score reached 9.7 (on a scale where higher values indicate greater satisfaction), the highest in the company's records. Categories such as "quality," "service," and "innovation" each scored above 9.0, while "business aspect" (cost-performance ratio and pricing) scored 9 points, which was an increase compared to 2023. SAS continues initiatives aimed at fulfilling customer expectations.

❖ Polysilicon products customer satisfaction survey orientation



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Solar Cells Customer Satisfaction

Customer satisfaction was assessed across five aspects: Service, Innovation, Quality, Cost, and a Weighted Average. Each scored up to 10 points; below 6 indicated urgent improvement. SAS analyzed these results to inform internal improvements.

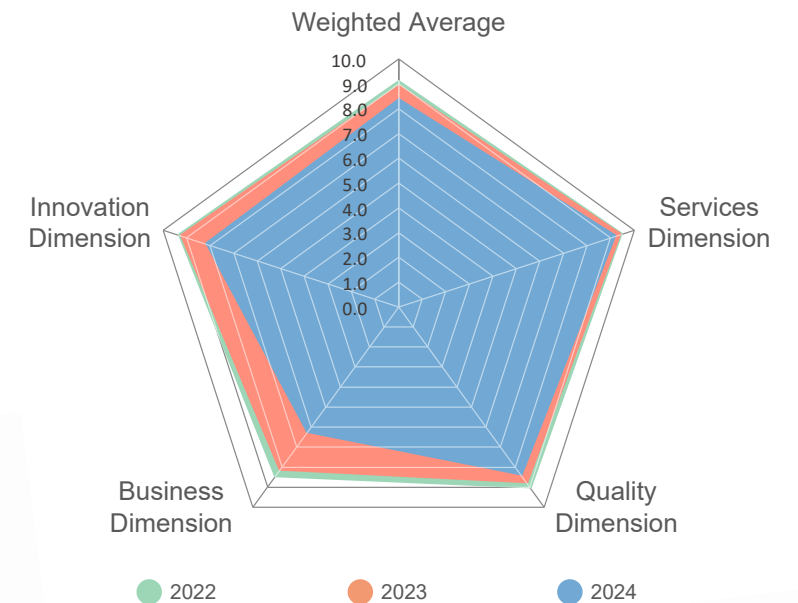
In 2024, SAS faced challenges from overseas module dumping and rising electricity rates, affecting competitiveness in production costs and efficiency. Despite this, efforts continued to lower costs and improve conversion efficiency. The overall customer satisfaction score was 8.4. Cost management included optimizing production schedules and controlling contracted power. Innovation focused on developing niche products with overseas partners, while quality initiatives aimed to increase N-Type TOPCon cell efficiency and maintain market relevance.

SAS still aims to constantly increase customer satisfaction and provide high-quality products and services in accordance with the quality policy and goals of the company. Improvement measures are proposed and tracking of progress is implemented for unsatisfied goals through quality system management tools to clearly demonstrate the commitment of SAS to constant improvements and thereby achieve continued enhancement in the field of service quality and competitiveness.

Product Services

SAS is committed to producing high-efficiency cells and continually innovating in the development of advanced products. Through effective supply chain integration and technological collaboration, SAS rapidly incorporates upstream and downstream technological advancements, resulting in accelerated product launches, improved reliability, and greater confidence in product quality—all aimed at meeting end-users' needs more efficiently. Regarding quality assurance, SAS implements rigorous procedures and controls throughout customer information collection, product design, and manufacturing processes. Systematic management at each stage ensures exceptional and consistent product quality. Regular reviews—including daily production meetings, weekly operations evaluations, monthly quality management assessments, and annual strategic reviews—support ongoing product improvements. The PDCA cycle is consistently applied to refine products and services, optimize costs, and contribute positively to society.

❖ Dimensions for solar cells customer satisfaction survey



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2.3 Customer Confidential Information Protection

Customer privacy

SAS provides customer service with a focus on privacy and confidentiality. Agreements are signed with customers to protect classified information, and all staff must comply with SAS intellectual property policies and safeguard customer data during business interactions according to established procedures.

When delivering services, SAS supplies professional advice and addresses the confidentiality of information and customer privacy, reflecting industry requirements. Confidentiality agreements are routinely established with clients to support mutual interests. Internally, SAS enforces adherence to intellectual property guidelines to protect customer information and facilitate secure business operations. Regular audits are performed to identify potential risks of data breaches. As a result of reporting mechanisms and audit management measures, there were no complaints or penalties from customers or regulatory authorities in 2024. This contributed to the Company's reputation and intangible asset development.

Customer Service



Protection of Intellectual Property

Since 2010, SAS has implemented the Taiwan Intellectual Property Management System (TIPS), achieving basic certification from 2010 to 2011, advanced certification from 2012 to 2015, and attaining AA-level certification in 2016. The company remains dedicated to robust intellectual property protection and management practices. In recent years, SAS has enhanced its confidentiality management system by developing a comprehensive data classification structure, defining confidentiality levels for both internal and external documents, and instituting appropriate labeling and circulation controls. Additionally, electronic equipment usage protocols have been established. The organization has adopted cloud-based virtual desktop solutions and centralized data backup, alongside implementing outgoing email monitoring systems and restrictions on electronic storage device usage. Factory video recording procedures are also governed by specific management methods. Folder permissions undergo regular review, important employees are required to sign non-disclosure agreements, and there are reinforced protocols for employee departures to mitigate information security risks.

SAS has finalized an electronic TIPS internal audit form and routinely assesses stakeholder expectations as well as internal and external issues within the TIPS framework. Regarding patent management, the company is committed to optimizing its patent proposal process. Regular intellectual property training sessions are held to increase employee awareness and understanding of confidentiality management, thereby cultivating a corporate culture that values information security. These initiatives aim to ensure superior intellectual property management, safeguard both company and customer interests, enhance client trust, and support increased product market share.



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2.4 Product Liability

Product Safety and Liability

Given the diverse applications of silicon-based products, SAS is committed to ensuring all items comply with international regulations such as the EU RoHS (Restriction of Hazardous Substances in electrical and electronic equipment) and meet customers' requirements regarding hazardous substances. To that end, SAS mandates comprehensive testing of its products by independent certified third-party laboratories. In 2024, all SAS products were verified to satisfy EU RoHS standards. Furthermore, suppliers of raw and packaging materials are required to submit periodic inspection reports for hazardous substances, issued by impartial accredited laboratories, to uphold product safety, non-toxicity, and reinforce environmental stewardship.

SAS recognizes the inherent risks associated with solar cells and backend modules, including the potential environmental impact of chemicals used in manufacturing, product usage risks under various conditions, and hazards present at each stage of the product lifecycle. While there are currently no specific international laws mandating labeling for solar cells, SAS incorporates comprehensive labeling on its products, detailing composition, hazardous substances, and guidelines for safe usage. This proactive approach enables customers to utilise SAS products securely and confidently. Notably, there were no reported incidences of stakeholder noncompliance with labeling requirements in 2024. In marketing activities, SAS employs channels such as specification sheets to communicate detailed information about potential product risks, while diligently ensuring compliance with relevant regulations, environmental standards, and regional customer expectations.

2.5 Value Chain

Amid increasing globalisation and market competition, organisations have come to understand the critical importance of sustainable development alongside financial performance. The supply chain, as a cornerstone of operational activity, influences environmental, social, and economic outcomes significantly. In pursuit of its sustainability objectives, SAS has implemented defined standards for supplier management, ensuring alignment with its principles of environmental, social, and economic stewardship.

2.5.1 Supplier Selection and Evaluation

SAS utilises a set of robust evaluation criteria when selecting and engaging suppliers to verify that their operations conform to the Company's standards for environmental and social responsibility. The assessment framework encompasses:

- **Environmental Impact:** Suppliers must adhere to government-mandated environmental protocols, including emission controls, water resource management, waste management practices, and adoption of green procurement (RoHS, REACH, WEEE, etc.), or possess ISO 14001 certification.
- **Social Responsibility:** Suppliers are expected to demonstrate fair labour practices, prohibit forced and child labour, avoid conflict minerals, and commit to upholding the RBA Code of Conduct.
- **Ethical Business Practices:** Compliance with fair trade principles, SAS's anti-corruption policies, prohibition of infringing goods, and adherence to applicable trade laws and regulations is required.
- **Product Quality Management:** Suppliers should ensure manufacturing processes comply with recognised quality management procedures or hold ISO 9001 certification.

❖ New Supplier Evaluation Process



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- In 2024, SAS added 8 new suppliers. All met the aforementioned evaluation criteria and signed the "Supplier Code of Conduct and Supplier Commitment" 100%, qualifying them as approved suppliers.

Year	2022	2023	2024
Number of newly approved suppliers	6	2	8
Total number of approved suppliers	80	82	80

Supplier Performance Management

According to SAS's supplier management system, qualified key raw material suppliers are evaluated monthly on criteria including quality, delivery, cost, and service. Key suppliers—selected based on procurement costs, environmental and social factors, risk assessments, and quality improvement needs—undergo annual evaluations consisting of document reviews or on-site audits to ensure compliance with delivery and sustainable management standards.

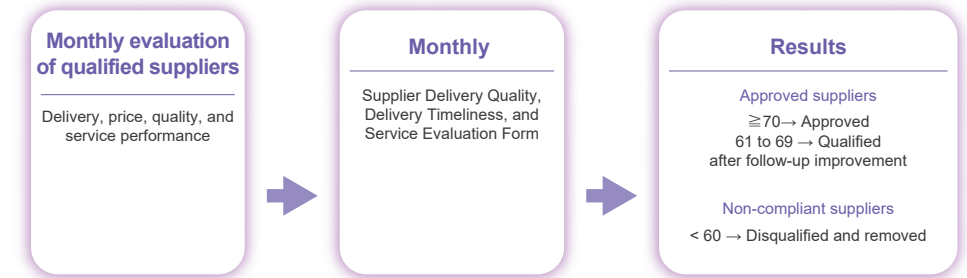
All SAS suppliers are considered long-term partners with a consistent record of strong performance. In 2024, none of the suppliers received a monthly evaluation score below 60, which would trigger termination of cooperation. Of the 80 key suppliers identified through these criteria, 30 were selected for annual audit evaluations: 24 participated in document reviews, while 6 were subject to on-site audits. No major deficiencies were identified during these audits, and all follow-up improvements have been completed. There were no instances of supplier termination due to scores falling below the threshold this year.

Supplier Audit Implementation Statistics

Implementation Items	Number of Audited Suppliers	Implementation Ratio	Audit Results
Written review	24	30%	Number of terminated suppliers: 0
On-site audit	6	8%	Number of terminated suppliers: 0
Total	30	38%	Number of key suppliers: 80

Ongoing evaluation process for qualified suppliers

Monthly evaluation



Annual evaluation



Percentage of Audit Deficiencies Among Suppliers

Audit Items	Environment	Labor	Health and Safety	Business Ethics	Quality Management
Non-conformity rate	0%	7%	7%	0%	10%
Improvement rate	100%	100%	100%	100%	100%

Note 1: Non-conformity rate = (Number of Deficient Suppliers / Total Number of Audited Suppliers) × 100%
 Note 2: Improvement rate = (Number of Suppliers with Improvements / Total Number of Audited Suppliers) × 100%



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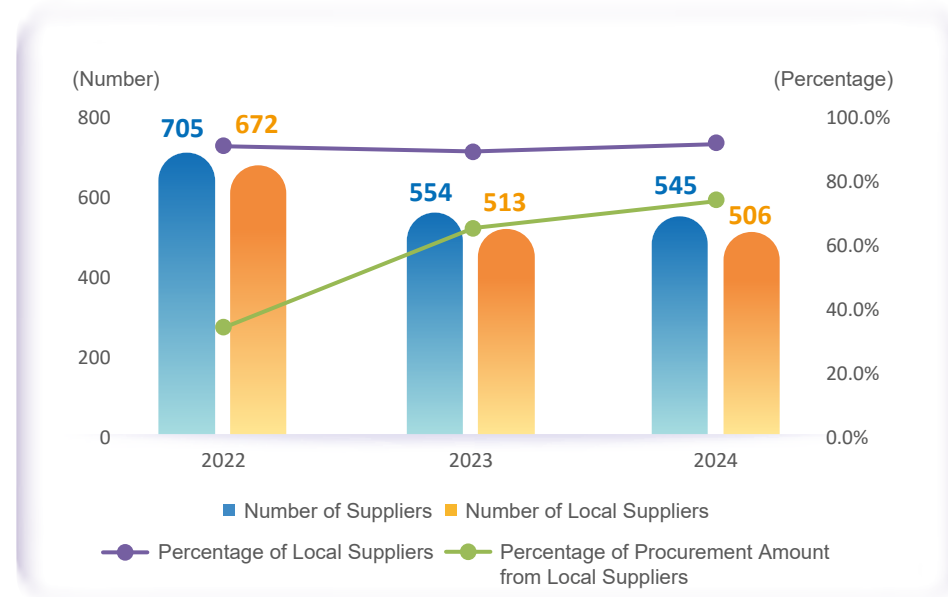
2.5.2 Local Procurement in the Supply Chain

SAS localizes its supply chain to decrease transportation costs of materials, improve supply flexibility, lower inventory turnover, and minimize expenses. This strategy is also intended to reduce carbon emissions within the supply chain, support green industry practices, and provide local employment opportunities. The company follows green procurement policies by prioritizing products with low energy consumption that are certified by the Ministry of Environment to limit environmental impact and energy use.

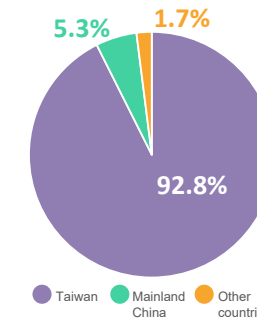
In 2024, the Chunan, Yilan, and Hsu-Hsin Branches worked with a total of 545 suppliers, of which 507 were local, representing 92.8%. Local suppliers accounted for 74.2% of total procurement spending. SAS does not utilize conflict minerals. Key raw materials critical to daily operations include silicon raw material, dopants, silicon wafers, and conductive paste. Due to geopolitical considerations and economies of scale, these materials are not entirely sourced from Taiwan. When excluding silicon raw material and silicon wafers from procurement calculations, local procurement represents approximately 85.6% of the total (excluding these two materials).

❖ Percentage of Supplier Localization

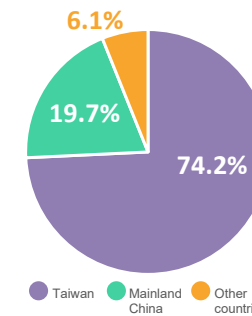
Year	2022	2023	2024
Number of Suppliers	705	554	545
Number of Local Suppliers	672	513	506
Percentage of Local Suppliers	95.3%	92.6%	92.8%
Percentage of Procurement Amount from Local Suppliers	38.1%	64.3%	74.2%



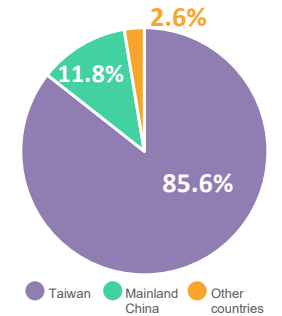
❖ Supplier Location Distribution



❖ Supplier Location Distribution by Procurement Amount



❖ Supplier Location Distribution by Procurement Amount (Excluding Silicon Raw Material and Silicon Wafers)



2.5.3 Climate Change "Mitigation" Advocacy

In alignment with green management standards, SAS has implemented internal carbon reduction systems and actively encourages its suppliers to address carbon reduction initiatives and develop relevant strategies, thereby fostering a transparent and accountable green supply chain. Beginning in 2023, SAS urged suppliers to expedite greenhouse gas inventories, product carbon footprint assessments, and other carbon management practices. For 2024, the Company recommended that suppliers representing more than 90% of procurement costs acquire third-party verification for ISO 14064-1 and ISO 14067 compliance. Twelve principal suppliers have submitted feedback regarding their inventory findings. SAS remains committed to advancing these measures and systematically tracking progress.

Climate Change "Mitigation" Advocacy Indicators	2024 Targets	2024 Achievements	2025 Targets
Number of ISO 14064-1 Certified Suppliers	5	11	7
Number of ISO 14067 Certified Suppliers	0	1	1



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3.1 Energy Management and Development

3.2 Water Resource Management and Biodiversity

3.3 Pollution Prevention and Waste Reduction Management



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Institutionalized Environmental Management

- SAS consistently integrates environmental management into its daily operations, establishing comprehensive environmental and energy management systems in compliance with relevant environmental protection laws and regulations. These systems encompass areas such as energy consumption, water resource management, pollution prevention, and waste disposal. Each facility develops and implements management plans tailored to site-specific concerns and operational requirements, advancing initiatives in energy conservation, carbon reduction, resource efficiency, and risk mitigation.
- Specifically, the Chunan and Yilan Branches have adopted the ISO 14001 Environmental Management System and the ISO 50001 Energy Management System, having successfully obtained third-party certification. Details regarding these certifications and their validity periods are available on the Company's official website. The Company continues to enhance pollution prevention and resource conservation through a robust management framework and internal audit processes, striving to minimize the environmental impact of business activities while promoting operational sustainability and resilience.



Environmental Health and Safety Policy



Energy Policy



Water Resource Management Policy

3.1 Energy Management and Development

SAS's energy consumption encompasses electricity, diesel, and gasoline, with electricity comprising the majority share. Accordingly, energy conservation initiatives should be prioritised, and any proposed solutions must fulfil the criteria of being Safe, Affordable, and Sustainable (SAS) to be considered optimal energy strategies.

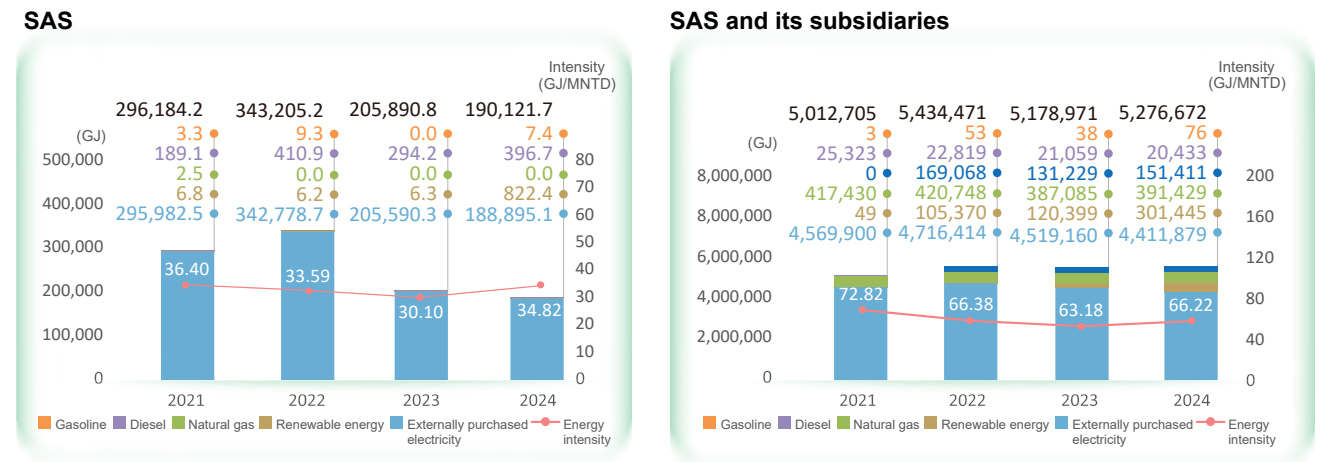
3.1.1 Energy Consumption and Sales

Energy Consumption

In recent years, SAS's primary source of energy has been purchased electricity. In 2024, purchased electricity represented 99.35% of total energy consumption, while the adoption rate of renewable energy was approximately 0.43%. Energy intensity in 2024 experienced a marginal increase compared to 2023, due primarily to fluctuations in the market environment and reduced industry demand, which resulted in lower annual revenue and a corresponding decrease in energy efficiency per unit of output.

Note: Renewable energy use efficiency = renewable energy (GJ)/total energy used (GJ)

Quantity of energy consumption



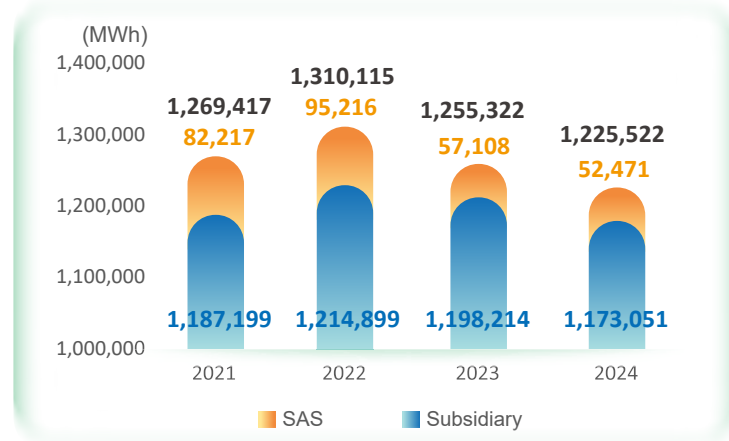
- Note:
1. Conversion units: 1 kWh electricity = 0.0036 GJ; 1 cubic meter of natural gas = 0.0477 GJ; 1 liter of diesel = 0.0315 GJ; 1 liter of gasoline = 0.0327 GJ; 1 liter of liquefied petroleum gas = 27.762 GJ.
 2. Scope of SAS: Chunan Branch (Plant 2) and Yilan Branch (Plants 1 and 3); the headquarters and Hsu-Hsin Branch are located within the buildings of GlobalWafers' Hsinchu Plant and SAS Chunan Branch, respectively, and lease office space without production processes. Since no independent meters are installed to record energy use, their energy consumption is not separately accounted for, but actual energy use is included in the totals for GlobalWafers' Hsinchu Plant and SAS Chunan Branch.
 3. Scope of subsidiaries: (in accordance with the years included in the consolidated financial statements)
 - 2021 - GlobalWafers (Energy consumption information for TSC is not disclosed for that year as it had not yet implemented the temperature control system)
 - 2022 - GlobalWafers, TSC, and AWSC (newly added subsidiaries in that year)
 - 2023 - GlobalWafers, TSC, AWSC, and Actron Technology Corp. (newly added subsidiary in that year)
 - 2024 - GlobalWafers, TSC, AWSC, and Actron Technology Corp.
 4. Energy intensity: Energy consumption (GJ) divided by revenue (MNTD); SAS intensity uses parent company only revenue, while SAS and subsidiaries' intensity uses consolidated revenue.



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❖ Externally purchased electricity



Energy Sales

The solar power generation system owned by SAS primarily sells most of its generated electricity. In 2024, electricity sold amounted to 1,814,496 kWh (6,532 GJ).

Unit: kWh

Item	Item	2021	2022	2023	2024
		Headquarters	85,524	126,455	128,508
Electricity sold (solar power)	Yilan Branch Company	1,771,991	1,653,130	1,655,553	1,568,745
	Hsu-Hsin Branch	129,298	118,596	123,445	121,490
Total		1,986,814	1,898,181	1,907,506	1,814,496

Note: The solar power generation system at the Chunan Branch is for self-generation and self-use, with no electricity sold.

3.1.2 Energy Management and Conservation

Energy Management

Previous energy conservation efforts in the factories were primarily one-time initiatives, which may not have achieved optimal energy savings due to the absence of a formal management framework. Since 2021, SAS has applied the Energy Management System (ISO 50001:2018) across its manufacturing sites. Both the Chunan and Yilan branches currently operate under a systematic PDCA (Plan-Do-Check-Act) management cycle. This approach includes assessing equipment energy consumption within facilities to identify significant energy users and those needing improvement. Identified devices are regularly monitored and measured, with specific action plans developed for efficiency enhancements. Energy baselines and performance indicators are established according to each plant's features and energy use analysis, and these metrics are reviewed monthly for relevance and accuracy as part of ongoing energy efficiency assessment.

Energy Conservation Measures and Achievements

Each SAS facility formulates annual energy conservation plans, setting short-term objectives such as achieving a power-saving rate exceeding 1% per plant area each year. In 2024, the Chunan and Yilan Branches reduced electricity usage by 939,869 kWh (3,384 GJ), corresponding to an estimated reduction of 464.3 metric tons of carbon dioxide emissions compared to the prior year. Additionally, including energy conservation data from GlobalWafers - Taiwan, total electricity savings in 2024 amounted to 4,766,711 kWh (17,160 GJ), equating to an estimated decrease of 2,354.8 metric tons of carbon dioxide emissions.

❖ 2024 power conservation results for Chunan & Yilan branches

Category	Measures	Total power savings (kWh)	Total power savings (GJ)	Reduce carbon dioxide emissions (kg CO ₂ e)
Manufacturing process	Specific Energy Consumption Reduction Plan for Ingot Products <ul style="list-style-type: none"> • Optimization of crystal growth process time control • Optimization of thermal insulation in the crystal growth furnace heat zone • Optimization of crystal growth furnace process parameters • Introduction of new insulating materials 	103,382	372	51,071
	<small>*Electricity savings estimate: Difference in electricity consumption per ingot before and after improvement × ingot production volume</small>			

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Category	Measures	Total power savings (kWh)	Total power savings (GJ)	Reduce carbon dioxide emissions (kg CO ₂ e)
Lighting improvement	<p>Energy-saving Improvements for Lighting at the Wafer Cutting Station</p> <p>Modify the lighting circuit to activate only the necessary work area lamps during operations while turning off lamps in inactive areas</p> <p>*Electricity savings estimate: Number of lamps turned off × operating hours</p>	26,327	95	13,005
Air conditioning system	<p>1.Replace the 1200RT air conditioning chiller with an 800RT chiller</p> <p>Replace the air conditioning chiller to maintain the chiller's load rate within a more optimal operating range, thereby improving its energy efficiency.</p> <p>*Electricity savings estimate: Difference in energy efficiency of the chiller before and after improvement × cooling water volume</p> <p>*Electricity savings calculation period: January to September, 2024</p> <p>2.Increase the inlet temperature of cooling water for the crystal growth process</p> <p>Raise the inlet temperature of cooling water for the crystal growth process from 23.5±0.5°C to 26±0.5°C to reduce cooling water consumption.</p> <p>*Electricity savings estimate: Difference in chiller load of the crystal growth process before and after improvement × crystal growth process operating time × energy consumption of the cooling water system</p> <p>*Electricity savings calculation period: March to December, 2024</p> <p>3.Adjust the operating frequency of the air handling units</p> <p>Install a variable frequency drive (including a timer) on the air handling unit. Using the timer control, the motor operates at 30 Hz during the day and 20 Hz at night to achieve energy savings.</p> <p>*Electricity savings estimate: Motor electricity savings × number of operating days</p> <p>*Electricity savings calculation period: August to December, 2024</p> <p>4.Replace with high-efficiency air handling units</p> <p>Install high-airflow air handling units, shut down low-airflow units, and reduce the operating frequency of two air handling units to reduce electricity consumption.</p> <p>*Electricity savings estimate: Air handling unit electricity savings × number of operating days</p> <p>*Electricity savings calculation period: June to December, 2024</p> <p>5.Replace cooling tower fan blades with lightweight blades</p> <p>Replace the traditional aluminum fan blades in the plant's cooling towers, which are heavier and have higher wind resistance, resulting in higher electricity consumption during operation.</p> <p>Replace with lightweight, low wind-resistance fan blades to reduce power loss and decrease energy consumption.</p> <p>*Electricity savings estimate: Difference in fan electricity consumption before and after replacement × number of operating days</p> <p>*Electricity savings calculation period: July to December, 2024</p> <p>6.Install a heat exchanger and reduce the water pump frequency</p> <p>Install one PCW plate heat exchanger, increasing the heat exchange surface area by 50%, reducing pressure loss, and thereby lowering the frequency of the process cooling water pump.</p> <p>*Electricity savings estimate: Difference in water pump electricity consumption before and after replacement × number of operating days</p>	537,412	1,935	265,482



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Category	Measures	Total power savings (kWh)	Total power savings (GJ)	Reduce carbon dioxide emissions (kg CO ₂ e)
Other	1. Replace IE1 motors with high-efficiency IE4 motors A total of 18 IE1 motors were replaced with high-efficiency IE4 motors *Electricity savings estimate: Difference in electricity consumption before and after replacement × number of operating days *Electricity savings calculation period: August to December, 2024			
	2. Install electric valves on the exhaust systems of chemical stations/cleaning machines to reduce exhaust airflow Electric valves are installed on chemical stations and cleaning machines that are used intermittently; exhaust valves are closed when not in use to reduce electricity consumption from exhaust and air conditioning systems *Electricity savings estimate: Electricity savings from closing exhaust valves when not in use × number of operating days *Electricity savings calculation period: January to February, 2024.			
	3. DIF waste heat recovery Reuse the exhaust from the DIF purification station for furnace cooling to reduce exhaust volume *Electricity savings estimate: Reduced exhaust volume × exhaust system energy consumption *Electricity savings calculation period: January to March, 2024	272,748	982	134,738
	4. Inspect and repair all CDA pipeline leaks Conduct comprehensive inspections of on-site CDA pipelines and repair any detected leaks to reduce gas loss *Electricity savings estimate: Total CDA leakage volume × energy efficiency of the compressed air system *Electricity savings calculation period: January to June, 2024			
	5. Energy-saving improvements for water dispensers Adjust water dispensers to flexibly switch between sleep and normal modes based on usage times in each area. *Electricity savings estimate: Difference in electricity consumption before and after mode switching × operating hours.			
Total		939,869	3,384	464,295

Note:

1. The electricity emission coefficient is based on the announcement by the Bureau of Energy, MOEA, which is 0.494 (kgCO₂e/kWh) for 2023
2. 1 kWh electricity = 0.0036 GJ (gigajoules)
3. Annual electricity savings according to the Energy Administration, MOEA, announcement: The annual electricity conservation via power-saving measure implementation shall be calculated from the month following the implementation date, and is limited to 12 months. However, if the calculation period spans across multiple years, the electricity consumption conserved will be calculated on an annual basis.
4. The reported energy-saving performance primarily reflects energy-saving measures newly implemented during the year.



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3.2 Water Resource Management and Biodiversity

3.2.1 Water Resources Management

Water Use and Discharge

SAS's plants in Taiwan use tap water supplied by the Taiwan Water Corporation and ground surface water; underground water is not utilised. As a result, issues such as underground water overuse, land subsidence, or ecological impact from groundwater extraction do not apply. For water resources, Chunan Branch receives water from Dongxing Purification Plant with Yongheshan Reservoir as its raw water source. Yilin Branch obtains water from Longde Purification Plant, using Sincheng River as its raw water source. Neither water source is categorised as a national or international nature reserve or identified as originating from sensitive areas (as assessed by experts for specific regional attributes, functions, rarity, threat levels, endangered systems, or endangered species inhabiting the source).

Based on the Aqueduct water resource risk assessment tool, Taiwan's overall water resource risk is rated at 1~2 (low to medium risk) and is not classified as a high water stress area. SAS does not draw, discharge, or consume water from regions identified as having high water resource stress.

Water Resource Management and Conservation

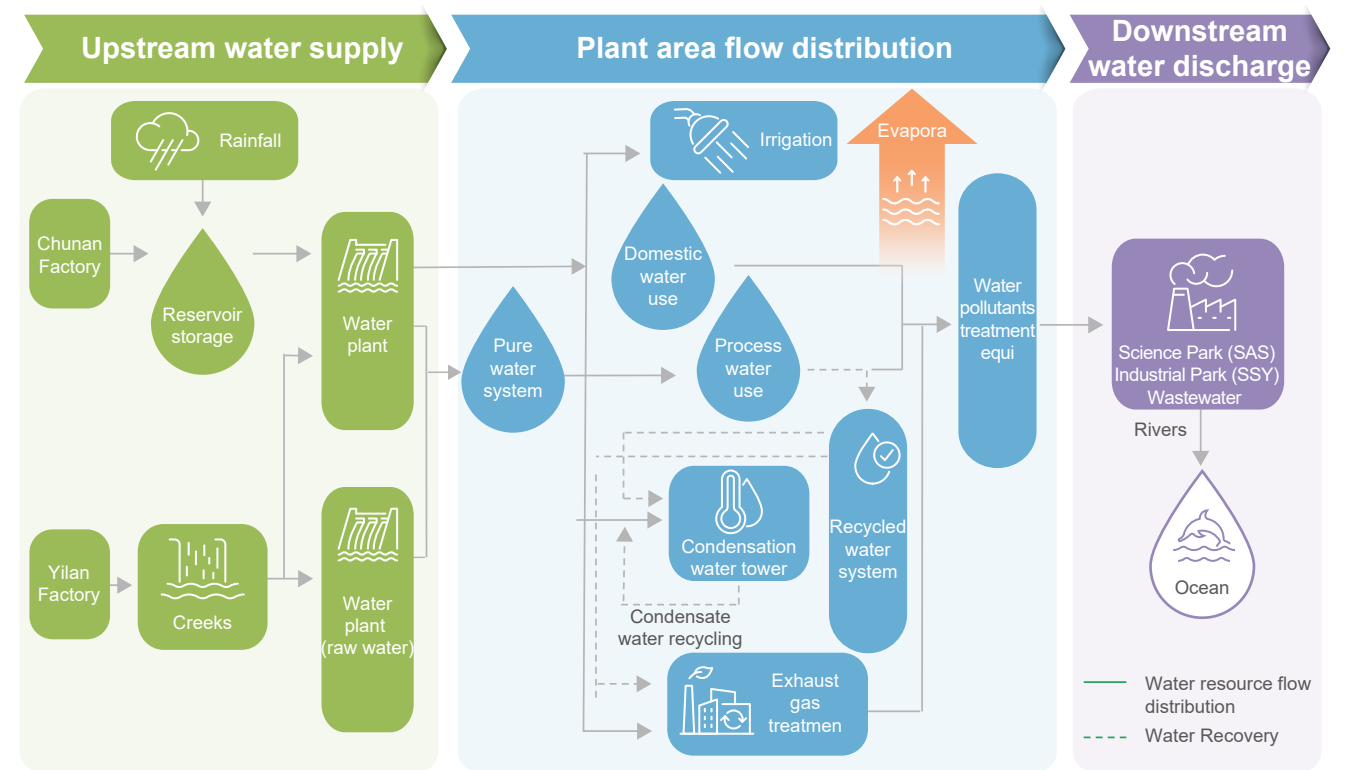
In recent years, extreme weather events have contributed to increasingly unpredictable rainfall patterns in Taiwan, impacting overall water supply reliability and presenting heightened challenges for industrial water management. The Company proactively advances water conservation efforts and the efficient reuse of water resources by employing process optimization and water recycling technologies to decrease production's reliance on fresh water. In 2024, these initiatives resulted in a total water savings of 110.95 million liters, underscoring the Company's ongoing commitment to sustainable water resource management.

3.2.2 Biodiversity Management

All SAS sites (headquarters, Chunan, Yilan, and Hsu-Hsin branches) are located within industrial zones, and operational activities are assessed to have limited impact on biodiversity. WDKBA geographic information system inquiries indicate that none of the Company's sites are located within Key Biodiversity Areas (KBA). Water resource risk assessments categorize all sites as Level 1 to 2 (low to medium risk), with no locations in areas of high water stress.

Evaluations show that the Company's sites are not situated in ecologically sensitive areas identified for priority action. As discussions around biodiversity continue internationally, the Company monitors relevant trends and regulatory requirements, and reviews environmental management strategies to align operational development with ecological considerations.

Water Use and Discharge Flowchart



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❖ Water withdrawal, Discharge, and Consumption Volume in Recent Years

Unit : Million liters (10⁶ L)

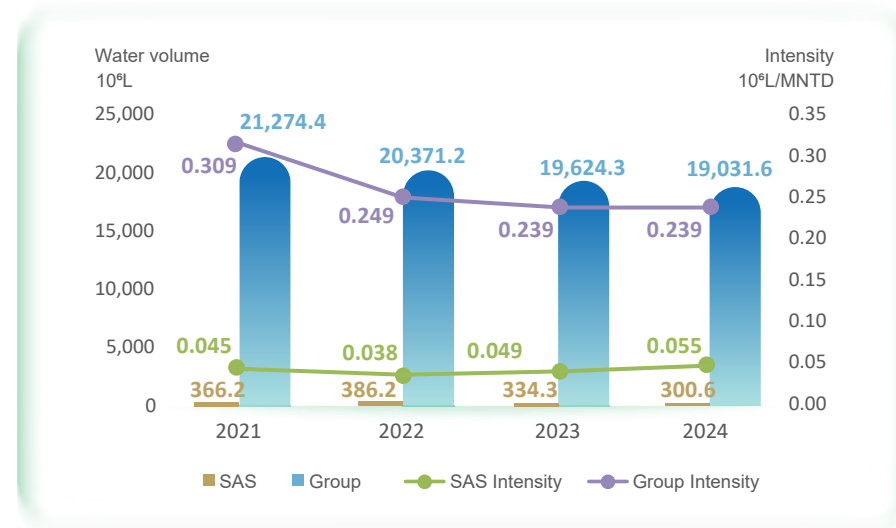
Item		2021				2022				
		SAS	Subsidiary		Group	SAS	Subsidiary			Group
			GlobalWafers	TSC			GlobalWafers	TSC	AWSC	
Water withdrawal quantity	Surface water	0.0	1,269.4	0.0	1,269.4	0.0	1,261.2	0.0	0.0	1,261.2
	Underground water	0.0	9,492.5	0.0	9,492.5	0.0	8,274.2	0.0	0.0	8,274.2
	Seawater / produced water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Third-party water - Raw water	224.1	0.0	0.0	224.1	235.8	0.0	0.0	0.0	235.8
	Third-party water - Treated	142.2	10,134.0	12.2	10,288.3	150.3	10,228.2	13.0	208.4	10,600.0
	Total	366.2	20,895.9	12.2	21,274.4	386.2	19,763.6	13.0	208.4	20,371.2
Water discharge	Surface water	0.0	5,656.7	0.0	5,656.7	0.0	4,624.6	0.0	0.0	4,624.6
	Underground water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Seawater	0.0	4,738.0	0.0	4,738.0	0.0	4,435.1	0.0	0.0	4,435.1
	Third-party water	276.6	6,953.0	9.0	7,238.6	277.2	7,755.6	9.0	145.7	8,187.5
	Total	276.6	17,347.6	9.0	17,633.2	277.2	16,825.2	9.0	145.7	17,257.1
Water consumption		89.6	3,548.3	3.2	3,641.1	109.0	2,938.4	4.0	62.7	3,114.1

Item		2023						2024					
		SAS	Subsidiary				Group	SAS	Subsidiary				Group
			GlobalWafers	TSC	AWSC	Actron Technology Corp.			GlobalWafers	TSC	AWSC	Actron Technology Corp.	
Water withdrawal quantity	Surface water	0.0	1,495.9	0.0	0.0	0.0	1,495.9	0.0	1,648.2	0.0	0.0	0.0	1,648.2
	Underground water	0.0	7,663.6	0.0	0.0	0.0	7,663.6	0.0	7,116.2	0.0	0.0	0.0	7,116.2
	Seawater / produced water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Third-party water - Raw water	190.4	0.0	0.0	0.0	0.0	190.4	172.4	0.0	0.0	0.0	0.0	172.4
	Third-party water - Treated	143.8	9,714.6	10.1	164.8	241.1	10,274.4	128.1	9,533.7	10.7	178.2	244.0	10,094.7
	Total	334.3	18,874.0	10.1	164.8	241.1	19,624.3	300.6	18,298.2	10.7	178.2	244.0	19,031.6
Water discharge	Surface water	0.0	3,912.8	0.0	0.0	0.0	3,912.8	0.0	3,703.6	0.0	0.0	0.0	3,703.6
	Underground water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Seawater	0.0	3,619.5	0.0	0.0	0.0	3,619.5	0.0	4,377.4	0.0	0.0	0.0	4,377.4
	Third-party water	224.6	8,858.0	7.2	96.9	219.7	9,406.5	206.6	7,562.9	7.4	100.2	227.3	8,104.4
	Total	224.6	16,390.4	7.2	96.9	219.7	16,938.8	206.6	15,643.9	7.4	100.2	227.3	16,185.5
Water consumption		109.7	2,483.6	2.9	67.9	21.4	2,685.5	94.0	2,654.2	3.3	78.0	16.7	2,846.2

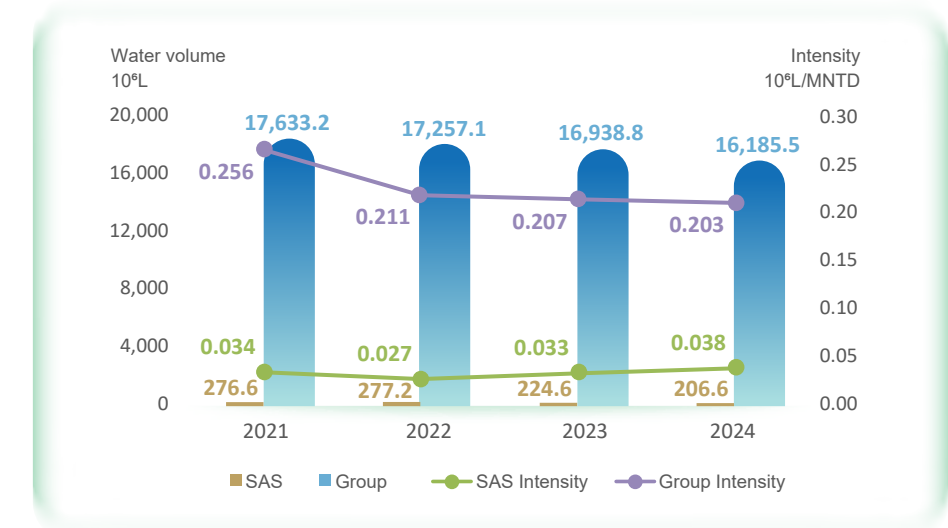


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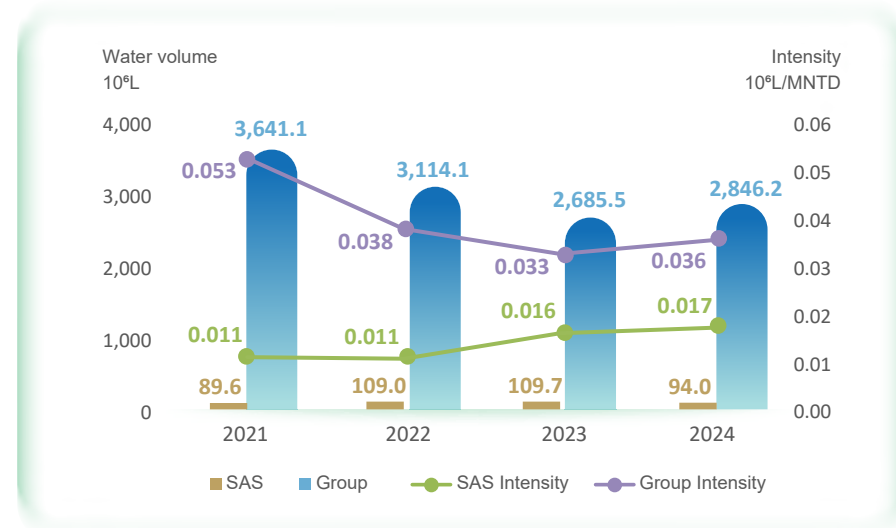
❖ Water withdrawal quantity



❖ Water discharge



❖ Water consumption



Note:

1. Scope of SAS:
Chunan Branch (Plant 2) and Yilan Branch (Plants 1 and 3); the headquarters and Hsu-Hsin Branch are located within the buildings of GlobalWafers' Hsinchu Plant and SAS Chunan Branch, respectively, and lease office space without production processes. Since no independent meters are installed to record energy use, their water resource consumption is not separately accounted for, but actual use is included in the totals for GlobalWafers' Hsinchu Plant and SAS Chunan Branch.
2. Scope of Group: In addition to the aforementioned SAS scope, the following subsidiaries are also included (in accordance with the years included in the consolidated financial statements)
2021 - GlobalWafers and TSC
2022 - GlobalWafers, TSC, and AWSC (newly added subsidiaries in that year)
2023 - GlobalWafers, TSC, AWSC, and Actron Technology Corp. (newly added subsidiary in that year)
2024 - GlobalWafers, TSC, AWSC, and Actron Technology Corp.
3. Intensity: water volume (10⁶ L) divided by revenue (MNTD); "SAS intensity" uses parent company only revenue, while "Group intensity" uses consolidated revenue.

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3.3 Pollution Prevention and Waste Reduction Management

For pollution and emissions, SAS has installed pollution control equipment meeting required treatment standards to sustain efficient operations. Equipment is maintained and inspected regularly. Specialist personnel perform related tasks according to regulations, reducing pollutant concentrations and ensuring compliance with legal requirements while minimizing environmental impacts.

The VOC emission intensity at SAS has remained between 0.0001 and 0.0002 tons per MNTD over the past three years. In 2023, overall emission intensity increased after Actron Technology was consolidated as a subsidiary and included in reporting. Due to the nature of its industry, VOC emissions from Actron Technology are higher, which affected the Group's aggregated emission data.

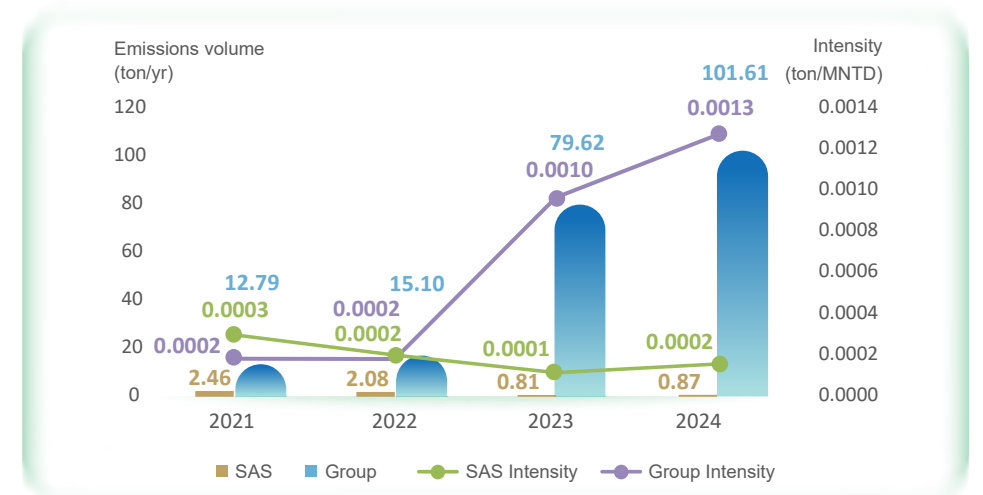
3.3.1 Air Pollution Control

Air Pollution Emission Quantity

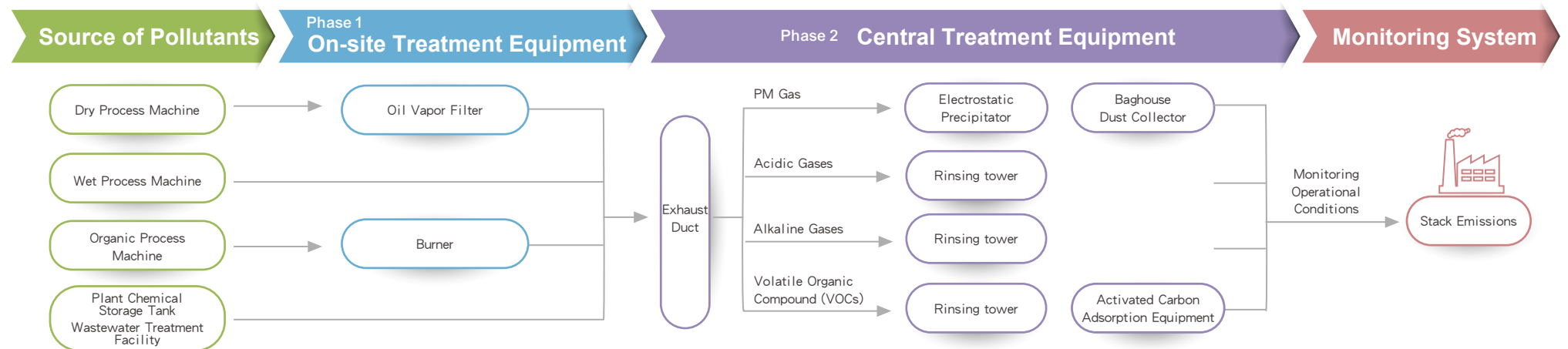
Production processes at SAS facilities differ by location, resulting in variations in process exhaust gas compositions. Chunan Branch generates three primary waste gases: acidic gases, volatile organic compounds, and particulate pollutants. Yilan Branch produces acidic, alkaline gases, and volatile organic compounds. Pollutant sources are separated at the point of origin. Gases such as oily vapors and combustibles with high pollutant concentration undergo initial on-site treatment before being transferred to central processing facilities.

Air pollution control equipment is monitored through NMHC concentration monitors, automatic flow meters, and other instruments before emission pipelines. Backup systems are available and can be deployed if operational failures occur. Daily inspections are conducted to confirm system performance. No malfunctions or penalties related to air pollution control equipment were reported in 2024.

VOCs



Air Pollution Control Process



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❖ Air Pollutant Emissions in Recent Years

Unit : (ton /yr)

Item	2021			2022			2023				2024						
	SAS	Subsidiary	Group	SAS	Subsidiary		Group	SAS	Subsidiary			Group	SAS	Subsidiary			Group
		GlobalWafers			GlobalWafers	AWSC			GlobalWafers	AWSC	Actron Technology Corp.			GlobalWafers	AWSC	Actron Technology Corp.	
Particulate Matter Pollutants (Par)	0.398	5.513	5.911	0.823	4.655	-	5.478	0.341	4.566	-	-	4.907	0.504	4.842	-	-	5.346
Nitric acid(HNO₃)	0.166	9.254	9.420	0.098	8.190	-	8.288	0.004	5.126	-	-	5.130	0.020	3.899	-	-	3.919
Hydrofluoric acid (HF)	0.011	1.471	1.482	0.024	1.639	-	1.663	0.006	1.798	-	-	1.804	0.018	1.267	-	-	1.285
Hydrogen Chloride (HCl)	0.004	7.512	7.516	0.008	8.577	-	8.585	-	6.939	-	-	6.939	0.030	6.608	-	-	6.638
Volatile Organic Compound(VOCs)	2.459	10.334	12.793	2.078	8.993	4.030	15.101	0.805	10.384	1.226	67.200	79.616	0.872	19.613	1.752	79.370	101.607
Ammonia (NH₃)	0.037	11.847	11.884	<0.001	12.580	-	12.580	-	27.067	-	-	27.067	0.229	31.918	-	-	32.146
Phosphoric acid (H₃PO₄)	0.039	0.017	0.056	<0.001	0.007	-	0.007	-	0.007	-	-	0.007	<0.001	0.006	-	-	0.007
Sulfuric Acid (H₂SO₄)	-	0.099	0.099	<0.001	0.155	-	0.155	-	0.122	-	-	0.122	0.003	0.325	-	-	0.328

Note:

1. Scope of SAS: Chunan Branch (Plant 2), Yilan Branch (Plants 1 & 3)
2. Scope of Group: In addition to the aforementioned SAS scope, the following subsidiaries are also included (in accordance with the years included in the consolidated financial statements; TSC is not classified as a fixed pollution source, therefore no air pollution emission information is available)
 - 2021 - GlobalWafers
 - 2022 - GlobalWafers and AWSC (newly added subsidiaries in that year)
 - 2023 - GlobalWafers AWSC, and Actron Technology Corp. (newly added subsidiary in that year)
 - 2024 - GlobalWafers AWSC, and Actron Technology Corp.
3. "-" represents no such item or not disclosed
4. Intensity: VOC emissions (ton) divided by revenue (MNTD); "SAS intensity" uses parent company only revenue, while "Group intensity" uses consolidated revenue.



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Air Pollution Emergency Response Drill

The process exhaust gases from Chunan Branch Company and Yilan Branch Company contain air pollution emergency-controlled substances such as hydrofluoric acid and hydrochloric acid. Each year, at least one air pollution emergency drill is conducted for units utilizing these controlled substances in the factory, and the drill outcomes are reported to the relevant authority. The regular drills aim to reduce environmental impact, personal injury, and potential loss of equipment and property resulting from accidents, as well as to ensure staff are prepared to implement appropriate contingency measures promptly.

Hydrofluoric Acid Tanker Leak Drill

A simulated hydrofluoric acid tanker leak scenario was used to evaluate the plant area team's ability to operate properly and use the correct protective equipment.

The following procedures were carried out

- ✔ The reporting team notified unit supervisors and the Environment, Health & Safety Department of the incident.
- ✔ The command team convened the regional emergency response team, provided a briefing, and assigned tasks.
- ✔ The medical team assessed the condition of the driver.
- ✔ The safety protection team implemented alert measures to prevent contamination and hazards from entering the leak area, secured the site, controlled personnel access, and provided assistance as necessary.
- ✔ The rescue team accessed Class A airtight chemical protective suits and self-contained breathing apparatuses (SCBA) from the nearest emergency cabinet, all of which were in functional condition.
- ✔ The donning and wearing speed of the Class A airtight chemical protective suits and SCBA met required standards.

Air Pollution Emergency Response Drill



Assemble the Plant Administration Department's regional emergency response "Command Team".



Notify the "Reporting Team" and inform the relevant units.



Establish precautionary alert procedures to minimize the risk of contamination and hazards entering the leak area, under the direction of the "Safety Protection Team".



The medical Team evaluated the driver's injuries. "Medical Team"



Upon arrival at the scene, rescue personnel are required to don Class A airtight chemical protective suits and use self-contained breathing apparatuses (SCBA). The team should verify the presence of leakage at the pump outlet valve, and proceed to shut the pump inlet valve in order to halt the leak. "Rescue Team"



Rescue Team 2 operates in Class C protective suits and utilizes decontamination equipment to support decontamination activities.

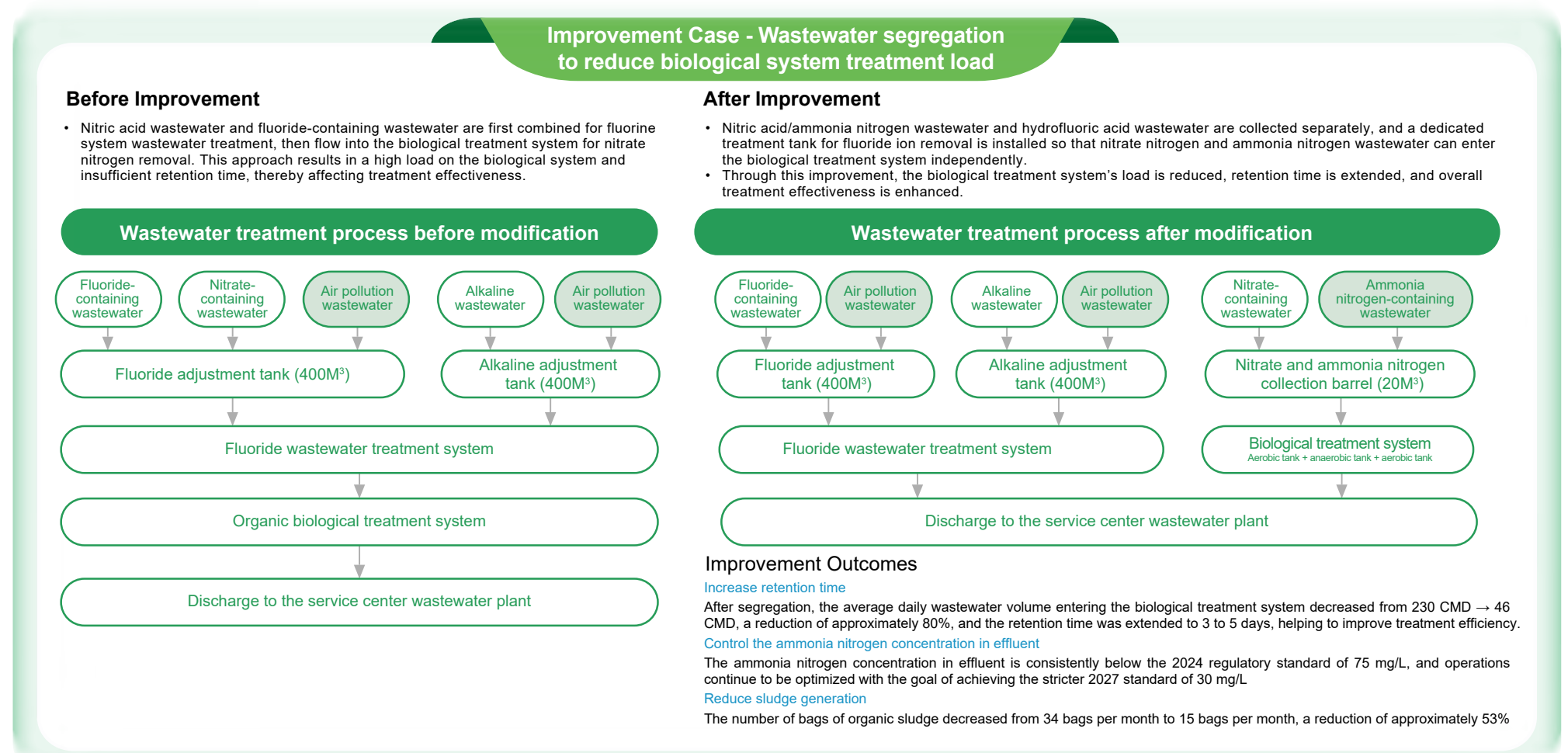
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3.3.2 Water pollution prevention

SAS facilities are located in various regions, with wastewater directed to the Chunan Park Sewage Treatment Plant and Letzer Industrial Park Sewage Treatment Plant under the management of the Hsinchu Science Park Bureau, MOST. Monitoring equipment for water volume, pH, and fluoride ion concentration is installed before discharge to enable immediate response, and routine wastewater testing and reporting are conducted as required by law. The discharged wastewater must comply with regulatory standards, and additional random inspections at discharge outlets are carried out periodically to verify compliance. In 2024, there were no reported major leaks, spills, or environmental penalties at SAS sites.

SAS's water pollution control approach focuses on source reduction during processing, segregation of waste liquids, and treatment based on classification. Streams are processed at the plant's wastewater treatment facilities according to their characteristics. Wastewater is treated using a biological system that includes both anaerobic and aerobic processes. According to SAS's analysis, in 2024, discharged water quality from all plants remained within the limits set by the Science Park Bureau and the Letzer Industrial Park Management Center, indicating that the treatment systems functioned consistently within requirements.



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3.3.3 Waste Management

SAS's waste management strategy is structured around a hierarchy of priorities. The primary objective is source reduction through enhanced process design and minimising raw material consumption, thereby decreasing overall waste generation. The secondary focus is on recycling and reuse within the manufacturing facility, which serves to elevate material recovery rates, minimise waste output, and reduce reliance on raw materials, outsourced semi-finished goods, consumables, and transportation energy. The third priority involves recycling and reusing resources outside of company premises, while the final recourse is commissioning external treatment operations, including incineration, physical and chemical processing, and landfill.

All pertinent data regarding waste solar panels generated by SAS—including quantities and model numbers—are systematically registered via the Ministry of Environment's "Waste Solar Panel Recycling Service Management Information System." This platform cross-references serial numbers with facility information, following which the Ministry of Environment arranges for authorised agencies to remove and dispose of waste photovoltaic panels. As of this report, all SAS-generated waste solar panels are processed domestically, without any cross-border (international) treatment.

Impacts of Waste and Mitigation Actions

To address the environmental impacts of operational waste, SAS has implemented several mitigation measures :

- Reduction in the consumption of non-renewable raw materials through the integration of recycled content: Polysilicon ingots incorporate in-house recycled silicon, and from 2022 onwards, externally sourced recycled silicon has also been utilised. The share of recycled raw material in silicon ingot production rose from 33.3% in 2021 to 63.2% in 2024.
- Preferential reuse of waste resources: Specific items such as waste acid drums and used wire spools are mainly returned to suppliers for refurbishment and subsequent reuse.

Overview of Waste Generation and Treatment

In 2024, SAS generated a total of 3,019.6 metric tons of waste, comprising both recycled silicon material and supplier-reused waste. Of this amount, general waste represented approximately 99.7% (3,010.2 metric tons), while hazardous waste accounted for around 0.3% (9.4 metric tons). Recycling and reuse were the predominant methods of disposal, constituting roughly 95.6% of all waste treated.

An increase in the waste intensity indicator was observed in 2024, primarily attributable to production line adjustments in response to market dynamics and the decommissioning of Yilan Plant 3, which resulted in the generation of non-routine waste during site clearance activities. SAS remains committed to refining its waste management practices to achieve continual improvements in performance metrics. A summary of waste types and corresponding disposal methods for 2024 is provided below.

❖ Proportion of recycled materials used in silicon ingots



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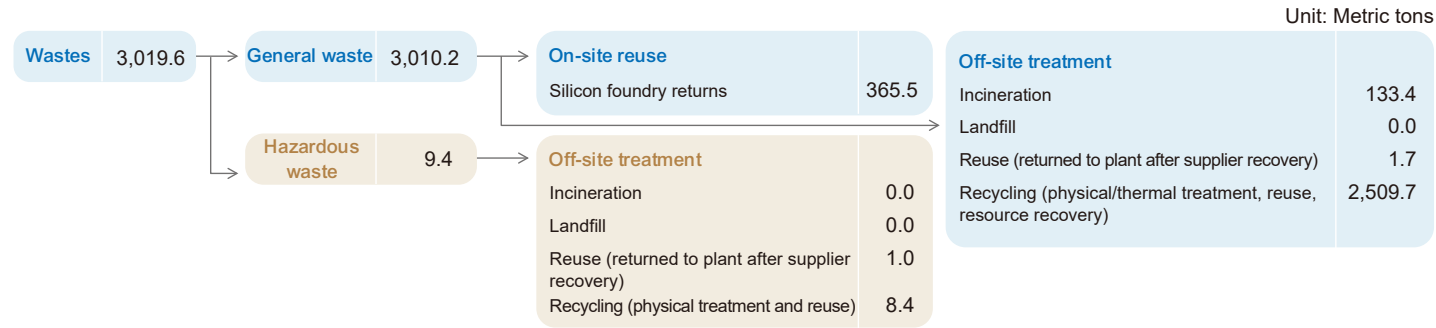
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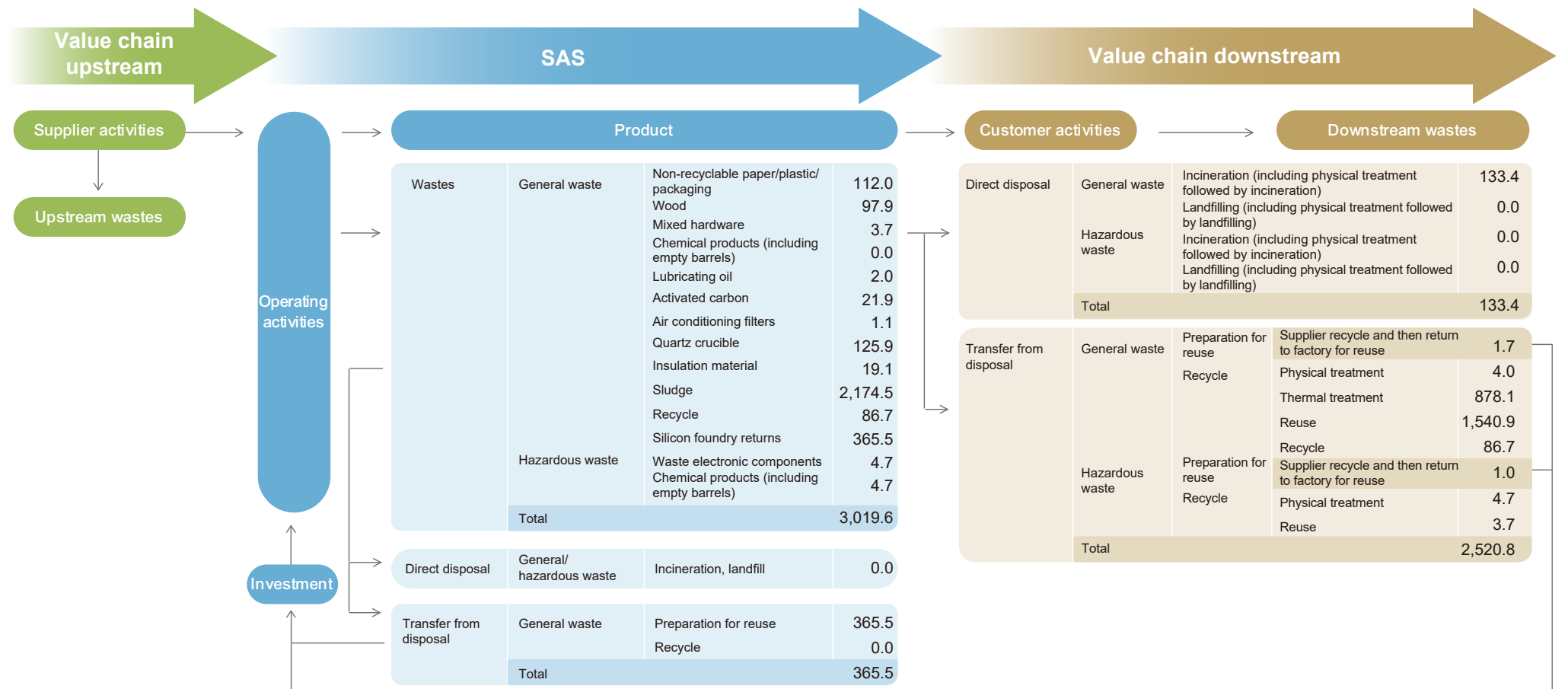
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❖ 2024 SAS Waste Statistics



Note:

1. Reuse: Take a product or composition intended for waste and adopt the inspection, cleaning, or repair methods to reuse it for its original purpose.
2. Recycle: Reprocess (chemical, physical, heat treatment, etc.) waste products or components to produce new materials.



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Management of Outsourced Waste Removal/Disposal

SAS has implemented comprehensive procedures for in-plant waste management and treatment in alignment with the "Regulations Governing Determination of Reasonable Due Care Obligations of Enterprises Commissioning Waste Clearance":

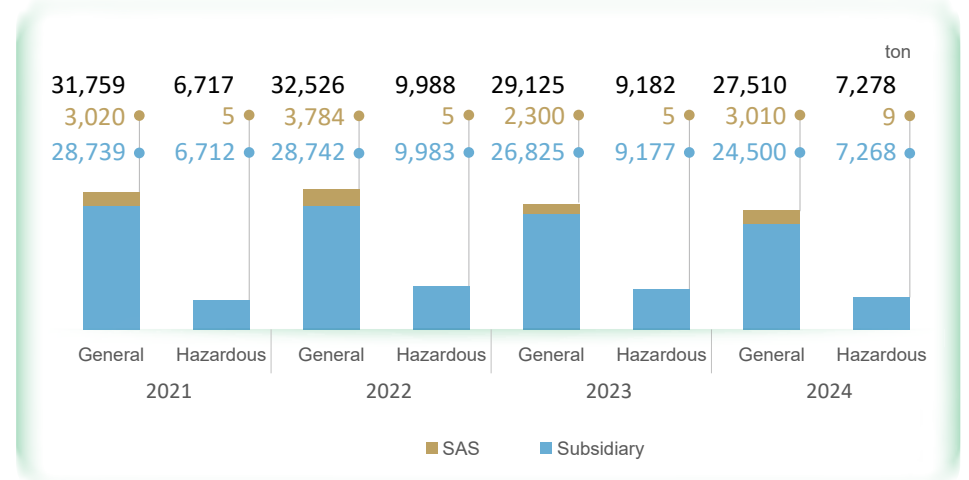
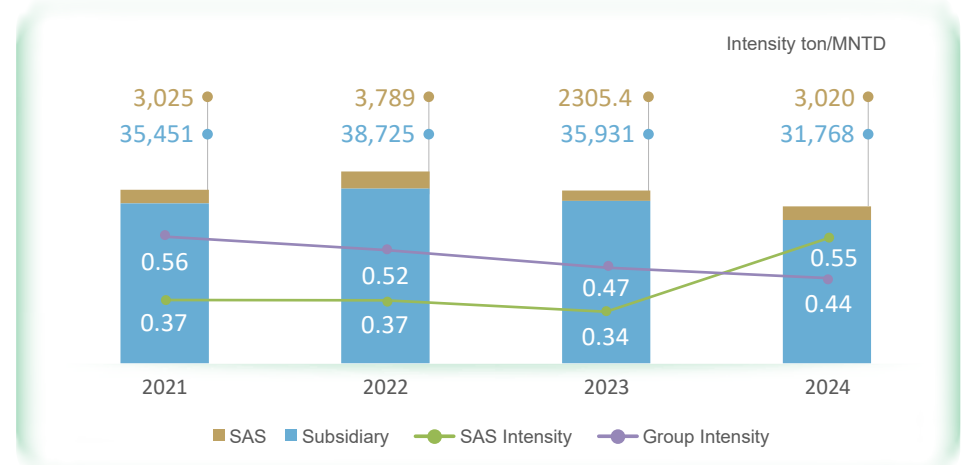
Internal Waste Management

Regular self-inspections are conducted to review waste storage conditions, online declaration records, vendor clearance qualifications, and ensure proper waste disposal is tracked and documented.

Oversight of Waste Management Organizations

- Waste disposal agencies undergo joint inspections by relevant departments—including waste management, security, procurement, and legal personnel—to confirm that neither the agencies nor their employees have violated the Waste Disposal Act or incurred related penalties, thereby validating their qualifications. For new cleanup agencies, designated factory units conduct on-site assessments to verify the adequacy of treatment/reuse equipment and ensure sufficient capacity for compliant waste processing. The post-treatment sales status of remanufactured products is also reviewed to mitigate risks associated with illegal dumping or improper disposal.
- High-risk waste treatment and reuse agencies are subject to on-site audits at least annually. These reviews encompass an evaluation of operational records, product quality standards, inventory and sales status, environmental protection licenses, and compliance with on-site environmental safety protocols. Inspection outcomes are graded as A, B, or C. Vendors receiving a grade of C (three or more deficiencies) are disqualified from further engagement. In 2024, all inspected vendors achieved an A grade.

Recent total waste generation by SAS and its subsidiaries



Note:

1. Scope of SAS: Chunan Branch (Plant 2), Yilan Branch (Plants 1 & 3)
2. Scope of Group: In addition to the aforementioned SAS scope, the following subsidiaries are also included (in accordance with the years included in the consolidated financial statements)
 - 2021 - GlobalWafers and TSC
 - 2022 - GlobalWafers, TSC, and AWSC (newly added subsidiaries in that year)
 - 2023 - GlobalWafers, TSC, AWSC, and Actron Technology Corp. (newly added subsidiary in that year)
 - 2024 - GlobalWafers, TSC, AWSC, and Actron Technology Corp.
3. Intensity: Waste output quantity (ton) divided by revenue (MNTD); "SAS intensity" uses parent company only revenue, while "Group intensity" uses consolidated revenue.



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4.1 Human Resources

SAS recognises diversified talent as a critical driver of enterprise growth. The company is committed to selecting appropriate personnel and supports work autonomy, placing emphasis on collective outcomes with employees. In response to the challenges posed by globalisation, technological progress, organisational change, and demographic trends, SAS has established comprehensive short-, medium-, and long-term human resource management plans. These address key corporate objectives relating to attraction, integration, retention, evaluation, and development. A structured interview process is employed for the recruitment of knowledge-based professionals; employee potential and personal growth are prioritised; job rotations are utilised to broaden skillsets; teams are assembled for project planning and execution; efforts are directed towards maintaining a safe and healthy work environment; fundamental employee rights are upheld; a performance-based reward system is in place; and employees and supervisors collaborate in setting and achieving individual goals. SAS continues to deliver human resources services designed to enhance employee value.

Diverse Resource Talent

Adopting a people-oriented philosophy, SAS acknowledges and respects global cultural diversity. Employees are encouraged to demonstrate collaboration, integrity, adherence to local regulations, innovation, and a commitment to high standards. The company communicates its values and vision via channels including the internal website, meetings, publications, and training programmes.

As of 2024, SAS (headquarters & Chunan, Yilan, Hsu-Hsin branches) and GlobalWafers employed a total of 7,772 individuals, with SAS alone employing 574 staff members.

SAS promotes gender equality; within its workforce, 72.8% are male and 27.2% are female. Age distribution is as follows: 3.9% under 30 years, 85.0% between 30 and 50 years, and 11.1% over 50 years. By location: 7.5% are based in Hsinchu, 27.9% in Chunan, and 64.6% in Yilan. Regarding job type: 51.7% are direct personnel, 48.3% indirect. All employees hold full-time positions, with none classified as non-regular staff. Employment contracts comprise 0.2% fixed-term and 99.8% non-fixed-term arrangements. Employees requiring work visas constitute 0.35%, with those not requiring visas accounting for 0.17%.

Employee number fluctuations from 2022 to 2024 were primarily attributable to industry conditions and reduced market demand. To sustain stable operations, SAS responded by adjusting its workforce accordingly, reallocating and retraining some employees or transferring others within the Group to optimise workforce distribution and positional efficiency.

2022 to 2024 Staff Structure Analysis

Workforce structure		Year	2022		2023		2024	
			SAS	GlobalWafers	SAS	GlobalWafers	SAS	GlobalWafers
By gender	Male		555	5,590	453	5,628	418	5,573
	Female		174	1,701	169	1,677	156	1,625
Full-time/Part-time	Official (General Employees)		729	6,740	622	6,765	574	6,828
	Non-official (Dispatch, part-time)		0	551	0	540	0	370
By employment contract	Unfixed term		658	6,371	621	6,522	573	6,489
	Fixed Term (Contracted)		71	920	1	783	1	709



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Workforce structure		2022		2023		2024	
		SAS	GlobalWafers	SAS	GlobalWafers	SAS	GlobalWafers
By nature of work	Direct	453	4,535	349	4,388	297	4,222
	Indirect	276	2,756	273	2,917	277	2,976
By education level	Doctoral degree	3	67	3	76	3	76
	Master's degree	83	543	83	561	83	595
	Bachelor's degree	463	1,556	387	1,651	365	1,974
	Senior high school and vocational school	156	3,515	129	3,894	106	2,962
	Senior high school and below	24	1,610	20	1,123	17	1,483
By age	< age 30	88	1,493	31	1,095	22	1,241
	Age 30 to 50	592	3,824	437	413	488	3,541
	> age 50	49	1,974	154	2,667	64	2,308
Area	Taiwan	729	1,711	622	1,701	574	1,722
	Offshore	0	5,580	0	5,604	0	5,476
Foreign employees and employees assigned overseas	Work visa not required	65	274	0	7	1	15
	Work visa required	1	2	1	222	2	214
Total			8,020		7,927		7,772

Note:
 1. SAS' informal employees in 2024 are dispatched personnel (SAS has no part-time or seasonal employees).
 2. In 2024, SAS did not employ any workers without guaranteed working hours.



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Hiring People with Disabilities

In accordance with government employment policies for persons with disabilities, SAS hires employees in compliance with relevant laws. By 2024, the company had employed 7 people with disabilities, representing 1.6% of its total workforce.

Recruitment of people with disabilities	7 people
Percentage of employees with physical and mental disabilities	1.6% (9 people)

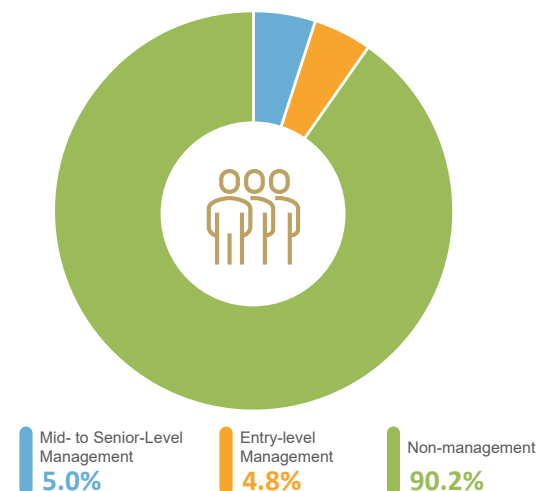
Notes: Among the 7 people with disabilities employed, 2 are classified as having severe or extremely severe disabilities. In accordance with the People with Disabilities Rights Protection Act, each employee with a disability of severe or above is counted as two individuals for employment quota purposes.

Management

In terms of management, SAS has 79 supervisors, of whom 70.9% are male and 29.1% are female. Among these, 51 individuals hold mid- to senior-level management positions (manager or deputy manager and above), while 28 occupy entry-level management roles (section chief level and above but below manager or deputy manager).

All Levels	SAS				GlobalWafers				Total			
	Male	Female	Total	Percentage	Male	Female	Total	Percentage	Male	Female	Total	Percentage
Mid- to Senior-Level Management	39	12	51	8.9%	276	67	343	4.7%	315	79	394	5.0%
Entry-level Management	17	11	28	4.9%	284	64	348	4.8%	301	75	376	4.8%
Non-management	362	133	495	86.2%	5,068	1,546	6,614	90.5%	5,430	1,679	7,109	90.2%
Total	418	156	574	100%	5,628	1,677	7,305	100%	6,046	1,833	7,879	100%

Note:
 1. Mid- to Senior-Level Management: Manager or Deputy Manager Level and Above
 2. Entry-level Management: Section Chief level and above but below Manager or Deputy Manager level
 3. Non-management: Including researchers, professionals (engineers, administrators), assistant engineers, technicians, and others.



New Recruits and Leaving Employees Statistics

In 2024, SAS and GlobalWafers employed 792 staff members. By the end of the year, new male employees comprised 7.7% of the total workforce, while female new hires accounted for 2.6%. With respect to age, recruits under 30 years old made up 4.9%, and those aged 30 to 50 represented 4.1%.

In 2024, 769 employees left the company. Male employees who resigned constituted 7.5% of the total, while female employees made up 2.6%. Regarding age, 4.1% of departing employees were between 30 and 50 years old, and 3.4% were under 30.

When an employee submits a resignation letter, the HR department schedules an exit interview to identify the reasons for leaving. The HR department also provides explanations related to job contents, personal attributes, and any identified concerns. Internal job openings are announced when vacancies occur within the Group, supporting both organizational requirements and employee career development. This process is intended to promote internal mobility and decrease turnover rates.

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❖ 2022 to 2024 Statistical Analysis for New Employees

2022

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	53	0.7%	20	0.3%	0	0.0%	103	1.3%	358	4.6%	534	6.9%
	Age 30 to 50	48	0.6%	45	0.6%	0	0.0%	102	1.3%	143	1.8%	338	4.4%
	≥ age 50	0	0.0%	0	0.0%	0	0.0%	1	<0.1%	29	0.4%	30	0.4%
Female	< age 30	7	0.1%	0	0.0%	1	<0.1%	67	0.9%	129	1.7%	204	2.6%
	Age 30 to 50	11	0.1%	0	0.0%	2	<0.1%	48	0.6%	48	0.6%	109	1.4%
	≥ age 50	0	0.0%	1	<0.1%	0	0.0%	3	<0.1%	22	0.3%	26	0.3%
Total		119	1.5%	66	0.9%	3	<0.1%	324	4.2%	729	9.4%	1,241	16.0%

2023

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	0	0.0%	1	<0.1%	0	0.0%	51	0.6%	222	2.8%	274	3.5%
	Age 30 to 50	0	0.0%	3	<0.1%	1	<0.1%	35	0.4%	121	1.5%	160	2.0%
	≥ age 50	4	<0.1%	0	0.0%	1	<0.1%	3	<0.1%	48	0.6%	53	0.7%
Female	< age 30	0	0.0%	0	0.0%	1	<0.1%	18	0.2%	52	0.7%	71	0.9%
	Age 30 to 50	0	0.0%	0	0.0%	5	<0.1%	25	0.3%	39	0.5%	69	0.9%
	≥ age 50	0	0.0%	0	0.0%	0	0.0%	3	<0.1%	19	0.2%	22	0.3%
Total		4	<0.1%	4	<0.1%	8	0.1%	135	1.7%	501	0.3%	649	8.2%

2024

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	0	0.0%	1	<0.1%	1	<0.1%	88	1.1%	199	2.6%	289	3.8%
	Age 30 to 50	0	0.0%	5	<0.1%	1	<0.1%	78	1.0%	148	1.9%	232	3.0%
	≥ age 50	1	<0.1%	0	0.0%	0	0.0%	4	<0.1%	63	0.8%	68	0.9%
Female	< age 30	0	0.0%	0	0.0%	3	<0.1%	24	0.3%	56	0.7%	83	1.1%
	Age 30 to 50	0	0.0%	1	<0.1%	5	<0.1%	35	0.5%	43	0.6%	84	1.1%
	≥ age 50	0	0.0%	0	0.0%	0	0.0%	1	<0.1%	35	0.5%	36	0.5%
Total		1	<0.1%	7	0.1%	10	0.1%	230	3.0%	544	7.1%	792	10.3%



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2022 to 2024 Statistical Analysis for Resigned Employees

2022

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	12	0.2%	15	0.2%	0	0.0%	76	1.0%	246	3.2%	349	4.5%
	Age 30 to 50	28	0.4%	34	0.4%	0	0.0%	107	1.4%	120	1.5%	289	3.7%
	≥ age 50	0	0.0%	3	<0.1%	0	0.0%	0	0.0%	76	1.0%	79	1.0%
Female	< age 30	6	0.1%	0	0.0%	0	0.0%	35	0.5%	119	1.5%	160	2.1%
	Age 30 to 50	14	0.2%	0	0.0%	2	<0.1%	55	0.7%	67	0.9%	138	1.8%
	≥ age 50	0	0.0%	1	<0.1%	0	0.0%	4	0.1%	49	0.6%	54	0.7%
Total		60	0.8%	53	0.7%	2	<0.1%	277	3.6%	677	8.7%	1,069	13.8%

2023

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	27	0.3%	8	0.1%	0	0.0%	46	0.6%	150	1.9%	231	2.9%
	Age 30 to 50	48	0.6%	22	0.3%	0	0.0%	65	0.8%	129	1.6%	264	3.3%
	≥ age 50	0	0.0%	3	<0.1%	0	0.0%	23	0.3%	55	0.7%	81	1.0%
Female	< age 30	1	<0.1%	0	0.0%	3	<0.1%	24	0.3%	35	0.4%	63	0.8%
	Age 30 to 50	1	<0.1%	4	<0.1%	1	<0.1%	58	0.7%	46	0.6%	110	1.4%
	≥ age 50	0	0.0%	0	0.0%	1	<0.1%	14	0.2%	21	0.3%	36	0.5%
Total		77	1.0%	37	0.5%	5	<0.1%	230	2.9%	436	5.5%	785	9.9%

2024

Area	Age	Yilan		Chunan		Hsinchu		GlobalWafers-Taiwan		GlobalWafers-overseas		Total	
		No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%	No. of people	%
Male	< age 30	2	<0.1%	1	<0.1%	0	0.0%	50	0.7%	131	1.7%	184	2.4%
	Age 30 to 50	29	0.4%	10	0.1%	2	<0.1%	73	1.0%	126	1.6%	240	3.1%
	≥ age 50	2	<0.1%	0	0.0%	0	0.0%	26	0.3%	119	1.6%	147	1.9%
Female	< age 30	2	<0.1%	0	0.0%	3	<0.1%	18	0.2%	52	0.7%	75	1.0%
	Age 30 to 50	12	0.2%	2	<0.1%	1	<0.1%	32	0.4%	29	0.4%	75	1.0%
	≥ age 50	2	<0.1%	0	0.0%	1	<0.1%	10	0.1%	35	0.5%	48	0.6%
Total		49	0.6%	13	0.2%	7	0.1%	209	2.7%	492	6.4%	769	10.0%

Note:

1. The percentage of new and resigned employees is based on the ratio of the total number of employees at the end of the previous year.
2. The statistics are divided by region and age. "Chunan" covers: SAS Chunan Branch and Hsu-Hsin Branch. (The operating locations of Chunan and Hsu-Hsin branches are both located in Chunan)
3. "GlobalWafers-Taiwan": covers GlobalWafers headquarters, Chunan Plant, and Taisil Branch.



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4.2 Talent Attraction and Retention

Employees constitute a core driving force in the Company's sustained growth and success. SAS offers a competitive remuneration and benefits package, with annual salary reviews conducted in alignment with the Company's operational performance, prevailing industry trends, inflationary factors, and individual employee achievements. To attract and retain high-calibre professionals, the Company has implemented a dual-track remuneration framework for both management and specialist roles, enabling employees to realise their full potential and leverage their unique strengths. Salary levels are established based on job-related criteria—including position, seniority, and capability—to ensure fair compensation practices and prevent any form of discrimination or inequity related to gender, age, or other personal characteristics.

Furthermore, compensation is directly linked to the Company's profitability, fostering greater employee cohesion, incentivising exceptional performance, and enabling the collective sharing of business success. Promotion recommendations are made annually, grounded in comprehensive evaluations of work performance and individual contributions. SAS is committed to fostering an environment where employees recognise the Company's dedication to sharing its operational achievements, promoting teamwork, enhancing unity and belonging, cultivating a proactive growth culture, and establishing itself as an employer of choice within the industry.

Connection between Appraisal and Remuneration

Annual performance evaluations are conducted for all employees, focusing on their commitment, sense of duty, responsibility, and overall contribution. Salary adjustments are determined with consideration to potential for future development and prevailing market salary benchmarks. Additionally, employees may receive cash rewards and bonuses based on performance outcomes. This approach ensures that employee remuneration and career development are aligned with both the company's financial health and organizational performance, while motivating employees to achieve breakthroughs and enhance their personal value within SAS.

❖ Performance evaluation method

Type	Parties	Frequency	Execution method
Annual evaluation	All employees	Annually	Supervisors conduct annual performance evaluations based on the achievement of yearly goals to assess employees' job performance
Multi-dimensional evaluation	Supervisors	Annually	Employees undergoing evaluation receive multi-dimensional feedback from cross-departmental supervisors or colleagues with collaborative work experience, serving as a reference for future development
Regular communication and feedback	All employees	Real-time	Employees may proactively initiate discussions on work progress, or supervisors may conduct timely one-on-one meetings to provide immediate feedback or offer necessary support regarding work goals.

Item	SAS (Headquarters and Chunan, Yilan, and Hsu-Hsin branches)			GlobalWafers (GlobalWafers Headquarters, Chunan Plant, and Taisil Plant)			
	2023	2024	Difference compared to the previous year	2023	2024	Difference compared to the previous year	
Non-supervisory positions	Number of full-time employees (persons)	617	573	-7.13%	1,618	1,638	1.24%
	Average salary (KNTD)	1,452	1,080	-25.62%	1,386	1,205	-13.06%
	Median salary (KNTD)	1,370	996	-27.30%	1,280	1,101	-13.98%

Note:

- "Full-time employees" refer to those whose working hours have reached the normal working hours or statutory working hours stipulated by the Company ; or the rough average working hours have exceed 35 hours per week for those whose normal working hours are not set.
- "Full-time non-supervisory employees" refers to the number of full-time employees after subtracting the supervisor positions, part-time positions, and those eligible for exemption from statistics from all employees. Employees in supervisory positions refer to Company managers or "managers" within the scope as defined by the regulations of the competent authority: President and equivalent; Vice President and equivalent; Assistant Vice President and equivalent; head of the financial department; head of the accounting department; and other persons who have the authority to manage the Company's affairs, provide authorization signatures, and consistent within the scope of insiders (managers) and (managers) declared by the annual shareholders meeting report.
- "Salary" refers to the employee's salary attributable to the current year according to the accrual basis based on the occurrence of powers and responsibilities. It shall include recurring salary (monthly basic salary, fixed allowance, and bonus), overtime pay (regardless of taxable or tax-free), and non-recurring salary (non-monthly allowances, bonuses, employee compensation, etc.).
- The number of employees listed above is based on the weighted average statistical concept (the average number of employees for each month), and only covers GlobalWafers and the Taisil Branch.



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Senior Management Team Performance and Remuneration

The remuneration framework for senior management is meticulously designed to align with the Company's overall performance. Annually, management remuneration proposals are structured based on the Company's performance indicators and are subjected to thorough review by the Remuneration Committee prior to submission to the Board of Directors for approval. The long-term incentive programme for executives is concurrently structured to reflect both long-term corporate performance and shareholder interests.

To reinforce the Company's commitment to sustainable development, ESG (Environmental, Social, and Governance) criteria have been integrated into the performance assessments of senior executives, including the President, Vice President, and Plant Managers. ESG performance indicators—tailored in weighting and relevance to each executive's responsibilities—cover areas such as domestic and international ESG ratings, climate change mitigation and adaptation (including GHG emissions reduction and progress towards energy/carbon-saving targets), and promotion of occupational safety and health. Achievement against these ESG criteria is incorporated into holistic performance evaluations and subsequently informs remuneration decisions.

Key Talent Long-term Retention Programme

For critical positions and core talent, retention strategies tailored to local market conditions are consistently applied. Specialised retention programmes are implemented on an ongoing basis to promote long-term employee engagement and sustained contributions.

Recognition and Rewards for Outstanding Employees

The Company has established comprehensive recognition mechanisms to reward initiative and excellence, including awards for notable achievements, project innovation, and patent submissions. In Taiwan, the annual Model Employee Selection programme identifies and honours exemplary employees through public commendation. These initiatives aim to cultivate a dynamic and positive corporate culture, consistent with the Company's commitment to continuous improvement.

Employee Stock Ownership Trust

In Taiwan, the Company matches 100% of employees' monthly deposits to the stock ownership trust, facilitating steady accumulation of shareholder value via regular investment in Company shares. This initiative enhances employees' autonomous rights, improves welfare, and supports retirement planning. As of 2024, the participation rate stood at approximately 73%.

Comprehensive Employee Benefits System

SAS is dedicated to fostering employee stability and well-being. Across all operational sites, full-time employees are provided with six essential protections: life insurance, medical insurance, disability insurance, parental leave, retirement plans, and participation in an employee stock ownership trust. These benefits enable employees to pursue their roles passionately while supporting mutual growth alongside the Company.

Additionally, sites in Taiwan offer further benefits, including labour and health insurance, group insurance, retirement contributions, meal subsidies, annual travel grants, regular health screenings, festive and milestone gifts, wedding and bereavement allowances, childbirth and hospitalisation subsidies, funding for club activities and continuing education, on-site medical practitioners, cancer support payments, the Employee Assistance Programme (EAP), and more. These provisions are aimed at ensuring employees achieve a healthy work-life balance.

Ongoing learning forms the foundation of SAS's talent development strategy. Employees are encouraged to participate in a range of internal training sessions and supported through subsidies for external professional development opportunities, guided by the "Employee On-the-Job Education Guidelines." Complementary measures, such as tuition subsidies and flexible working arrangements, are also offered to harmonise company objectives with individual advancement.

Insurance and Pension System

SAS offers comprehensive group insurance exceeding statutory requirements, encompassing term life, accident, aviation, major burn, injury medical, hospitalisation, cancer, and epidemic prevention insurance. Epidemic coverage includes diagnosis benefits and hospitalisation protection, thereby safeguarding employee health and safety.

Under the Labour Standards Act, old pension scheme participants receive monthly retirement reserves equal to 2% of salary, deposited into a designated retirement account at the Bank of Taiwan, with annual allocations fully compliant with legal requirements. The Supervisory Committee of Business Entities' Labour Pension Reserve meets quarterly to oversee pension matters, complemented by an annual actuarial evaluation to ensure sufficiency. For those eligible under the new pension scheme, 6% of monthly salary is contributed to individual accounts managed by the Bureau of Labour Insurance.



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Childbirth Support System

Prenatal Checkup Leave, Spouse Leave, Pregnancy Maintenance Leave, Maternity Leave, and Parental Leave

SAS promotes active involvement of all employees in parenting, providing comprehensive maternity and parental leave policies at all locations to help staff balance professional and family commitments.

Prior to childbirth, employees are entitled to prenatal checkup leave (for themselves and spouses), pregnancy maintenance leave, maternity leave, and flexible working hours, enabling effective management of work and family needs. After childbirth, male and female employees with at least six months of service may apply for unpaid parental leave up until their child turns three.

Beyond leave entitlements, SAS ensures female employees' health during each stage of childbirth by offering access to Health Center maternal protection programmes and risk assessments. Additional provisions include reserved parking for pregnant employees, "Mom-to-be Good Pregnancy Packs," breastfeeding rooms, and dedicated break times for expressing milk. Risk assessments, physician consultations, and care services are available for pregnant and postnatal employees. Through agreements with childcare providers, SAS offers exclusive discounts to employees. Collectively, these measures underscore the Company's commitment to creating a family-friendly workplace that supports both employee well-being and organisational success.

❖ Execution results of unpaid parental leave application

Item	Gender	SAS			GlobalWafers - Taiwan		
		2022	2023	2024	2022	2023	2024
Total employee staff number eligible for unpaid child care leave	Male	34	34	24	41	46	45
	Female	13	16	3	21	22	21
Total number of employees who actually took unpaid child care leave	Male	2	5	10	7	2	8
	Female	4	7	2	8	9	11
Total number of reinstated employees upon the expiration of their child care leaves	Male	3	3	6	6	4	6
	Female	7	6	4	7	12	8
Total number of employees who actually resumed their duties upon the expiration of their child care leaves	Male	3	2	5	2	3	6
	Female	7	5	2	6	6	5
Ratio of employees who resumed their duties upon the expiration of their child care leaves (reinstatement rate)	Male	100.0%	66.7%	83.3%	33.3%	75.0%	100.0%
	Female	100.0%	83.3%	50%	85.7%	50.0%	62.5%
Total number of employees still in service 12 months after expiration of their unpaid child care leaves	Male	1	2	2	0	1	3
	Female	4	3	4	7	4	6
The ratio of employees still in service 12 months after expiration of their parental leaves (retention rate)	Male	50.0%	66.7%	100.0%	0.0%	50.0%	100.0%
	Female	100.0%	42.9%	80%	87.5%	66.7%	100.0%



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Employment Meals

SAS offers complimentary meals to employees during working hours in staff restaurants. The objective is to provide a suitable dining environment and a variety of meal options to accommodate different dietary requirements. A restaurant monitoring task force oversees meal quality, nutritional standards, and health and catering controls.

Welfare Committee System

Established in 1988, the SAS Employee Benefits Committee implements employee benefits such as emergency relief and first-time cancer support. Cash compensation is provided for marriage, childbirth, and funerals. Employees receive festival and birthday cash gifts, education scholarships, illness and hospitalization subsidies, discounts at designated shops, regular outings, year-end parties, and sponsorships for social welfare organizations. Family days are held, allowing employees and their families to participate and engage with the company. Employee associations promote physical and mental health, entertainment, teamwork, mutual assistance, and communication among staff. Occasional beach cleaning activities are organized to support environmental efforts. Audio-visual facilities have been added to enhance the dining environment.

In 2024, total subsidy expenditures reached NT\$9.48 million, averaging NT\$16 thousand per employee. Fourteen newborns were welcomed, resulting in a crude birth rate of 24‰, 4.2 times greater than Taiwan's national rate. After the pandemic, employee trips resumed with one event each in spring and fall, offering multiple itinerary choices. Both events had over 400 employee participants, with total attendance including family members exceeding 800.



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4.3 Talent Cultivation and Development

Comprehensive Learning Environment and Career Development

To strengthen human capital and advance the Company's growth objectives, we cultivate a learning-focused organizational culture by providing diverse resources and training channels. We actively reinforce on-the-job training and remain committed to supporting the comprehensive career development of every employee. Annual training plans are developed each year in alignment with corporate strategies and policies, tailored to the specific competencies and requirements of each position. Professional capabilities and job competencies are enhanced through both internal and on-the-job training (OJT), and employees are encouraged to participate in programs offered by external professional training institutions. By leveraging various training methods, the Company ensures multiple learning opportunities that facilitate individual and organizational development. At the end of each quarter, we review and evaluate the training initiatives to ensure their effectiveness in skill enhancement. This systematic approach is designed to increase work efficiency and competitiveness, thereby aligning personal advancement with the Company's sustainability goals.

SAS has created an E-Library Academy for employees to read and review training materials at any time. The available data includes various topics, which can be accessed easily by staff. The Academy provides resources for multiple professional fields, enabling employees to undertake self-study across disciplines. In 2024, the combined training development hours for SAS and GlobalWafers reached 249,803.5 hours.

For SAS, the average education and training hours by plant are 30.6 hours for men and 33.5 hours for women. By employee classification, direct personnel received an average of 24.1 hours, while indirect personnel averaged 39.1 hours of training.

❖ SAS provides an all-around, diversified learning environment.



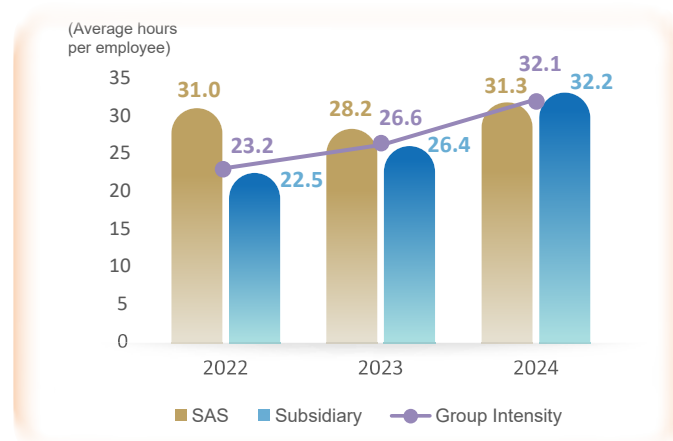
❖ Number of people and hours for education and training from 2022 to 2024

Training Type	2022				2023				2024				
	Number of sessions	Number of people	Total class opening hours	Total class hours	Number of sessions	Number of people	Total class opening hours	Total class hours	Number of sessions	Number of people	Total class opening hours	Total class hours	
SAS	Competency training for new recruits	62	159	467.5	1147.5	11	11	135.0	135.0	38	43	215.5	231.5
	Professional competency training	911	15,130	2,210.5	16,114.0	704	12,440	1,939.5	12,882.5	784	10,887	2,002.5	12,593.0
	General management competency training	298	3,297	475.0	5,306.0	252	2,493	420.0	4,514.0	305	3,277	481.5	5,167.0
	Total	1,271	18,586	3153.0	22,567.5	967	14,944	2,494.5	17,531.5	1,127	14,207	2,699.5	17,991.5
GlobalWafers	Competency training for new recruits	441	1,422	3,284.0	26,529.0	316	1,282	1,586.0	9,553.0	422	1,252	23,226.0	30,027.0
	Professional competency training	1,580	15,471	5,462.7	80,770.0	1,951	13,757	25,282.0	79,075.0	1,691	18,633	47,336.0	77,336.0
	General management competency training	747	29,832	13,235.3	56,455.9	1,263	47,246	3,163.0	102,606.0	1,742	41,007	73,831.0	124,449.0
	Total	2,768	46,725	21,981.9	163,754.9	3,530	62,285	30,032.0	191,233.0	3,855	60,892	144,393.0	231,812.0
Total	4,039	65,311	25,134.9	186,322.4	4,497	77,229	32,526.1	208,764.7	4,982	75,099	147,092.5	249,803.5	

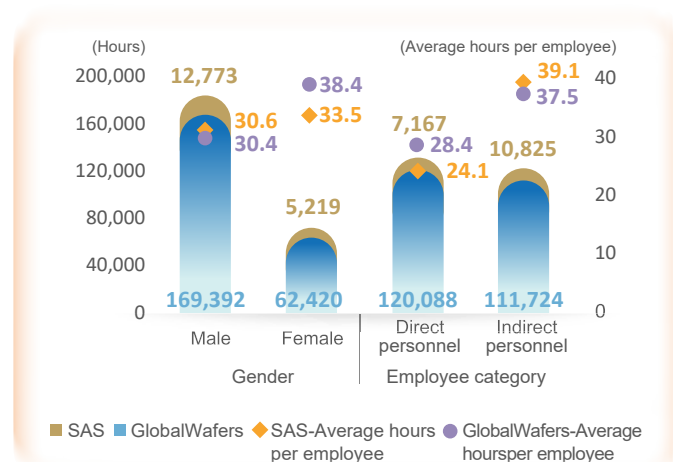


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❖ Average employee education and training hours from 2022 to 2024



❖ Average hours of education and training of employees according to their gender and category in 2024



- Note:
1. Direct Personnel: Operation personnel directly engaged in production related operations, including those engaged in technological tasks and team leaders in production sites.
 2. Indirect Personnel: Personnel not directly engaged in production related tasks, including management, product design staff, accounting staff, procurement staff, engineers, etc.

Diverse Talent Cultivation Channels

SAS develops its annual education and training plan based on operational strategies and short-, mid-, and long-term objectives. The company provides various training courses, industry-academia collaborations, and research projects intended to keep employees informed about current global market trends and technology advancements. Training is supported by job substitution, job rotation, and on-the-job learning to enhance employee skills across functions. SAS offers six categories of training resources: New Recruit Academy, General Competency Academy for Support Staff, Business Management Academy, Professional Competency Academy, Environmental Safety and Health Academy, and Health Promotion Academy. This system supplies targeted training for employees at different career stages, enabling both the company and its workforce to adapt to changing requirements and maintain relevant knowledge and skills.

To encourage utilization of training resources and foster knowledge sharing, SAS has implemented regulations for internal lecturer management, supporting knowledge transfer and technical expertise within the organization.

Supervisor Training Program

SAS has established a program to develop management skills among supervisors. The program addresses management challenges, strengthens leadership and decision-making abilities, and aims to help supervisors effectively guide their teams toward company objectives. Internal training programs are supplemented with external partnerships, such as with the Chinese Professional Management Association, to offer systematic development opportunities for prospective senior managers. Interactions with other industry leaders are also facilitated. In 2024, three managers participated in external senior manager training, bringing the total number of trained managers to seven.

ESG Education and Training

SAS organized three ESG training sessions in 2024, focusing on environmental protection, social responsibility, and corporate governance. These sessions were designed to improve employees' understanding of ESG and sustainability objectives. A total of 328 employees attended, accumulating 886 training hours.

Corporate Visits

In partnership with local universities, SAS arranges corporate visits to introduce students to the company's industry, manufacturing processes, career pathways, and facilities. Satisfaction surveys following these visits indicate that students responded positively and would consider SAS as a future employer.

Children and Youth Education

SAS launched the Photovoltaic Seed Project in 2021, hoping that photoelectric education can take root from an early age. The goal is to give children a correct understanding of solar photovoltaics as a safe, affordable, and sustainable clean energy via story discussions, life topics, and solar energy application implementations and practice what they have learned.

In July 2024, the "Pioneer Seed Project" was held as a two-day, one-night camp aimed at fostering the holistic development of children from remote areas. The program focused on integrating experiences in emerging technologies and social trend issues, continuously providing new learning nutrients to the children with the hope that their curiosity and learning will grow boundlessly, inspiring them to become pioneering explorers of the future. Employees of the SAS Group served as instructors and participated in the planning of the "Solar Energy Classroom" camp. By leveraging the Group's expertise in the field of renewable energy, the camp guided participants in learning about green energy and solar energy applications. The program aimed to inspire students to become seeds of change, spreading the message of energy conservation, carbon reduction, and environmental protection to amplify positive impact.



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4.4 Human Rights

Human rights policies

SAS follows a policy of respect for employees and adheres to legal standards in all jurisdictions where it operates. The company safeguards the rights of full-time, contract, temporary personnel, interns, and job applicants, and encourages partners and suppliers to adopt similar practices throughout their operations.

We acknowledge and uphold the core principles of human rights protection as outlined in key international conventions and standards, including the Universal Declaration of Human Rights, the United Nations Global Compact, the International Labour Conventions, the United Nations Guiding Principles on Business and Human Rights, and the Responsible Business Alliance Code of Conduct. We comply with relevant labor laws and have established a [Human Rights Policy](#), committing to the creation of a fair, safe, and dignified working environment.

Policy Guidelines

1. Promote diversity, inclusion, and equal opportunities while prohibiting all discrimination, including on the basis of gender, race, nationality, social class, age, marital status, language, ideology, religion, political affiliation, origin, appearance, or disabilities.
2. Ban human trafficking, forced labor, and child labor.
3. Ensure a safe, healthy, and harassment-free workplace.
4. Offer fair pay and working conditions.
5. Support free expression, respect for association rights, and accessible communication channels.

Diversity, Equity, and Inclusion (DEI) Workplace Statement

With facilities located across Europe, the Americas, and Asia, the SAS Group embraces a global perspective and supports the values of Diversity, Equity, and Inclusion (DEI). The Group is committed to fostering a work environment that respects differences, promotes equality, and inspires innovation. We value each employee's unique background, experience, and perspective, recognizing them as vital assets to the growth of our global business. We strictly comply with local laws and regulations in all countries. Regardless of gender, race, nationality, age, marital status, language, ideology, religion, culture, political affiliation, sexual orientation, social class, or physical or mental ability, everyone is treated with respect and inclusion here. We believe that by embracing diverse strengths from around the world, we can continuously enhance our competitiveness and better serve and give back to our customers and society. People are one of the core values highly regarded by SAS. Through continuous improvement of policies and practices, we ensure that all employees have equal participation in company affairs and the opportunity to develop their individual careers. With a people-oriented and goodwill-driven approach, we actively promote the well-being of employees, customers, shareholders, communities, and all stakeholders. We are committed to making diversity, equity, and inclusion a long-term goal of our corporate sustainability efforts, laying a solid foundation for every step forward into the future.

Diversity, Equity, and Inclusion (DEI) Workplace Statement. Please refer to the [SAS Company website](#).

Zero-harassment Working Environment

To prevent employees from being subjected to physical or psychological harm while performing their duties, SAS has established the Workplace Unlawful Infringement Prevention and Protection Management Procedures. The Company plans educational training programs and implements necessary safety measures to ensure the safety and physical and mental well-being of its employees. A workplace unlawful infringement prevention statement is posted on bulletin boards at all sites, and multiple grievance channels are provided. Regular risk assessments are conducted, and based on the findings, relevant safety measures are planned to help build an equal, safe, and friendly workplace environment.



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Elimination of Discrimination & Equal Employment

Upholding the principles of diversity, inclusion, and equality, the Company has established a Human Rights Policy and a Diversity, Equity, and Inclusion (DEI) Workplace Statement. Discrimination based on race, social class, age, marital status, language, ideology, religion, political affiliation, place of origin, birthplace, appearance, facial features, or physical or mental disabilities is strictly prohibited, ensuring a safe and friendly working environment for all employees. SAS, SAS Chunan Branch, and its subsidiaries GlobalWafers and GlobalWafers Taisil Branch were jointly awarded the Excellence Award in the "2024 Excellent Organization for Promoting Work Equality in the Workplace in Hsinchu Science Park" selection.



Prohibition of Child Labour and Forced Labour

During the recruitment process, the Company rigorously verifies identity documents to ensure that child labour is not employed in any manufacturing operations. Exceptions are made only for legally compliant workplace learning programmes. Upon establishment of an employment relationship, both parties enter into a written labour contract on a voluntary basis, without any form of coercion or forced labour.

Management of Working Hours

Employee working hours are managed in strict accordance with local labour laws and RBA working hour standards. Staff members are entitled to two days of rest within every seven-day period, comprising one rest day and one regular day off. Total daily working hours shall not exceed twelve hours, and a minimum thirty-minute break is provided for every four consecutive hours of work. Overtime work is limited to forty-six hours per month.

A comprehensive attendance system has been implemented to automatically notify employees of any violations or irregularities, making it easy for them to review their attendance records. When overtime is required, prior consent must be obtained from employees, and overtime compensation or compensatory leave will be granted in accordance with statutory requirements. For indirect employees, the Company offers a 30-minute flexible schedule option to support a better work-life balance.

Protection of Personal Data

The Company is committed to safeguarding the personal data of employees, customers, and partners, as well as protecting corporate interests. In compliance with the Personal Data Protection Act and its Enforcement Rules, the collection, processing, and usage of personal data is conducted lawfully, in good faith, and with due regard for individual rights. Processing is confined to legitimate business purposes and does not exceed the scope necessary to achieve those objectives. Individuals are informed of the intended purpose and scope of data collection and their prior written consent is obtained.

Employee Communication Channels

SAS prioritises employee feedback and upholds their rights by providing diverse communication channels, including an employee suggestion and grievance mailbox and the organisation of labour-management meetings, to facilitate open dialogue. Employees may submit their opinions through any established channel.

In accordance with applicable laws, SAS convenes regular labour-management meetings and Employee Welfare Committee sessions, with committee representatives selected proportionally by each unit. Labour representatives engage with management during quarterly meetings to advocate for employee interests, ensuring comprehensive representation for all staff.

Item	Number of meetings in 2024	Description
Labor-Management Meetings	16	Each quarter, one meeting is held respectively at SAS headquarters, Chunan Branch, Hsu-Hsin Branch, and Yilan Branch.
Employee Welfare Committee Meetings	4	Each quarter, SAS headquarters and its branches jointly hold one meeting.

In instances of unlawful infringement or related concerns, individuals are encouraged to report such matters either anonymously or with their identity disclosed. All feedback and grievances submitted by employees will be treated as confidential. The Human Resources department will undertake the requisite interviews and investigations, and subsequently communicate the findings upon conclusion of the inquiry.

Reporting of Illegal, Unethical, or Dishonest Conduct	886-3-577-2255#2370 whistleblower@saswafer.com
Employee Grievance Mailbox	886-3-577-2255#2398 happywork@saswafer.com



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Employee Satisfaction Survey

SAS administers an annual Employee Satisfaction Survey through the Human Resources Department, systematically evaluating employees' workplace experiences and gathering constructive feedback. The survey encompasses six primary dimensions: engagement, leadership and communication, rewards and recognition, career development, work environment, and work-life balance. This approach facilitates a comprehensive analysis of the Company's strengths and areas for improvement. Actionable plans are subsequently developed, informed by survey findings, to advance the quality of the workplace, elevate employee satisfaction, and reinforce organisational competitiveness. In 2024, the overall employee satisfaction score stood at 3.89 out of 5, with a coverage rate of 63.45%.

To further improve employee satisfaction, targeted training programmes on cross-generational leadership, labour law compliance, and the prevention of inappropriate workplace conduct will be implemented to promote effective leadership and foster a supportive workplace culture. In alignment with the results of the 2024 Employee Satisfaction Survey and employee feedback, the Company has refined its uniform and workwear management policy, granting employees the option to wear company uniforms during working hours according to their preference, thereby increasing comfort and autonomy.

Investigation scope	Overall Satisfaction in 2024 (out of 5 points)
SAS headquarters & Chunan & Hsu-Hsin branches	3.99
Yilan Branch Company	3.81
All SAS	3.89

Identify and Evaluate

Parties	Risk Issues	Content Description	Common Evaluation Factors	Individual Evaluation Factors	Evaluation Tools
SAS Group and suppliers	Labor Laws and Regulations	Adherence to labor-related laws applies to all phases of employment, including recruitment, interviews, contract signing, employment, working hours, overtime, leave, salary, insurance, pensions, workplace safety, gender equality, job transfers, disciplinary actions, as well as employee resignation, retirement, and termination.	<ul style="list-style-type: none"> Number of participants and training hours for employee human rights education and training Whether suppliers have signed the supplier code of conduct 	Number of cases penalized by competent authorities for violations of labor laws Whether identity verification is conducted during the recruitment process	<ul style="list-style-type: none"> Labor law compliance Employee health examination Employee grievance mechanism Labor-Management Meetings EAP Internal control system Maternal protection risk evaluation Supplier risk evaluation and on-site audits Supplier Code of Conduct and Supplier Commitment
	Child labor	Child labor is not permitted in business operations. The term "child labor" applies to individuals older than fifteen but younger than sixteen who are employed to perform work.			
	Forced labor	The provision of work or services without an individual's free and informed consent is strictly prohibited. Prohibited practices include, but are not limited to: exploiting vulnerability, deception, restriction of movement, isolation, physical or sexual violence, intimidation or threats, retention of identity documents, withholding of wages, debt bondage, abusive working or living conditions, and imposition of excessive overtime.		Number of human rights-related grievance cases deemed valid	

Due Diligence Investigation

In accordance with the United Nations Guiding Principles on Business and Human Rights (UNGPs), all organizations bear the responsibility to uphold human rights. Human rights due diligence constitutes a fundamental aspect of SAS's operational policies and procedures. We undertake due diligence activities guided by the following framework, ensuring consistency with the key elements advocated by leading international human rights bodies:



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Parties	Risk Issues	Content Description	Common Evaluation Factors	Individual Evaluation Factors	Evaluation Tools
SAS Group and suppliers	Working conditions	Employees are required to work in conditions that comply with occupational safety and health regulations. This includes setting a maximum of 60 working hours per week, adhering to wage laws, prohibiting severe or inappropriate treatment, and ensuring safety systems are operating effectively.		<ul style="list-style-type: none"> ● Number of employees working more than 12 hours in a single day or working more than 6 consecutive days. ● Number of cases penalized for violations of regulations on working hours, wages, occupational safety, and related laws. ● Number of occupational accident cases ● Identification and risk evaluation of excessive workload 	
	Discrimination and Harassment	Discrimination or harassment of employees on the basis of race, colour, age, gender, sexual orientation, gender identity or expression, ethnicity or national origin, disability, pregnancy, religion, political affiliation, group background, veteran status, protected genetic information, or marital status is not permitted in recruitment or within the workplace. These factors are not to be considered in decisions regarding wages, promotions, rewards, or access to training opportunities.	<ul style="list-style-type: none"> ● Number of participants and training hours for employee human rights education and training 	Number of human rights-related grievance cases deemed valid	<ul style="list-style-type: none"> ● Labor law compliance ● Employee health examination ● Employee grievance mechanism ● Labor-Management Meetings ● EAP ● Internal control system ● Maternal protection risk evaluation ● Supplier risk evaluation and on-site audits ● Supplier Code of Conduct and Supplier Commitment
	Human Trafficking	No person shall exploit another individual's incapacity, ignorance, or inability to seek assistance, nor employ any means against that individual's will, for the purpose of recruiting, buying or selling, pledging, transporting, delivering, receiving, concealing, hiding, brokering, or harboring either domestic or foreign persons..	<ul style="list-style-type: none"> ● Whether suppliers have signed the supplier code of conduct 		
	Freedom of Association	Workers and their representatives shall have the right to communicate openly with management regarding working conditions and management practices, and to express ideas and concerns without fear of discrimination, retaliation, threats, or harassment.		Number of labor-management meetings held and number of employees participating in associations	
	Equality and equal pay for equal work	For the same position and under the same working conditions, all workers—regardless of gender, identity, household registration, or form of employment—shall receive equal pay for equal work, provided that the quantity and quality of the labor performed are equivalent..			
	Maternity care	Measures for female workers engaged in work that may pose risks to maternal health shall include hazard assessment and control, medical consultation and guidance, risk classification management, suitable job placement, and other related safeguards.		Number of parties protected	

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❖ Actions and Effectiveness

Parties	Risk Issues	Mitigation Measures	Remedial Measures	Implementation Results
SAS Group and suppliers	Labor Laws and Regulations	<ul style="list-style-type: none"> ● Establish work rules and post them in a prominent and easily accessible location. During new employee training, provide instruction on work rules and regulations in the employee's native language to ensure a full understanding of labor rights. ● Through the internal control system and internal audits, regularly review and update all rules and regulations to ensure that operations remain in full compliance with labor laws and regulations. ● Establish diverse communication channels. Communication and grievance mechanisms shall be available at both Taiwan and overseas sites, including labor-management meetings, dedicated email accounts, hotlines, physical suggestion boxes, and whistleblower systems, to promptly identify and resolve workplace issues. ● In the event of changes to labor conditions, the Company shall consult its internal legal department to ensure the protection of employee rights. 	<ul style="list-style-type: none"> ● The Human Resources Department and Compliance Unit shall conduct an investigation, ensuring full consideration of the employee's personal interests and strict confidentiality throughout the process. They shall communicate with the department head and the concerned individual, and upon completion, report the case to the highest-level supervisor. Appropriate compensation and corrective actions shall then be implemented. ● If any non-compliant procedures or operations with labor regulations are identified through audit activities, the root cause shall be promptly investigated, and corrective actions shall be implemented within a specified timeframe. ● Employee grievances shall be managed by the Human Resources Department. When necessary, a committee shall be convened to ensure fair and impartial decision-making. 	No unlawful incidents have occurred at any site
	Child labor	<ul style="list-style-type: none"> ● The Company rigorously verifies candidates' identity documents during recruitment and ensures, through interviews and observations, that no child labor under the age of sixteen is employed. ● Employees under the age of eighteen shall not engage in work that may endanger their health or safety, nor shall they be assigned to night shifts. 	<ul style="list-style-type: none"> ● The remediation plan shall remain in effect for six months or until the child laborer reaches the age of sixteen, whichever is longer. If child labor is identified, the child shall be immediately removed from the workplace, returned to their place of residence, parents, or guardian, and provided compensation for educational expenses. ● A medical examination shall be arranged for the child laborer to verify that their health has not been adversely affected during employment. If any health issues are identified, the Company shall assume full responsibility for all related medical and living expenses. 	No illegal employment of child labor has occurred at any site
	Forced labor	<ul style="list-style-type: none"> ● The "Personnel Employment Rule" explicitly stipulates the prohibition of employing forced, threatened, or involuntary labor. ● Employee attendance is compiled and analyzed on a monthly basis to support supervisors in managing working hours. To safeguard employees' physical and mental well-being, the system issues daily real-time alerts on working hours. The Human Resources Department, together with department supervisors, develops countermeasures to ensure the effective implementation of preventive and remedial measures. ● In line with the RBA framework, a Supplier Code of Conduct has been established, and all suppliers are required to commit to full compliance. 	<ul style="list-style-type: none"> ● Implement multi-skilled worker training to enhance workforce flexibility and reduce excessive reliance on a single employee, thereby preventing overwork. ● Adopt a rotating rest system to safeguard employees' family life as well as their physical and mental well-being. ● If any non-compliance is identified in a supplier, immediate corrective action shall be required, and the continuation of the partnership shall be subject to evaluation. 	No site has been investigated by the competent authority due to complaints related to forced labor



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Parties	Risk Issues	Mitigation Measures	Remedial Measures	Implementation Results
SAS Group and suppliers	Working conditions	<ul style="list-style-type: none"> ● An annual salary survey is conducted to assess market salary levels and overall economic indicators, supporting appropriate salary adjustments and ensuring competitive starting pay. ● Employee Assistance Programs (EAPs) provide employees with free, professional, and strictly confidential consultation services in five areas: psychological, managerial, legal, health, and financial. ● Regular health examinations are provided for all active employees. ● ISO 45001 certification for the Occupational Health and Safety system is continuously maintained to ensure effective operation. This includes establishing hazard assessment and risk classification mechanisms, forming emergency response teams at each site, and providing comprehensive occupational health and safety training. ● The highest-level supervisor at each site shall establish an EHS organization and an Occupational Health and Safety Committee. ● Procedures for the Prevention and Protection against Unlawful Infringement in the Workplace are established to regularly assess risks of workplace misconduct and to conduct related education and training. 	<ul style="list-style-type: none"> ● Ergonomic hazards: Conduct departmental risk assessments and implement engineering or operational improvements progressively each year. ● Abnormal workload: Ensure working hours comply with regulations. Based on health checkup reports, overwork assessments, and risk analyses, arrange health education consultations and coordinate necessary work adjustments with supervisors and employees. ● Through professional employee assistance organizations, provide support to help employees address issues related to personal life and psychological well-being. ● Offer health checkups exceeding legal requirements to identify high-risk groups, ensure ongoing monitoring and management, and arrange on-site services by professional occupational health physicians. ● In the event of an occupational injury, immediately initiate a formal investigation and support process. Relevant units shall provide comprehensive assistance, including insurance claims, emergency aid, work-hour adjustments, and psychological counseling. ● Provide a flexible working hours system, allowing employees to select start and end times based on personal needs to maintain balance with family life. ● Upon receiving a complaint or report of unlawful infringement in the workplace, conduct an investigation and response in accordance with incident handling procedures, ensuring the victim receives immediate, ongoing, and supportive protection, placement, and assistance. 	<ul style="list-style-type: none"> ● In 2024, a total of 1,072 participants attended human rights-related education and training sessions, accumulating 1,342 training hours. ● In 2024, 62 individuals received EAP consultations, including participants from the subsidiary GlobalWafers Co., Ltd. To protect user privacy, EAP does not provide disaggregated statistics. ● Received the 2023 Excellent Organization for Promoting Work Equality in the Workplace in Hsinchu Science Park award for two consecutive years, 2023 and 2024. ● In 2024, 54 employees were placed under abnormal workload tracking and management, representing approximately 8.7% of the total workforce. ● In 2024, occupational health and safety-related education and training sessions recorded 2,289 participants, totaling 3,015.5 training hours.
	Discrimination and Harassment	<ul style="list-style-type: none"> ● The Personnel Employment Rule explicitly stipulates the strict prohibition of any unlawful discrimination during recruitment and in the course of employment. ● Annual training on the prevention of discrimination and harassment is conducted for all employees, with mandatory participation required for supervisors to prevent coercion, oppression, and workplace violence stemming from power imbalances. ● Ensure equal employment opportunities for persons with disabilities. ● Establish the Guidelines for the Prevention of Sexual Harassment in the Workplace and post the workplace violence prevention statement in a prominent location to demonstrate SAS's firm commitment to eliminating such incidents. ● In response to global population aging, conduct hazard identification and risk assessments, implement preventive and improvement measures, and follow up on implementation effectiveness to ensure that work requirements remain suitable for middle-aged and senior employees while protecting their health. 	<p>Initiated by the Human Resources Department, a committee shall be formed to protect the involved party, adjust working conditions, convene meetings, adjudicate, provide re-education, and allocate necessary resources to safeguard the rights of the individual and prevent recurrence.</p>	<ul style="list-style-type: none"> ● In 2024, a total of seven persons with disabilities were employed, representing 1.6% of the total workforce. ● No incidents of discrimination or harassment were reported at any site.



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Parties	Risk Issues	Mitigation Measures	Remedial Measures	Implementation Results
SAS Group and suppliers	Human Trafficking	Ensure that all labour is sourced through direct employment or authorized human resources dispatch services and staffing agencies. Under no circumstances shall unlawful methods be employed to coerce individuals into work that contravenes laws or regulations, or to provide compensation that is inequitable in relation to their performance.	Upon receipt of a human trafficking case, prompt provision of appropriate protection, placement, and support to the victim is required. All production processes must be thoroughly monitored to ensure they remain free from any involvement in human trafficking.	No sites have reported human trafficking.
	Freedom of Association	Enhance labour-management communication and establish effective dialogue mechanisms, while promoting employee association formation and participation in company-sponsored group activities.	<ul style="list-style-type: none"> Establish rules and regulations to ensure the legitimacy of association activities and provide operational subsidies to support their functioning. Regularly reelect labor and management representatives and convene labor-management meetings, enabling employees to communicate with the Company on an equal footing regarding working conditions, benefits, and other related matters. 	Quarterly labor-management meetings are held at every site.
	Equality and equal pay for equal work	<ul style="list-style-type: none"> Establish the Regulations for Salary, Allowances, and Bonuses and prepare job descriptions to ensure that salaries are determined based on objective criteria rather than subjective judgment. Supervisors may consult the EAPs on management issues to help prevent imbalanced workloads and ensure fair treatment. 	In addition to defining salary ranges based on job nature to ensure equal pay for equal work, annual performance evaluations are conducted. Salary adjustments are made for high-performing employees, thereby closely linking remuneration to performance and ensuring that compensation is determined by objective criteria without differential treatment based on personal attributes.	SAS conducts annual salary adjustments in accordance with market benchmarks and individual performance evaluations.
	Maternity care	<ul style="list-style-type: none"> The "Maternal Health Protection Procedures" are implemented to identify and monitor the working conditions of breastfeeding employees, ensuring that female employees can work with peace of mind during the nursing period. Breastfeeding rooms are established at each site to provide convenient access for employees in need. 	In accordance with the regulations of the competent authority, eligible employees shall have their work schedules, locations, and duties adjusted without contravening their will. For risks not identified in time, hazard assessments and follow-up actions shall be carried out to ensure that their health is not compromised.	In 2024, a total of six individuals were identified, classified, and provided with maternal protection measures.

• Stakeholder Communication

SAS communicates with its stakeholders—including employees, suppliers, customers, communities, and investors—using various channels. The company discloses information related to human rights due diligence on its official website, media, sustainability reports, and annual general shareholders' meeting reports in both Chinese and English, making it accessible globally. Disclosed information includes the company's commitments, due diligence processes, policies, actions, and details on identification and assessment. SAS states that it provides truthful information. Most operational sites offer human rights education and training for new employees; in 2024, 1,072 participants completed a total of 1,342 training hours. Annual courses addressing workplace violence prevention and sexual harassment prevention are available to existing staff. Human rights information relevant to business partners, such as suppliers, is published on the official website, and the Supplier Code of Conduct serves as an implementation standard.

• SAS passed the RBA VAP audit and was awarded the Silver Medal

With increasing global attention to human rights issues, SAS follows international human rights conventions. The group has released a human rights declaration online and implements Responsible Business Alliance (RBA) management standards at each site. Human rights systems are regularly reviewed and updated, with continuous focus on improving working conditions. In 2024, SAS's Yilan site underwent an external audit and received the Silver Award. The company continues internal human rights education and training to increase employee awareness and understanding of human rights topics.



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4.5 Social Participation

SAS Group follows the principle of "Caring for Society and Sustainable Development" to meet its corporate social responsibility obligations. The company has focused on initiatives such as "giving back to communities" and "supporting disadvantaged groups," with the aim of contributing to Taiwan through various activities. To support public welfare, SAS actively engages in fundraising campaigns, including "Caring for Remote and Underprivileged Communities," and coordinates employee charitable donations to assist areas in need.

Charity and Public Welfare

● Hualien Earthquake Disaster Relief Sharing

On April 3, 2024, a 7.2-magnitude offshore earthquake occurred in Hualien, resulting in loss of life and property damage. To coordinate disaster assistance, the Hualien County Government established the "Hualien County Major Disaster Civilian Relief Donation Fund" to manage and allocate donations effectively. Under the direction of Co-Chairperson Ms. Hsiu-Lan Hsu, SAS and GlobalWafers organized a group-wide fundraising effort among employees, resulting in a donation of NT\$3 million to the relief fund. The funds are designated for local reconstruction and the care of those affected by the disaster. SAS Group will continue to provide support during the recovery process alongside residents impacted by the earthquake in Hualien.



President Cheng-Chien Chen of SAS, together with senior executives, paid a joint visit to the Hualien County Government and presented a fundraising check for NT\$3 million.

● World Vision - Youth Development Service Program

Many children and youth from underprivileged backgrounds encounter limited opportunities for social participation and development due to economic disparities, geographic isolation in remote areas, and a lack of career-related resources. SAS and GlobalWafers, through the World Vision Taiwan Youth Development Service Program, jointly support 900 economically disadvantaged children and youth served by the Miaobin Center, providing resources to help them develop their interests and abilities, build skills, broaden perspectives, and explore potential career paths. The program aims to promote positive development and encourage wider community involvement.

The Group launched an internal employee charity fundraising campaign to support the World Vision Taiwan "Youth Development Service Program," particularly its career-focused courses. These activities are designed to allow participants to identify their interests, develop self-competence, and gain insight into possible future careers. A variety of courses are planned to offer disadvantaged children and youth different learning experiences, supporting the enhancement of multiple skills and personal growth. Additionally, opportunities for performance are provided to help participants develop confidence.



Phase	Appropriation Budget
2024/6~ 2024/12	Youth Development Service Program <ul style="list-style-type: none"> • Junior High School "Career Exploration and Development" – a total of 8 sessions • Senior High School "Independence Preparation and Career Empowerment" – a total of 7 sessions • Houlong Dance Class – March to August 2024 • Yuanli Ukulele Class – March to August 2024

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● **A-Bao Foundation – Art Appreciation Program for People with Disabilities**

The A-Bao Foundation has operated in Yilan for two decades, supporting more than one thousand persons with disabilities and their families. Since 2016, the foundation's provision of daytime care services has identified challenges faced by persons with disabilities regarding self-expression and limited access to opportunities or platforms, resulting in their artistic potential frequently being overlooked. In recognition of their distinct perspectives, the A-Bao Foundation initiated art courses designed to foster and develop creative abilities among persons with disabilities.

SAS and GlobalWafers partnered with the A-Bao Foundation on the Art Appreciation Program for People with Disabilities, successfully raising NT\$300,000 to support the cultivation of artistic talent within this community. This programme aims to increase public awareness of the capabilities of persons with disabilities through art, enhance their interaction with society, and provide them with platforms to demonstrate their talents and achieve personal fulfillment.



Regeneration Education Promotion

SAS initiated the Photovoltaic Seed Project in 2021 with the intention of introducing photoelectric concepts to students early in their education. The project seeks to provide children with accurate information about solar photovoltaics as a safe, affordable, and sustainable form of clean energy through story discussions, life topics, and practical applications.

In 2024, the Photovoltaic Seed Project will continue by conducting photovoltaic classroom activities at elementary schools, as well as extending these activities to rural high schools. These sessions are designed to present age-appropriate educational material, helping students develop an understanding that solar photovoltaic energy is safe, affordable, and sustainable. The project focuses on informing students about green energy and carbon reduction practices, along with the principles of photovoltaic applications present in local communities or school campuses.

❖ **In 2024, two sessions of the Photovoltaic Classroom Program are scheduled as follows**

County/City	Township	Sessions	Elementary School
Hsinchu County	Guanxi Township	1	Dung-Guang Elementary School
Taoyuan City	Fuxing District	1	Luo Fu High School



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5.1 Safe Workplace

SAS acknowledges that maintaining a safe and healthy working environment is essential for both employee wellbeing and the Company's long-term sustainability. Accordingly, the Company has implemented an occupational health and safety management system aligned with the ISO 45001 standard, fully integrating health and safety considerations into daily business operations. SAS recognises that workplace safety cannot be ensured by systems or regulations alone; it requires ongoing collaboration between employees and management.

The occupational health and safety management system applies to all primary operational sites^{Note}, extending its scope from in-plant personnel to contractors. The Company is committed to providing a healthy and secure work environment for all individuals. To support the effective functioning of this system, SAS places emphasis on the following key areas:

● Total Participation in Safety Management

Safety is regarded as a shared responsibility among management, employees, and partners. Regular meetings, feedback platforms, and direct involvement are used to facilitate observations about the work environment and provide suggestions for improvement. Open communication and the exchange of ideas are considered essential for integrating safety and health into workplace culture.

● Systematic Execution and Support

An internal team is assigned to implement and monitor safety management measures, with senior management conducting regular reviews and offering support. The aim is to ensure each task complies with regulations and addresses potential risks through preventive actions.

● Transparent and Open Communication

The occupational safety and health policy is communicated to all employees via various channels, including the internal information portal and scheduled meetings. The main aspects of the policy are also available on the company's official website and in relevant external documents, allowing stakeholders to access information regarding these safety commitments.

Efforts continue to reinforce health and safety concepts within the workplace, with the objective to minimize accidents and risks, and promote engagement so that workplace safety and health become collective achievements.

Note:

1. The occupational safety and health management system of SAS covers the Headquarters, Chunan Branch, Yilan Branch, and Hsu-Hsin Branch, encompassing 100% of employees (574 individuals) and 47.7% of non-employees (189 individuals).
2. The Chunan Branch and Yilan Branch have been certified by a third-party and conduct regular internal audits. These branches cover 88.9% of the total employees (510 individuals), with the same coverage rate of 47.7% for non-employees.
3. The Headquarters is located within the GlobalWafers facility, and the Hsu-Hsin Branch is positioned within the Chunan Branch. While these locations have not been certified under the management system, employees at both sites remain subject to oversight and governance within the system framework. Non-employees of the Hsu-Hsin Branch generally work outside the plant premises and are therefore excluded from the scope of the management system (e.g., off-site construction contractors). Nonetheless, the Company manages these contractors in accordance with occupational safety and health system requirements and applicable regulations to uphold operational safety standards.



5.1.1 Occupational Health and Safety Organizations

High-level management

Role Definition: Responsible for approving the occupational safety and health policy, allocating resources, and overseeing the overall operation of the management system.

Main Duties:

- Regularly review the implementation progress of the occupational safety and health management system, make decisions on major health and safety issues, and provide strategic guidance.
- Allocate sufficient resources to support on-site safety improvement actions and ensure effective implementation of the occupational safety and health policy.
- Review and evaluate the achievement of occupational safety and health objectives at each site to ensure continuous improvement.

Communication Mechanism: Through the Safety Committee, Management Review Committee, or other occasional meetings, receive progress reports on occupational safety and health management and make resource allocations or decisions regarding improvement initiatives.

Occupational Safety and Health Committee

Role Definition: Serving as the coordination and communication hub for policy implementation, this group is responsible for tracking execution effectiveness and proposing improvement plans. Members include labor representatives, supervisors at all levels, and occupational safety and health personnel, ensuring that diverse perspectives are incorporated into decision-making.

Main Duties:

- Quarterly meetings are held to review the effectiveness of occupational safety and health policy implementation and to propose concrete improvement suggestions based on on-site inspections and entry-level feedback.
- An annual occupational safety and health plan is formulated to ensure that all improvement actions are effectively tracked and gradually implemented.
- Review safety and health inspection findings at each site and assess the effectiveness of corresponding corrective actions, proposing revisions when necessary.
- Regularly report implementation results to senior management and submit subsequent management plans and recommendations.

Communication Mechanism: Communicate safety management progress with each department through quarterly meetings, collecting feedback from entry-level personnel to ensure that on-site needs are promptly reflected in decision-making.

Occupational Safety and Health Management Personnel and On-site Support

Role Definition: Responsible for on-site safety inspections and prompt issue reporting, forming a multi-level support system together with on-site personnel and Little Safety Officer coordinators to jointly safeguard health and safety in the workplace.

Main Duties:

- Follow safety operating procedures, implement on-site safety measures, and immediately report and assist in on-site improvements when any abnormal conditions are identified.
- Conduct routine inspections to check equipment operational safety and compliance with procedures, ensuring that the working environment meets established standards.
- Act as frontline executors of occupational health and safety tasks, assisting in identifying potential risks within the plant and taking appropriate measures to eliminate or mitigate them.

Communication Mechanism: Through quarterly Occupational Safety and Health Committee meetings and monthly Little Safety Officer meetings, key directions of safety and health management are communicated, and recommendations for addressing on-site risks are proposed to ensure effective responses to issues encountered during implementation.

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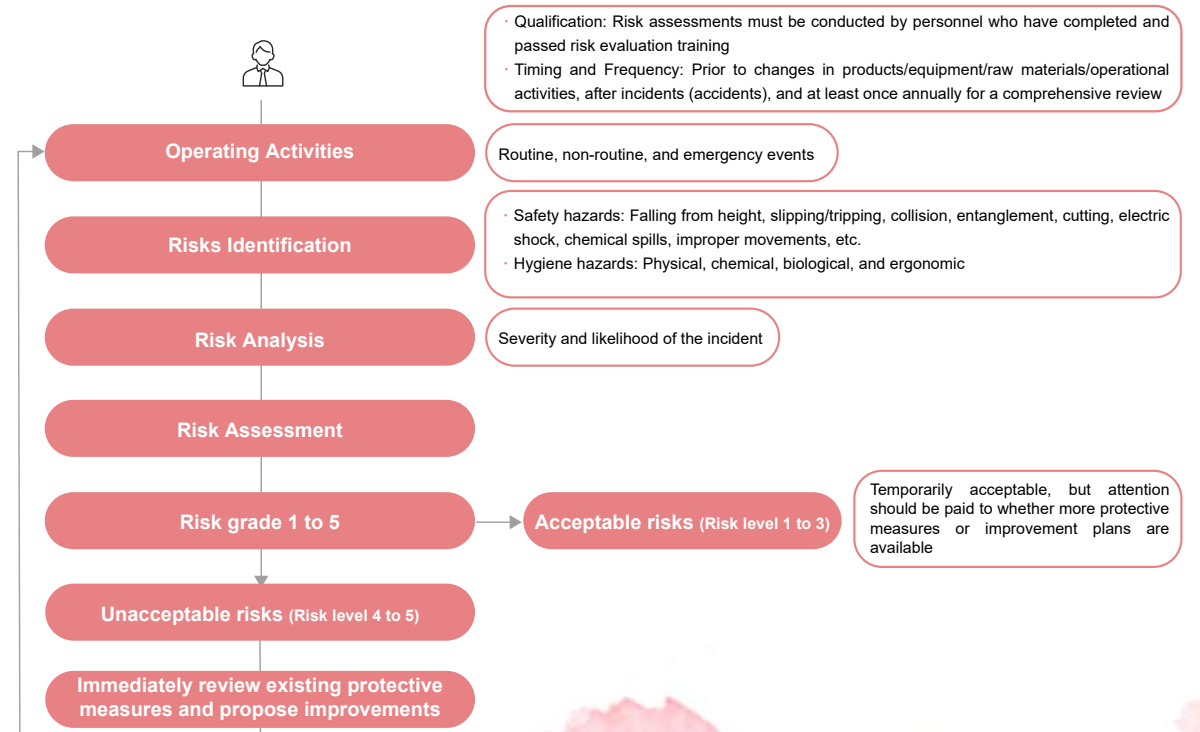
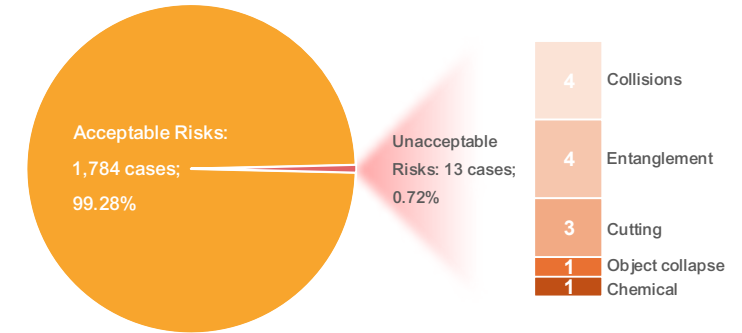


5.1.2 Occupational safety management

Risk Identification and Assessment

- Workplace hazards for employees and contractors are systematically identified and assessed, followed by the implementation of a tiered management mechanism based on the risk assessment outcomes. In the current year, 1,797 risk identifications and assessments were successfully completed, with 13 cases (0.72%) classified as unacceptable risks; all identified issues were resolved within the same year.
- In accordance with the Ministry of Labor's Technical Guidelines for Risk Assessment, hazard identification and risk assessment activities encompass both routine and non-routine operations. Employees are actively encouraged to report occupational hazards or potential risks present in the workplace environment. The Company facilitates prompt communication of safety concerns through various channels, including supervisor meetings, internal reporting mechanisms, and safety meetings. All reported cases are reviewed and addressed by relevant departments, and employees are assured that no punitive action will result from raising occupational safety-related matters. This approach fosters transparent communication and encourages active employee participation in safety management.
- Beyond risk identification and management initiatives, the Company conducts regular monitoring of workplace environmental conditions related to chemical and physical hazards. For chemical agents with potential health risks (e.g., hydrofluoric acid, sulfuric acid, dust) and physical factors (e.g., noise), measurements are performed biannually in compliance with regulatory standards. In addition, employees undergo targeted health examinations according to their job characteristics. Inspection results inform the health classification management system and underpin the provision of tailored health guidance and education, thereby reinforcing the Company's health risk management strategy.

Risk Identification Statistics





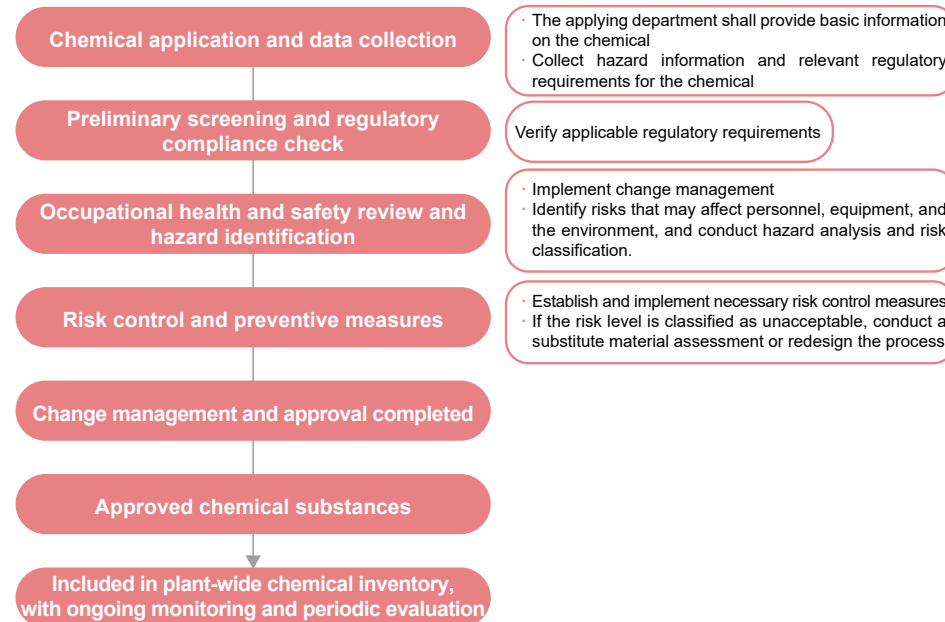
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Chemical Control

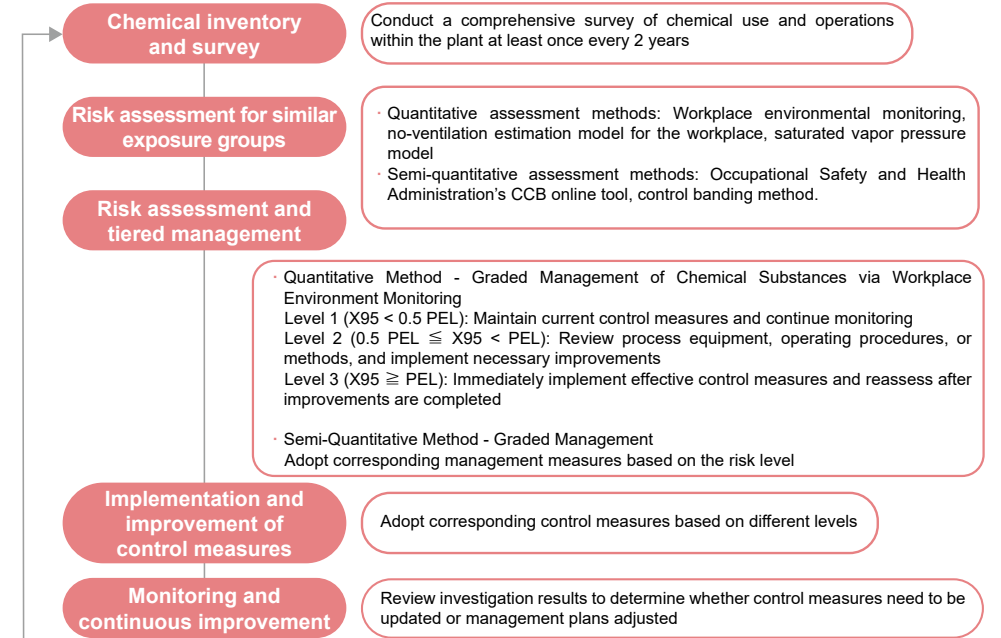
- All newly introduced chemicals within the facility are subject to occupational safety and health review, as well as change management procedures, to ensure that potential hazards are thoroughly identified and managed within acceptable limits prior to official implementation.
- In compliance with current regulations, certain chemicals are governed by permissible exposure limit (PEL) standards, with a subset requiring routine occupational environment monitoring. The Company conducts systematic environmental monitoring and exposure assessments based on chemical properties and relevant regulations to evaluate worker exposure risks and implement suitable management controls.
- Chemicals with established PELs:
 - For substances requiring workplace environment monitoring, all measured results are classified as Level 1 ($X_{95} < 0.5 \text{ PEL}$).
 - For those not subject to workplace environment monitoring, quantitative methods—such as no-ventilation estimation models or saturated vapour pressure models—or semi-quantitative assessments are utilised according to specific chemical characteristics. Quantitative assessment results remain within Level 1; semi-quantitative assessment outcomes are categorised as Risk Level 3 (hazard communication regarding these chemicals is performed accordingly).
- Chemicals without PELs are evaluated using semi-quantitative tools, such as the Occupational Safety and Health Administration's CCB online tool and control banding techniques. Management measures are implemented in alignment with the risk levels identified through these assessments.



Management of First-Time Use of Chemicals



Plant-Wide Chemical Management





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Incident Investigation

- In order to safeguard employee safety and prevent the recurrence of similar incidents, the Company has implemented a comprehensive incident investigation process. Throughout the year, 11 incidents were recorded, and all corrective actions have been completed in full.

Incident Investigation Process

Incident reporting and emergency response

- In the event of an incident, on-site personnel shall immediately notify their unit supervisor and, depending on the situation, take emergency measures such as evacuating personnel and isolating hazardous areas.
- If a worker is in an environment with imminent danger, they have the right to immediately suspend operations and leave the site without being subject to any disciplinary action or unfair treatment by the Company.

Establish an incident investigation team and collect relevant data

- The investigation team consists of occupational safety and health personnel, on-site supervisors, relevant technical staff, and employee representatives.

Accident cause analysis

- Conduct a comprehensive investigation covering direct, indirect, and root causes.

Formulate recurrence prevention measures and conduct renewed hazard identification and risk assessment

- Take corrective measures based on the results of the root cause analysis
- Update the hazards or potential risks and corrective measures of the incident in the risk identification list, and confirm that the risk level after improvement has been reduced to an acceptable range.

Improvement tracking and system optimization

- Incorporate the corrective measures into the occupational safety and health management system, and track the implementation progress and effectiveness.
- Incorporate the findings and lessons learned from the incident investigation into internal training materials or safety meetings, using past incidents as a reference to prevent similar accidents from recurring.

Emergency & Contingency

- The Company organises emergency response drills tailored to various hazards and scenarios, informed by comprehensive risk and hazard assessments, to strengthen the emergency preparedness of each facility in responding to unforeseen incidents. Both the Chunan and Yilan plants conduct a minimum of four emergency response drills each year, which include unannounced exercises and full-facility evacuations. These realistic simulations are designed to evaluate the team's response efficiency and effectiveness in managing emergencies.

❖ HF leakage drill



Incident occurs – HF spill and leakage



Control the site and prohibit entry of non-emergency personnel



The commander assigns tasks to the response personnel



The safety protection team assists rescue personnel in donning Level B protective gear



The safety protection team stands by after donning Level C protective gear



Rescue personnel use handheld detectors to measure ambient HF concentration and designate hot, warm, and cold zones



Rescue personnel lay absorbent booms (pads) at the leakage site



Rescue personnel perform decontamination using the body and eye wash station



The safety protection team removes their equipment; incident resolved



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Contractor Management

- The Company has implemented a digital contractor operation process management system that includes construction applications, hazard notifications, and construction quality evaluations for safety and quality management purposes during construction.



Contractor Management

Before entering the plant: Hazard notification and coordination of organizations

- Before entering the plant, contractors must receive in-plant hazard notifications to understand the potential risks and safety requirements of the work environment.
- The construction unit shall convene a coordination meeting to establish safety cooperation measures during the work process.

After entering the plant: Pre-task hazard notification and toolbox meeting

- Before daily operations, in-plant supervisors provide hazard notifications and require on-site personnel to complete a written signature for confirmation.
- Contractors and in-plant supervisors hold a toolbox meeting to coordinate the day's work content and safety precautions.

During and after operations: Construction safety inspections and patrols

- During and after operations, in-plant supervisors conduct on-site safety inspections to ensure that the work complies with regulations.
- Occupational safety and health personnel conduct unscheduled on-site patrols and require immediate corrective actions when violations are identified.

After completion: Construction quality and safety evaluation

- After the construction is completed, the applying unit, along with the occupational safety and health and procurement departments, conducts a contractor quality evaluation covering construction quality, safety management, and level of cooperation.
- The evaluation results will serve as criteria for future collaboration, and those who fail to meet the standards will not be selected.

Procurement Management

- The Company includes occupational safety and health requirements within its procurement management procedures for projects, chemicals, equipment, and personal protective equipment. Occupational safety and health personnel co-sign during the requisition process to verify that procurement items meet regulatory standards and to evaluate whether change management is necessary to address potential safety and health risks.
- Suppliers and Contractors Management
 - Raw material suppliers: An annual evaluation of environmental and occupational safety and health is conducted, covering items such as pollution prevention, safety management systems (e.g., hazard monitoring, emergency response drills, and occupational accident investigations). Only those who pass the evaluation may be included in the list of qualified suppliers.
 - Contractor entry management: On-site personnel must complete 6 hours of occupational safety and health training and provide proof of insurance (special operations must be handled in accordance with regulations) before commencing work.
- The Company encourages suppliers and contractors to improve safety and health practices. In case of incidents, appropriate protection will be provided to reduce risks. Extending safety management to the supply chain further minimises occupational health and safety risks during operations.

Workers' Consultation and Communication

- The Company facilitates worker participation in occupational safety and health management through multiple communication channels, ensuring that feedback is addressed and incorporated as needed. Regular labor-management meetings (with labour representatives), Occupational Safety and Health Committee meetings (including worker representatives), and "Little Safety Officer" meetings (with safety representatives from each department) are held to provide forums for workers to raise occupational safety and health concerns and discuss possible improvements.
- Employees may submit suggestions or complaints regarding occupational safety and health via the proposal improvement system and the EHS platform on the internal information service site, ensuring that identified needs are considered and workplace conditions reviewed. A dedicated email address on the Company's official website allows external stakeholders to submit feedback. No workplace safety or health disputes were reported during the year.



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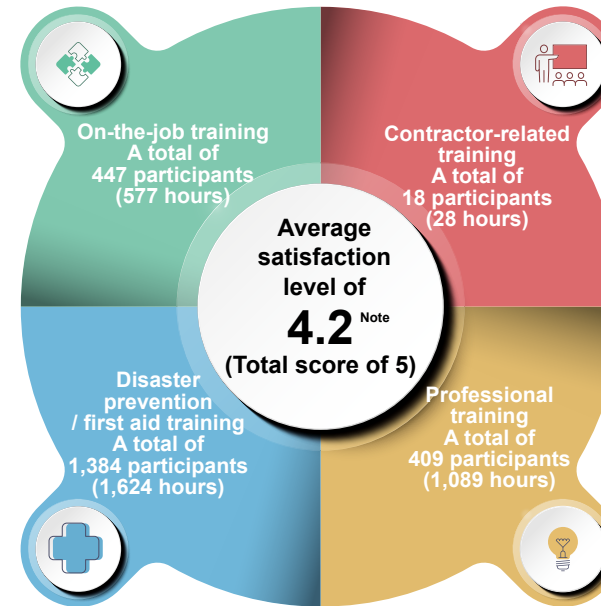


Safety and Hygiene Education Training

To promote occupational safety and health awareness among all personnel, the Company develops comprehensive environmental, safety, and health education and training programs each year. These programs are formulated in response to internal management requirements, employee feedback, and external considerations. Training is provided for new hires, current employees, managers at all levels, and contractors. The curriculum emphasizes an understanding of relevant regulations, occupational safety management practices, and emergency preparedness and response, with the objective of strengthening participants' safety awareness and risk management capabilities within the workplace.

- New recruit training
- Hazard awareness training
- Occupational Safety and Health Committee training
- Traffic safety & defense driving education & training

- CPR+AED Practices
- First aid personnel training
- In-plant emergency response measures and chemical splash exposure training
- Emergency response team member training
- Response personnel training for toxic and concerning chemical substances
- Firefighting training



- Education and training for contractor on-site supervisory personnel

- Occupational safety and health education and training for supervisors of hazardous operations
- Occupational safety and health education and training for special operations
- Occupational safety and health education and training for construction operations
- Common inspection deficiencies and occupational safety seminar
- Training related to the occupational safety and health management system

Note: This satisfaction score is calculated based only on responses from participants in surveyed courses, excluding data from unsurveyed or unanswered courses.

Regulatory Identification

- The Company employs a cloud-based regulatory identification platform that delivers automatic updates on legal provisions and compliance functions. This assists accountable departments in remaining abreast of the latest regulatory changes and determining both applicability and compliance status. Regulatory developments related to business operations are reviewed on a monthly basis, with a comprehensive evaluation of all applicable regulations across production sites conducted biannually to ensure management practices align with current standards.
- Outcomes of regulatory identification are presented or discussed in occupational safety and health committee meetings, management review sessions, and Little Safety Officer gatherings. This process enables the Company to continuously track the implications of regulatory changes on operations and make timely adjustments to relevant procedures.

Internal & External Audit

- The Company conducts internal audits every six months to assess adherence to occupational safety and health principles and standards, implementing corrective actions and improvements based on audit findings to drive ongoing enhancement of the management system.
- An independent external verification body is engaged annually to audit the management system and evaluate its sustained effectiveness. Operational strategies are adapted as necessary in response to audit results, and management practices are strengthened to further improve occupational safety and health performance.



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5.1.3 Safety Culture

Establish a safety culture by starting with everyday practices

At SAS, safety is not merely a directive but a deeply ingrained culture shared by all employees. We promote an environment where each individual takes responsibility for their own safety as well as that of their colleagues, ensuring safety principles are seamlessly integrated into daily operations.

September: Occupational Safety Month—Promoting Workplace Safety

Since 2022, the Group has designated every September as "Occupational Safety Month," with the objective of strengthening employees' safety awareness through diverse initiatives:

- Occupational Safety Competition: A range of interactive competitions align occupational safety regulations with engaging activities, enabling employees to reinforce their understanding and practical application of safety protocols in an enjoyable environment.
- Thematic Seminars: External experts are invited to provide in-depth analysis of common deficiencies and potential safety risks specific to in-plant operations. Through case studies, these seminars highlight the pivotal roles and obligations of on-site managers in effective safety management.
- Fire Equipment Experience: Practical training sessions offer employees the opportunity to operate firefighting equipment, facilitating hands-on learning of correct procedures. Participation and emergency response skills are further incentivized through a structured reward system.

Safety Officer Month



Occupational safety 系列活動

- 1 競賽-找碴王
- 2 工安講座
- 3 競賽-救災器材使用
- 4 緊急應變演練暨觀摩

Competition - Spot the Hazards

227 participants

- Use plant environment scenarios as the basis for quiz questions
- Participants complete an online quiz
- Identify obvious deficiencies, gray areas, or opportunities for improvement

Occupational Safety (Traffic Safety) Seminar

79 participants

- Common occupational safety oversights vs. the influence and responsibilities of frontline supervisors
- Seminar duration: 2 hours

Hands-on Activity – Firefighting Equipment Operation

96 participants

- On-site instruction and hands-on operation
- Fire extinguisher use and fire hose discharge operation



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"Little Safety Officer 2.0": Cultivating Comprehensive Engagement for a Safer Workplace

In 2024, the Company enhanced the "Little Safety Officer" initiative by broadening participation to include all plant personnel, thus reinforcing a pervasive safety culture:

- Quarterly Safety Competition: Each quarter, themed safety competitions are organized—such as simulated high-risk scenarios and photo-based violation identification—to deepen employees' risk recognition and emergency preparedness through experiential and observational learning.
- Monthly Meeting Sharing: Safety representatives regularly present workplace safety cases, discuss remediation strategies, and motivate employees to engage proactively in operational safety and environmental self-inspections. In the current year, a total of 118 self-inspection items were reported, with a corrective action completion rate of 98.3%.

Little Safety Officer 2.0

Little Safety Officer 2.0 Program

Internalize occupational safety and health awareness in daily work

- **BBS**
Conduct frontline observations, report information on unsafe behaviors, compile statistics on high-risk items, and propose corrective measures
- **Safety Moment**
At the beginning of any meeting, the chairperson or a designated colleague shares occupational safety and health-related knowledge, news, or personal experiences

Spot the Hazards
R1

- Held during Safety Month as the kickoff for year-long activities
- An extension of Little Safety Officer V1: Identify high-risk or unsafe areas in the working environment
- Score based on risk levels and provide incentives

Spot the Hazards v2
R2


- Frontline personnel participate to identify high-risk or unsafe areas in the working environment
- Score based on risk levels and provide incentives

Online quiz on occupational safety and health responsibility for all employees
R3

- Establish a question bank and encourage full participation; incentives are provided to employees who complete the online quiz
- Additional bonus rewards are given to top performers

Detective Conan
R4

- Team competition to identify the root cause of incidents
- Accuracy and completion time are used as evaluation criteria → rewards are given to the top three teams



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5.1.4 Occupational Injuries and Incident Statistics

In 2024, there were no reported fatalities, occupational illnesses, or significant work-related incidents. Among employees, ten work-related injuries (excluding commuting incidents) and one false alarm were recorded. According to the disabling injury indicators defined by the Ministry of Labor, the disabling injury frequency rate (FR) was 7.66 and the disabling injury severity rate (SR) was 46. These results were higher than industry averages in the electronics components manufacturing and semiconductor manufacturing sectors^{Note}.

Following an increase in the FR indicator this year, the Company has conducted a comprehensive review. The analysis found that certain occupational accidents were connected to risk identification and management during changes in the working environment. To address this, the Company has set a goal to reduce the FR by 20% (to

below 6.12) and plans to enhance its safety culture. Safety management is integrated with regular activities to promote occupational safety awareness and improve employees' risk identification skills through various learning methods. The involvement of on-site managers has been strengthened to ensure that occupational safety responsibilities are carried out both at the system level and in actual working environments. Continuous efforts are being made to improve occupational accident indicators and establish a safer workplace.

For non-employee workers, there were no reported work-related injury incidents within the Company's plant areas in 2024.

Note: Based on the average values of disabling injury frequency rate (FR) and disabling injury severity rate (SR) over the past three years, as announced in 2024 by the Occupational Safety and Health Administration, Ministry of Labor

❖ Little Safety Officer Self-Inspection Case Findings

Electrical Safety Self-Inspection and Improvement

Safety management is not confined to routine operational regulations; it must also flexibly adjust management priorities in response to changes in the external environment and societal cases. The Company references current events and industry cases to periodically establish safety-related topics, which are then subject to thematic inspections conducted by Little Safety Officer. For example, in response to cases of electrical fires and electric shock incidents, a themed self-inspection on electrical safety was established to identify potential risks and enhance protective measures.

Self-Inspection Findings and Improvement Actions

- **Identify unused electrical panels or temporary power sources in the plant**
Three electrical panels were removed, and the remaining panels that may still be in use had their power supply shut off
- **Identify unused power outlets in the plant**
Covered or sealed 212 power outlets to prevent dust or foreign objects from entering, thereby reducing the risk of short circuits and electric shocks
- **Inspect electrical equipment protection in humid areas**
Inspected insulation and leakage protection setups of equipment to reduce the risk of electric shock and enhance electrical safety
- **Inspect power wiring within the plant**
Performed cable organization and bundling to reduce hazards caused by tangled or disorganized wiring

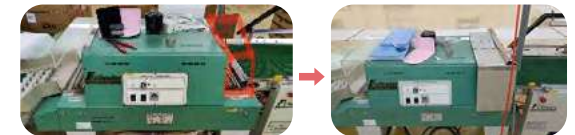


Other Self-Inspection Findings and Improvements

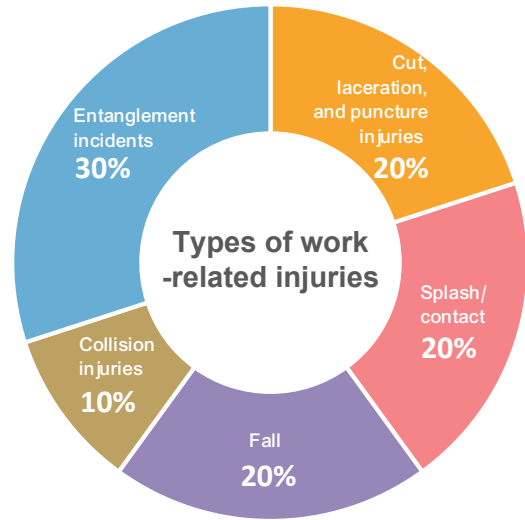
The Company uses Little Safety Officer as a bridge to strengthen employees' safety awareness and gradually implement a safety culture through safety behavior management. Little Safety Officer integrates occupational safety inspections with self-check mechanisms across all sites, continuously promoting autonomous management of safe behavior and making safety management more tangible through real improvement cases.

Self-Inspection Findings and Improvement Actions

- **One side of the heat shrink wrapping machine lacked a protective cover**
A protective cover was installed to reduce the risk of injury to operators caused by accidental contact with the machine
- **Originally, various plugs were connected using extension cords**
Reconfigured the arrangement of outlets and plugs to reduce overload risk and enhance electrical safety
- **Damaged cover plate on the south-side water tank**
Covered the area completely with plastic pallets to prevent tripping or injury caused by damaged flooring when personnel pass by



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Cut injury improvement cases

Incident Description

While using a handheld grinder for grinding operations, an employee replaced the grinding disc with a wire wheel. However, the original protective cover was not compatible in size with the wire wheel, resulting in insufficient protection. During the operation, the employee accidentally came into contact with the rotating wire wheel, resulting in an injury.

Improvement measures

The Company conducted a plant-wide inspection of handheld grinder usage and equipped each type of grinding attachment with appropriate protective covers to ensure that equipment protection complies with safety regulations. In addition, auxiliary handles were installed to enhance operational stability and reduce the risk of injury during use.



Install auxiliary handles



Install dedicated protective guards for each type of mold

Improvement of entanglement injuries

Incident Description

While performing empty carrier retrieval at the unload end, an employee reached into the machine below the partition to retrieve an empty carrier before it was fully positioned. As the carrier continued to move outward, the employee was unable to withdraw it in time, resulting in a finger being caught between the carrier and the partition, causing a pinch injury.

Improvement measures

The Company conducted a plant-wide inspection of similar machines, posted warning signs, and adjusted the spacing of partitions to ensure that the equipment poses no hand entrapment hazards. In addition, awareness campaigns and training sessions were conducted for personnel from relevant departments.

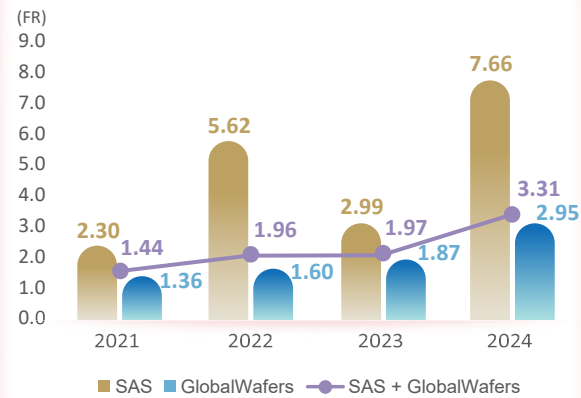


Post warning signs

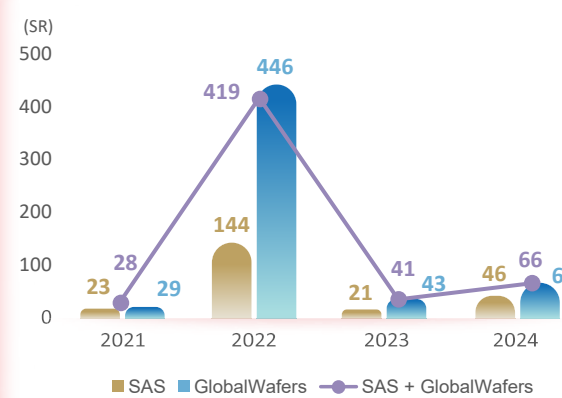


Increase partition spacing

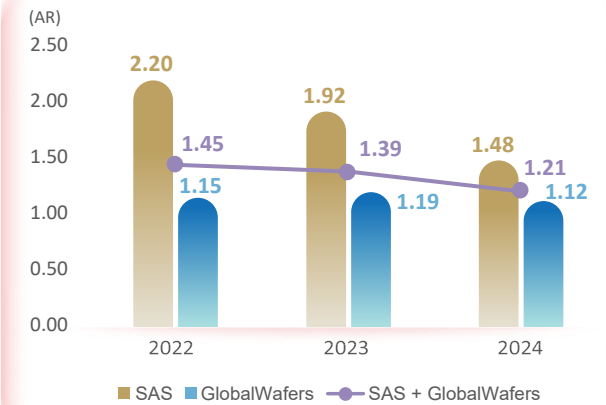
❖ Disabling Frequency Rate (FR)



❖ Disabling Severity Rate (SR)



❖ Absence Rate (AR)



Note:

1. Disabling Injury Frequency Rate (FR): The number of disabling injuries per one million work hours. $FR = (\text{Number of disabling injuries} \times 1,000,000) \div \text{Total hours worked}$
2. Disabling Injury Severity Rate (SR): The number of workdays lost due to disabling injuries per one million work hours. $SR = (\text{Workdays lost due to disabling injuries} \times 1,000,000) \div \text{Total hours worked}$
3. Absence rate (AR): Total number of absent days \div Total number of working person-days $\times 100\%$



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❖ Major Occupational Disaster Statistics in Recent Years

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	SAS		GlobalWafers (Taiwan)		SAS		GlobalWafers (Taiwan)	
	Employees	Non-employees	Employees	Non-employees	Employees	Non-employees	Employees	Non-employees
No. of people	657	195	1,674	88	729	294	1,711	110
Working hours	1,303,846	573,932	3,321,216	265,810	1,422,974	867,088	3,408,312	320,011
No. of disability injuries	3	0	3	0	8	0	7	0
Days of disabling injuries	30	0	14	0	205	0	6,218	0
Death toll due to work	0	0	0	0	0	0	1	0
No. of severe occupational accidents	0	0	0	0	0	0	0	0
No. of recordable occupational injuries	5	0	10	0	10	0	34	0
Recordable occupational injury rate (IR)	3.835	0	3.011	0	7.030	0	9.976	0
Occupational disease rate (ODR)	0	0	0	0	0	0	0	0

Item	2023				2024			
	SAS		GlobalWafers		SAS		GlobalWafers	
	Employees	Non-employees	Employees	Non-employees	Employees	Non-employees	Employees	Non-employees
No. of people	622	274	7,305	847	574	396	7,198	481
Working hours	1,339,600	794,512	14,417,284	1,793,612	1,174,847	1,155,688	14,228,678	1,043,699
No. of disability injuries	4	0	27	0	9	0	42	0
Days of disabling injuries	28	0	613	0	54	0	959	0
Death toll due to work	0	0	0	0	0	0	0	0
No. of severe occupational accidents	0	0	0	0	0	0	0	0
No. of recordable occupational injuries	6	0	55	0	10	0	60	0
Recordable occupational injury rate (IR)	4.480	0	3.815	0	8.512	0	4.217	0
Occupational disease rate (ODR)	0	0	0	0	0	0	0	0

Note:

1. Non-employees: Refer to workers who are not employees but whose work and/or workplace are controlled by the organization. Divide the total number of workers for the year by 365 to calculate the average number of people entering the plants every day.
2. Work hours: Employees - calculated based on the actual work hours of the year. Other non-employee workers - calculated based on the total number of workers for the whole year, followed by 8 hours per day.
3. Severe occupational disasters: Injuries in which workers are unable or cannot recover to their pre-injury health status within 6 months after the occupational injuries.
4. Recordable occupational injuries: Refer to occupational injuries that caused death, loss of work, restricted work, or work transfer; emergency care or higher level medical treatment; loss of consciousness; and serious injury or illness diagnosed by a doctor.
5. Recordable occupational injury rate (IR): (recordable occupational injury number / total working hours) * 1,000,000
6. Occupational disease rate (ODR): (total number of occupational diseases / total working hours) * 1,000,000
7. SAS headquarters is located within the scope of the occupational safety and health management system of GlobalWafers headquarters. The relevant information of other workers who are not employees is included in GlobalWafers headquarters' statistics.



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5.2 Health Promotion and Care

At SAS, employees are regarded as the organization's most valuable asset. The company is dedicated to fostering a safe, comfortable work environment and views employee health as essential to achieving corporate success and sustainable development. Each plant is equipped with a health center staffed by full-time nurses and regularly visited by occupational medicine specialists. These partner physicians provide comprehensive health education consultations, focusing on lifestyle and exercise habits; each session typically lasts 10 to 15 minutes. In 2024, SAS conducted 16 on-site occupational physician sessions (three hours per session), at a total cost of NT\$148,000.

Aligned with the occupational safety and health management system, SAS has developed an internal Employee Caring Program (ECP) based on five core pillars: maternity protection, prevention of abnormal workloads, health protection for middle-aged and senior employees, prevention of workplace violence, and mitigation of ergonomic hazards. Additionally, the company has introduced the Employee Assistance Program (EAP) through the Hsinchu City Lifeline Association. This comprehensive healthcare approach, complemented by health seminars and a variety of health-promotion activities, supports both the physical and mental well-being of all employees.

In recognition of these efforts, the headquarters and Chunan Branch received the Excellence Award in the Hsinchu Science Park's selection of outstanding units for promoting workplace equality in 2024. This achievement underscores SAS's ongoing commitment to being a model of a healthy and supportive workplace. Furthermore, SAS continues to expand occupational health services internationally, following ISO 45001 Occupational Safety and Health Management System standards to safeguard employee health across all sites.



5.2.1 The Five Pillars of Health Protection

Maternity Health Protection

To safeguard female employees from potential health hazards in the workplace, SAS has implemented a comprehensive maternity health protection program. This initiative involves conducting maternal health risk assessments designed to protect women of childbearing age within the organization. The program ensures that pregnant employees and those within one year postpartum are not exposed to environments that could adversely affect embryonic development or maternal and child health during pregnancy and lactation.

In 2024, hazard identification and risk communication activities related to maternity protection were conducted for 145 female employees of childbearing age, those who were pregnant, or within one year postpartum. These efforts increased awareness of occupational risks and enhanced employees' ability to recognize and mitigate potential hazards. Following assessment by Environmental, Health, and Safety (EHS) personnel, all participants were classified under Level 1 risk management, with no cases necessitating Level 2 or higher intervention, and no work adjustments required.

Additionally, six female employees—either pregnant, within one year postpartum, or of childbearing age—were included in the maternity management list. After thorough evaluation by occupational medicine specialists, appropriate job placements were arranged: five employees were classified under Level 1 risk management, and one under Level 2 or above, who received hazard notification and targeted health education. All were deemed fit to continue in their current roles, with no need for job modification.

SAS supports pregnant employees by providing dedicated parking spaces, lactation rooms, and caring armbands. Three private and comfortable breastfeeding rooms have been established. Since 2021, to encourage early reporting of pregnancy and facilitate timely maternal health assessments, the Company has distributed a "Good Pregnancy Pack" to each pregnant employee, which includes a maternity nursing pillow. This initiative reflects SAS's commitment to fostering a family-friendly workplace where employees can feel supported and secure while nurturing new life.



Exclusive parking spaces and care armbands for pregnant colleagues

Good Pregnancy Pack



Breastfeeding Room

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Prevention of Diseases Triggered by Irregular Workloads

To mitigate health risks associated with shift work, night shifts, extended hours, and other atypical workloads, the Company has implemented a targeted illness prevention program. This initiative consolidates employee health examination results, working hour records, and responses to overwork questionnaires to facilitate tiered management and identify individuals at elevated risk. In 2024, 54 employees were classified as having abnormal workloads, with 5 identified as significant risk cases. All high-risk individuals underwent consultations and received guidance from occupational medicine specialists, resulting in the application of relevant preventive measures. No recommendations were made for adjustment or reduction of working hours, nor for reassignment. The health center disseminates regular informational materials regarding overwork-related illness prevention and continues ongoing monitoring of individual and workplace conditions to safeguard employee well-being.

Health Protection for Middle-Aged and Senior Employees

Recognising demographic trends in Taiwan, the Company maintains a Health Protection Program for Middle-Aged and Senior Employees to ensure their suitability for work-related demands. This programme incorporates hazard identification, risk assessment, implementation of preventive and corrective actions, and performance evaluation to protect and promote the physical and mental health of older staff. SAS conducts biennial assessments; in 2023, 66 employees were subject to follow-up, with no high-risk cases identified. The health center provided tailored measures and health education recommendations to support this group.

Prevention of Unlawful Infringement in the Workplace

To cultivate a respectful and secure work environment, the Company has established comprehensive protective measures addressing unlawful infringement and workplace sexual harassment. A statement signed by the President reinforces the Company's commitment and is displayed on official platforms. Multiple complaint channels—including designated personnel and hotlines—are available for reporting incidents. Regular training sessions are organised on these topics; in 2024, SAS conducted 20 awareness sessions attended by 531 participants, achieving full compliance among new hires and supervisors. Periodic risk assessments inform the development of appropriate safety strategies, prioritising employee safety and well-being.

Prevention of Ergonomic Hazards

Aligned with its ergonomic hazard prevention protocols, SAS utilises injury and illness records, musculoskeletal disorder questionnaire results, and ergonomic risk assessments to develop a risk matrix and implement improvement plans for tasks rated at risk level 4 or higher (≥4). In 2024, one task met the threshold for intervention, while all others remained below risk level 3; one ergonomic improvement was completed. For medium- to high-risk cases identified via the musculoskeletal questionnaire, additional on-site assessments and specialist consultations are arranged. In 2024, three employees were evaluated for potential work-related musculoskeletal discomfort, and received guidance on posture adjustments. Comprehensive assessments concluded that further work modifications were unnecessary.

Improvement Case of the Year: Automation Retrofit of TEX Loading Operations

Pre-Improvement Scenario

In the TEX loading operation, due to the elevated loading point of the machine, employees had to lift 9 kg empty cassettes overhead to place them into the machine. During unloading, they had to bend down to place chip-filled cassettes onto a cart. Each day, employees were required to perform 440 loading and 440 unloading operations, totaling 880 handling actions, which placed a significant strain on their shoulders and lower back. The assessment results showed a risk score of 48 (medium-high load) using the Key Indicator Method (KIM), prompting the implementation of improvement measures.

Improvement measures

Automated robotic arms were introduced to replace manual loading and unloading, reducing repetitive overhead lifting and easing the burden on employees' shoulders, while also improving handling posture.

Improvement Outcomes

- KIM risk score was reduced from 48 (medium-high load) to 24 (moderate load)
- Posture Rating: Previously required overhead lifting; after improvement, the upper body can remain upright with no twisting needed.



Past Improvement Case: Introduction of Assistive Devices for Warehouse Handling Operations



Automated robotic arms were introduced to replace manual loading and unloading operations

The Company continues to promote ergonomic risk management and implements improvements across various work areas. Among these, warehouse handling operations involve high-frequency manual handling, placing a significant burden on workers. To reduce ergonomic hazard risks, we have introduced assistive equipment.

Pre-Improvement Scenario

Warehouse personnel were required to manually handle 21.5 kg boxes, with 40 to 200 operations per day, resulting in a significant strain on the lower back. The assessment results showed a KIM risk score of 32 (medium-high load), indicating the need for improvement. However, due to space constraints, fixed handling equipment could not be installed.

Improvement measures

A wearable exoskeleton assistive device (with a maximum assistive force of 25.5 kgf) was introduced to help workers reduce lower back strain and minimize the risk of injury.

Improvement Outcomes

- KIM risk score was reduced from 32 (medium-high load) to 24 (moderate load)



Introduction of wearable exoskeleton assistive devices



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5.2 Health Promotion and Care

5.2.2 Health Promotion

Health promotion and reinforcement of health concepts

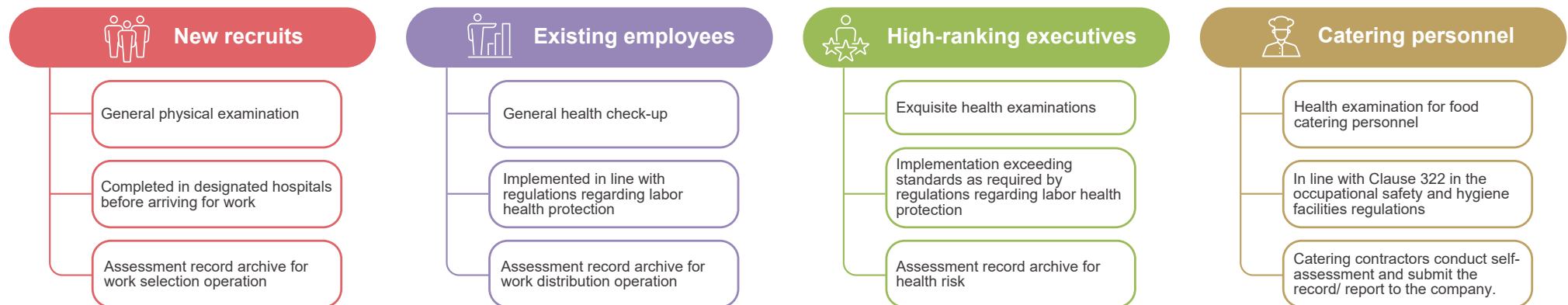
SAS implements a range of employee healthcare initiatives, including annual health examinations that meet and often exceed regulatory requirements. The company partners with the Linkou Chang Gung mobile health-examination team, selected through collaboration with on-site nursing staff, to conduct these exams using licensed professionals and certified laboratories. Examination procedures include, but are not limited to, abdominal ultrasound, resting electrocardiogram, and cancer marker blood tests, which go beyond statutory standards. Abdominal ultrasounds are performed by gastroenterology specialists who provide initial explanations of findings to employees regarding their hepatobiliary and gastrointestinal status. If abnormalities are detected, physicians determine the need for further examination or follow-up for timely intervention.

ERT (Emergency Response Team) members receive dedicated health assessment packages, including cardiopulmonary function assessments such as exercise electrocardiograms and pulmonary function tests. Occupational medicine specialists review all results to evaluate each member's fitness for duty, confirming their ability to perform required tasks under operational conditions. In 2024, 511 employees completed the mandatory annual health examinations, achieving full participation among those required. To address occupational disease prevention, additional examinations are provided for roles with noise and dust exposure, followed by tiered management and targeted health education based on findings. The Group reported an overall satisfaction rate of 97% for in-plant health examinations, with total expenditures amounting to NT\$1,255,409. There were no reported cases of death due to occupational diseases.

Following preventive medicine protocols, SAS and its health examination provider identify individuals requiring urgent reexamination within one week of the initial checkup. In 2024, there were 23 notifications for urgent reexamination. Required medical interventions, including surgeries and treatments, were arranged as needed to mitigate health risks and facilitate timely recovery.

SAS, together with its healthcare partner, also offered free cancer screenings (colorectal, oral, and breast cancer) as part of ongoing health management efforts. In 2024, 504 employees underwent colorectal cancer screening, 39 received oral cancer screening, 14 participated in low-dose chest CT scans for lung cancer, and 511 took cancer marker blood tests (carcinoembryonic antigen and alpha-fetoprotein). Cardiovascular screenings via coronary artery calcium scoring and bone density X-ray exams were conducted for 9 employees each. Certain screenings, such as lung cancer CT scans and coronary artery scoring, were also available to employees' families.

Annual analysis of health data informs the development of subsequent health management plans and improvement measures. After each examination, employees receive reports containing three years of data to monitor trends in their health indicators. This information supports occupational medicine specialists in personal health assessments and risk evaluations. On-site physicians provide follow-up for abnormal findings when necessary. All collection, processing, and use of personal data comply with applicable personal data protection regulations.



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The health care centers conduct statistical analysis using annual health exam results to plan health promotion activities and lecture topics, arrange consultations with clinic physicians, and work in coordination with the Hsinchu Science Park employee clinic's medical services. These efforts focus on preventive medicine, disease prevention, and strengthening health awareness among employees.

In 2024, SAS organized a range of health promotion activities at its Taiwan plants, recording 3,278 instances of participation. Activities included cancer screenings, health seminars (such as the Friendly Workplace Seminar Series, "Healthy Bones, Better Living: Understanding Osteoarthritis," and "The Itch Within: A Brief Talk on Atopic Dermatitis"), the "7,000 Steps a Day" competition, and fitness training classes. These initiatives addressed common health issues such as obesity and metabolic syndrome, particularly those associated with sedentary office work. The Health Center established the "7,000 Steps a Day" challenge for both SAS Group and GlobalWafers Group employees, with the aim of fostering regular exercise habits. For each day that an employee achieved the 7,000-step goal, the Group committed to donating NT\$1 to charity. Over the 13-week challenge, 401 employees participated, and 253 completed the challenge, resulting in 16,451 days where the goal was met. This raised NT\$16,451 in donations, which, combined with additional company contributions, totaled NT\$20,000 donated to the Hsinchu Early Intervention Center of the Syin-Lu Social Welfare Foundation to support teacher development, educational resources, and facility improvements for children in early intervention programs.

Health promotion seminars provided employees with information about health and personal well-being. SAS also offers free annual influenza vaccinations to employees to support immunity and minimize workplace outbreaks, while family members may access flu vaccine packages through contracted providers. In 2024, 244 employees received influenza vaccinations. Blood donation drives are held regularly, with participants receiving gift vouchers as incentives.

For workplace safety, SAS stations full-time nurses and assigns emergency personnel for every shift at each plant, as required by law. Emergency response teams, automated external defibrillators (AEDs) with 24-hour connectivity, and AED managers are also present. In 2024, AEDs were standardized and upgraded across all sites; the new models offer defibrillation and color screens displaying CPR demonstration videos. Three AED units and emergency medical kits were leased and distributed within the plant facilities. Annual hands-on CPR and AED training was provided, with 23 sessions and 276 participants in 2024. Regular courses on emergency procedures and chemical splash incidents are available for first aid staff and relevant personnel. In total, 275 employees completed emergency response training in 2024.



The "7,000 Steps a Day" Charity Point Collection Challenge, Friendly Workplace Seminar Series, The "7,000 Steps a Day" Charity Point Collection Challenge, Friendly Workplace Seminar Series, CPR and AED Training, and Charity Blood Donation Event.

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Special Ethnic Group Tracking and Health Care

SAS health centers offer comprehensive healthcare, nutrition consulting, and support for high-risk groups, maternal health, and new recruits with abnormal exam results. Physician consultations and psychological support are provided as needed.

Employees experiencing occupational injuries, accidents, extended sick leave, or major surgery receive tailored care, insurance guidance, and return-to-work evaluations. In 2024, SAS assessed 18 cases; job adjustments or recommendations were made in five instances, with ongoing monitoring after employees returned to work. Additional physician assessments are arranged if issues persist.

Note :

Definition of special ethnic group :

1. Prevention of abnormal workload (follow-up for Level B2 and above in the current year)
2. Maternity (current-year case tracking; job assessment and hazard notification for women of childbearing age); (3) Disability (current-year follow-up, once every two years); (4) New hires (those issued guidance sheets due to abnormal medical examination findings); (5) Special operations health examinations (Level 2 and above); (6) Annual health examinations (Level 4 and above); (7) Occupational injuries (tracked by date of occurrence); (8) Psychological (mental health scale score of 19 or above; suicidal intent); (9) Middle-aged and senior care group (middle-aged workers / senior protection subjects, once every two years); (10) Ergonomic care group (score of 3 or above)

Number of service sessions		2021	2022	2023	2024
SAS	Yilan Branch Company	539	933	508	523
	Chunan Branch Company	377	497	393	189
	Hsu-Hsin Branch	19	31	26	5
	Hsinchu Headquarters	23	38	30	49
	Total	957	1,499	957	766
GlobalWafers - Taiwan		1,247	1,690	1,193	1,528
Total		2,205	3,189	2,150	2,294

No. of people under follow-up		2021	2022	2023	2024
SAS	Yilan Branch Company	138	163	159	259
	Chunan Branch Company	90	103	124	103
	Hsu-Hsin Branch	2	7	13	10
	Hsinchu Headquarters	13	11	33	42
	Total	243	284	329	414
GlobalWafers - Taiwan		915	1,069	1,565	1,218
Total		1,158	1,353	1,894	1,632



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Health Information & Health Promotion Platform

The Health Center provides employees with precise disease-related information and consultation services to enhance health literacy. Within the Company, a dedicated health management website and electronic bulletin board routinely share updated health information for staff reference. Since 2020, regular pandemic prevention communications have been proactively distributed to ensure timely updates on disease outbreaks and preventive education, supporting employee awareness and appropriate hygiene practices. These communications are also available on the health management website, providing convenient access to current health information and activity announcements. In 2024, SAS issued a total of 22 pandemic-related health promotion messages.



E-bulletin updates Health Information sporadically

Physical and Mental Balance and a Supportive Workplace

At SAS, employees are regarded as our most valuable assets. Recognising that organisational productivity is dependent on employee well-being, we are dedicated to fostering a safe, healthy, and welcoming work environment.

Since 2021, SAS has implemented the "Life Guidance" Employee Assistance Program (EAP) to offer comprehensive support services. The program encompasses various consultation areas, including emotional well-being, interpersonal relationships, legal queries, career progression, family matters, parenting, and financial concerns. Employees have unlimited annual access to a support hotline available via phone, email, Line, or Skype. Services are provided in both Chinese and English by qualified case-management psychologists, who offer emotional support and conduct initial assessments. For those requiring additional support, personalised one-on-one counselling sessions with professional consultants are arranged, with each employee entitled to two complimentary sessions per year. Furthermore, nurses proactively refer employees identified as high-risk based on mood thermometer questionnaire results to the EAP and provide regular follow-ups. New hires are introduced to the EAP during orientation, and informational contact cards are distributed. Regular psychological health education articles are also shared with staff. Through these professional counselling services, SAS aims to help employees manage stress and address underlying concerns, thereby cultivating a secure and reassuring workplace.

SAS upholds a people-centric philosophy and embraces individual diversity. Alongside gender-friendly policies and environments, the company remains committed to building a professional and respectful organisation where all employees can take pride in their work and feel a strong sense of belonging.

Since 2023, we have published a monthly internal HR e-Newsletter featuring content such as stories highlighting the company's core values, articles on personal development, introductions of new staff members and departments, local cultural activities, and interviews with featured employees. In the employee spotlight segment, team members from diverse genders, nationalities, and roles share their experiences, all united by a passion for their work. Through these initiatives, SAS strives to foster a culture of inclusion and the acceptance of diverse perspectives, translating these values into tangible, everyday actions.



Employee Assistance Program (EAP)		2022	2023	2024
Live chat E-mail consultation service	All regions*	38 people	69 people	47 people
One-on-one expert advisor consultation	SAS GlobalWafers - Taiwan	7 people	10 people	15 people
Total number of consultation		45 people	79 people	62 people
Professional consultants for colleagues Overall satisfaction with on-site psychological counseling		97%	96.7%	97.8%

*The program also covers the subsidiary, GlobalWafers Co., Ltd. To protect user privacy, EAPC does not provide differentiated statistics.



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Appendix 1 Global Reporting Initiative (GRI) Content Index

Statement of Use	Sino-American Silicon Products Inc. has prepared this report in accordance with the GRI Standards. The reporting period covered in this report is 2024 (from January 1 to December 31, 2024).
GRI 1 Used	GRI 1: Foundation 2021
Applicable GRI Standards	NA

❖ GRI 2: General Disclosures 2021

GRI Standards	Disclosure Items	Corresponding chapters	Page No.	Omitted / Notes
2-1	Organizational details	SAS - Company Overview	14	
2-2	Entities included in the organization's sustainability reporting	SAS - Company Overview	14	
2-3	Reporting period, frequency and contact point	About This Report	3	
2-4	Restatements of information	5.1.4 Occupational Injuries and Incident Statistics	-	From 2021 to 2023, the calculation of the Recordable Occupational Injury Rate (IR) and Occupational Disease Rate (ODR) was adjusted from the previously used base of 200,000 working hours to 1,000,000 working hours to align with the principle of comparability.
2-5	External assurance	External Verification Disclaimer	138	
2-6	Activities, value chain and other business relationships	SAS - Company Overview 2.2 Customer and Product Services 2.5 Value Chain	14 70 73	
2-7	Employees	4.1 Human Resources	92	
2-8	Workers who are not employees	5.1 Safe Workplace	113	
2-9	Governance structure and composition	Sustainable Management	19	
2-10	Nominating and selecting the highest governance body	1.1 Corporate Governance	49	
2-11	Chairperson of the highest governance body	Sustainable Organization 1.1 Corporate Governance	19 49	
2-12	Role of the highest governance body in overseeing the management of impacts	1.1 Corporate Governance	49	



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2-14	Role of the highest governance body in sustainability reporting	Sustainable Organization	19	
2-15	Conflicts of interest	1.1 Corporate Governance	50	
2-16	Communication of critical concerns	1.1 Corporate Governance	49	
2-17	Collective knowledge of highest governance body	1.1 Corporate Governance	50	
2-18	Evaluating the highest governance body's performance	1.1 Corporate Governance	53	
2-19	Remuneration policies	1.1 Corporate Governance	53	
2-20	Process to determine remuneration	1.1 Corporate Governance	53	
2-21	Annual total compensation ratio	-	-	Due to confidentiality constraints, the highest employee remuneration is not disclosed
2-22	Statement on sustainable development strategy	Sustainable Organization	19	
2-23	Policy commitments	Climate Change Risks and Actions – Climate Action Indicators and Targets 1.1 Corporate Governance 4.4 Human Rights	43 55 103	
2-24	Embedding policy commitments	Climate Change Risks and Actions – Climate Action Indicators and Targets 1.1 Corporate Governance 4.4 Human Rights	43 55 103	
2-25	Processes to remediate negative impacts	Sustainable Organization	19	
2-26	Mechanisms for seeking advice and raising concerns	1.1 Corporate Governance	57	
2-27	Compliance with laws and regulations	1.1 Corporate Governance	60	
2-28	Membership of associations	SAS - Participation in External Associations	18	
2-29	Approach to stakeholder engagement	Sustainable Management - Determination of material topics	25	
2-30	Collective bargaining agreements	-	-	Not applicable, no union organization



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❖ GRI 3 : Material Topics 2021

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3-1	Process to determine material topics	Sustainable Management - Determination of material topics	20	
3-2	List of material topics	Sustainable Management - Determination of material topics	29	
3-3	Management of material topics	1.3 Risk Management	64	
201-2	Financial implications and other risks and opportunities due to climate change	Climate Change Risks and Actions	36	
3-3	Management of material topics	2.5 Value Chain	73	
204-1	Proportion of spending on local suppliers	2.5.2 Local Procurement in the Supply Chain	75	
308-1	New suppliers that were screened using environmental criteria	2.5.1 Supplier Selection and Evaluation	73	
308-2	Negative environmental impacts in the supply chain and actions taken	2.5.1 Supplier Selection and Evaluation	74	
414-1	New suppliers that were screened using social criteria	2.5.1 Supplier Selection and Evaluation	73	
414-2	Negative social impacts in the supply chain and actions taken	2.5.1 Supplier Selection and Evaluation	74	
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302-1	Energy consumption within the organization	3.1 Energy Management and Development	77	
302-3	Energy intensity	3.1 Energy Management and Development	77	
302-4	Reduce Energy Consumption	3.1 Energy Management and Development	78	
3-3	Management of material topics	Climate change risk management	36	
305-1	Direct (scope 1) GHG emissions	Climate Change Risk Management – Carbon Emissions Management	46	
305-2	Energy indirect (Scope 2) GHG emissions	Climate Change Risk Management – Carbon Emissions Management	46	
305-3	Other indirect (Scope 3) GHG emissions	Climate Change Risk Management – Carbon Emissions Management	47	
305-4	GHG emission intensity	Climate Change Risk Management – Carbon Emissions Management	46	
305-5	Reduction of GHG emissions	Climate Change Risks Management – Climate Action Indicators and Targets	43	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	3.3.1 Air Pollution Control	85	



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3-3	Management of material topics	3.3.3 Waste Management	88	
306-1	Waste generation and significant waste-related impacts	3.3.3 Waste Management	88	
306-2	Management of significant waste-related impacts	3.3.3 Waste Management	88	
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306-4	Waste diverted from disposal	3.3.3 Waste Management	89	
306-5	Waste directed to disposal	3.3.3 Waste Management	89	
3-3	Management of material topics	3.2 Water resource management and biodiversity	81	
303-1	Interactions with water as a shared resource	3.2.1 Water Resources Management	81	
303-2	Management of water discharge-related impacts	3.2.1 Water Resources Management	81	
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303-4	Water discharge	3.2.1 Water Resources Management	82	
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403-1	Occupational health and safety management system	5.1 Safe Workplace	113	
403-2	Hazard Identification, Risk Assessment, and Accident Investigation	5.1.2 Occupational safety management	114	
		5.1.4 Occupational Injuries and Incident Statistics	121	
403-3	Occupational health services	5.2 Health Promotion and Care	124	
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403-5	Worker training on occupational health and safety	5.1.2 Occupational safety management	118	
403-6	Promotion of worker health	5.2.2 Health Promotion	126	
403-7	Prevent and mitigate occupational safety and health impacts directly related to business relationships	5.1.2 Occupational safety management	114	
403-8	Workers covered by an occupational health and safety management system	5.1 Safe Workplace	113	
403-9	Work-related injuries	5.1.4 Occupational Injuries and Incident Statistics	123	
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TOPIC	CODE	METRIC	CATEGORY	Corresponding chapters/description	Page No.	External Verification
Greenhouse Gas Emissions	TC-SC-110a.1	(1) Gross global Scope 1 emissions and (2) amount of total emissions from perfluorinated compounds	Quantitative	Climate Change Risks and Actions – Carbon Emissions Management	46	⊙
	TC-SC-110a.2	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Qualitative	Climate Change Risks and Actions – Climate Action Indicators and Targets	43	⊙
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	Quantitative	3.1 Energy Management and Development	77	⊙
Water Management	TC-SC-140a.1	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	3.2.1 Water Resources Management	81	⊙
Waste Management	TC-SC-150a.1	(1) Amount of hazardous waste from manufacturing, (2) percentage recycled	Quantitative	3.3.3 Waste Management	88	⊙
Workforce Health & Safety	TC-SC-320a.1	Description of efforts to assess, monitor, and reduce exposure of workforce to human health hazards	Qualitative	5.1 Safe Workplace	114	⊙
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	Quantitative	1.1.4 Legal Compliance	60	⊙
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	Percentage of employees that require a work visa	Quantitative	4.1 Talent Recruitment and Human Resources	93	⊙
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Quantitative	Stakeholders are mainly concerned about the RoHS directive and REACH Substances of Very High Concern (SVHC) from the Company's products, and the test results of the products meet the standards.	—	⊙
	TC-SC-410a.2	Processor energy efficiency at a system level for: (1) servers, (2) desktops and (3) laptops	Quantitative	Not terminal product manufacturer, no corresponding content	—	⊙
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	Qualitative	2.5 Value Chain	75	⊙
Intellectual Property Protection & Competitive Behaviour	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behaviour regulations	Quantitative	1.1.2 Integrity & Ethics	55	⊙
Activity Indicators	TC-SC-000.A	Total production	Quantitative	1.2 Operation performance	62	⊙
Activity Indicators	TC-SC-000.B	Percentage of production from owned facilities	Quantitative	1.2 Operation performance	62	⊙



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Appendix 3 Climate-Related Information of TWSE/TPEX Listed Companies

Item	Implementation
1. Describe the board of directors' and management's oversight and governance of climate-related risks and opportunities.	Please refer to "Climate Change Risks and Actions"
2. Describe how the identified climate-related risks and opportunities impact the Company's business, strategy, and financial planning (short-, mid-, and long-term).	Please refer to "Climate Change Risks and Actions"
3. Describe the financial impact of extreme climate events and transition actions.	Please refer to "Climate Change Risks and Actions"
4. Describe how the processes for identifying, assessing, and managing climate risks are integrated into the overall risk management system.	Please refer to "Climate Change Risks and Actions"
5. If scenario analysis is used to assess resilience to climate change risks, describe the scenarios, parameters, assumptions, analytical factors, and the major financial impacts considered.	Please refer to "Climate Change Risks and Actions"
6. If a transition plan has been developed to manage climate-related risks, describe the contents of the plan, as well as the metrics and targets used to identify and manage physical and transition risks.	Please refer to "Climate Change Risks and Actions"
7. If internal carbon pricing is used as a planning tool, the basis for determining the pricing should be explained.	The Company has adopted an internal carbon pricing mechanism by referencing the Carbon Border Adjustment Mechanism (CBAM) price, which is provisionally set at EUR 90 in 2024. This price is used to incorporate carbon emissions from operational activities into financial cost estimations. (The calculation method is as follows) Calculation: Verified carbon emissions (Scope 1 + Scope 2) * EUR 90 *10%
8. If climate-related targets have been established, the covered activities, GHG emission scopes, implementation timeline, and annual progress should be disclosed. If carbon offsets or Renewable Energy Certificates (RECs) are used to achieve these targets, the sources and amounts of the offsets or the quantity of RECs should be specified.	Please refer to "Climate Change Risks and Actions"
9. GHG inventory and assurance status, along with reduction targets, strategies, and specific action plans.	Please refer to the table below

Year	Scope	Total emissions (tons CO ₂ e)	Intensity (metric tons of CO ₂ e/NT\$ millions)	Assurance Institution	Description of assurance status
2022	Scope 1	2,428.2	4.98	DNV	Reasonable Assurance Level
	Scope 2	48,465.1			
2023	Scope 1	551.0	4.21	DNV	Reasonable Assurance Level
	Scope 2	28,268.7			
2024	Scope 1	561.3	4.85	DNV	Reasonable Assurance Level
	Scope 2	25,920.6			

The above data covers the following entities: Headquarters, Chunan Branch (Chunan Plant and Plant 2), Yilan Branch (Plant 1 and Plant 3), and Hsu-Hsin Branch.



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Appendix 4 Disclosure of Sustainability Indicators as Required by TPEX

In accordance with the "Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies," the relevant appendices are disclosed

❖ **Table 1-8: Sustainability Disclosure Indicators – Semiconductor Industry**


No.	Indicators	Types of Indicators	Disclosure Status	Unit	Notes
I	Total Energy Consumption		190,121.7	Gigajoules (GJ)	
	Percentage of Purchased Electricity	Quantitative	99.35	Percentage (%)	
	Renewable Energy Usage Rate		0.43	Percentage (%)	
II	Total Water Withdrawal Quantity	Quantitative	300,569	Thousand cubic meters (1,000 m ³)	
	Total Water Consumption Quantity		94,004	Thousand cubic meters (1,000 m ³)	
III	Weight of Hazardous Waste	Quantitative	9.4	Metric tons (t)	
	Hazardous Waste Recycling Rate		100	Percentage (%)	
IV	Types of Occupational Disasters		A total of 10 incidents of minor or greater severity occurred this year, including 2 chemical splash/contact incidents, 2 falls, 1 collision injury, 3 entanglement injuries, and 2 cutting injuries		Quantity
	No. of disability injuries	Quantitative	10	No. of people	
	Disabling Frequency Rate		1.7	Rate (%)	Disabling Frequency Rate = Number of Occupational Injury ÷ Total Number of Employees
V	Weight Including Scrapped Products and Electronic Waste	Quantitative	4.7	Metric tons (t)	
	Recycling Percentage		100%	Percentage (%)	
VI	Description of Risk Management Related to the Use of Critical Materials	Qualitative description	Please refer to 2.5 Value chain	N/A.	
VII	Total Monetary Losses Resulting from Legal Proceedings Related to Anti-Competitive Conducts	Quantitative	NT\$0	Reporting Currency	No violations of anti-competition regulations
VIII	Production Volume of Major Products by Product Category	Quantitative	Please refer to the Company's annual report	Varies by Product Category	



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Appendix5 External Verification Disclaimer



Independent Assurance Statement

To the Management and Stakeholders of Sino-American Silicon Products Inc.

DQS has been engaged by Sino-American Silicon Products Inc. ("SAS") to provide independent assurance over the Sustainability Report 2024. The engagement took place in Mar.2025.

The objective of this assurance engagement was to independently express conclusions on underlying reporting processes and validate qualitative and quantitative claims, so as to limit misinterpretation by stakeholders and increase the overall credibility of the reported information and data.

Scope of assurance and standards

The assurance encompassed the entire sustainability report and focused on all figures, statements and claims related to sustainability during the reporting period January 2024 to December 2024.

The assurance engagement was performed with reference to the AA1000 Assurance Standard (AA1000AS v3) and GRI Standards 2021 of Global sustainability standard board (GSSB), which consists of:


- Evaluating the company's sustainability framework and processes using the inclusivity, materiality, responsiveness and impact criteria of the AA1000 AccountAbility Principles (AA1000AP 2018), and
- Evaluating the quality of the reported sustainability performance information – Economy, Environment and People (including Human Rights), the period from 1 January 2024 to 31 December 2024.
- The scope of assurance is consistent with the scope of disclosure in SAS reference to the requirements of GRI Standards 2021;
 - Economic Performance: The scope of coverage is the same as the scope of the 2024 consolidated financial report of SAS.
 - Environmental Performance: SAS, its subsidiaries (Actron, TSC, AWSC, GlobalWafers) and other subsidiaries (SES disclosed carbon emissions only).
 - People (including human rights) Performance: SAS and GlobalWafers.
- SAS is responsible for the issuance, response, performance data, case studies and the information related to management sustainability related data and information systems;
- The scope of assurance is consistent with the scope of disclosure in SAS 2024 Sustainability Report with reference to the GRI General Standards 2021 version, SASB Sustainability Accounting Standards for the Semiconductor Industry, Taiwan Stock Exchange Semiconductor Industry Sustainability Disclosure Index, and TCFD Climate Change-Related Financial Disclosure Standards.

Level of assurance

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document no.: TF-0065

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A Type 1 Moderate Level of assurance under AA1000AS v3 was provided for this engagement. Information and performance data subject to assurance is limited to the scope described above.

Limitations

The assurance did not cover financial data, GHG emission data, technical descriptions of buildings, equipment and production processes or other information not related to sustainability.

The assurance engagement is not a compliance audit and does not assess or evaluate compliance with applicable laws and regulations.

Independence and Competences of the Assurance Provider

The DQS Group is an independent professional services firm that provides assurance on sustainability disclosures under the Global Reporting Initiative (GRI), CDP and other specialized management and reporting mechanisms. Independent verifiers have not been involved in the development of the report or have they been associated with SAS sustainability program, data collection or strategic processes.

DQS Group ensures that the assurance team possesses the required competencies, maintained neutrality and performed ethically throughout the engagement. Further information, including a statement of impartiality, can be found at www.dqsglobal.com.

The management of SAS was responsible for the preparation of the sustainability data.

Assurance Methodology

The assurance procedures and principles used for this engagement were drawn from the International Standard AA1000AS and methodology developed by DQS, which consists of the following steps:

1. Identifying statements and data sets, which are classified according to the relevant data owners and the type of evidence required for the verification process.
2. Reviewing the Sustainability Report to determine whether the material topics identified during our procedures have been adequately disclosed.
3. Carrying out interviews with key functional managers and data owners at SAS office at No. 6, Kelung Rd., Hsinchu Science Park, Chu-Nan, Miao-Li County, Taiwan, R.O.C.
4. Assessing the collected information and provide recommendations for immediate correction where required or for future improvement of the report content.

Evaluation of the adherence to AA1000 AccountAbility Principles

Inclusivity - People should have a say in the decisions that impact them

SAS identifies and communicates with the stakeholders based on their activities and business

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relationships. For future reports, it was recommended to adopt a more systematic approach in recognizing key stakeholders and determining sustainability issues to enhance accuracy and comprehensiveness.

Materiality - Decision makers should identify and be clear about the sustainability topics that matter

The sustainability data included in the scope of the assurance engagement consists of sustainability performance indicators for ESG topics that are considered material, through a materiality assessment.

Responsiveness - Organizations should act transparently on material sustainability topics and their related impacts

SAS is responding to those issues that it has identified as material and demonstrates this in ESG performance indicators. The organization and its stakeholders can use the reported ESG information as a reasonable basis for their opinions and decision-making. To improve the transparency and accuracy of the report, SAS might consider the following steps: adopting the AA1000 assurance standard at a type 2 moderate level.

Impact - Organizations should monitor, measure and be accountable for how their actions affect their broader ecosystems

SAS has implemented systems to monitor and measure its economic, environmental and people (including human rights) impacts through selected performance indicators based on GRI standards as well as has paid attention on related ecological impacts.

Conclusion

On the basis of a moderate assurance engagement according to the above-listed criteria, nothing has come to our attention that causes us to believe that the disclosures within the scope of this assurance engagement are materially misstated. The processes for collecting and consolidating the data are structured in such a way as to enable independent verification.

On behalf of the assurance team
May 20, 2025
Taiwan



Bob Chen
Managing Director
DQS Taiwan Inc.



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