NANYA

2024

Sustainability Report

Innovation

Meaningful Milestones Leading toward a Path of Glory

Innovation doesn't happen overnight.
We reach each milestone through countless trials and relentless refinement, powered by collective wisdom and a fusion of diverse horizons.

Aspiring to learn, transform and break through, we demand the impossible in shrinking processes. Committed to evolution in product technology, we pursue quantum leaps in quality.

Nanya Technology forges a sustainable, **AI-driven smart world with cutting-edge technology.**

30th Anniversary of Nanya Technology
30 years of steady progress, partnerships, and technological advances

Innovative Technology
Driving proprietary R&D and ongoing development of next-gen products

Embracing the AI Smart World
Cross-disciplinary collaborations deliver customized ultra wide I/O DRAM

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A Letter from the President

To all stakeholders

2024 was a pivotal year for Nanya Technology, marking our shift from technological innovation to value-added growth. The company has been evolving itself into one of the leading role in AI age. Staying committed to our goals, we made steady progress in advancing core DRAM technologies and product R&D. We successfully began mass production of our independently developed 10nm-class process and DDR5 products.

Amid geopolitical and economic uncertainty and a fluctuating DRAM market, we have continued to pursue to our vision of being "The Best DRAM Partner for Smart World." We continued to strengthen our core technologies and advance our sustainability efforts. We also collaborated with strategic partners to drive innovation in edge AI computing. Through high-performance, customized DRAM solutions, we continued to enhance our organizational resilience.

Driving an Efficient Future Through Innovative Technology

Innovation in DRAM technology plays a critical role in shaping the performance of next-generation smart electronics. At Nanya Technology, we have achieved high DRAM process density, plus product specification enhancement, and 3D stacked technology. We are also expanding into diversified product lines and smart manufacturing while pushing for greater technological independence.

In 2024, we successfully launched mass production of our second-generation 10nm-class 8Gb DDR4 and 16Gb DDR5 products. In 2024, Nanya Technology was once again named one of Clarivate's Top 100 Global Innovators. R&D investments accounted for 22.5% of our annual revenue. Domestically, we ranked second in patent filings, and our global patent portfolio surpassed 7,700 patents in total. Having implemented 134 AI applications and generated over NT$400 million in value, Nanya Technology demonstrates its leadership in AI and high-performance computing in the era of smart technology.

Building Resilient Sustainability Amid Climate Challenges

Upholding our commitment to environmental responsibility, Nanya Technology became the first DRAM company to register as an early adopter of the TNFD framework. In 2025, we published our second report on climate- and nature-related financial disclosures, employing the LEAP approach (Locate, Evaluate, Assess, Prepare) to identify nature-related material issues at our operational sites. By integrating the TCFD and TNFD frameworks, we have built a comprehensive process for assessing climate- and nature-related risks. We have also implemented corresponding management measures to enhance the company's resilience to climate- and nature-related challenges. In 2024, we took concrete steps toward our low-carbon vision. Scope 1 and 2 greenhouse gas emissions were reduced by 12.9% compared to 2020, while Scope 3 emissions per unit of product dropped by 19.4%—well ahead of our original SBT targets. Additionally, our use of renewable energy grew by 43.9% year over year, reaching 35,230 MWh—equivalent to a reduction of 17,000 metric tons of carbon emissions. With regard to water resource management, we recycled a total of 5.59 million metric tons of water over the year, and earned AWS Platinum certification, which reflects our strong performance in sustainable water management.

Building Talent Competitiveness and Strengthening Organizational Momentum

We firmly believe that people are the foundation of innovation. To strengthen human capital development, Nanya Technology launched the Five New Initiatives in 2024, focusing on new independently-developed process technologies, new product development and sales, talent development for new facilities, next-generation management capabilities, and the cultivation of emerging skills. Since 2021, we have trained 1,226 semiconductor professionals—a 40% year-on-year increase. We achieve a 98% retention rate among management trainees, and nearly 30% of positions are filled through internal promotions, creating a healthy cycle of talent development.

Creating and Sharing Value with Our Stakeholders

We actively promote a responsible supply chain and aim to build a more inclusive society. In 2024, Nanya Technology completed traceability assessments for 3TG+C and global critical metals. A total of 255 smelters were certified under the RMI Responsible Minerals Assurance Process or equivalent OECD frameworks. The number of suppliers assessed for information security grew by 164% year over year, reaching 140 companies. In terms of social engagement, our investment grew by 57%, volunteer hours rose by 22%, and participation exceeded 4,000. We also integrated CSR efforts with community revitalization to drive sustainable actions.

Fostering Trust Through Sustainable Governance

In 2024, we were once again selected for the DJSI World Index, achieved dual Leadership Levels in CDP Climate Change and Water Security, and received the TCSA Leadership Awards for Water Resource Management, Social Inclusion, and Information Security. We also maintained our position among the top 5% of the Corporate Governance Evaluation. These achievements reflect the collective efforts of our employees and stakeholders, and affirm our commitment to balancing business performance with ESG development.

Looking Ahead: Driving Sustainable Transformation

As the convergence of global sustainability regulations continues to accelerate, the industry chain is facing rising expectations and greater challenges. Nanya Technology will continue to drive sustainable development through technological innovation, supported by a robust sustainability governance framework focused on carbon reduction, energy efficiency, and resource circulation. We will also deepen our collaboration with the global supply chain to build a sustainable ecosystem that is resilient and forward-looking. Nanya Technology will adhere to its three core strategies: creating shared value, facilitating common good and sustainability, and implementing sustainable enterprise practices. We remain dedicated to developing high-density advanced products, 3D IC stacked technology, and customized high-bandwidth solutions. Together with our global partners, we will build a forward-looking, sustainable ecosystem that is ready for the next era of high-performance computing and green transformation.

President

Sustainability Performance

The Best Partner for Our Customers

NT$400 million

By the end of 2024, Nanya Technology developed 134 AI applications with annual benefits reaching NT$400 million.

22.5%

In 2024, R& D expenditure accounted for 22.5% of revenue, while R&D personnel represented 29.7% of employees, which demonstrates Nanya Technology's commitment to technological development.

910 patents

910 patents were granted to Nanya Technology in 2024.

An Employer Who Values Professional Talent

1,226 people

Nanya Technology expands its youth empowerment program for semiconductor talent, and has trained 1,226 people in total since 2021, a 40% increase compared to 2023.

98%

Nanya Technology has developed a total of 150 management associates over three years since 2022 with a 98% retention rate, 43 of whom have been promoted internally—a promotion rate of 28.7%.

81.48%

Return-to-work rate after parental leave was 81.48%, a 10.05% increase compared to 2023.

A Producer via Green Technology

93%

The reduction rate of PFCs emissions during industrial processes

Outperformed SBT Annual Reduction Target

2024 Scope 1+2 emissions reduced by 12.9%

Scope 3 emissions reduced by 19.4%

74,078 MWh

Total energy savings from energy conservation measures completed between 2017 and 2024

Sustainability Performance

A Promoter of Shared Values

NT$110.78 million

From 2019 to 2024, the refund for foreign blue-collar migrant workers regarding items such as recruitment fees, transportation fees, service fees, medical examination fees, and document fees totaled NT$110.78 million, benefiting 4,432 individuals.

255 smelters

Among suppliers of tin, tantalum, tungsten, gold, cobalt (3TG+C) and mica, the number of smelters recognized by the RMI in supplier reports: 255

29 smelters

Among suppliers of strategic metals subject to international import/export restrictions (aluminum, copper, nickel, and zinc), the number of smelters recognized by the RMI in supplier reports: 29

An Active Contributor to Society

57%

Total investment in social engagement amounted to NT$20,545,733, a 57% increase compared to the previous year.

3,571.5 hours

The hours Nanya Technology has spent on social engagement increased by 22% compared to the previous year.

4,136 participants

Promoting fair trade principles for responsible consumption

A Company That Honors Its Commitments

Superior customer service

We assist customers with early-stage product development and verification. Through parameter measurement services on the customer platform, we identify compatibility issues in advance and make improvements before mass production. In 2024, Nanya Technology completed a total of 1,032 measurement service cases and 27 joint qualification service cases.

140 suppliers

Nanya Technology improved information security management for its supply chain by selecting 140 suppliers for audits, an increase of 164% compared to last year.

Top 5%

Nanya Technology ranked in the top 5% among listed companies in the 11th (2024) Corporate Governance Evaluation.

Recognition and Awards

DJSI

Selected for the Dow Jones Sustainability World Index (DJSI World) for four consecutive years, ranking 6th in the semiconductor industry group

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

S&P Global

Selected as an S&P Global Sustainability Yearbook Member—top 15% in the semiconductor industry

MSCI

MSCI ESG rating upgraded to "AA"

MSCI

Sustainalytics

Sustainalytics ESG Risk Rating 17.96★Low Risk Rating

SUSTAINALYTICS

ISS ESG

Awarded the highest "Prime" status in corporate assessment for the fifth consecutive year

Corporate ESG Performance Prime
RATED BY ISS ESG

CDP

CDP's Climate Change A List
Water Security A-
Supplier Engagement Assessment A List

CDP A List 2024

AWS

Awarded Platinum Certification

ALLIANCE FOR WATER STEWARDSHIP

National Quality Award

Business Excellence Award

績優經營獎 BUSINESS MERIT AWARD 國家品質獎-全面卓越類

Taiwan Circular Economy Outstanding Enterprises Award, Ministry of Environment, Taiwan

Silver Award in the Recycling Category

環境部資源循環署 Resource Circulation Administration Ministry of Environment

TCSA

- Taiwan's Top 100 Sustainable Companies Award
- Corporate Sustainability Reporting Awards—Platinum
- Three major performance awards:
  Water Resource Leadership Award
  Social Inclusion Leadership Award
  Information Security Leadership Award

TCSA

Clarivate

Consecutively recognized as one of Clarivate's Top 100 Global Innovators for three years from 2023 to 2025

Clarivate™

Corporate Governance Evaluation

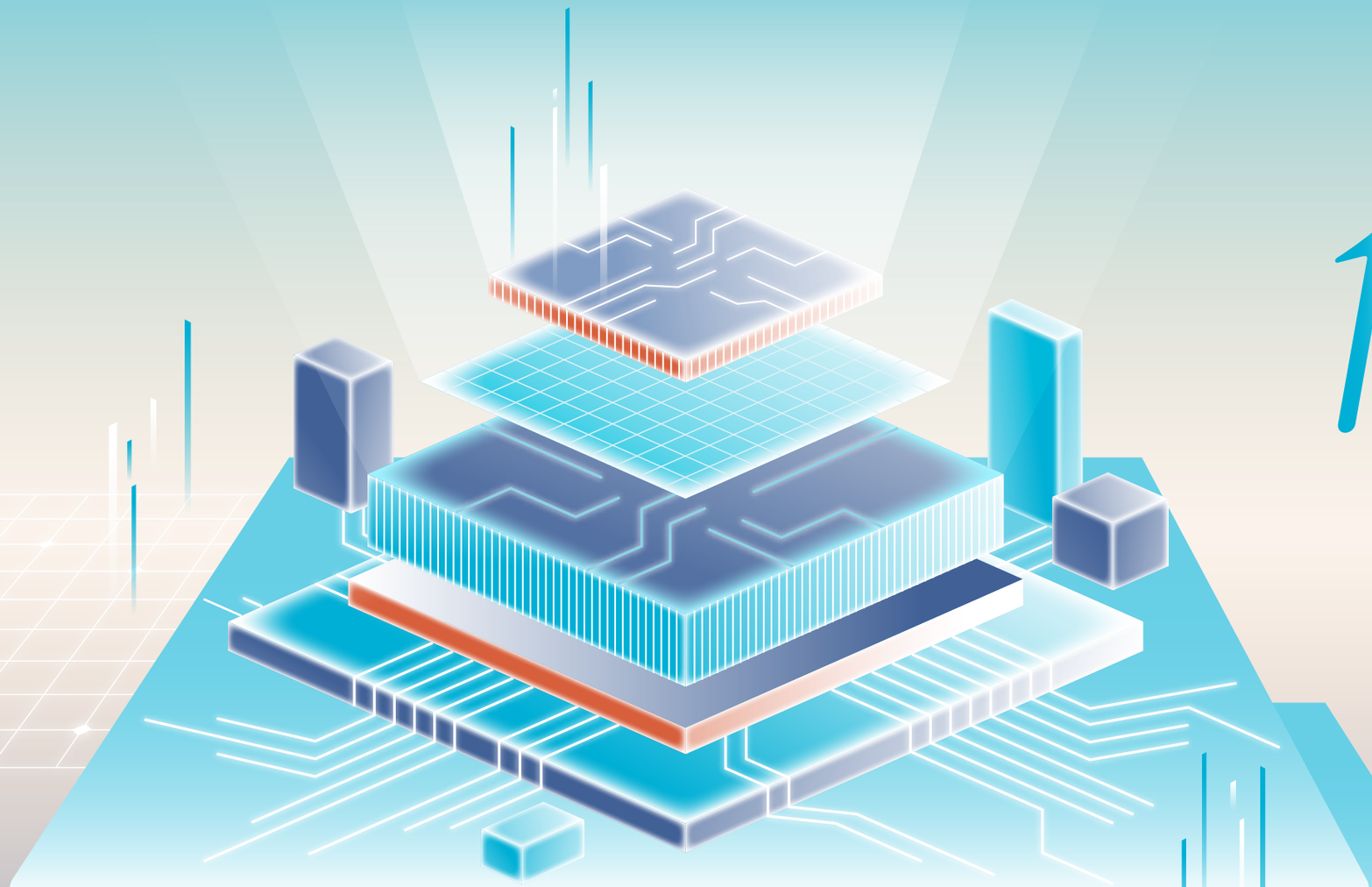
Top 5% in the 11th (2024) Corporate Governance Evaluation
Ranked in the top 10% among listed electronic companies with market value exceeding NT$10 billion

TAIWAN STOCK EXCHANGE 臺灣證券交易所

CommonWealth Magazine

Ranked 15th in the large enterprises in the manufacturing industry category of the 2024 Excellence in Corporate Social Responsibility Award

天下雜誌 CommonWealth Magazine



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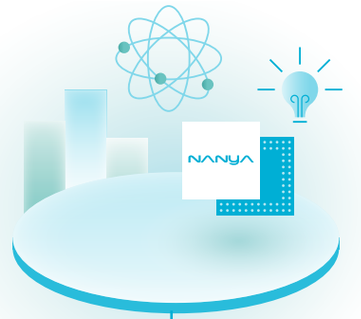
1.1 About Nanya Technology

1. The Best DRAM Partner for Smart World

Founded in 1995, Nanya Technology is headquartered in Taiwan, where its operations and R&D are located. To support its global presence, the Company has established sales offices or design houses in the United States, Germany, Japan, and Mainland China. Innovation in advanced technology is the cornerstone of the Company's growth. Driven by self-developed technologies and a strategic intellectual property portfolio, we focus on the R&D, design, manufacturing, and sales of Dynamic Random Access Memory (DRAM). To ensure sustainable development, we implement green technology and smart manufacturing to optimize efficiency and output across all operations.



Nanya Technology has successfully developed 10nm-class DRAM process technology and has begun mass production of its latest second-generation 10nm process technology (1B) for 8Gb DDR4 and 16Gb DDR5 products. LPDDR5 and LPDDR4 products are also under development. To meet evolving demands of next-generation smart devices, we are working closely with strategic partners to explore market opportunities in AI edge computing. Nanya Technology aims to provide customized DRAM solutions that address diverse applications and high-performance computing needs.

2. Participation in Associations, Non-Profit Organizations, and Advocacy

As a member of the global semiconductor industry, Nanya Technology not only pursues excellence in its core business but also actively participates in exchanges with external entities to promote shared progress in the industry. Under the Sustainable Development Steering Center, Nanya Technology has established the Public Affairs Participation Group. This group is responsible for evaluating and deliberating on decisions related to public affairs involvement. In accordance with the Company's Public Affairs Participation Guidelines, it conducts annual reviews on whether the climate-related associations we participate in align with the goals of the Paris Agreement. Through collaborations with industry peers, we are committed to limiting global warming to well below 2°C . Through supporting and engaging in international advocacy and industry organizations, Nanya Technology aims to collaborate with partners from all sectors, broaden its impact, and accelerate the industry's transition toward sustainability.

Membership Fees and Other Payments for Participation in Associations and Non-Profit Organizations

Unit: NT$ Thousand

Participating Role	2021	2022	2023	2024
Member				
Semiconductor Equipment and Materials International (SEMI)	-	-	643 (US$22,000)	458 (US$14,000)
Founding Member				
Semiconductor Climate Consortium (SCC, member since 2022)	-	469 (US$15,000)	469 (US$15,000)	474 (US$15,000)
Director				
Taiwan Semiconductor Industry Association (TSIA)	320	320	695 *	640 *
Taiwan IC Industry & Academia Research Alliance (TIARA)	100	100	100	100
Taiwan Center for Corporate Sustainability (TCCS)	280	280	280	280
Taiwan Net Zero Emissions Association (TNZEA, member since 2021)	-	150	150	150

Note: In addition to the NT$320,000 membership fee, other payments represent shared expenses for activities organized by the association.

3. International Advocacy Organizations

Subheading: Science Based Targets (SBT)

Organization SBTi

- Commitment completed and signed in 2021
- Certified under the SBTi WB2D decarbonization pathway in 2022

Task Force on Climate-Related Financial Disclosures Supporter (TCFD Supporter)

Organization TCFD

- Climate change management has been implemented using the TCFD framework since 2018, and signed the support for TCFD initiative in 2021
- Second *TCFD Report* was released in 2023

Task force on Nature-Related Financial Disclosures Supporter (TNFD Supporter)

Organization TNFD

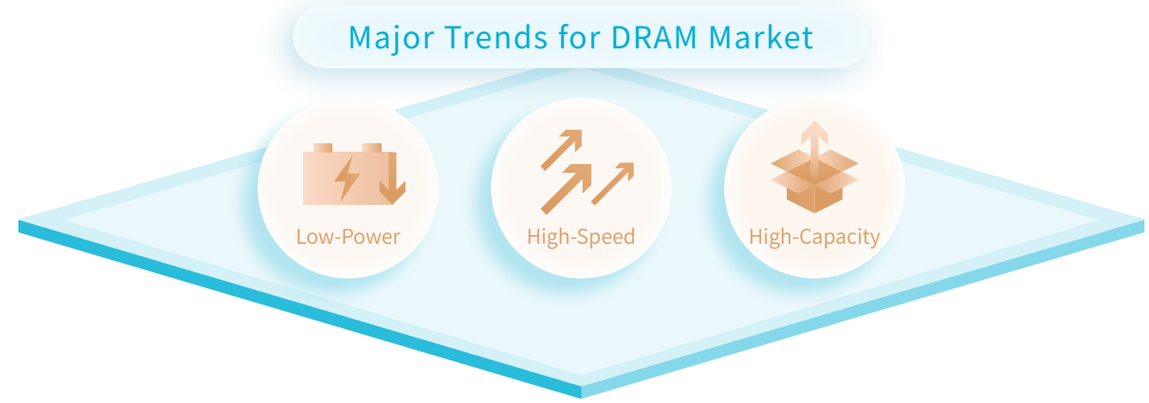
- The first integrated *TCFD* and *TNFD Report* was released in 2024

1.2 Products and Operating Performance

1. Product Introduction

Nanya Technology is one of the world's key DRAM suppliers. Its main product lines include standard DRAM, consumer DRAM, mobile DRAM, automotive/industrial-grade DRAM, and customized products. Nanya Technology places technological innovation at the core of its values and primary growth driver. We are committed to investing more R&D resources to accelerate the development of 10nm-class process technology and more new-generation DDR5 products to strengthen our competitive edge.

- Leveraging our existing consumer application customer base, we are actively optimizing 20nm products for diverse low-power applications while exploring their potential in high-end automotive and TVs. For server product sales, in addition to stabilizing relationships with existing large customers, we will also reach out to small and medium-sized customers in regional data centers worldwide to expand our sales channels and customer base.
- For 10nm second-generation (1B) product development, DDR4/DDR5 completed product verification and received customer certification in 2024, entering mass production thereafter. In 2025, the verification of 16Gb DDR5 miniaturized version and 16Gb LPDDR4 will be completed. Additionally, 8Gb/16Gb LPDDR5 products will be introduced for pilot production. The pilot product (16Gb DDR5) using 10nm third-generation (1C) process technology will enter pilot production in the second half of 2025. The pilot product using 10nm fourth-generation (1D) process technology will be introduced for pilot production in the first quarter of 2026.



2. Market Overview

DRAM is a critical component that powers the intelligence of all electronic products and an essential product for AI development. It is widely used in data centers/servers, smartphones, personal computers, and consumer electronics. With the development of 5G and AI, cloud service providers continue to invest in AI servers equipped with a large number of high-end DRAM products. At the same time, edge computing applications in end-user products (such as AI PCs, AI mobile phones, AI robots, etc.) will also increase DRAM content per unit and drive demand growth.

Starting in 2025, personal computer, mobile phone, and consumer electronics markets are anticipated to recover. Combined with the gradual, quarter-by-quarter improvement in industry inventory levels, the conventional DRAM market is likely to start rebounding in the first half of the year.

In terms of servers, alongside significant investments by cloud service providers in AI servers, other enterprise users are also increasing their purchases of general-purpose servers. Overall shipments continue to rise and drive growth in High Bandwidth Memory (HBM) and high-capacity DDR5 module shipments.

In the mobile phone industry, inventory levels are gradually returning to normal, while DRAM content per unit is increasing with the introduction of AI features. As a result, both the overall mobile phone shipments and DRAM content per unit are expected to grow compared to last year.

Regarding personal computers, operating system updates are driving enterprise replacement demand. Furthermore, as AI PCs are introduced, DRAM content per unit will also increase.

Demand for other consumer electronics has improved in the short term, driven by China's stimulus measures. Meanwhile, reduced inventory levels have led to higher unit prices. However, the U.S. reciprocal tariffs have introduced uncertainty into end-market demand, and further developments will need to be closely monitored.

3. DRAM Application Trends

Servers

- In 2024, the demand for Artificial Intelligence (AI) in cloud/edge computing was significant. Despite limited overall economic recovery, cloud service companies continued to invest in AI servers to capitalize on AI opportunities. Coupled with traditional server updates, this drove approximately 3% growth in server shipments in 2024. In 2025, demand for AI servers is expected to boost the overall server market, with overall demand reaching 14.3 million units, representing a 5% increase compared to 2024.
- DRAM content per device is also expected to continue rising due to the high-density computing requirements of AI servers. The average usage is as high as 813 GB, representing a mid-teen percentage growth compared to 2024.

Mobile Devices

- In 2024, smartphone sales were affected by global inflation and geopolitical factors, leading to deferred replacement demands. However, the integration of AI features into mobile phones began in 2024, driving an increase in memory requirements for mobile phones. The average memory capacity per device increased by approximately 11% compared to 2023. In 2025, the share of AI smartphones is expected to continue growing.
- DRAM content per device is expected to grow by a high single-digit percentage compared to 2024.

Personal Computers

- Driven by AI adoption, personal computer demand grew by approximately 5% in 2024. AI PCs are estimated to account for over 30% to 40% of the total personal computer market share in 2025. AI PCs require higher memory capacity (minimum 16GB), which continues to drive the overall memory demand for personal computers. With a double-digit percentage growth in 2024, this trend is expected to continue through 2025.

Consumer Electronics

- Although the impact of interest rate hikes continued to diminish in 2024, geopolitical factors and regional conflicts hindered the expected recovery in consumer electronics demand. Gradual stabilization of regional conflicts and the introduction of subsidy policies in 2025 are expected to stabilize and restore consumer confidence, leading to modest growth in the sales of consumer electronics like digital TVs, audio-visual streaming devices, network communication equipment, and video/monitoring systems. Additionally, new game console releases in 2025 are likely to drive double-digit percentage growth in annual shipments. AI terminal computing is expected to contribute to slight growth in VR/AR devices, smartwatches, and smart speakers. Recently, the U.S. reciprocal tariffs have introduced uncertainty into end-market demand, and further developments will need to be closely monitored.

4. Business Development Plan

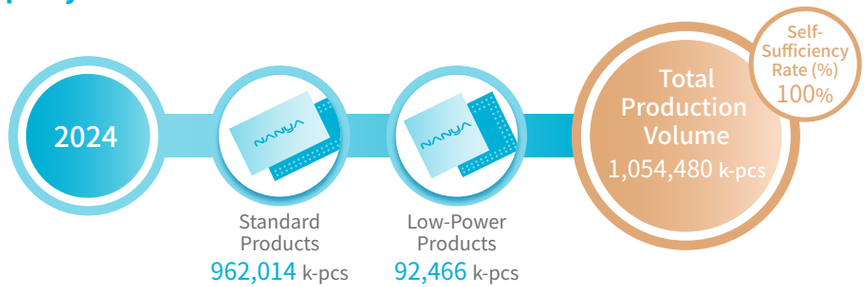
Short-Term

- Promoting new products built on the 1Bnm process, including: ①8Gb DDR4 and 4Gb DDR4 Known Good Die (KGD) products, primarily targeting mid-range television chip co-packaged market; ②16Gb DDR5 will first be introduced to personal computers, and will gradually be extended to solid-state drives (SSDs), network communication and server modules, providing comprehensive solutions to enhance our market footprint.
- Strengthening the sales of 20nm low-power, low-capacity products, with increased volume in key applications including digital TVs, network communication, digital cameras, KGD, TV sticks, smartwatches, SSDs, automotive devices, communication modules, multi-chip packages, voice assistants, and handheld devices. At the same time, we are actively developing customized solutions and expanding into the foundry market.
- Increasing DDR4 server module orders to small and medium-sized customers in cloud and regional data centers. In addition, we continue to collaborate with customers in application areas such as Baseboard Management Controller (BMC) and Network Interface Controller (NIC).

Long-Term

- While continuing to promote existing product lines, we will enhance our competitive edge through independent R&D of 1C/1D/1E process technologies for product miniaturization. Meanwhile, we are also developing a high-capacity, high-speed product portfolio to address low-, medium-, and high-capacity market demands.
- Developing the Through Silicon Via (TSV) process technology and combining it with miniaturized DDR5 products to create high-capacity DRAM modules that meet the demands of the server market.
- Deploying process equipment within the new fab constructions in response to market conditions.

5. Company Annual Production and Sales Market



Nanya Technology's main sales markets are China (including Hong Kong) and Taiwan, accounting for 48.2% and 29.7% of total sales respectively. For detailed information, please refer to page 46 of our *2024 Consolidated Financial Report*.

6. Operating Performance

Nanya Technology's consolidated revenue for 2024 was NT$34.13 billion, an increase of approximately 14.2% compared to NT$29.89 billion in 2023; the net loss after tax was NT$5.08 billion, with a net profit margin of -14.9% and a loss per share of NT$1.64.

In 2024, the recovery in demand for personal computers, mobile phones, and consumer application products was weaker than expected, with the destocking period extending longer. The demand for non-AI DRAM products contracted starting in the middle of the year. The Company's total shipment volume in 2024 was comparable to the previous year, but a slightly higher average selling price contributed to a NT$4.24 billion increase in revenue, reflecting a 14.2% growth. Additionally, ongoing cost and expense control led to an improved operating loss and a NT$2.36 billion reduction in net loss compared to the prior year.

Financial Performance During the Last Four Years

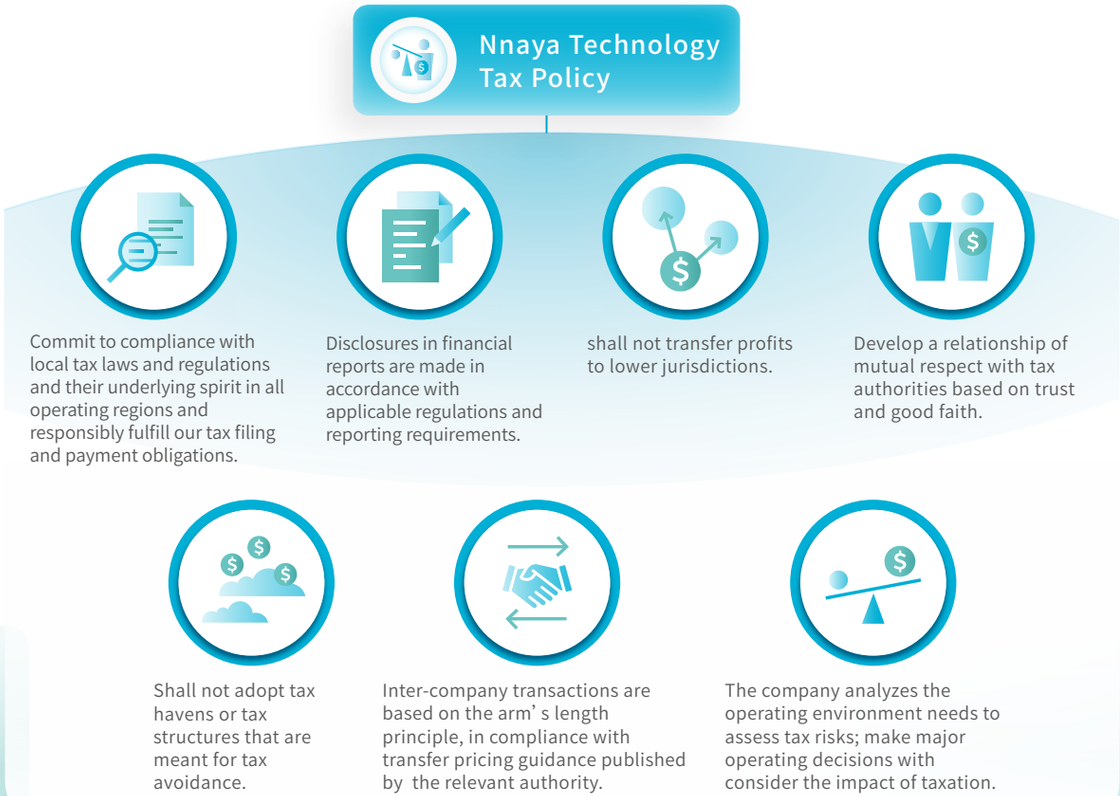
	2024	2023	2022	2021
Market Capitalization (in NT$100 million)Note 1	906.3	2,416.5	1,586.2	2,418.7
Operating Revenue (in NT$100 million)	341.3	298.9	569.5	856.0
Operating Income (Loss) (in NT$100 million)	(105.5)	(144.6)	110.0	271.9
Net Income (Loss) (in NT$100 million)	(50.8)	(74.4)	146.2	228.5
Return on Equity (%)	(3.1)	(4.3)	8.3	14.0
Total Amount of Cash Dividends (in NT$100 million) Note 2	-	-	66.0	114.7
Cash Dividend Per Share (in NT$) Note 2	-	-	2.1	3.7
Employee Welfare Expense (in NT$100 million)	58.6	50.8	67.7	73.0

Note 1: Calculated based on the closing stock price at the end of each year

Note 2: Dividends are disclosed based on the dividend attributable year and are distributed in the following year

7. Tax Policy and Information

Nanya Technology has established a dedicated Tax Policy to effectively control tax risks, create long-term corporate value, pursue sustainable development, and fulfill corporate social responsibility, thereby fully safeguarding the interests of the Company and its investors. Nanya Technology's Tax Policy has been approved by the Board of Directors. Tax management is overseen by the Sustainable Development Committee, a functional committee under the Board, which monitors significant risks related to relevant policies, procedures, and legal compliance, and reports on management status or significant risks to the Board in a timely manner.

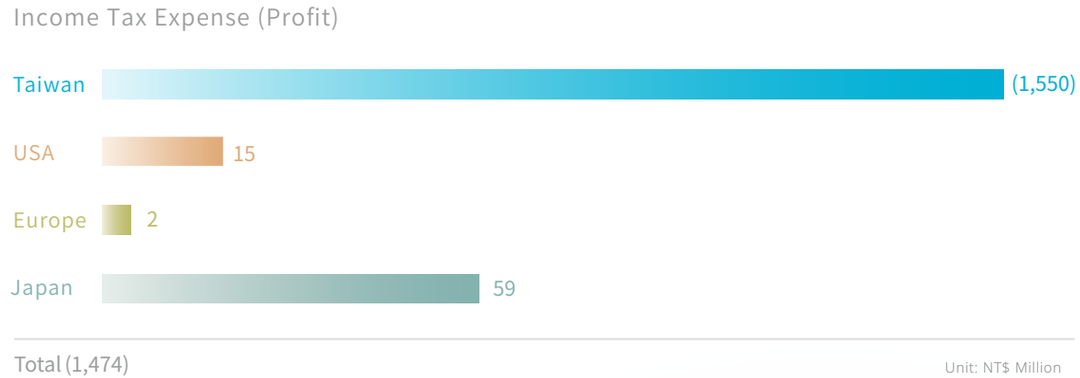


Tax Performance During the Last Two Years

	2024	2023
Net Income (Loss) Before Tax	(6,557)	(10,705)
Income Tax Expense (Profit)	(1,474)	(3,265)
Income Taxes Paid	4	2,304

Unit: NT$ Million

2024 Income Tax Expense (Profit) by Country



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2.1 Sustainability Vision and Governance

1. Sustainability Vision and Policy

As a professional memory manufacturer, Nanya Technology not only strives for innovation and competitiveness, but also actively adheres to its Corporate Sustainability Policy. We are committed to establishing a strong interactive network with stakeholders like employees, shareholders, customers, suppliers, and society to jointly create a future vision of sustainable development.

2. Sustainability Organization and Governance

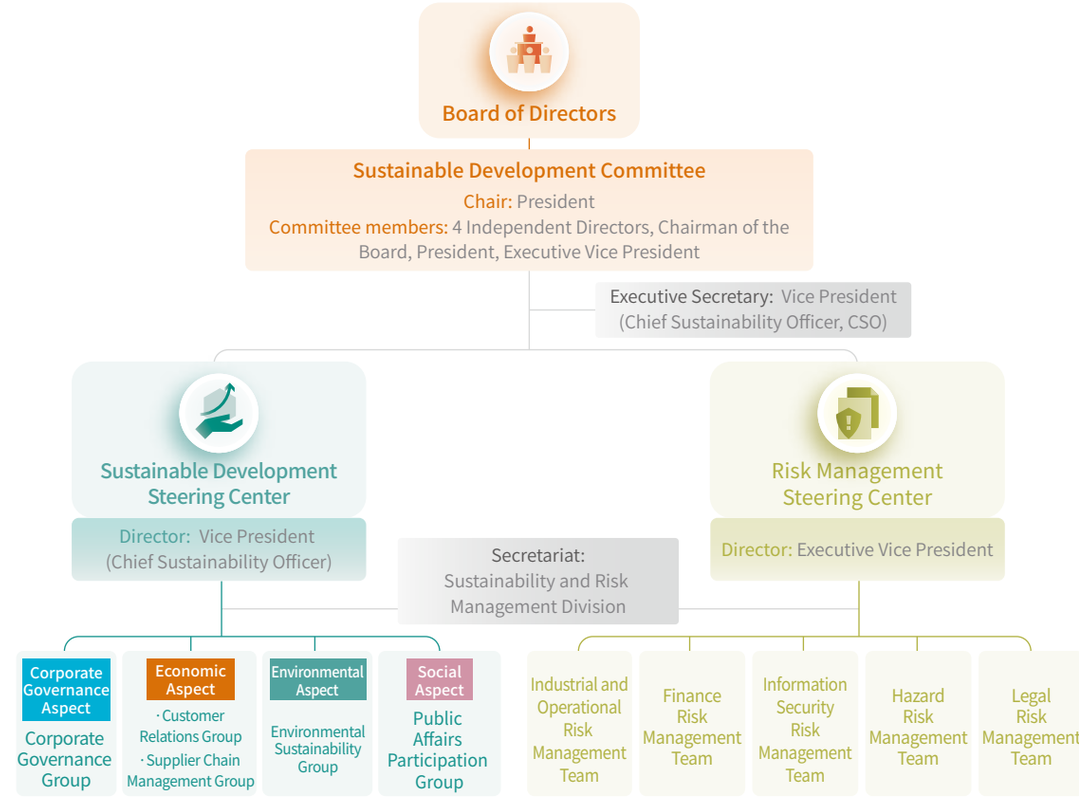
Nanya Technology officially upgraded its Sustainable Development Committee to a functional committee under the board of directors in August 2022. The committee consists of the Chairman of the Board, 4 Independent Directors, and 2 Executive Directors. The members collectively appoint the President as the Chairman, while the Chief Sustainability Officer (CSO) serves as the reporter. The committee supervises the implementation of *sustainable development* and *risk management* efforts. Since its establishment, we have regularly reported on sustainability and risk projects during board meetings twice a year. It regularly reviews the Company's sustainable development strategy, vision, goals, implementation guidelines, and results as well as routinely tracks risk management. This process ensures members of the Sustainable Development Committee and the board of directors are well-informed on the progress of the Company's sustainability initiatives, the goals set for material issues in the coming year, the implementation status of goals for the previous year, key highlights, and stakeholder engagement, thereby raising sustainability governance to a higher level.

The Sustainable Development Committee delegates the implementation of sustainability and risk management initiatives to the Sustainable Development Steering Center and the Risk Management Steering Center. The Executive Vice President and Vice President serve as the Directors, and the Sustainability and Risk Management Division under the President's Office serve as the Secretariat to continue communicating the importance of sustainable development to business administration. The division is responsible for convening *Sustainable Development Quarterly Meetings* and *Risk Management Quarterly Meetings*. It coordinates and controls various action plans and risk categories, while integrating and supervising the execution progress and outcomes of corporate governance and economic, social, and environmental sustainability. This ensures effective communication both horizontally and vertically across the organization, driving the achievement of sustainable development.

The Chief Sustainability Officer (CSO) is responsible for reporting to members of the Sustainable Development Committee and maintaining strong engagement with stakeholders to communicate progress on sustainable development issues. The CSO also ensures smooth cooperation with experts across various sustainability topics, and fosters cross-departmental communication within the Company, with a focus on achieving sustainability goals and promoting implementation guidelines. In 2024, there were no critical events that required communication with the Board of Directors.

Please refer to the chapter titled "Integrity and Transparency" for Nanya Technology's risk management implementation in 2024.

Nanya Technology Sustainable Development Committee



2024 Sustainable Development Committee Work Items

Sustainable Development Work Planning (Sustainable Development Steering Center)

- Continued promotion of the greenhouse gas (GHG) inventory program, with improvements in Scopes 1, 2 and 3
- Continued promotion of the Life Cycle Assessment (LCA) and improvement measures for hotspots
- Publication of TNFD and TCFD Report to integrate a management framework for nature-and climate-related risks, thereby building a green, low-carbon value chain
- Obtained Platinum-level certification from the Alliance for Water Stewardship (AWS)
- Published Human *Rights Protection and Due Diligence Report*, disclosing information on the Company's protection of the human rights of stakeholders, as well as its mitigation and compensation measures
- Continued participation in domestic and international sustainability ratings, such as DJSI, CDP, Taiwan Corporate Sustainability Awards, and the Taiwan Circular Economy Outstanding Enterprises Award
- Continued optimization of corporate governance, including revisions to the Sustainable Development Committee's charter
- Formulated and approved a sustainable materials policy
- Strengthened the Carbon Reduction Task Force's functions and implemented carbon reduction action plans in response to the Ministry of Environment's carbon fee policy
- Drafted an implementation plan aligned with the Financial Supervisory Commission's Plan for Introducing IFRS Sustainability Disclosure Standards, completing phased action plans and declarations

Formulation of Risk Management Assessment and Response Measures (Risk Management Steering Center)

- Sales and marketing risks
- Wafer manufacturing and back-end packaging and testing risks
- Operation supporting risks
- Human resource risks
- Privacy management risks
- Information security risks
- Quality risks
- Environmental, safety and hygiene risks
- Corporate strategy and financial risks
- Emerging risks

Legal compliance review and response (Compliance platform)

- Reviewed known legal compliance
- Response measures to new regulations

Board of Directors' Participation in Sustainability Governance

To strengthen sustainability governance and oversight, the Board of Nanya Technology demonstrates unwavering commitment to sustainability issues and acts upon regular reports about material issues from the Sustainable Development Committee. In 2024, the key items reported by the Sustainable Development Committee to the Board included: sustainability organization and strategy, GHG inventory and verification reports, risk management organization and risk identification status, and the review and publication of our *Sustainability Report*. These actions underscore that our Board has integrated sustainability into core corporate governance, reflecting its deep dedication and a proactive approach towards ESG topics.

2024 Work Plan

- Implemented sustainable supply chain improvement projects, including product carbon footprint management and Supply Chain Leadership Low-Carbon Transition Program
- Continued optimization of corporate governance, including revisions to the Sustainable Development Committee's charter
- Strengthened the Carbon Reduction Task Force's functions and implemented carbon reduction action plans in response to the Ministry of Environment's carbon fee policy
- Drafted an implementation plan aligned with the Financial Supervisory Commission's Plan for Introducing IFRS Sustainability Disclosure Standards, completing phased action plans and declarations

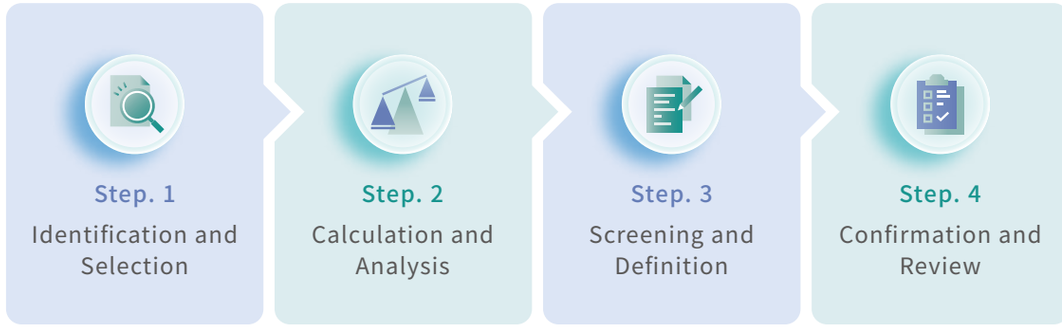
To align with international trends of sustainability disclosure, Nanya Technology follows the Financial Supervisory Commission's ordinance notification dated April 22, 2024, and has established an internal control system for sustainability information management. Starting in 2025, sustainability information management will be included in our annual audit plan. Meanwhile, we have developed a sustainability disclosure standards implementation plan to actively respond to the IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures) standards issued by the IFRS Foundation. We have already completed the first phase, which included forming a cross-departmental project team and initially identifying major differences and impacts between current sustainability information and these disclosure standards.

2.2 Materiality Analysis

Nanya Technology conducts an annual materiality analysis and survey to comprehensively review the year's sustainability actions, assess corporate systems, highlight key projects, and gather improvement suggestions, serving as a critical foundation for promoting sustainability initiatives. We adopt a systematic approach that thoroughly considers the screening and identification of double materiality topics to ensure the effectiveness of promoting sustainable development strategies. We actively listen to stakeholders' concerns on ESG and respond to their expectations and needs. At the same time, we assess the impact of sustainability issues on our operations as well as the potential influence of corporate operations on the external economy, environment, and society (including human rights). Nanya Technology collects important opinions from different perspectives through three questionnaires to identify ESG topics with significant impacts. These insights not only serve as a key basis for compiling the Sustainability Report but also lay a solid foundation for the promotion of ESG projects.

1. Materiality Analysis Process

Nanya Technology conducts a materiality analysis annually in accordance with GRI 3: Material Topics 2021, including the impacts on the economy, environment, people, and human rights. We have also incorporated the concept of double materiality as outlined in the European Sustainability Reporting Standards (ESRS) under the Corporate Sustainability Reporting Directive (CSRD). Through a four-stage materiality analysis process, which includes identification and selection, calculation and analysis, screening and definition, and confirmation and review, we identify topics with significant external impacts, high relevance to Nanya Technology's operations, and strong stakeholder concern. These are defined as material sustainability topics, forming the basis for setting corresponding long-term sustainability goals.



Step.1 Identification and Selection

Identify key stakeholders

In line with the GRI Standards and the AA1000 Stakeholder Engagement Standard (SES), we identified 7 key stakeholder groups through Sustainable Development Work Meetings: employees, shareholders/investors, customers, suppliers, government agencies, society, and the media. In addition, we gathered and analyzed the top 5 topics of concern for each of the 7 stakeholder groups and identified appropriate communication channels to integrate these concerns into the daily tasks and annual planning of our sustainable development efforts.

Selection of ESG topics

We identified topics relevant to Nanya Technology's operations from both internal and external perspectives. Topic sources include international sustainability regulation standards (GRI Standards, SBSC, SDGs, TCFD, TNFD, SBTi), industry-specific topics (RBA, SASB), sustainability ratings (DJSI, CDP, MSCI ESG Rating, FTSE 4 GOOD Emerging Index), stakeholder communication processes, and internal business goals. A total of 23 ESG topics were consolidated for Nanya Technology.

Step.2 Calculation and Analysis

Stakeholders' Level of Concern Survey

In addition to ongoing engagement with stakeholders through daily operations, before publishing the report, we conducted a questionnaire targeting the seven key stakeholder categories identified. A total of 3,550 responses were collected and broken down as follows: employees (3,476 responses), shareholders/investors (2 responses), customers (24 responses), suppliers (27 responses), government agencies (3 responses), community (13 responses), and media (5 responses). The results were analyzed to identify the top five topics of concern for each stakeholder group.

Operational Impact Level Survey

In line with the concept of Double Materiality, Nanya Technology followed the principle of Financial Materiality to assess the *operational impact level* of each ESG topic on operational factors such as revenue growth, customer satisfaction, employee cohesion, cost, and reputation. A total of 26 Company executives and employees evaluate the influence of each ESG topic on the organization's operations, identifying the top five key ESG topics affecting each operational factor.

External Sustainable Development Impact Assessment Survey

In terms of Impact Materiality, Nanya Technology adopted both monetary and non-monetary analysis and identify sustainable development impacts related to the external economy, environment, and human rights.

- **Defining External Sustainable Development Impacts**

  Nanya Technology adopted methodologies from organizations such as the Value Balancing Alliance (VBA), the Harvard Business School's Impact-Weighted Accounts research project, and the London Benchmarking Group (LBG). Taking into account its own operational context, Nanya Technology systematically identified and defined 20 external sustainable development impacts related to its operations, covering economic, environmental, and human rights dimensions.

- **Establishing *Significance* Thresholds**

  For each external economic, environmental, and human (human rights) impact, 28 Nanya Technology contacts and supervisors responsible for ESG affairs and projects assisted in identifying significant impacts and sustainability issues. The assessment considers various perspectives such as *actual and potential impact, the possibility of remediation, and the location of the impact within the value chain.*

- **Identifying Significant Impacts**

  Through the threshold values established in the previous step, 6 external impacts significant to Nanya Technology were identified: 4 were positive and 2 were negative. Positive impacts include *supporting the development of industrial technology, contributing to infrastructure through tax payments, enhancing the environmental benefits of products through green design,* and *company utilizing renewable energy* and *water resources*; negative impacts include *resource consumption leading to impact on human* and *GHG emissions causing extreme climate events*.

- **Defining Topics Causing Significant Impacts**

  According to GRI 3: Material Topics, Nanya Technology identified 6 external sustainable development impacts relevant to its operations. Nanya Technology traced these 6 external sustainable development impacts back to its internal ESG practices or projects implemented, and identified the top five topics most closely related to these impacts.

- **Monetary External Impacts**

  By simultaneously adopting a Profit & Loss perspective and the monetary analysis of Impact Valuation, we measured the positive (benefits) and negative (costs) impacts that value chain activities have directly or indirectly on human well-being and socio-economic conditions. For detailed information, please refer to Chapter 2.5 Sustainability Impact Assessment.

Step.3 Screening and Definition

Results of Three Questionnaires

Based on the calculation and analysis results in Step 2, we identified topics that are simultaneously of high concern to stakeholders, significantly impact operations, and are highlighted in the external sustainable development questionnaire. We also pinpointed topics that are relevant to both operational impact and external sustainable development impact.

Long-Term Goals

Nanya Technology referred to the long-term goals set for the 16 material topics identified in the previous year and compared them with the results of this year's questionnaire. This comparison served as one of the key criteria for determining the material topics for 2024.

Step.4 Confirmation and Review

Based on the screening and definitions conducted in Step 3, we created the materiality matrix and determined the material GRI topics. Following discussions among the Company's senior management and confirmation by the Board of Directors, a total of 15 material topics (same as previous year) were finalized. The remaining 8 topics—economic performance, corporate governance, information security and privacy, green factory, biodiversity, sustainable raw materials, employee diversity, and talent recruitment—were categorized as potential ESG topics, which we will selectively disclose in the report. For our disclosure standards, we used GRI indicators that align with our value chain. This helps stakeholders understand the impact of various topics on our value chain and provides a foundation for stronger corporate sustainability management.

Sustainable Development Impact Assessment Survey

The Sustainable Development Impact Assessment Survey is divided into Non-monetary Analysis and Monetary Analysis. For Monetary Analysis, please refer to Chapter 2.5 Sustainability Impact Assessment.

Non-Monetary Analysis

Definition of Positive and Negative Impacts

20 Impacts

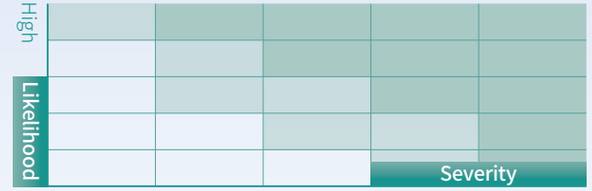
Impacts	Positive	Negative
Economic	4	1
Environment	2	4
Human/Human Rights	6	3

Source of Impact：

(1) Value Balancing Alliance (VBA)
(2) Harvard Business School Impact-Weighted Accounting
(3) London Benchmarking Group (LBG)
(4) Nanya Technology

Significant Impacts Analysis

Severity= (1)+(2)+(3)

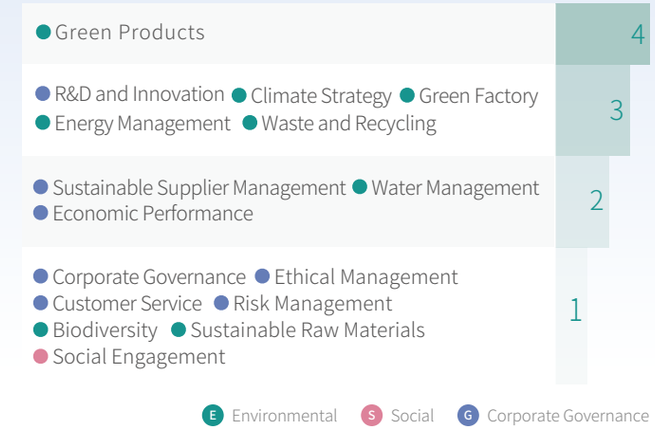


6 Significant Impacts

Economic	Environment
Industry Technology Development	Green Design to Enhance Product Environmental Benefits
	Use of Renewable Energy and Water Resources
Tax Contribution to Infrastructure	Resource Consumption Impacts on Human Health
	Extreme Weather Caused by GHG Emissions

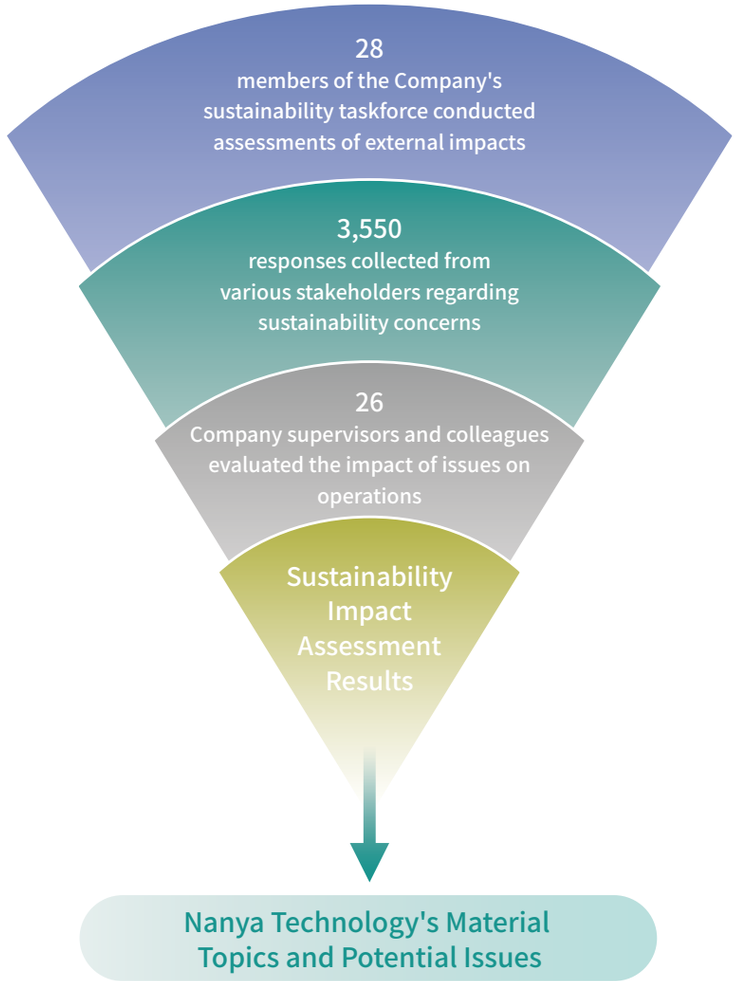
Positive Negative

Sustainability Issues Affecting Significant Impacts



Integrating the Value Balancing Alliance (VBA), the Harvard Business School's Impact-Weighted Accounts research project, and the London Benchmarking Group (LBG), Nanya Technology evaluates its impact on the external economy, environment, and people/human rights from an external perspective. This evaluation is based on factors such as impact consequence, impact scope, irremediability, and likelihood of occurrence. Members of the Company's sustainable development taskforce support the assessment of each external impact's significance, identifying the most influential corporate ESG topics related to each external impact.

Prioritizing Sustainability Issues



Levels of Nanya Technology Operational Impacts[Note 1]

Levels of Impact	ESG Topics
Primary Impacts	● Economic Performance
Secondary Impacts	● R&D and Innovation ● Customer Service ● Green Products ● Corporate Governance ● Sustainable Supplier Management
Low Impacts	● Ethical Management ● Risk Management ● Information Security and Privacy ● Climate Strategy ● Energy Management ● Employee Development ● Occupational Health and Safety ● Talent Retention and Employee Well-Being ● Human Rights

Levels of Stakeholder Concerns[Note 2]

Levels of Concerns	ESG Topics
Primary Concerns	● Ethical Management ● R&D and Innovation
Secondary Concerns	● Economic Performance ● Occupational Health and Safety ● Talent Retention and Employee Well-Being ● Customer Service ● Sustainable Supplier Management ● Risk Management ● Information Security and Privacy ● Climate Strategy ● Talent Recruitment ● Human Rights
Low Concerns	● Corporate Governance ● Green Products ● Energy Management ● Water Management ● Green Factory ● Employee Development ● Employee Diversity

Levels of Sustainable Development Impacts[Note 3]

Levels of Impact	ESG Topics
Primary Impacts	● Green Products
Secondary Impacts	● R&D and Innovation ● Climate Strategy ● Energy Management ● Waste and Recycling ● Green Factory ● Sustainable Supplier Management ● Economic Performance ● Water Management
Low Impacts	● Corporate Governance ● Ethical Management ● Customer Service ● Risk Management ● Biodiversity ● Sustainable Raw Materials ● Social Engagement

● Environmental ● Social ● Corporate Governance

Note 1: The operational impact factors for Nanya Technology include five items: revenue, cost, customer satisfaction, employee cohesion, and reputation. "Primary Impacts" refers to ESG topics that create impacts on four operational factors simultaneously; "Secondary Impacts" refers to ESG topics that create impacts two to three operational factors simultaneously; "Low Impacts" refers to ESG topics that create impacts on one operational factor only.

Note 2: We have identified seven categories of stakeholders. "Primary Impacts" refers to ESG topics that are ranked among the top 5 concerns by four or more stakeholder categories simultaneously; "Secondary Impacts" refers to ESG topics that are ranked among the top 5 concerns by two to three stakeholder categories simultaneously; "Low Impacts" refers to ESG topics that are ranked among the top 5 concerns by one stakeholder categories only.

Note3: We have identified 6 significant external impacts on sustainable development that are directly relevant to Nanya Technology. "Primary impacts" refers to ESG topics that affect four external impacts on sustainable development; "Secondary Impacts" refers to ESG topics that affect two to three external impacts on sustainable development; and "Low Impacts" refers to ESG topics that affect one external impact on sustainable development only.

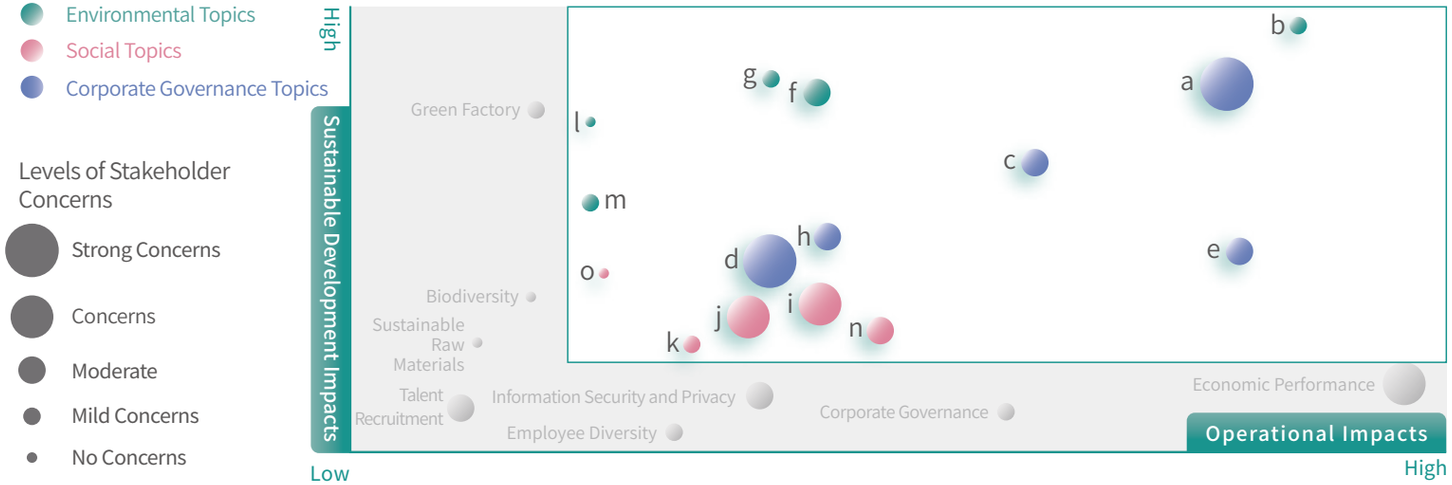
Material Issue Matrix Note 1

Material ESG Topics	Ranking	Total Count of Top 5	Levels of Operational Impacts to Enterprise	Levels of Stakeholder Concerns	Sustainable Development Impacts	Executive Compensation	Total Number of Stars
a R&D and Innovation	1	10	**	***	**	***	10
b Green Products	2	8	**	*	***	***	9
c Sustainable Supplier Management	3	6	**	**	**	***	9
d Ethical Management	4	6	*	***	*	***	8
e Customer Service	4	6	**	**	*	***	8
f Climate Strategy	4	6	*	**	**	***	8
g Energy Management	7	5	*	*	**	***	8
h Risk Management	8	4	*	**	*	***	7
i Occupational Health and Safety	9	4	*	**		***	6
j Talent Retention and Employee Well-Being	9	4	*	**		***	6
k Employee Development	11	2	*	*		***	5
l Waste and Recycling	12	3			**	***	5
m Water Management	13	3		*	**		3
n Human Rights	13	3	*	**			3
o Social Engagement	15	1			*		1

E Environmental Topics

S Social Topics

G Corporate Governance Topics



Note 1: Following discussions among the Company's senior management and confirmation by the Board of Directors, 15 material topics were finalized. The remaining 8 topics—economic performance, information security and privacy, green factory, biodiversity, sustainable raw materials, employee diversity, and talent recruitment—were categorized as potential ESG issues; the material topics are the same as the previous year, without any changes.

Nanya Technology's Double Materiality

Aspect		Nanya Technology Operational Impact					Sustainable Development Impact					
		Revenue Growth	Customer Satisfaction	Cost	Employee Engagement	Reputation and Image	Industry Technology Development (+)	Tax Payment for Government Infrastructure Support (+)	Product Environmental Benefits (+)	Use of Renewable Energy to Avoid External Impacts (+)	Resource Consumption and Pollution (−)	Extreme Weather Caused by GHG (−)
Economic Aspect	Ethical Management					●		●				
	R&D and Innovation	●	●	●			●	●	●			
	Customer Service	●	●			●	●					
	Sustainable Supplier Management		●	●			●	●				
	Risk	●										●
Environmental Aspect	Climate Strategy					●				●	●	●
	Green Products		●	●		●	●		●	●		●
	Energy Management			●						●	●	●
	Water Management									●	●	
	Waste and Recycling								●	●	●	
Social Aspect	Employee Development				●							
	Occupational Health and Safety				●							
	Talent Retention and Employee Well-Being				●							
	Social Engagement							●				
	Human Rights				●							

(+) Positive (−) Negative

Material Topics and Value Chain Impact Boundaries

Material Topics		Actual and Potential Impacts		Corresponding GRI Topics	Value Chain					Corresponding Chapter
					Product Design	Procurement	Manufacturing	Packaging and Testing	Customer	
Economic Aspect	Ethical Management	Actual/Economic/Positive	Payment of taxes or other government fees contribute to infrastructure and social welfare	Anti-Corruption (205) and Anti-Competitive Practices (206)		V	●	V	V	Integrity and Transparency
		Actual/Economic/Positive	The increase of after-tax profit enhances investors' financial capital							
		Potential/Economic/Negative	Improper use of data or disclosure of customer product information							
	R&D and Innovation	Actual/Economic/Positive	Through the R&D and innovation in our products or technology, we contribute to the development and application of industry technology and customer products	R&D and Innovation[Note 1]	●		●			Innovation
		Actual/Environmental/Positive	Environmental benefits are generated during product use phase through green design (such as energy-saving/renewable materials/recycling/plastic reduction)							
		Actual/Environmental/Negative	Exhaustion of energy resources and pollutant emissions impact human health and ecosystems (such as land, atmosphere, oceans, and freshwater)							
	Customer Service	Actual/Economic/Positive	Through the R&D and innovation in our products or technology, we contribute to the development and application of industry technology and customer products	Customer Privacy (418)					V	Integrity and Transparency
		Potential/Economic/Negative	Improper use of data or disclosure of customer product information							
		Actual/Environmental/Positive	Environmental benefits are generated during product use phase through green design (such as energy-saving/renewable materials/recycling/plastic reduction)							
	Sustainable Supplier Management	Actual/Economic/Positive	Procurement practices create industrial output value in the upstream supply chain	Procurement Practices (204), Supplier Environmental Assessment (308), and Supplier Social Assessment (414)		V				Responsible Procurement
		Actual/Human (Human Rights)/Positive	Procurement demands increase employment and job opportunities for suppliers and enhance the purchasing power of suppliers' employees							
		Actual/Environmental/Negative	Procurement demands cause environmental impacts (e.g., air pollution, waste, water, and GHG)							
	Risk Management	Potential/Economic/Negative	Improper use of data or disclosure of customer product information	Risk Management[Note 1]			●	V		Integrity and Transparency
		Actual/Environmental/Negative	GHG emissions cause extreme climate change							
		Potential/Human (Human Rights)/Negative	Human rights impacts related to labor conditions occur in the production phase (such as child labor, forced labor, discrimination, harassment, and excessive working hours)							

Note 1: Nanya Technology specific topics

**Degree of involvement: Direct relationship (●), indirect relationship (○), and commercial relationship (V)

Material Topics		Actual and Potential Impacts		Corresponding GRI Topics	Value Chain					Corresponding Chapter
					Product Design	Procurement	Manufacturing	Packaging and Testing	Customer	
Environmental Aspect	Climate Strategy	Actual/ Environmental/ Positive	Environmental benefits are generated during product use phase through green design (such as energy-saving/renewable materials/recycling/plastic reduction)	Emissions (305)			●	V		Green
		Actual/ Environmental/ Negative	GHG emissions cause extreme climate change							
	Green Products	Actual/Economic/ Positive	Through the R&D and innovation in our products or technology, we contribute to the development and application of industry technology and customer products	Energy (302) and Emissions (305)	●	V	●	V	V	Green
		Actual/ Environmental/ Positive	Environmental benefits are generated during product use phase through green design (such as energy-saving/renewable materials/recycling/plastic reduction)							
	Energy Management	Actual/ Environmental/ Positive	Renewable energy, water recycling, and resource recovery and reuse mitigate external environmental impacts	Energy (302)			●	V		Green
		Actual/ Environmental/ Negative	Exhaustion of energy resources and pollutant emissions impact human health and ecosystems (such as land, atmosphere, oceans, and freshwater)							
		Actual/ Environmental/ Negative	GHG emissions cause extreme climate change							
	Water Management	Actual/ Environmental/ Positive	Renewable energy, water recycling, and resource recovery and reuse mitigate external environmental impacts	Water and Effluent (303)			●	V		Green
		Actual/ Environmental/ Negative	Exhaustion of energy resources and pollutant emissions impact human health and ecosystems (such as land, atmosphere, oceans, and freshwater)							
	Waste and Recycling	Actual/ Environmental/ Positive	Environmental benefits are generated during product use phase through green design (such as energy-saving/renewable materials/recycling/plastic reduction)	Waste (306)			●	V		Green
		Potential/ Environmental/ Negative	Use of non-renewable raw materials exhausts natural resources (metal minerals)							

**Degree of involvement: Direct relationship (●), indirect relationship (○), and commercial relationship (V)

Material Topics			Actual and Potential Impacts	Corresponding GRI Topics	Value Chain					Corresponding Chapter
					Product Design	Procurement	Manufacturing	Packaging and Testing	Customer	
Social Aspect	Employee Development	Actual/Human (Human Rights)/ Positive	Training empowers employees with enhanced professional skills and improved competitive edge	Training and Education (404)			●	V		Talent
	Occupational Health and Safety	Potential/Human (Human Rights)/ Negative	Occupational injuries cause physical or mental harm to workers and strain medical resources	Occupational Safety and Health (403)			●	V		Talent
	Talent Retention and Employee Well-Being	Actual/Human (Human Rights)/ Positive	The increase in direct employment and job opportunities boosts employee purchasing power	Market Presence (202) and Employment (401)			●	V		Talent
		Actual/Human (Human Rights)/ Positive	Paying employee wages and providing raises improves employees' quality of life							
		Actual/Human (Human Rights)/ Positive	DEI-oriented employment policies help prevent inequality in employment							
	Social Engagement	Actual/Human (Human Rights)/ Positive	DEI-oriented employment policies help prevent inequality in employment	Local Communities (413)			○	○		Common Good
		Actual/Human (Human Rights)/ Positive	Resource investments in social engagement or charitable initiatives enhance environmental quality or quality of life for local communities							
	Human Rights	Potential/Human (Human Rights)/ Negative	Human rights impacts related to violation of labor conditions occur in upstream suppliers (such as child labor, forced labor, discrimination, harassment, and excessive working hours) due to procurement demands	Non-Discrimination (406), Forced or Compulsory Labor (409)	V	V	●	V	V	Talent
		Potential/Human (Human Rights)/ Negative	Human rights impacts related to labor conditions occur in the production phase (such as child labor, forced labor, discrimination, harassment, and excessive working hours)							

**Degree of involvement: Direct relationship (●), indirect relationship (○), and commercial relationship (V)

Material Topics and Risk Management

Nanya Technology integrates its Enterprise Risk Management (ERM) mechanisms based on the results of the materiality analysis. Risk factors have been identified for each of the 15 material topics. To address these risks, the Company adopts specific risk mitigation measures to avoid operational impacts arising from these risks.

Risk Management Hierarchy						
	Likelihood and Trend of Risk Occurrence (L)	1 Rarely	2 Seldom	3 Occasionally	4 Usually	5 Always
	Risk Consequence (C)	1 Mild	2 Low	3 Moderate	4 Severe	5 Very severe

Material Topics	Management Policies	Risk Factors	Description	Likelihood and Trend of Risk Occurrence	Consequence
Ethical Management	Establishing sound governance, implementing ethical standards and risk control to ensure sustainable operations and value creation.	Violation of laws and regulations, leading to penalties from regulatory authorities	**Risk Description:** Employee violations of insider trading, international antitrust laws, or similar statutes may expose Nanya Technology to joint liability. Managers or directors could face criminal charges. **Mitigation Measures:** (1) Practical legal compliance programs are developed and integrated into routine internal control processes with regular audits. (2) Additionally, agents are included in the Antitrust Legal Compliance Guidelines to help the Company achieve its business objectives while ensuring legal compliance. (3) All employees and high-risk personnel are asked to attend regular training, seminars, and all-hands meetings and read corporate publications about relevant topics. (4) Directors' and supervisors' liability insurance is arranged to cover expenses or compensation arising from related legal proceedings.	1 Rarely	3 Moderate
R&D and Innovation	Developing advanced technologies and smart production lines to provide high-value-added solutions and maintain a competitive edge.	Delays in process technology development	**Risk Description:** Delays in process technology development may hinder new product progress, failing to meet customer end-product specifications. This could also limit cost-reduction efforts, thereby affecting the Company's revenue and profitability. **Mitigation Measures:** We continue to invest in R&D personnel and funding.	3 Occasionally	4 Severe
		Delays in new product development progress	**Risk Description:** Delays in new product development may result in failure to meet customer end-product specifications in a timely manner, thereby affecting the Company's revenue and profitability. **Mitigation Measures:**(1) We continue to invest in R&D personnel and funding to accelerate R&D progress. (2) Close communication with customers is maintained so as to stay informed about market trends in end-product specifications and develop new products accordingly.	3 Occasionally	4 Severe
Customer Service	Enhancing customer satisfaction and market image through close communication and feedback mechanisms.	Deterioration in customers' financial condition	**Risk Description:** Unable to receive payments on time, thereby affecting the Company's revenue. **Mitigation Measures:** (1) Track weekly system reports. (2) Sales assistants confirm with customers and respond with the estimated payment date. (3) Follow-up on customers' actual payment dates. (4) Obtaining accounts receivable insurance for high-risk customers	1 Rarely	2 Low
		Customer order cancellations	**Risk Description:** When orders are concentrated with specific customers, a significant reduction in their purchases can result in a sharp decline in sales/revenue. **Mitigation Measures:** (1) Setting annual, monthly, and weekly achievement targets for major customers and implementing control and monitoring. (2) Balancing average sales distribution among major customers as much as possible to prevent any single customer from contributing an excessively high proportion of annual revenue.	1 Rarely	2 Low
		IT system malfunction	**Risk Description:** When the MIS business management system fails to operate or connect properly, it can lead to disruptions in order processing and delays in shipments. **Mitigation Measures:** (1) Setting up a backup host for CIM. (2) Remote backup for CIM database. (3) Establishment of operating procedures for system anomalies. (4) Regular emergency drills for system anomalies.(5) Inter-site operating system (MIS).	1 Rarely	2 Low

Material Topics	Management Policies	Risk Factors	Description	Likelihood and Trend of Risk Occurrence	Consequence
Sustainable Supplier Management	Strengthening supply chain resilience, controlling risks, and co-creating a sustainable future with suppliers.	Suppliers fail to meet requirements	■ Risk Description: Raw material preparation fails to meet requirements due to factors such as natural disasters, epidemics, transportation, and concentrated procurement. ■ Mitigation Measures: (1) Adjustment of transportation methods. (2) Adjustment of procurement targets and quantities, and increase in inventory levels. (3) Accelerating the assessment of alternative suppliers.	3 Occasionally	2 Low
Risk Management	Ongoing optimization of risk control, cost reduction, and profitability assurance, in order to create a high-quality work environment.	Management practices such as risk identification, mitigation measures, and emergency response drills are not effectively implemented	■ Risk Description: Failure to identify, manage, and proactively address various risk factors will result in operational losses for the Company in the event of unforeseen incidents. ■ Mitigation Measures: Through the operation of the risk management organization, the Company regularly reviews various risk management measures and their implementation results, and minimizes operational risks through ongoing emergency response drills. ・Please refer to the Risk Management section of this report.	3 Occasionally	3 Moderate
Climate Strategy	Incorporating value chain climate risk management, with early warning and response plans to reduce operational impacts.	Stricter government policies and regulations on GHG emissions lead to increased operating costs.	■ Risk Description: The government has announced the Climate Change Response Act, fee-charging rates of carbon fees, and regulations for large electricity consumers, requiring companies to set carbon reduction and renewable energy targets, thus increasing the cost of promoting energy conservation measures and purchasing renewable energy. ■ Mitigation Measures: To promote low-carbon transition and enhance climate adaptation, Nanya Technology has formulated five major strategies: Focus on Development of Low-Carbon Products, Strategy for Production via Green Technology, Adaptation to Climate Change Risks, Partners in Sustainability, and Climate Advocacy and Education. ・Please refer to the *2024 Task Force on Nature- and Climate-Related Financial Disclosure Report*.	3 Occasionally	3 Moderate
Green Products	Optimizing processes, improving energy efficiency, producing environmentally friendly and harmless products, and reducing environmental impact.	Products contain excessive hazardous substances	■ Risk Description: Products containing hazardous substances may violate EU regulations and other national laws, as well as customer-specific standards. This can result in product returns, customer rejections, or fines, leading to customer losses and damaging the Company's reputation. ■ Mitigation Measures: Nanya Technology has established a green product promotion organization to ensure that the use of raw materials and products in its R&D and production processes complies with EU regulations, other national laws, and customer-specific standards related to hazardous substances. ・Please refer to the Green Product Management: Hazardous Substance-Free Product Management section in this report.	1 Rarely	3 Moderate
Energy Management	Promoting energy conservation and emission reduction to lower costs and comply with policy regulations.	Insufficient or interrupted power supply	■ Risk Description: Abnormal power supply affects production and orders. ■ Mitigation Measures: Backup power systems are installed and a dual-circuit power supply design is adopted to reduce the risk of anomalies caused by dual-circuit power sources. Energy conservation and contingency plans are also developed.	2 Seldom	3 Moderate
Water Management	Improving water resource utilization, reducing pollution and production impact risks.	Water Shortage	■ Risk Description: Abnormal water supply affects production and orders. ■ Mitigation Measures: Backup water sources and reservoirs are established while plans for water reservation and diversified water sources are developed.	1 Rarely	4 Severe

Material Topics	Management Policies	Risk Factors	Description	Likelihood and Trend of Risk Occurrence	Consequence
Waste and Recycling	Recycling and reusing resources to promote a circular economy and reduce environmental impact.	Large amounts of waste are generated, with limited disposal locations and capacity, while the waste that undergoes treatment or recycling still requires landfilling.	Risk Description: Failure to find waste treatment vendors and the long-term accumulation of waste may lead to soil or wastewater pollution, posing a risk of fines and damage to reputation. Mitigation Measures: We establish contracts with multiple vendors and maintain continuous oversight of waste disposal and recycling conditions, while staying informed about emerging technologies for waste reuse.	2 Seldom	3 Moderate
Employee Development	Strengthening the training system, enhancing core technologies, and cultivating semiconductor talent.	Shortage of key talent	Risk Description: The ongoing rapid growth of the semiconductor industry has significantly increased the demand for talent and a large number of key personnel, leading to severe shortage. Mitigation Measures: We establish a key talent pool and implement various key talent development as well as retention measures. Meanwhile, we expand the scope of industry-academia collaboration and establish long-term internship cooperation platforms with esteemed local universities to build a long-term and stable source of talent.	2 Seldom	2 Low
Occupational Health and Safety	Providing a safe and healthy workplace to reduce the risk of occupational accidents.	Occupational accidents during expansion	Risk Description: During the new plant expansion, inadequate on-site safety management by contractors could cause malfunctions in safety protection facilities, disregard for prescribed procedures, or failure to wear protective equipment, potentially leading to serious occupational accidents. Mitigation Measures: We continue to strengthen supervision, audits, and requirements for on-site safety and health management during construction, and mandate that contractors review and improve non-conforming items at monthly site coordination meetings to reduce the risk of occupational accidents.	4 Usually	1 Mild
		Severe earthquakes affect plant safety and operations	Risk Description: Severe earthquakes may cause fluid pipeline ruptures and loose circuit connections in the plant, leading to disasters such as fires, power outages, liquid leaks, or equipment damage, resulting in personnel injuries or plant operational disruptions. Mitigation Measures: Utilizing corporate resources and collaborating with partners to promote a positive cycle of common social good.	2 Low	3 Moderate
Talent Retention and Employee Well-Being	Creating a friendly environment to attract and retain high-potential talent.	Lack of competitiveness in employee welfare measures	Risk Description: Competitors offer superior compensation and welfare measures compared to the Company's current system, and the ongoing talent shortage in the semiconductor technology industry increases the risk of talent loss. Mitigation Measures: By researching competitor welfare measures and salary levels, we promptly update and improve our own, thereby enhancing employee well-being, reducing turnover rate, and boosting the Company's attractiveness to potential hires.	2 Seldom	2 Low
Human Rights	Fostering a culture of human rights and implementing risk management practices to create a workplace that protects human rights.	Workplace violation	Risk Description: Workers suffer physical or mental harm due to violations by employers, supervisors, colleagues, service recipients, or other third parties in the workplace while performing their duties. Mitigation Measures: We conduct regular educational training on preventing workplace violation (including workplace bullying and sexual harassment), arrange on-site occupational physicians, psychologists, and related organizations for evaluation, consultations, and care, and establish a comprehensive complaint handling mechanism.	4 Usually	2 Low
Social Engagement	Utilizing corporate resources and collaborating with partners to promote a positive cycle of common social good.	Insufficient communication with stakeholders	Risk Description: Without a strong stakeholder network and regular communication channels, conflicts and misunderstandings are more likely to arise during operations. Mitigation Measures: To mitigate potential conflicts during business operations, we connect various internal and external resources and establish diverse channels for regular communication with stakeholders, thereby building a positive corporate reputation and exerting influence.	2 Seldom	2 Low

2.3 Communication with Stakeholders

Significance to Nanya Technology and Communication Objectives	Communication Method/Frequency	Topic of Concern	2024 Communication Outcome
Suppliers Suppliers play a vital role in Nanya Technology's product production. Through a cooperative relationship based on mutual trust and a supplier management system, we mitigate supply chain sustainability risks and work together to create a sustainable value chain. Reference Sections Responsible Procurement	• Supplier information platform/Real Time • Face-to-face review reports or meetings/Periodic • Supplier questionnaire surveys, audits, and guidance/Annually • Evaluation of suppliers' delivery stability and quality/Annually	• Sustainable Supplier Management • Ethical Management • Climate Strategy • Occupational Health and Safety • Information Security and Privacy	• Regular and ad-hoc review meetings were held each month to address delivery, inventory management, and cost-related matters. • In 2024, we had 85 critical material suppliers and 210 non-critical material suppliers, with a total of 295 SAQ responses distributed, achieving a 100% response rate. • We audited 19 high-risk suppliers, and the improvement rate reached 100%.
Government Nanya Technology continues to promptly monitor government regulatory developments. In response to proposed regulatory requirements, we aspire to go beyond mere compliance. In addition to meeting legal requirements, we actively respond to government policies. Reference Sections Talent, Responsible Procurement, Integrity and Transparency	• Financial statements/Quarterly • We comply with government regulations while also adding and revising company internal regulations for implementation/Ad-hoc	• Customer Service • Sustainable Supplier Management • Employee Development • Occupational Health and Safety • Human Rights	• We continue to disclose annual financial reports and shareholders' meeting annual reports ahead of regulatory deadlines, aligning with the Corporate Governance 3.0 - Sustainable Development Roadmap and the Sustainable Development Action Plan for Listed and OTC Companies announced by the Financial Supervisory Commission (FSC). • We continue to monitor regulatory trends. In 2024, we participated in 11 government-organized regulatory promotion sessions, briefings, and consultation meetings.
Community[Note1] A happy society is the most important cornerstone of corporate sustainable development. Local prosperity and the preservation of local values should not be seen as contradictory; rather, they should complement each other for the common good. Nanya Technology aims to establish a solid operational foundation while actively engaging in local development and community revitalization. This is a critical issue for Nanya Technology as we take social responsibility into consideration. Reference Sections Talent, Green	• We conduct activities aligned with the four key pillars of social engagement: talent cultivation, environmental conservation, community harmony, and humanistic care/Monthly on average • Facebook fan page posts/Ad-hoc • Volunteer service activities/Ad-hoc	• Talent Recruitment • Climate Strategy • Green Products • Energy Management • Water Management • Green Factory • Employee Diversity • Talent Retention and Employee Well-Being	• **Talent cultivation:** 1,536 people received design thinking education, while the Youth for Causes: Student-Athlete Scholarship supported 5 national team members and 3 sports talents. • **Environmental conservation:** We removed 70.5 kg of mikania vine and 63.6 kg of coastal waste. • **Community harmony:** We sponsored a total of NT$6.8 million for neighborhood public affairs promotion. • **Humanistic care:** We organized two charity sales and one small farmers' market, with colleagues purchasing approximately NT$360,000 worth of goods; sponsored NT$3 million to support domestic films, troupes, and other activities, fostering the development of the domestic cultural industry.
Media The media serves as a vital bridge for Nanya Technology's external communications. We have implemented a spokesperson and agency system, along with a dedicated public relations team. By maintaining diverse communication channels and consistent external messaging, we enable media professionals who follow our Company to stay informed of the latest news, thereby enhancing our positive image and visibility. Reference Sections Innovation, Talent, Integrity and Transparency	• Press conferences/Quarterly • Press releases/Ad-hoc • Company official website/Ad-hoc • Feature interviews with the spokesperson/Ad-hoc • Media luncheon/Annually	• R&D and Innovation • Economic Performance • Ethical Management • Talent Retention and Employee Well-Being • Talent Recruitment	• We initiated online and offline meetings to enhance engagement effectiveness through two-way communication: 4 press conferences and 1 media luncheon. • We disclosed the Company's operational status and sustainability-related information in a timely and transparent manner: 31 press releases.

Significance to Nanya Technology and Communication Objectives	Communication Method/Frequency	Topic of Concern	2024 Communication Outcome
Employee Employees are Nanya Technology's most important assets. We consider employee well-being our responsibility. Through comprehensive compensation and benefits, training and development, and two-way communication systems, we aim to increase retention rates and jointly realize the vision of a healthy and happy workplace with our employees. Reference Sections: Talent	• Internal announcements/Ad-hoc • Meetings: Convene regular meetings, such as all-hands meetings (semi-annually), executive meetings (quarterly), production line operator meetings (quarterly), and various training and education courses • Two-way communication platforms: Nanya Technology intranet, Nanya Technology newsletter, and feedback/Ad-hoc • Electronic questionnaires: Course satisfaction, activity satisfaction, and Employee Engagement Surveys/Ad-hoc • Communication meetings with labor union representatives: Discussions on labor and management issues/At least once a year	• Talent Retention and Employee Well-Being • Human Rights • Occupational Health and Safety • Economic Performance • R&D and Innovation	• In 2024, 2 all-hands meetings were held in a hybrid format (in-person and video conference) • 4 executive meetings were held. • A total of 4 production line operator meetings were held. • A total of 4 issues of the Nanya Technology newsletter were published. • A total of 4 in-person communication meetings with labor union representatives were held, complemented by a variety of communication channels.
Shareholder/ Investor Capital investment represents shareholders' trust and support for Nanya Technology. The Company has set up a dedicated investor relations unit to provide transparent information on corporate operations, management strategies, and financial policies to our investors. This enables us to enhance the value of investors' investments. Reference Sections: Innovation, Integrity and Transparency	• Shareholder meetings/Once a year • Corporate investor conferences/Quarterly • Institutional investor meetings/Ad-hoc • Annual and quarterly financial information disclosure/Quarterly • Company annual reports, Sustainability Report, and thematic reports (TNCFD & HRDD Report)/Annually • Company website and market observation post system information disclosure/Ad-hoc • Participation in third-party corporate governance evaluations/Ad-hoc • Phone and written communication/Ad-hoc	• Corporate Governance • Ethical Management • R&D and Innovation • Economic Performance • Risk Management	• We responded to sustainable development issues of concern to shareholders and ensured their rights, including: the presence of sound corporate governance mechanisms, a diverse board of directors, ethical management, the Company's achievements in technological innovation and more. • We shared information about our operational status, technological development progress, and market dynamics: 4 corporate investor conferences, 13 domestic and international institutional investor forums, and 60 institutional investor meetings. • We actively participated in domestic and international benchmark evaluations, quantifying ESG results: We received an MSCI ESG rating of AA, achieved consecutive inclusion in the DJSI World Index, and was ranked in the top 5% of the Corporate Governance Evaluation for the seventh time.
Customer Customers are Nanya Technology's strongest operational strategic partners. By working together to foster innovative mindsets, develop new technologies, and stay ahead of industry application trends, we aspire to enhance customer satisfaction and increase product value. Reference Sections: Integrity and Transparency	• Technical support services/Ad-hoc • Visits to customers and distributors/Once or twice a month • Technical sharing sessions/At least once a year • Training opportunities for customers/Ad-hoc • Customer satisfaction survey/Annually • Customer platform parameter measurement services and customer product joint qualification services/Ad-hoc	• Customer Service • Ethical Management • Information Security and Privacy • R&D and Innovation • Risk Management	• Whenever customers need technical support, we assess their demands vide assistance in resolving technical issues through in-person visits, phone calls, emails, or text messages. • To facilitate subsequent production and sales planning, we visited customers to assess their demands and understand market conditions. • We conducted technical sharing sessions and provided training for our customers' technical and engineering personnel. A total of 96 sessions were completed. • We completed a customer satisfaction survey with 100% coverage, and achieved a satisfaction score of 95.7. • We completed 1,032 customer platform parameter measurement services and 27 customer product joint qualification services, helping customers identify potential problems early, shorten verification time, and accelerate product launches.

Note 1: Under the "Stakeholder" column for the "Community", 8 topics received statistically tied scores for the second-highest level of concern. As a result, all have been included as topics of concern.

2.4 Sustainability Strategy and SDGs

To achieve our vision as the Best DRAM Partner for Smart World, Nanya Technology has formulated three key pillars for sustainable strategic development: Creating Shared Value, Facilitating Common Good and Sustainability, and Practicing Sustainable Operations. These pillars drive six key dimensions for sustainable strategic development. Starting from these dimensions, Nanya Technology examines the material topics of stakeholder concern and aligns them with the SDGs. Our sustainable development strategy is linked to a total of 10 SDG goals. Among the pillars for sustainable strategic development, Creating Shared Value is the area where Nanya Technology contributes the most, aligning with 8 SDG goals. This indicates that Innovation, Talent, and Green are the focus of Nanya Technology's sustainable development efforts. From this, we not only create value for ourselves through core competencies and operations but also strive for the greatest impact in addressing the SDGs. Nanya Technology sets future development goals for each material topic under the sustainable development strategy and regularly reviews performance and target achievement during the Corporate Sustainability Committee.

Sustainable Development Strategic Pillar: Creating Shared Value

Innovation

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
R&D and Innovation					
10nm-class DRAM technology R&D progress	Second-generation 10nm-class DRAM process 8Gb DDR4 product meets shipping verification standards	Completed	✓	Third-generation 10nm-class DRAM process and 16Gb DDR5 product meet shipping verification standards	Fourth-generation 10nm-class DRAM process and 16Gb DDR6 product development. Introduction of EUV and HKMG technology.
	Second-generation 10nm-class 16Gb DDR5 product meets shipping verification standards	Completed	✓		
Total number of smart systems developed (items)	130	134	⊕	Establishment of a high-performance production line supported by AI, with a total of 150 smart systems developed	Advanced AI-integrated smart manufacturing, with a total of 250 smart systems developed
Total number of engineers with AI theoretical and practical skills trained	≧ 500	≧ 500	✓		
Environmentally Friendly Products					
Proportion of products that comply with hazardous substances free regulations and customer hazardous substance specifications	100%	100%	✓	100%	100%
Proportion of products with completed product lifecycle assessments	100%	100%	✓	100%	100%
Proportion of raw materials free of PFOA-related substances	100%	100%	✓	100%	100%
Proportion of advanced processes such as 20nm	≧96%	96.5%	✓	≧96%	≧96%

Note 1: The original target of 6% has been adjusted to ≥7.5% to Increase the number of key talent in the talent pool.

Note 2: In 2024, some positions were filled through external recruitment due to the need for specialization and the fact that internal employees did not fully meet the skill requirements.

Note 3: To enhance market competitiveness, the annual goal has been adjusted to increase the recruitment of external professionals while also expanding promotion opportunities for internal employees in management positions, thereby building a stable leadership team.

Talent

⊕ Exceeded goals ✓ Achieved ⊖ Not Achieved

Management Indicators	2024 Goals	2024 Implementation	Goal Achievement	2025 Goals	2030 Goals
Talent Development					
Proportion of key talent to all employees	≧6.0%	7.4%	✓	≧7.5%Note1	Proportion of key talent to all employees ≥10%
Employee substitution rate for job vacancies	≧65%	61.4%	⊖ Note2	Employee substitution rate for management-level vacancies ≥75% Employee substitution rate ≥60%Note3	Employee substitution rate for management-level vacancies ≥85% Employee substitution rate ≥60%
Completion rate of all scheduled courses for the year	≧100%	161.5%	✓	≧100%	≧100%
Talent Retention and Employee Care					
Key talent retention rate	≧98%	96%	⊖ Note4	≧95%Note5	≧95%
Voluntary turnover rate	≦6%	6.21%	⊖ Note6	≦6%	Between 5~8%
Average recognition score in Employee Engagement Survey	≧76%	73%	⊖ Note7	≧78%	≧80%
Human Rights					
Completion rate of employee labor ethics education and training	100%	100%	✓	100%	100%
Results of external audits or labor inspections	No significant deficiencies	No significant deficiencies	✓	No significant deficiencies in internal and external audits or inspections	No significant deficiencies
Number of workplace violation cases	0	1	⊖ Note8	0	0
Occupational Health and Safety					
Disabling injury frequency rate	<0.18	0.41	⊖ Note9	<0.17	<0.14
Disabling injury severity	<6.2	5.0	✓	<5.9	<5.1
On-site independent inspection rate	>93.9%	96.3%	✓	>94%	>94.5%
Number of proposals involving all employees for safety and health	>1,440	1,555	✓	Maintaining a 100% completion rate for on-site Safety Walking and Talking (SWAT) improvement sessions for senior management	Maintaining a 100% completion rate for on-site Safety Walking and Talking (SWAT) improvement sessions for senior management
Number of occupational disease cases caused by chemical exposure	Keep at 0	Keep at 0	✓ Note10	Keep at 0	Keep at 0

Note 1: The original calculation of the key talent retention rate was accumulated over 6 years, which resulted in the compounding of numbers.

Note 2: The memory industry is affected by geopolitical factors and economic cycles, and recovery is still limited. Meanwhile, some sub-industries are experiencing high labor demand, and increases in non-fixed compensation (such as bonuses/incentives) enhance their external competitiveness in attracting talent.

Note 3: The poor operating performance in 2024 led to a tightened welfare bonus distribution, resulting in a significant decline in the survey results across three areas: organizational vision, management team, and promotional rewards.

Sustainable Development Strategic Dimension: Creating Shared Value

Green

Exceeded goals | Achieved | Not Achieved

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
Climate Change					
SBT Target: Reduction of Scope 1+2 GHG emissions by 25% by 2030 compared to 2020; reduction of Scope 3 product unit emissions by 27% by 2030 compared to 2020	Reduction by 10.0%	12.9	Exceeded goals	Reduction by 12.5%	Reduction by 25.0%
	Reduction by 10.8%	19.4	Exceeded goals	Reduction by 13.5%	27%
PFC emission reduction rate in the manufacturing process	≧93%	93.5%	Achieved	≧93%	≧93%
Number of production interruption days due to climate change disasters	Keep at 0	Keep at 0	Achieved	Keep at 0	Keep at 0
Energy Management					
Total energy savings from energy conservation measures (since 2017)	72,500 MWh	74,078 MWh	Exceeded goals	≧75,000 MWh	≧103,000 MWh
Annual renewable energy usage	≧25,000MWh	35,230 MWh	Exceeded goals	25,000 MWh	Renewable energy usage reaches 25% of total electricity consumption

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
Water Management					
Total water consumption per unit of production since 2018 (reduced compared to 2017)	38.5%	35.1%	Not Achieved Note1	≧35.5% Note2	≧37%
Number of wafer production losses caused by restricted water supply	0	0	Achieved	0	0
Key water pollution indicators show that our average percentage is better than regulatory standards	≧50%	61%	Achieved	≧52%	≧60%
Waste Management					
On-site audit and guidance rate for waste treatment vendors	≧98%	100%	Exceeded goals	≧98%	≧98%
Number of environmental regulation violation cases	0	0	Achieved	0	0
Volatile organic compounds (VOCs) reduction rate	>91%	>96.4%	Achieved	>92%	>95%

Note 1: Product capacity in 2024 decreased by approximately 1.7% compared to 2023, and abnormal MBR membrane in wastewater treatment led to a decrease in water recovery, resulting in unit production water consumption failing to meet the goal.

Note 2: The original target for reduction of water consumption per unit of production is >38.5%. However, this goal is re-evaluated based on product and production capacity and is adjusted as >35.5%.

Volatile organic compounds (VOCs) reduction rate: Facilitating Common Good and Sustainability

Responsible Procurement

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
Sustainable Supplier Management					
Percentage of non-conflict minerals used in wafer product lines	100%	100%	✓	100%	100%
Percentage of significant suppliers that completed the self-evaluation questionnaire	100%	100%	✓	100%	100%
Improvement rate in the audit findings of high-risk sustainable suppliers	100%	100%	✓	100%	100%
Percentage of suppliers that signed the Supplier Code of Conduct	100%	100%	✓	100%	100%
Completion rate of audits and guidance for significant suppliers	100%	100%	✓	100%	100%
Number of supplier sustainability counseling cases	≧2	2	✓	≧2	≧3

Social Engagement

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
Social Engagement					
Annual growth of total social engagement person-hours	≧10%	22%	⊕	≧10%	A growth of more than 50% compared to 2025
Number of volunteer team members	≧150	≧150	✓	≧5% of total employees	
Total number of semiconductor talent cultivated (since 2021)	≧ 1,100	1,226	✓	≧1,500	Promotion of semiconductor education to over 5,000 participants annually

Sustainable Development Strategic Pillar: Implementing Sustainable Management

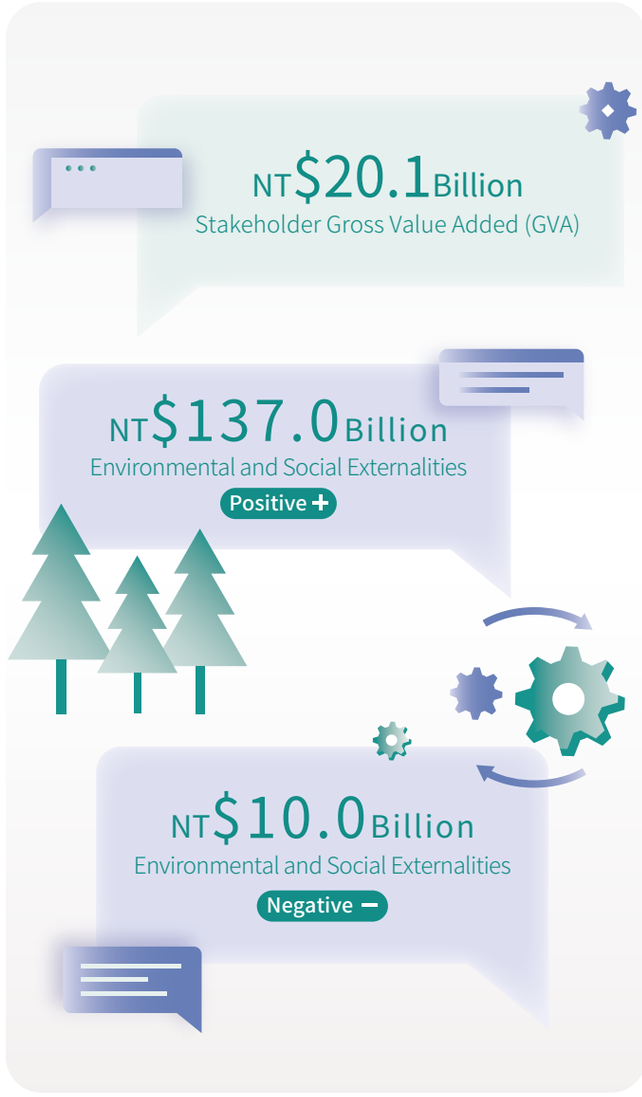
Ethical Management

⊕ Exceeded goals ✓ Achieved ⊖ Not Achieved

Management Indicators	2024 Goals	2024 Implementation Performance	Goal Achievement	2025 Goals	2030 Goals
Ethical Management					
Number of material violations of regulations	0	0	✓	0	0
Number of corruption cases	0	1	⊖ Note1	0	0
Number of employee and labor ethics violation cases	0	0	✓	0	0
Number of trade secret violation cases	0	0	✓	0	0
Risk Management					
Number of risk quarterly meetings	4	4	✓	4	4
Number of annual reports to the Board of Directors	2	2	✓	2	2
Number of contingency plan items completed annually	55	72	⊕	64 Note2	64
Number of stress test items executed annually	7	9	⊕	7	7
Percentage of employees participating in risk management training	100%	100%	✓	100%	100%
Customer Service					
Customer satisfaction score	≧91	95.7	⊕	≧91	≧91
Number of customer platform parameter measurement services	940	1032	⊕	950	960
Number of customer product joint qualification services	25	27	⊕	25	28
Number of customer technical sharing and training sessions	94	96	⊕	96	100

Note 1: For the Company's anti-corruption measures, please refer to page 187 of this report.

2.5 Sustainability Impact Assessment



While pursuing growth and profit, enterprises can only create long-term value for stakeholders by fully considering the external impacts of their operations on society and the environment, which is the core of corporate sustainable development. Nanya Technology adopted an Outside In perspective to comprehensively review the impact of value chain activities on human well-being and conducted systematic measurement based on the Natural Capital Protocol, the Social & Human Capital Protocol, and ISO 14008:2019 Monetary Valuation of Environmental Impacts and Related Environmental Aspects. At the same time, Nanya Technology further integrated the monetary valuation methods developed by the Impact-Weighted Accounts (IWA) and the Value Balancing Alliance (VBA) of Harvard Business School. Using the Impact Pathway approach, Nanya Technology analyzed the comprehensive economic, environmental, and social impacts of our upstream supply chain, production operations, and downstream products and services. Based on the Profit and Loss (P&L) management mindset, Nanya Technology translated the impact of its operating activities on stakeholder well-being into a consistent monetary language, incorporating both external costs (negative) and benefits (positive). This approach constructs a sustainability impact management framework centered on the Triple Bottom Line (TBL) to ensure a balance between corporate development and social and environmental responsibility.

In 2024, Nanya Technology generated NT$34.1 billion in revenue from operations and contributed NT$20.1 billion in Gross Value Added (GVA) to stakeholders through taxes, dividend distribution, employee compensation, depreciation, and amortization. The environmental and social externalities driven from overall value chain activities contributed NT$137.0 billion in positive benefits and NT$10.0 billion in negative costs to human well-being. In the environmental aspect, while focusing on its core business, Nanya Technology's environmental footprint from energy and resource consumption and pollutant generation resulted in a social cost of NT$890 million. However, the deployment of renewable energy and process water recycling created environmental benefits of NT$280 million. In the social aspect, promoting diverse health education activities to safeguard employee health and prevent medical costs arising from cardiovascular diseases brought social benefits of NT$2.8 million. However, occupational accidents leading to workers' physical and mental impacts, as well as medical expenses, generated social costs of NT$4.27 million. In the supply chain aspect, Nanya Technology's procurement demand drove a supply chain output value of NT$90.5 billion, but the environmental footprint resulting from the industry's supply and demand processes incurred social costs of NT$3.8 billion, primarily from chemical and electricity procurement. In terms of product sales, Nanya Technology's DRAM products are widely integrated into end products such as televisions, network communication equipment, computers, storage devices, digital cameras, and monitors. These products contribute to an output value of NT$46.3 billion for customer industries. However, the energy consumption during product use and the pollution emissions generated during the waste disposal phase resulted in social costs of NT$5.3 billion.

Analysis results show that the supply chain and product usage phases have the most significant environmental impact, highlighting Nanya Technology's crucial role in sustainable supplier management and green product development. In terms of supply chain management, we conduct annual product environmental footprint analysis to identify suppliers with higher environmental impacts. We then collaborate with these suppliers to jointly advance carbon reduction targets to reduce the environmental impact of our procurement demand. In the field of green products, Nanya Technology continues to increase its R&D investment. In 2024, the R&D to revenue ratio increased by 22.5% compared to the previous year, accelerating the improvement of product energy efficiency. Looking ahead, Nanya Technology will continue to refine and enhance its sustainability impact management framework, taking a comprehensive approach to measuring and managing the contribution of its operations and value chain activities to social well-being. Nanya remains committed to ensuring that corporate growth aligns with environmental sustainability.

Nanya Technology Sustainability Impact Roadmap

NT$136.8 Billion

Social Externality

Boosting Upstream and Downstream Value Chain Output Value

- Procurement demand drives industry chain development, creating **2.85** times the economic value.
- Sales of DRAM products create **1.85** times the output value for customer industries.

>90%

Environmental Externality

Environmental Footprint Driven from Upstream and Downstream Value Chain

The environmental impacts arising from supply and demand processes within the supply chain, as well as from the product use phase, highlight the importance of Nanya Technology's promotion of green supply chain management and its efforts to enhance product energy and material conservation to support human and social well-being.

Cause of the Impact	Sustainability Issue Management	Operational Input and Output			Impact Item	Type of Impact	Monetary Value (in Thousand NT$)	Impact Stakeholders
Supply Chain	Sustainable Supplier Management	Procurement demand drives industrial supply and demand	>30 billion	NT$ (procurement amount)	Social externality—boosting supply chain output value	+	90,506,990	Suppliers and the society
					Environmental externality—supply chain GHG emissions	−	979,332	Suppliers and the environment
					Environmental externality—supply chain air pollution emissions	−	2,810,409	Suppliers and the environment
					Environmental externality—supply chain wastewater discharge	−	4,974	Suppliers and the environment
					Environmental externality—supply chain waste disposal	−	15,956	Suppliers and the environment
Production Operations	Economic Performance	Compensation/benefits, dividends, depreciation/amortization, taxes, etc.	20 billion	NT$	Stakeholder Gross Value Added (GVA)	+	20,056,417	Employees, shareholders/investors, suppliers and the society
	Climate Strategy and Energy Management	Scope 1—GHG emissions	39,063	tCO_2e	Environmental externality—operational GHG emissions	−	713,317	Environment
		Scope 2—GHG emissions	370,075	tCO_2e				
		Renewable energy usage	35,230	MWh		+	28,181	Environment

Note 1: In terms of the impact stakeholders, Society refers to the networks together with shared norms, values and understanding that facilitate cooperation within and among groups (Social & Human Capital Protocol, 2019); Environment refers to the stock of renewable and non-renewable natural resources on Earth (e.g., plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits or services to people (Natural Capital Protocol, 2016).

Note 2: The increase in supply chain output value is calculated using an Input-Output Model, including economic benefits generated by the supply and demand effects across the industry chain driven by procurement demand. This calculation also considers related environmental impacts. Reference sources include the Report on Compilation of Industrial Linkage Statistics (Department of Budget, Accounting and Statistics, 2020), the Report on Compilation of Green National Income Account (Department of Budget, Accounting and Statistics, 2021), and the Energy Balances (Administration of Energy, 2021).

Note 3: Gross Value Added (GVA) assesses the difference between the intermediate inputs and final outputs of a company's operating process, while also considering initial inputs and public expenditures. These economic activities bring benefits to various stakeholders, including net operating profit (customers/shareholders/investors), compensation and benefits (employees), depreciation/amortization/leasing (suppliers), and taxes (society).

Cause of the Impact	Sustainability Issue Management	Operational Input and Output			Impact Item	Type of Impact	Monetary Value (in Thousand NT$)	Impact Stakeholders
Production Operations	Water Management	Water resource usage	3,955	million liters	Environmental externality—operational water resource usage	−	175,889	Environment
		Process water recycling	5,590	million liters		+	248,617	Environment
		Process wastewater discharge	2,864	million liters	Environmental externality—operational wastewater discharge	−	640	Environment
	Waste Management	Process gas (VOCs/NOx/SOx) emissions	27.5	ton	Environmental externality—operational air pollution emissions	−	2,176	Environment
		Process waste incineration and landfill disposal	306	ton	Environmental externality—operational waste disposal	−	858	Environment
	Occupational Health and Safety	Number of employees at risk of cardiovascular disease	1,474	people	Social externality—employee health management	+	2,796	Employees and the society
		Workday loss due to employee occupational accidents	518	days	Social externality—employee occupational accidents	−	4,265	Employees and the society
Products or Services	Customer Service	Product sales drive supply and demand of the downstream industry	25 billion	NT$ (sales amount)	Social externality—boosting industry chain output value	+	46,251,193	Customers and the society
	Green Products	Estimated energy consumption during product use phase	840,903	MWh	Environmental externality—product usage	−	5,298,511	Customers and the environment
		Estimated electronic waste generated from products	404	ton	Environmental externality—product waste disposal	−	1,472	Customers and the environment

Note 4: Environmental externality impact factors include the social cost of carbon, human health impact costs, and ecosystem damage costs driven from GHG, air pollution, wastewater, waste, and water resource consumption. Monetary value conversion is referenced from the US EPA (2016) and OECD (2012).

Note 5: Employee health management involves early detection of hypertension, hyperlipidemia, hyperglycemia, and obesity through regular health check-ups, along with the development of various programs to appropriately control cardiovascular disease risk among employees. Relevant coefficients are referenced from WHO (2008) and Chieh-Hsien Lee (2009).

Note 6: The social costs derived from occupational accidents are calculated by considering factors such as productivity loss due to work-related injuries, occupational accident compensation, and individuals' willingness to pay to avoid such incidents. The methodology is referenced from UK HSE (2017), Jiune-Jye Ho (2005), and the Institute of Labor, Occupational Safety and Health (2013).

Note 7: The related products or services focus on the top 5 end product applications of DRAM offerings, taking into account the supply and demand relationship between sales revenue and output value of customer industries. It aims to assess the indirect economic value generated by product sales, along with the environmental impacts associated with the product use and disposal phases.

Note 8: Considering the differences in economic conditions across countries, valuation coefficients are adjusted based on the per capita Gross National Income (GNI) measured by Purchasing Power Parity (PPP) in each region, with the time frame standardized to the monetary value in 2017. The methodology is referenced from OECD (2012) and PwC UK (2015).

3

Innovation

The Best Partner for Our Customers

3.1 R&D and Innovation.....41
3.2 Green Product Development.....47

22.5%

In 2024, R& D expenditure accounted for 22.5% of revenue, while R&D personnel represented 29.7% of employees, which demonstrates Nanya Technology's commitment to technological development.

Innovation is the driving force behind Nanya Technology's technological growth and competitive edge, and it remains one of Nanya Technology's four core values. We aim to strengthen product research, development, and manufacturing to meet diverse customer needs and become the Best DRAM Partner for Smart World.

NT$400 Million

By the end of 2024, Nanya Technology developed 134 AI applications with annual benefits reaching NT$400 million.

910 Patents

In 2024, 910 patents were granted to Nanya Technology.

Strategy and Performance of Material Topics

Exceeded goals ◆ Achieved ◆ Not achieved

R&D and Innovation

- Designing new next-generation products
- Developing 10nm-class process technologies
- Entering the high-density server module market
- Smart factory
- Increasing the number of granted patents

Environmentally Friendly Products

- **Technology enhancement:** Developing advanced and efficient products and helping consumers reduce energy consumption and carbon emissions during product use
- **Consideration of product lifecycle:** Increasing the environmental friendliness of products
- **Hazardous substance management:** Ongoing promotion of the initiatives to replace hazardous substances in product manufacturing materials

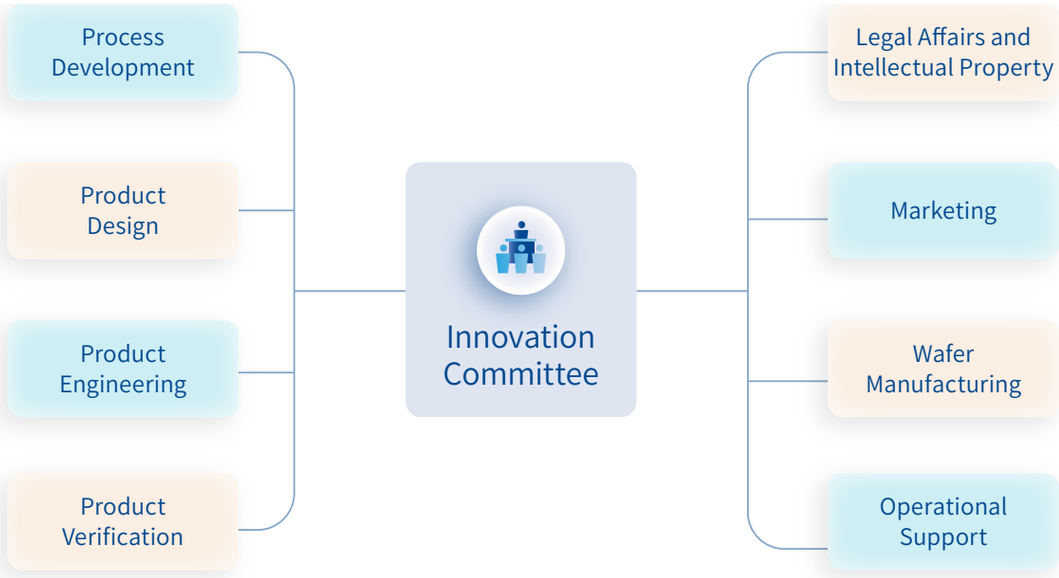
Material Topics & Strategy	2024 Goals	2024 Performance and Goal Achievement	2025 Goals
R&D and Innovation	Achieving the shipping qualification standards for 8Gb DDR4 and 16Gb DDR5 products based on the second generation 10nm-class DRAM process	◆ Achieved the shipping qualification standards for 8Gb DDR4 and 16Gb DDR5 based on the second generation 10nm-class DRAM process	Achieving the shipping qualification standards of the third generation 10nm-class DRAM process and 16Gb DDR5 products
	Training a total of 500 engineers and equipping them with AI theoretical and practical skills	◆ Trained a total of 500 engineers and equipped them with AI theoretical and practical skills	Training a total of 550 engineers and equipping them with AI theoretical and practical skills
	Completing a total of 130 smart application developments	◆ Completed a total of 134 smart application developments	Completing a total of 150 smart application developments
	Number of patents granted in Taiwan >250	◆ The number of patents granted in Taiwan during the year reached 344	Number of patents granted in Taiwan >250
Environmentally Friendly Products	Proportion of advanced processes such as 20nm accounts for 96% and above	◆ 96.5%	≧96%
	Completing product life cycle inventory on 100% of products	◆ 100%	Completing product life cycle inventory on 100% of products
	100% of products comply with hazardous substances free regulations and customer hazardous substance specifications.	◆ 100%	100% of products comply with hazardous substances free regulations and customer hazardous substance specifications.
	100% of raw materials free of PFOA-related substances	◆ 100%	100% of raw materials free of PFOA-related substances

3.1 R&D and Innovation

Recognizing the growing trend of smart products that improve the quality of life and contribute to energy conservation and carbon emissions reduction, Nanya Technology invests substantial resources annually in developing new DRAM products, next-generation manufacturing processes, and advanced 3D stacked packaging technologies. We provide value-added services to customers, strengthen intellectual property rights and trade secret protection, and accelerate our advancement in product diversification and smart factories. Looking ahead, Nanya Technology will continue to focus on developing more advanced third- and fourth-generation 10nm-class DRAM manufacturing process technologies and products. At the same time, Nanya Technology is also working with our strategic partner, PieceMakers Technology Inc., to develop customized ultra-high-bandwidth DRAM products to expand business opportunities in the emerging AI chip market.

1. Innovation Committee

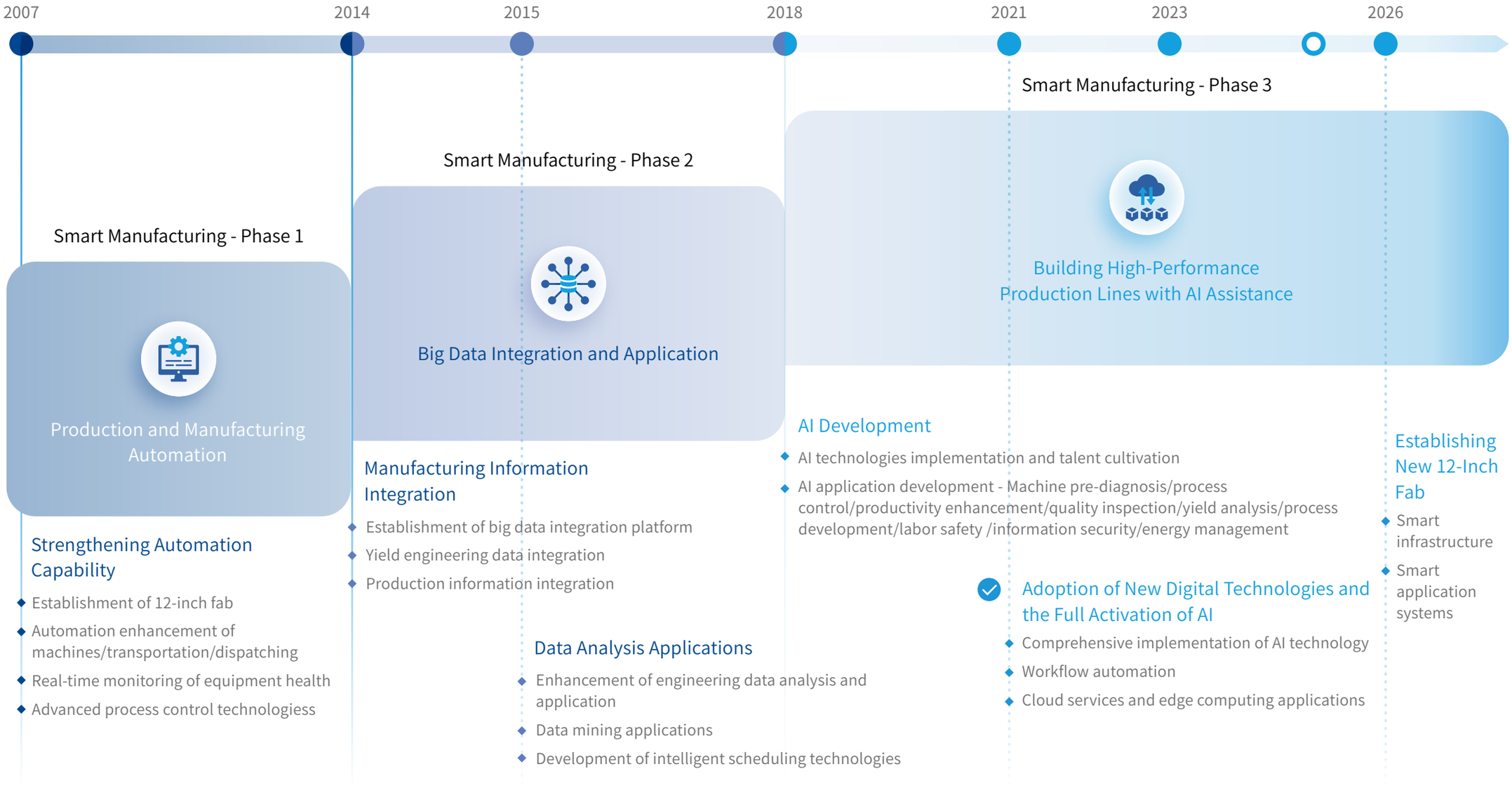
To implement innovation management and foster an innovation culture that enhances our creative energy and value, Nanya Technology has established a cross-departmental Innovation Committee, led by senior executives. The Executive Vice President serves as the committee chair, coordinating and planning Nanya Technology's overall innovation strategy, along with its short-, medium-, and long-term goals. The committee reviews the progress of key projects, including open innovation projects, product innovation projects, and process innovation projects, as well as various management indicators. In 2024, Nanya Technology's second-generation 10-nm class 8Gb DDR4 and 16Gb DDR5 products achieved the shipping qualification standards. In AI applications, from 2019 to the end of 2024, Nanya Technology has cultivated a total of 500 technical staff with both theoretical expertise and practical experience, while also developing 134 smart systems.



Investment in Innovative R&D

Item		2021	2022	2023	2024
Investment in Innovative R&D	Operating revenue (A) (in NT$100 million)	856	570	299	341
	R&D and innovation expense (B) (in NT$100 million)	75.0	78.4	75.8	76.9
	R&D expense as a percentage of operating revenue (B/A)	8.8%	13.8%	25.3%	22.5%
	Total number of employees (C)	3,554	3,685	3,647	3,693
	Total number of R&D and innovation personnel (D)	953	1,000	1,054	1,098
	R&D personnel as a percentage of all employees (D/C)	26.8%	27.1%	28.9%	29.7%

2. Nanya Technology Smart Factory



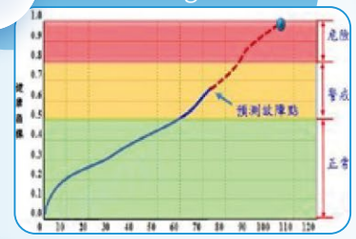
Nanya Technology's 12-inch fab encompasses the infrastructure needed for a smart factory, including highly automated production lines, IoT-enabled fabs, large-scale sensor network, and a big data information integration platform. Leveraging AI technology, Nanya Technology has expanded innovative applications across eight key categories, covering machine pre-diagnosis, process control, productivity enhancement, quality inspection, yield analysis, process development, labor safety and information security, as well as energy management.

Currently, Nanya Technology has developed a range of innovative applications for its production lines, including machine pre-diagnosis, advanced process control, production scheduling optimization, wafer quantity prediction, smart handing, wafer probe testing, defect image recognition, yield wafer image recognition, and automatic measurement of engineering images. These applications effectively enhance overall operation efficiency and generate benefits across three key aspects: Yield, Quality and Output.

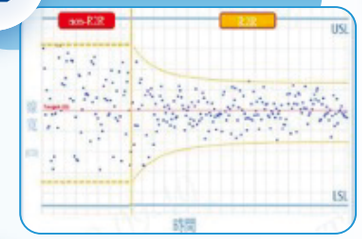
Fab Infrastructure | Advanced Automation | Fab IoT | Large-Scale Sensor Network | Big Data Information Integration | AI Technology

AI Application Categories

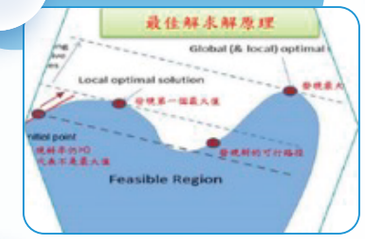
01 Machine Pre-Diagnosis



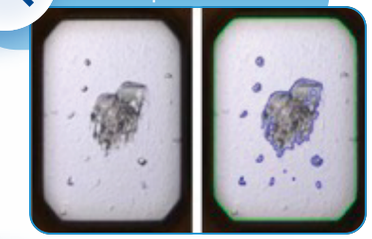
02 Process Control



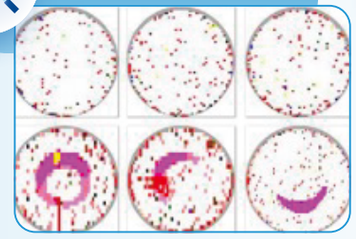
03 Productivity Enhancement



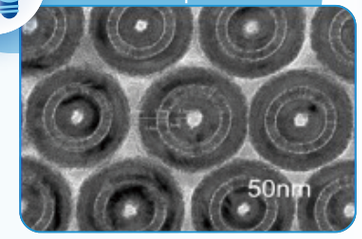
04 Quality Inspection



05 Yield Analysis

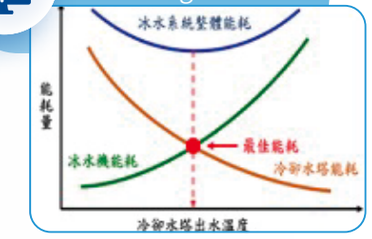


06 Process Development



07 Labor Safety and Information Security

08 Energy Management



AI Development Benefits and Promotion

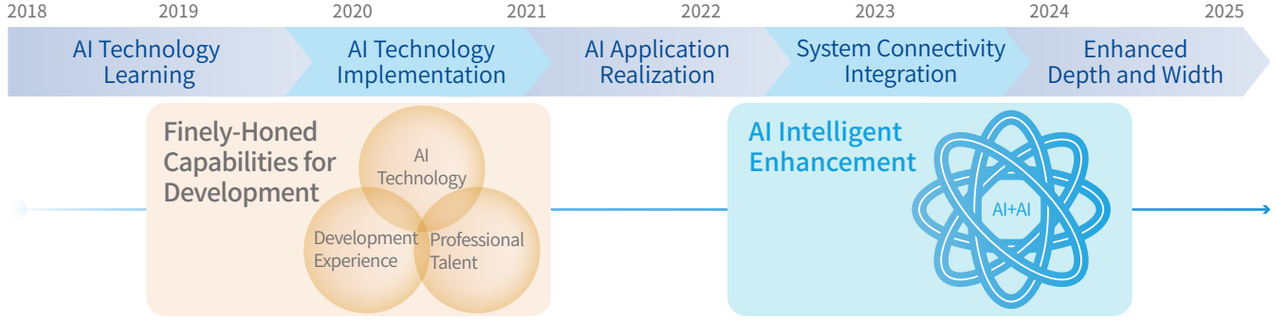
By the end of 2024, Nanya Technology has completed a total of 134 AI applications that effectively improve yield and quality, reduce discard rates due to anomalies, increase machine utilization, lower equipment maintenance costs and raw material consumption, enhance production capacity, and optimize the use of human resources. The annual benefits reached NT$400 million. With the ongoing development of new AI applications, Nanya Technology anticipates that the total benefits will reach NT$2 billion over the next 5 years (2025 to 2029).

Innovation and promotion are primarily facilitated via three key platforms: AI Application Development, AI Technology Implementation, and AI Educational Training.

- AI Application Development Platform: 60 engineering personnel, including domain experts, information experts, and statistics experts are brought together to systematically develop highly efficient smart systems.
- AI Technology Implementation Platform: The AI team received systematically arranged trainings to enhance their technical expertise in areas ranging from machine learning, deep learning (CNN[1], RNN[2], object detection, generative AI) to edge computing technologies.
- AI Educational Training Platform: External instructors and internal trainers have trained a total of 500 engineering personnel with AI theoretical knowledge and practical skills.

Note 1: CNN: Convolutional Neural Networks
Note 2: RNN: Recurrent Neural Networks

2018-2025 AI Application Development Plan

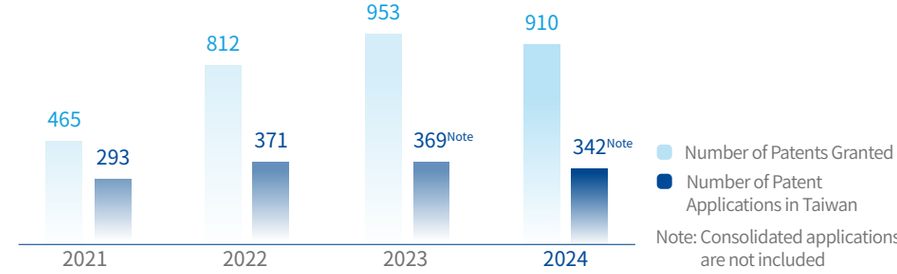


Since 2018, Nanya Technology has built an AI technology application team which focuses on learning and implementing AI technologies to gradually apply AI in various work settings. Nanya Technology has connected additional smart systems, such as wafer yield analysis system, smart production scheduling system, production line stability control system, and universal image monitoring management system. These initiatives have amplified intelligence and efficiency, making overall production line operations more effective. In the future, Nanya Technology will continue to deepen and expand its technical applications, introducing more advanced AI technologies, enhancing cross-system integration capabilities, and extending these across all application units, thereby comprehensively improving factory manufacturing performance.

3. Intellectual Property Right Status and Strategy

Nanya Technology not only works with world-class partners to adopt advanced technologies, but also invests heavily in the development of proprietary technologies. Over the years, Nanya Technology boasts a considerable amount of intellectual property. By the end of 2024, Nanya Technology received over 7,700 patents, both protecting the results of technological development and securing our competitive edge. With this powerful tool for both technological and business competition, Nanya Technology flexibly utilizes intellectual property rights to effectively defend against frivolous patent lawsuits.

Patents Granted to Nanya Technology and Patent Application Performance



The following are critical legal cases related to intellectual property rights involving Nanya Technology:

In November 2019, US-based Monterey Research LLC accused Nanya Technology and its subsidiaries, NTC-USA and NTC-Delaware, of patent infringement in the US District Court for the District of Delaware. This case was reconciled in April 2024. The conciliation terms have no significant impact on the operations of the Consolidated Company. The plaintiff withdrew the lawsuit, and the case has been concluded.

In February 2023, Irish company Polaris Innovations Limited accused Nanya Technology of patent infringement in the US District Court for the Eastern District of Texas. This case was reconciled in August 2024. The conciliation terms have no significant impact on the operations of Nanya Technology. The plaintiff withdrew the lawsuit in September 2024, and the case has been concluded.

Nanya Technology's Intellectual Property Right Strategy

Strategically leveraging intellectual property rights to create a favorable environment for Nanya Technology and the industry.

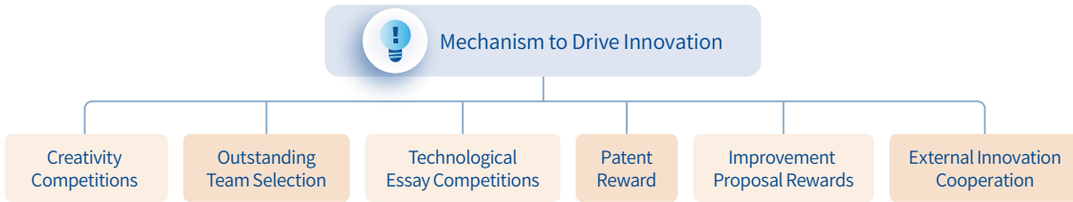
Creating the most beneficial R&D environment by leveraging intellectual property rights, and utilizing the excellent results from production and R&D to create valuable intellectual property rights closely aligned with practical needs.

Implementing an appropriate system to manage intellectual property rights, while protecting trade secrets with a rigorous information security network.

In addition to patents, trade secrets are also extremely crucial intellectual assets in the semiconductor industry. In recent years, Nanya Technology has actively introduced advanced manufacturing process technologies, developed new products, and innovated sales models. Among the intellectual assets produced during these processes, some have been protected by patent applications. Others, however—whether they are technologies, methods, processes, formulas, programs, designs, or other information that can be used for production, sales, or operations—are considered trade secrets as long as they remain confidential and possess economic value. These trade secrets are protected by a rigorous information security system. Additionally, in September 2024, Nanya Technology passed the Taiwan Intellectual Property Management System (TIPS) Grade A certification once again, further affirming the quality of Nanya Technology's intellectual property right management system.

4. Incentives for Innovation

Innovation is the driving force behind Nanya Technology's technological growth and competitive edge, and it remains one of our core values. We believe that the key to ongoing innovation comes from the improvement ideas proposed during daily operations. Constantly optimizing processes, gaining experience, and building on results allows us to drive more forward-looking developments. To encourage employees to propose innovative ideas, Nanya Technology organizes annual innovation activities, including improvement proposals, patent reward, creativity competitions, essay contests, and outstanding team competitions. We recognize and reward innovative ideas proposed by each employee. Through these programs, Nanya Technology aims to embed innovation into the mindsets of our employees and further extend it to external partnerships, creating a systematic innovation force that keeps driving our Company's growth and competitive edge.



5. Results of Innovative Activities

Item		2021	2022	2023	2024
Patent Reward	Number of patents granted	465	812	953	910
Improvement Proposal Rewards	Number of proposals	207	212	193	163
	Actual annual benefits (in NT$ thousand)	882,517	756,744	755,784	366,233[Note]
Technological Essay Competitions	Number of entries	93	103	118	122
Outstanding Team Competitions	Number of entries	13	17	16	17

Note: (1) After many years of hard work, the self-developed 10nm-class technology has achieved significant results. Because of this, major improvement projects related to manufacturing processes in the fab have gradually decreased.
(2) To keep encouraging colleagues to propose improvement proposals, Nanya Technology plans to provide educational training and administrative rewards for promotion specialists and seed personnel in each area in 2025.

Rewards for Improvement Proposals are categorized into six functional areas: quality, manufacturing process, production capacity, equipment, environmental, safety and hygiene (ESH), and others. Nanya Technology encourages colleagues to focus on prevention instead of conducting non-conforming handling afterward. In addition to the proposers and their direct supervisors, the proposal process also includes forming an expert review taskforce for examining the proposal's specifics, effectiveness, and contribution level from multiple perspectives. In 2024, a total of 163 improvement proposals were submitted, generating actual annual benefits of NT$366,233,000.

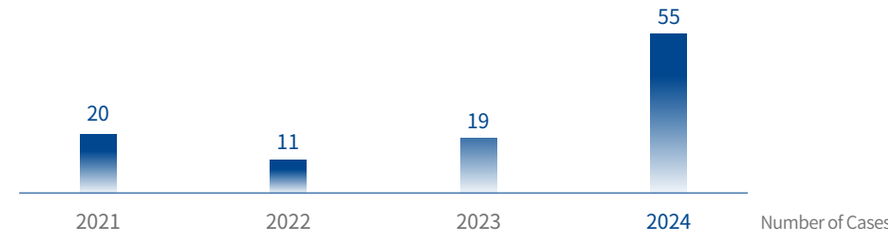
Improvement Proposal Workflow

Outstanding Cases

Category	Case Title	Benefit Summary
Quality Improvement	Implementing smart recognition processes for labeling images generated by the wafer packaging machine	By adopting AI to recognize wafer packaging labels instead of manual checks, rework time caused by anomalies can be reduced by 108 hours per 200 lots, saving labor costs of NT$625,440 annually.
Process Improvement	Adding OVL edge shot measurement to MA41S to improve the yield of mid-range aligner	Adding OVL edge shot measurement to MA41S improves the yield of mid-range aligner by 1.9%, resulting in an annual net benefit of NT$603,490.
Production Capacity Improvement	AI recognition system for electrical levels	Adopting AI instead of manual labor to determine the validity of electrical levels by adjusting the probe card's direction, angle, and height, ensuring effective testing. This can save 2,190 hours of labor and machine time annually.
ESH Improvement	Improving the preventive maintenance (PM) time estimation and enhancing the maintenance system for membrane filters in the membrane bio-reactor (MBR) tank.	Establishing an MBR estimation model to replace manual monitoring, preventing abnormalities caused by manual judgment errors and saving 1,872 work hours annually.
Equipment Improvement	Embedded system integration platform of Chemical Laboratory	An embedded system is a computer system built inside a mechanical or electrical device, designed for a specific function or real-time computing performance, without affecting the operation of the front-end machine. The embedded system is designed to monitor machine operations in real-time. Saving NT$639,000 in costs, this system can reduce costs and human errors, and improve production efficiency and inspection quality.
Other Improvement	Custom-made carbon film on copper to improve TEM specimen quality	Adopting the QIT Grid specimen preparation method reduces the cost of consumables and saves 488 work hours annually.

In terms of scaling the impact of our technological R&D results, Nanya Technology integrates external innovation resources to accelerate and boost R&D outcomes. For example, we collaborate with National Taiwan University, National Tsing Hua University, National Yang Ming Chiao Tung University, National Central University, Ming Chi University of Technology, Chang Gung University, IMEC, ITRI, and testing equipment suppliers in areas like basic research for next-generation memory, product design, and product testing. We also jointly develop 10nm-class processes and materials with mask and equipment manufacturers, and rapidly develop diverse application products through wafer-class customized packaging with downstream system developers. Over the past 4 years, Nanya Technology has increased open innovation projects each year to support its short-, medium-, and long-term R&D plans.

Technology R&D Open Innovation Program



3.2 Green Product Development

Nanya Technology works together with its customers toward the goal of protecting our green planet. We have adopted Life Cycle Thinking (LCT) and the Design for Environment principles. Nanya Technology, long committed to developing advanced, efficient, and eco-friendly products, continues to help customers design products with low-energy consumption while leveraging its influence on the supply chain for hazardous substance management and responsible minerals procurement. To keep improving the environmental friendliness of our products, Nanya Technology set environmental health and safety performance indicators and launched projects to reduce waste, promote resource reuse, and cut greenhouse gas (GHG) emissions. Aligned with the Green Product Promotion Committee on green product management, Nanya Technology takes seven environmental impact aspects into consideration from the very beginning of new product development. These include procurement, manufacturing, transportation, product use, disposal, and recycling. Such a comprehensive approach seeks to identify improvement opportunities that will enhance environmental benefits.

Nanya Technology's Design for Environment Matrix

	Procurement	Manufacturing	Transportation	Product Use	Disposal and Recycling
Energy Efficiency	V	V	V	V	
GHG Emissions	V	V	V	V	
Material Reduction	V	V	V		
Responsible Minerals Procurement	V				
Hazardous Substances Free	V	V			
Waste Reduction		V			V
Water Resource Reduction		V			

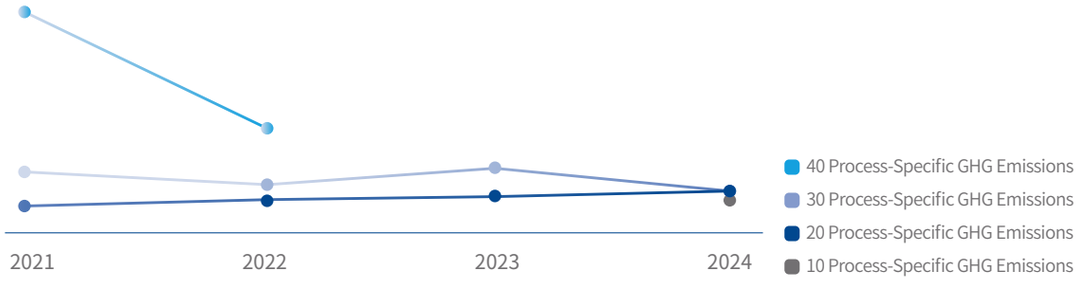
1. Life Cycle Assessment

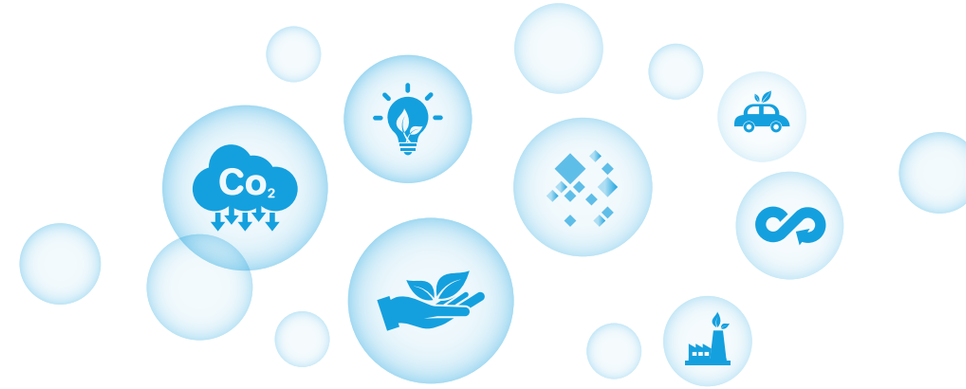
In response to international environmental trends, Nanya Technology adopted the life cycle assessment tool Simapro to conduct 100% product Life Cycle Assessments (LCA), which allowed us to calculate the environmental footprint of our products and identify areas for improvement. Meanwhile, we also gathered environmental data and coefficients during the analysis process to build a decision support system for green product development. Nanya Technology performed quantitative LCAs at each stage of a product's life cycle, and took multiple factors into consideration. In accordance with the quantification and communication requirements and guidelines outlined in the ISO 14040 series for *Product Environmental Footprint* life cycle impact assessments, Nanya Technology participated in product environmental footprint declarations, while referencing the regulations of ISO 14064-1 GHG inventory and ISO 14067:2018 Carbon Footprint International Standards to carry out these declarations. The analysis covered various DRAM products made by Nanya Technology, with life cycle boundaries including raw material manufacturing, transportation, wafer manufacturing, packaging, module assembly, product use, and recycling/disposal. Since our main production activity is memory wafer manufacturing and other components are outsourced, the primary system boundary is set at wafer manufacturing. Among 28 measures to improve environmental footprint sources, reductions in GHG emissions from the three main sources listed in the results of the 2024 product life cycle assessment are as follows:

Three Hotspots of Greenhouse Effect Listed in the 2024 Product LCA Results

	Percentage of Product Carbon Footprint	Improvement Plan	2024 Performance Results	Future Improvement Directions
Electricity Use	83.13%	Implementing energy conservation improvement plans	• Completed 27 energy conservation management plans under ISO 50001, resulting in the energy conservation benefits of 5,513 MWh • Purchased 35.23 million kWh of renewable energy	• Continue to implement the ISO 50001 Energy Conservation Plan • Continue to purchase renewable energy according to plan
Liquid Nitrogen (LN2)	2.45%	Requiring LN2 suppliers to implement energy conservation and carbon reduction management plans	• Suppliers joined the SBTi and plan to reduce Scope 1+2 emissions by 25% in 2030.	• Continue to require LN2 suppliers to implement energy conservation and carbon reduction management plans
Production wafer	2.40%	Requiring Production wafer suppliers to implement energy conservation and carbon reduction management plans	• Suppliers joined the SBTi and plan to reduce Scope 1+2 emissions by 25% in 2030.	• Continue to require Production wafer suppliers to implement energy conservation and carbon reduction management plans

Trends in Product Carbon Footprint for 10nm/20nm/30nm/40nm Processes

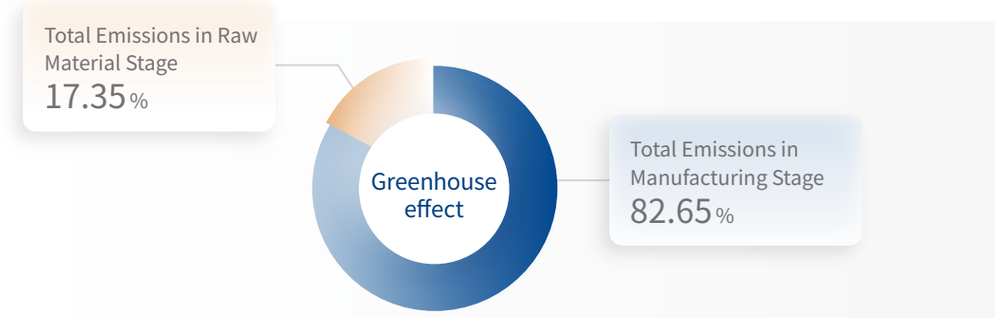




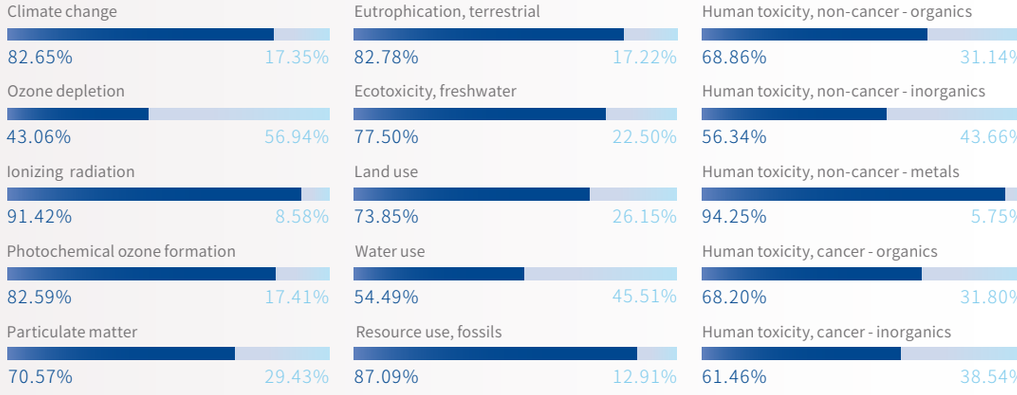
The 2024 product life cycle inventory was completed. Nanya Technology used its staple product, the SA30 memory, to illustrate the ratio of 28 environmental footprint items across the raw material and manufacturing stages.

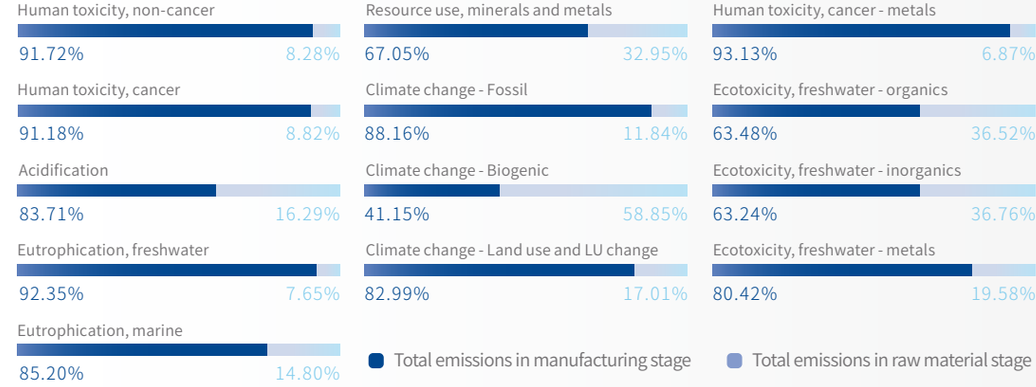
Greenhouse effect impact derived from:

- Manufacturing stage at the factories: accounted for about 82.65%
- Procured raw material stage: accounted for about 17.35%



Proportion of Total Emissions from Raw Materials and Manufacturing Stages of SA30



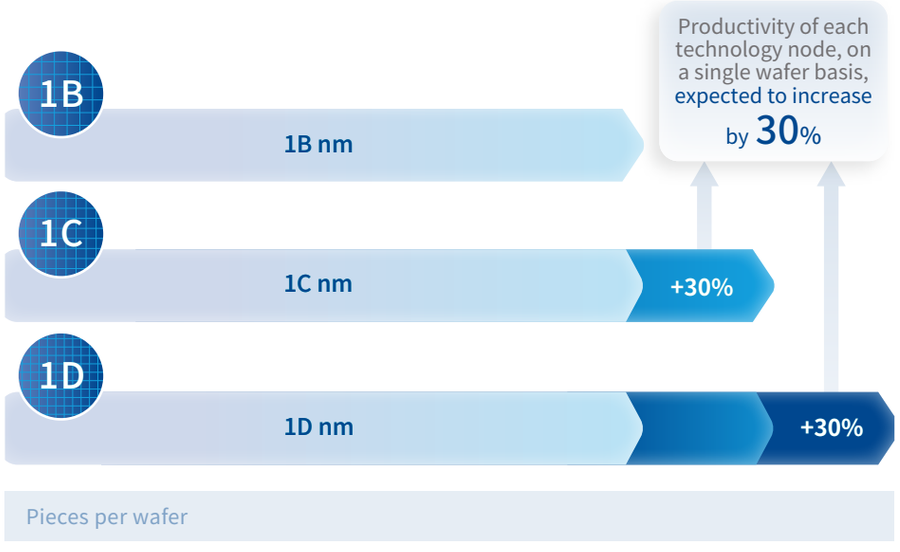


2. Green Product Design

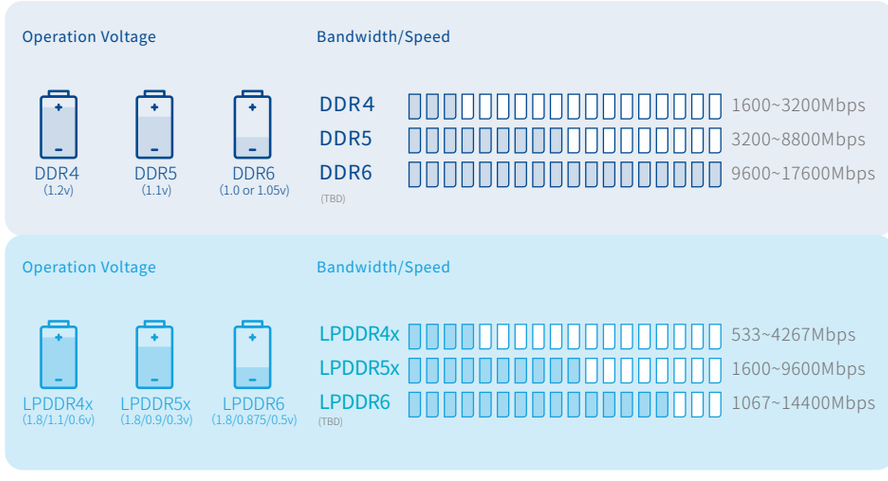
As a critical part of the semiconductor industry chain, the DRAM industry's R&D and innovation in memory products directly impacts the performance and efficiency of computing devices. Nanya Technology has been long committed to the R&D, design, manufacturing, and sales of DRAM products. To fulfill technological development and market needs, Nanya Technology focuses on three main R&D sectors: manufacturing process shrinkage, product specification enhancement, and 3D stacked technology development, from which we aim to create green products:

	R&D Directions	Environmental Benefits
Manufacturing Process Shrinkage	• 1B nm process: Mass production of DDR4 and DDR5 products has been achieved. • 1C nm Process: Technical foundations are established. R&D and design for DDR5 and LPDDR5 products are underway. • 1D nm Process: R&D has begun to devote to advanced process shrinkage in 2025. Each new process generation increases single-wafer output by more than 30%. The R&D team strives to address the challenges of increased power leakage and greater process complexity due to shrinking transistor channels.	• Single-Wafer Output Improvement: Reducing the amount of silicon wafers and materials needed per unit of product, and cutting overall energy consumption and waste generation. • Shrinkage and High-Yield Processes: Improvement of efficiency and reduction of defective products with lower resource waste.
Product Specification Enhancement	In response to the growing needs of 5G, AI, and high-performance computing, along with the diversification of application scenarios, memory now requires higher bandwidth, lower latency, and lower power consumption. DDR5/LPDDR5 show substantial improvements in bandwidth, capacity, and power efficiency over DDR4/LPDDR4. • DDR5: Completed R&D and mass production of products supporting 5,600 Mbps. Ongoing efforts are pushing speeds to 6,400/7,200 Mbps. • LPDDR5: Currently in the product R&D and design stage, with target speed specifications raised to 8,533 Mbps to 9,600 Mbps.	• DDR5/LPDDR5 high-speed memory enhances AI and 5G computing performance, shortens processing time, and lowers system power consumption, offering a greener computing solution for application demands. • Lowered hardware requirements for servers and data centers reduce energy and material consumption.
3D Stacked Technology Development	• Nanya Technology has developed the Through-Silicon Via (TSV) process technology. This is being used with 1B nm DDR5 to provide high-capacity server modules through 3D stacked technology for cloud and high-end server markets. • With the rise of generative AI and edge computing, applications are expanding to AI PCs, AI phones, AI robots, and other edge devices. Recognizing this trend, Nanya Technology is developing customized ultra-high bandwidth memory, combined with 3D stacked technology, to provide customers with high-performance, low-power solutions.	• 3D stacked technology aligns with the trends of low power consumption, high integration, and shrinkage. It saves space and reduces packaging energy use. • Edge computing reduces the burden on data centers by reducing frequent data transfers, lowering server loading, and reducing energy consumption. This in turn reduces the energy use and carbon footprint of network infrastructure.

Nanya Technology's Manufacturing Process Shrinkage



Nanya Technology's Product Planning and the Evolution of Product Specifications



Environmental External Benefits

From the outset of new product development, Nanya Technology keeps the environmental impact in mind throughout the entire product lifecycle. For electronic products, energy consumption during the usage phase is one of the most significant indicators of environmental impact. Nanya Technology actively develops energy-efficient products to help customers lower energy requirements when using electronic products, thereby reducing GHG emissions.

Product

Mainstream process products (low power DRAM and 20nm consumer DRAM)

Scope	Total sales volume equivalent in 2024
Calculation baseline	Power consumption of mainstream process products in the current year compared with the previous generation
Calculation method	Totaling the power consumption difference between all products sold in the current year and their respective previous-generation product

Benefits

Nanya Technology saved more than 617.17 million kWh of electricity, approximately 2,222 terajoules ($2,222 \times 10^{15}$)[1], which is equivalent to the average annual electricity consumption of 167,000 households[2]. GHG emissions were reduced by 292,540 tCO_2e[3], which is equivalent to 752 times the carbon absorption of Daan Forest Park in one year[4]

Note 1: Based on the Energy Product Unit Heating Value Table updated in 2020 by the Energy Administration for unit conversion, 1 kWh = 860 kcal = 3.6 megajoules; 1 MWh = 3,600 megajoules.

Note 2: Estimated using the monthly residential and small-scale commercial electricity usage data on Taipower's website; the annual household consumption is 3,699 kwh/year (released on June 20, 2025).

Note 3: Emission factor for electricity calculated based on the Energy Administration's 2024 published value of 0.474 $kgCO_2e/kWh$.

Note 4: Based on the Energy Administration's estimation that one Daan Forest Park absorbs 389 metric tons of CO_2 annually.

Guidelines for the R&D of Energy-Efficient Products

01 Nanya Technology continues to develop advanced process technologies. So far, next-generation products based on advanced processes have reduced power consumption by approximately 15% compared to previous generations.

02 We collaborated with our main chip customer to adopt multi-chip packaging, reducing the number of backend packing and testing, as well as overall energy consumption.

03 By enhancing the development of low-power product lines and expanding the product portfolio, Nanya Technology aims to address the needs of various mobile electronic devices.

3. Green Product Management

In 2005, Nanya Technology established the Green Product Promotion Committee (GPPC) to implement Hazardous Substances Free (HSF) management. During the product production process, Nanya Technology consistently implemented measures to prevent pollution, save energy, reduce waste, and avoid the use of hazardous substances under regulatory restrictions. By integrating and connecting suppliers of raw materials, process materials, and shipping packaging materials, as well as subcontractors providing back-end packaging, Nanya Technology successfully created an effective green product supply chain. This supply chain, involving both upstream and downstream vendors, complies with current international environmental regulations and trends. Through the Green Product Promotion Committee, Nanya Technology has referenced national laws from EU and other regions, as well as hazardous substance management standards from major international customers, to establish the General Rules for "Environment-Related to be Controlled" Substances in Parts and Materials. With ongoing efforts, we also continue to effectively control the sources of raw materials and related products to uphold green product standards and reduce environment impact during product production. Under the General Rules for "Environment-Related to be Controlled" Substances in Parts and Materials, all products must comply with international regulations and customer requirements. Through our material hazardous substance free management system, Nanya Technology ensures that all its manufactured wafer products, back-end IC packaging, and DIMM module products comply with international regulations and hazardous substance management standards from customers.

Nanya Technology defines green products as those that comply with the requirements of BNDCU-0012 General rules for "Environment-Related to be Controlled" Substances in Parts and Materials, which aligns with the following regulations and standards:

Complying with the requirements of the Waste Electrical and Electronic Equipment Directive (WEEE) and the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EC & 2015/863(recast)

Restricted Substance	Restricted Level	Threshold Limit (ppm)
Cadmium (Cd)	Homogenous Material	<100 ppm
Lead (Pb)		<1000 ppm, Exemption 7C-1 applies to certain products that use resistors
Mercury (Hg)		<1000 ppm
Hexavalent Chromium (Cr6+)		<1000 ppm
Polybrominated Biphenyls (1-10 Bromine) (PBBs)		<1000 ppm
Polybrominated Diphenyl Ethers (1-10 Bromine) (PBDEs)		<1000 ppm
Specific Phthalate: DEHP		<1000 ppm
Specific Phthalate: BBP		<1000 ppm
Specific Phthalate: DBP		<1000 ppm
Specific Phthalate: DIBP		<1000 ppm

Complying with the IEC 61249-2-21 Halogen-Free (HF) Requirements

Restricted Substance	Restricted Level	Threshold Limit (ppm)
Bromine (Br)	Homogenous Material	<900 ppm
Chlorine (Cl)		<900 ppm
Bromine (Br) + Chlorine (Cl)		<1,500 ppm

Complying with the European Union's Packaging and Packaging Waste Regulation EU/2025/40 (PPWR) requirements for the total sum of 4 heavy metals

Restricted Substance	Restricted Level	Threshold Limit (ppm)
Cadmium (Cd)	Homogenous Material	The total sum of 4 heavy metals <100 ppm
Lead (Pb)		
Mercury (Hg)		
Hexavalent Chromium (Cr6+)		

Complying with the United States Toxic Substances Control Act Section 6(h) requirements for non-use of 5 PBT substances

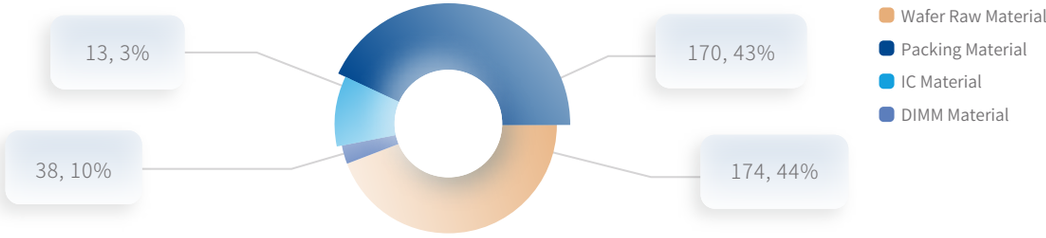
Restricted Substance	Restricted Level	Threshold Limit (ppm)
Phenol, Isopropylated Phosphate (PIP 3:1) CAS No. 68937-41-7	Finished Product	Prohibited
Decabromodiphenyl Ether (DecaBDE) CAS No. 1163-19-5		Prohibited
Pentachlorothiophenol (PCTP) CAS No. 133-49-3		Prohibited, except when the concentration is <1% by weight
Hexachlorobutadiene (HCBD) CAS No. 87-68-3		Prohibited
2,4,6-Tri-Tert-Butylphenol (2,4,6-TTBP) CAS No. 732-26-3		Prohibited, except when the concentration is <0.3% by weight

2024 RoHS Reports Compliance

To complete requirements for green product compliance confirmation, a total of 990 test reports were reviewed and comply with RoHS 2011/65/EU and 2015/863 (recast) criteria in 2024, and the complete as follows:

2024 Concerned Substances Survey of Supply Chain

In compliance with regulatory requirements or customer specifications regarding prohibited or restricted substances, such as those outlined in EU REACH SVHC, EU POP, GADSL, US TSCA 5 PBTs, EU PFAS, and US TPCH regulations or related draft proposals for homogeneous substances or finished products, we have managed, prohibited or restricted substances of concern in accordance with the applicable regulation scopes. We conducted a total of 7 versions of supply chain substance of concern surveys, including EU REACH SVHC (Substances of Very High Concern) regulatory compliance surveys (conducted every 6 months), the specific customer concerned hazardous substance surveys, and due diligence survey for Responsible Minerals Sourcing, a total of 395 supply chain survey reports were completed as follows:



- Completed EU REACH SVHC (Substances of Very High Concern) V.30, V.31, and V.32 surveys, with a total of 4 versions (CS Survey V.56/V.58/V.58.1/V.59) for the concerned substances of supply chain report, totaling 258 reports and the completion rate: 100%.
- Completed customer-required hazardous substance surveys (CS Survey V.56.1/V.56.2) for the concerned substances of supply chain report, totaling 93 reports and the completion rate: 100%.
- Completed responsible mining due diligence with 1 version (CS Survey V.57) for the concerned substances of supply chain report, totaling 44 reports and the completion rate: 100%.

4. Green Chemistry Laboratory

Quality is the key factor in determining technical capability. To meet customer requirements and standards for process yields and product reliability, Nanya Technology's chemical laboratory is consistently investing in refining its testing methods and techniques. This investment is driven by goals to enhance green manufacturing and quality capabilities.

Goals	Improving work efficiency	Ensuring labor safety for personnel
Implementation Items	Implementing a data automation system, leading to a 65% reduction in report printing paper usage	Assessing zero use of n-Hexane for equipment cleaning

Before Improvement

New production case → Performing inspection → Exporting inspection results from machine → Manually transforming data with Excel → Manually placing files in the upload folder → Exporting data to the production case as scheduled → Approval routing of the production case

After Improvement

New production case → Performing inspection → Exporting inspection results from machine → Approval routing of the production case

4

Talent

An Employer Who Values Professional Talent

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1,226 People

Nanya Technology expands its youth empowerment program for semiconductor talent, and has trained 1,226 people in total since 2021, a 40% increase compared to 2023.

81.48%

The return-to-work rate after parental leave was 81.48%, a 10.05% increase compared to 2023.

98%

Since 2022, Nanya Technology has developed a total of 150 management associates. with a 98% retention rate, 43 of whom have been promoted internally—a promotion rate of 28.7%.

Talent is the cornerstone of Nanya Technology's innovation. We prioritize human rights, DEI, and talent development. Our talent retention and cultivation programs help maintain our competitive advantages. Regular employee engagement surveys and an emphasis on a safe and friendly workspace allow us to build a comfortable working environment for all, which in turn helps us achieve our sustainability goals.

Strategy and Performance of Material Topics

◆ Exceeded goals ◆ Achieved ◆ Not achieved

Strategy	2024 Goals	2024 Performance and Goal Achievement	2025 Goals
Human Rights • **Regulatory Compliance:** Following international human rights principles and implementing relevant policies and standards • **Safeguarding Equality:** Establishing risk management and preventive measures, designing diverse communication and grievance channels, and building an equitable workplace	No significant deficiencies in external audits or labor inspections	◆ No significant deficiencies	No significant deficiencies in external audits or labor inspections
	Workplace violation: 0 cases	◆ 1 case[Note 1]	Workplace violation: 0 cases
	Completion rate of employee labor ethics education and training: 100%	◆ 100%	Completion rate of employee labor ethics education and training: 100%
Talent Development • **Competency Enhancement:** Establishing annual training and development plans and offering diverse learning programs and pathways based on company strategies • **Key Talent Cultivation:** Enhancing the development of key talent and increasing their proportion within the organization • **Personal Development:** Fostering self-learning and employee personal development initiatives to increase employee substitution rate for job vacancies	Completion rate of all scheduled courses for the year ≧100%	◆ 161.5%	Completion rate of all scheduled courses for the year ≧100%
	Proportion of key talent to all employees ≧6.0%	◆ 7.4%	Proportion of key talent to all employees ≥7.5%[Note 2]
	Employee substitution rate for job vacancies ≥65%	◆ 61.4%[Note 3]	Employee substitution rate ≥60%[Note 4]
Talent Retention and Employee Care • **Workforce Stability:** Implementing various retention strategies to secure high-performing employees and improving key talent retention rate	Key talent retention rate ≧98%	◆ 96%[Note 5]	Key talent retention rate ≧95%[Note 6]
	Voluntary turnover rate[Note 7] ≦6%	◆ 6.21%[Note 8]	Voluntary turnover rate ≦6%
	Average recognition score in Employee Engagement Survey ≧75%	◆ 73%[Note 9]	Average recognition score in Employee Engagement Survey ≧78%
Occupational Health and Safety • **Early Detection and Improvement:** Ongoing improvement of the occupational safety and health management system through the PDCA approach • **Safety Culture:** Cultivating safety beliefs among employees and building a high-quality safety culture • **Cross-Auditing:** Cross-audits performed by internal and external parties strengthen independent inspections	Disabling injury frequency rate[Note 10] <0.18	◆ 0.41[Note 11]	Disabling injury frequency rate <0.17
	Disabling injury severity[Note 12] <6.2	◆ 5.0	Disabling injury severity <5.9
	On-site independent inspection rateNote 13 >93.9%	◆ 96.3%	On-site independent inspection rate >94%
	Number of proposals involving all employees for safety and health >1,440 cases	◆ 1,555 cases	Maintaining a 100% completion rate for on-site Safety Walking and Talking (SWAT) improvement sessions for senior management
	0 occupational disease case caused by chemical exposure	◆ Keep at 0	0 occupational disease case caused by chemical exposure

Note 1: For details on the handling measures of the 1 workplace violation case, please refer to page 62 of this report

Note 2: The increase in the number of key talents in the talent pool simultaneously raises the target

Note 3: In 2024, some positions were filled through external recruitment due to the need for specialization and the fact that internal employees did not fully meet the skill requirements

Note 4: To enhance market competitiveness, we have added the goal of increasing the recruitment of external professionals. Beginning in 2026, we will also introduce a goal to raise employee substitution rate for management positions, expanding promotion opportunities for internal employees in management positions

Note 5: The original calculation of the key talent retention rate was accumulated over 6 years, which resulted in the compounding of numbers

Note 6: The calculation method for key talent retention rate has been adjusted to a dynamic calculation based on a fixed 5-year period

Note 7: Voluntary turnover rate covers employees based in Taiwan and abroad

Note 8: The memory industry is affected by geopolitical factors and economic cycles, with recovery still limited. Meanwhile, some sub-industries are experiencing high labor demand, and increases in non-fixed remuneration (such as bonuses/incentives) enhance their external competitiveness in attracting talent

Note 9: The poor operating performance in 2024 led to a tightened welfare bonus distribution, resulting in a significant decline in the survey results across three areas: organizational vision, management team, and promotional rewards

Note 10: Disabling Injury Frequency Rate (FR) = (Number of Disabling Injury Incidents x 10^6)/Total Work Hours

Note 11: In 2024, a total of 3 occupational accidents occurred to on-site employees, all of which were physical injuries (such as pinching and falls). For improvement measures, please refer to page 91 of this report

Note 12: Disabling Injury Severity Rate (SR) = (Workdays Lost Due to Disabling Injury Incidents x 10^6)/Total Work Hours

Note 13: Independent Inspection Rate: (Number of Deficiencies from Departments' Proposals on the Kaizen Proposal System/Number of Deficiencies from Safety and Health Department Proposals) *100%

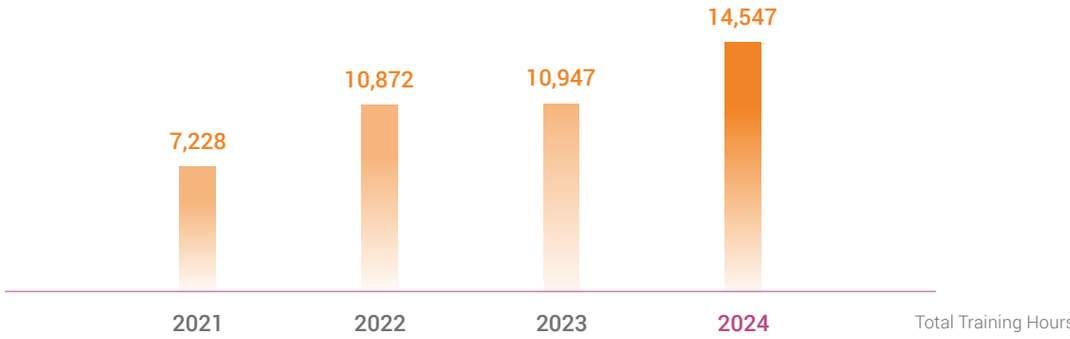
4.1 Human Rights

1. Employee Human Rights Protection

Nanya Technology is highly attentive to labor rights and has established a Human Rights Policy as well as Labor and Ethics Policy. These policies follow international human rights standards, including the Responsible Business Alliance (RBA) Code of Conduct, SA8000 Social Accountability Standard, International Labour Organization (ILO) conventions, the Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, and the EU General Data Protection Regulation (GDPR), along with relevant local laws. Nanya Technology promotes human rights risk assessment and management to build a supportive workplace that embraces inclusivity and diversity.

We promise never to employ child labor under the age of 16 and affirm that we have never done so in the past. Moreover, we will never force or coerce any individual to work against their will. All employment terms are voluntarily agreed upon through mutual consent. Our 2024 Human Rights Policy and Procedure Training Programs include "Policy and Code of Conduct Training," "Unsafe Workplace Behavior and Prevention Training," and "Personal Data Protection Training." These courses were mandatory for all employees, with a 100% training rate and a total of 14,547 training hours.

2021-2024 Human Rights Policy and Procedures Education Programs Training Hours[Note]

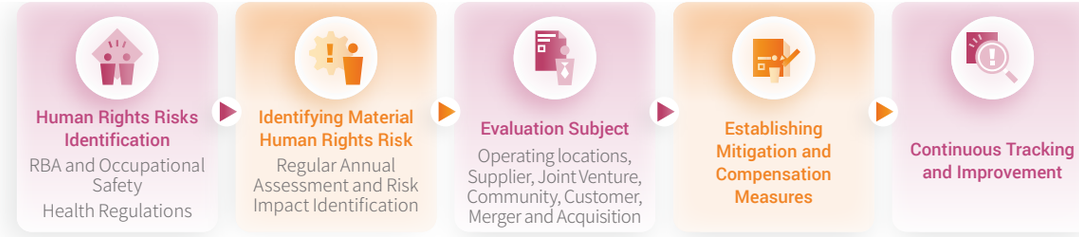


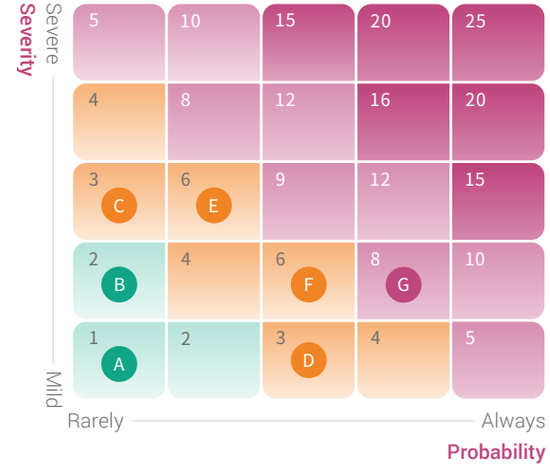
Note: Human Rights Policy and Procedure Training Programs for all employees cover our labor and ethics regulations, RBA code of conduct, prevention of unsafe workplace behavior and other areas. Since 2022, "Personal Data Protection Training" has been a mandatory annual course for all employees, leading to an increase in total training hours.

2. Human Rights Risk Management

Nanya Technology adopts the RBA standards for labor, health and safety, environment, and supply chain management, as well as government occupational safety and health regulations. We identify human rights issues, vulnerable groups and associated business units to conduct human rights risk assessments. These assessments target our employees and stakeholders (including customers, suppliers/contractors, agents, joint ventures, alliance partners, and local communities). Based on the assessment results, we establish risk mitigation and compensation measures, and strictly adhere to the regulations of the countries where these subjects operate. In addition, we calculate the risk likelihood based on the proportion of employees exposed to risks relative to the total number of our employees. We use these results to formulate annual improvement measures and future human rights risk mitigation goals.

Human Rights Due Diligence Procedures





A Equal Pay
Maternal Health Protection
Ergonomics
Excessive Workload
Physical and Mental Health Protection
Freedom of Association
Collective Bargaining Agreements

B Forced Labor
Human Trafficking
Child Labor
Non-Discrimination
Overtime
Personal Data Protectior
Labor Dispute

C Occupational Health Protection
Customer Privacy

D Occupational Accident

E Community Environmental Protection

F Supply Chain Human Rights

G Workplace Violation

Response Measures

Immediate Actions Required
Under Monitoring Indicators
Improvement Plans Required
Continuous Observation

Nanya Technology Human Rights Risks Assessment Form

Subject	Humane Rights Issues	Assessment Tools
Employee	Freedom of Choice in Employment, Young Workers, No Discrimination, Work Hours, Wages and Benefits, Humane Treatment, Freedom of Association, Occupational Health and Safety, Personal Data Protection, Workplace Violation	• RBA SAQ, RBA VAP, Internal and External Audits, Grievance Channel, Occupational Injury Report Form, Department of Labor Annual Average Frequency-Severity Indicator by Industry (Excluding Commute-Related Incidents), Health Examination Report Indicator
Supplier (Joint Venture)	Labor Rights, Occupational Health and Safety, Personal Data Protection, Workplace Violation	• Supplier Audits, Third-Party Independent Verification
	Responsible Minerals Procurement, Hazardous Substances Free	• Inspection Tools (CMRT/EMRT etc.), Due Diligence, Third-Party Independent Verification, Conformance (Testing) Report
Community	Water Resource, Air Pollution, Noise, Traffic Issues	• Government Regulations, Site Wastewater Discharge Quality Monitoring, Air Quality Monitoring, Noise Frequency Monitoring, Traffic Flows Assessment and Monitoring
Customer	Personal Data Protection and Information Security	• Annual Risk Assessment, Internal Audits and External Independent Verification

Mitigation and Compensation Measures for Material Human Rights Impacts

Subject	Material Human Rights Issues		2024 Mitigation Measures	2024 Compensation Measures
Employee	Occupational Health and Safety	Occupational Accident	**Occupational Safety and Health Management System** • **Hazard Identification and Risk Assessment:** Regular and ad-hoc reviews of hazard identification and risk assessment results. We conducted a total of 38 internal audits in 2024, resulting in 11 corrective action requests. • **Proactive Risk Mitigation Measures:** High-risk units actively develop and propose safety and health improvement action plans, reducing medium and high-level risks and increasing opportunities for systematic improvement. A total of 33 management plans were proposed in 2024. • **Regular Performance Assessment System:** Safety and health performance reviews conducted by each unit, environmental inspection proposals submitted by the Safety and Health Department and independent inspection proposals submitted by each department (independent inspection rate reached 96.3% in 2024, exceeding the annual goal of 93.9%). **Promoting and Establishing Safety Culture** • **Safety Walk and Talk (SWAT):** We conducted 48 Safety Walk and Talks, including on-site sessions led by executive-level managers and sessions with employees led by the Safety and Health Department, and department managers. • **Safety & Environment Event Tracking System (SETS):** We had 1,555 cases of employee-initiated proposals for tracking and improving clean room environment deficiencies.	**Contingency Response and Preparation** • We have established the Contingency Procedures for Non-Conforming Situations, which outline contingency plans and include drills for high-risk units. A total of 58 sessions have been conducted. • We cooperated with local authorities to conduct ad-hoc contingency response and disaster drills for public hazardous materials and toxic chemicals leaks, continuously enhancing our disaster response measures. **Accident Investigation and Constant Improvement** • In the event of unforeseen incidents or occupational accidents, the responsible unit(s) and the Safety and Health Department will form an Accident Investigation Taskforce. The responsible unit(s) need to propose corrective actions and review relevant procedures with the Safety and Health department for tracking and continuous improvement. In 2024, there were 21 near miss incidents. Our improvement efforts focused on liquid-related events (15 cases, accounting for 71.4%), such as preventing leaks from pipe connectors. Corresponding improvement and prevention measures were submitted accordingly. • The Safety and Health Committee convened on a monthly basis, exceeding the frequency required by relevant regulations. The responsible unit(s) report on the causes of occupational accidents and promote improvement plans to prevent similar incidents in other units. **Compensation for Occupational Accidents** • In the event of occupational accidents, we promptly initiate emergency medical treatment and provide comprehensive medical assistance afterwards. We also offer leave and wage compensation in accordance with legal requirements.
		Occupational Health Protection	**All Employees** To enhance health management awareness, we organize the following health promotion activities: • Hosting at least one health promotion lecture per quarter. In 2024, we conducted 27 lectures, with a total of 1,528 participants. • Hosting annual weight-loss and quit-smoking pledge events, with a total of 478 participants. • Providing employees with relevant health information regularly (via posters and emails). **Engineers:** • Implementing programs for the prevention of diseases related to abnormal workloads. • Identifying and assessing high-risk groups. • Providing special health examinations as well as health management and promotion plans.	**General compensation principles are as follows:** • Employees with abnormal health examination results are continuously tracked and provided with ongoing health management. Regular medical consultations and health guidance are also provided. • An on-site clinic is established and doctor visits are arranged to provide professional medical and consulting services for employees. **General compensation principles are as follows:** • Arranging doctor appointments and providing health guidance. • Advising the department manager and further investigating the situation.

Subject	Material Human Rights Issues	2024 Mitigation Measures	2024 Compensation Measures
Employee	Workplace Violation (Sexual Harassment)	**The following preventive measures are in place to address workplace violations:** • We've implemented training to prevent workplace violations, including bullying and sexual harassment, achieving a 100% completion rate in 2024. • We've established a comprehensive grievance procedure with confidential investigations conducted by a dedicated taskforce. The Grievance Review Committee will make impartial final decisions on grievance cases.	**1 Sexual Harassment Case in 2024** General compensation principles are as follows: • Implementing measures such as adjusting job duties or work environment as appropriate to prevent recurrence of workplace violation against the complainant. • Providing or referring the complainant to consultation, medical or psychological counseling, social welfare resources, and other necessary services. • A thorough investigation will be conducted into the grievance case. If violations are substantiated, appropriate disciplinary actions and measures will be taken against the perpetrator. If criminal offenses are involved, we may also refer the case to the judicial authorities for legal proceedings. • We will continuously track, assess, and monitor substantiated cases to prevent future incidents of workplace violations. • Retaliation against complainants, whistleblowers, or individuals assisting with investigations is strictly prohibited. Violators will be subject to disciplinary action in accordance with company management regulations.
Supplier (Joint Venture)	Work Hours, Wage and Benefits, Humane Treatment, Workplace Violation	**To ensure the suppliers' commitment to sustainability, we implement the following measures:** • We conducted sustainability risk assessments for all Tier 1 suppliers, including Tier 1 suppliers of concern, encompassing a total of 370 suppliers with a 100% completion rate. • We enforced audits on high-risk suppliers, identifying a total of 61 non-conformances. Nanya Technology assists these suppliers for improvement, achieving a 100% remediation rate. • We evaluate potential impacts across supplier governance, social and environmental aspects, and continuously encourage suppliers to conduct risk management and identification measures. • We requested our joint venture Formosa Advanced Technologies to promote human rights due diligence and RBA VAP to proactively identify and mitigate human rights risks as well as preventing human rights violations. Please refer to Formosa Advanced Technologies' Sustainability Report for the disclosure of relevant due diligence findings. https://www.fatc.com.tw/esg/download.php	**0 Human Rights Violations in 2024** General compensation principles are as follows: Requiring suppliers to make improvements and comply with local regulatory requirements.
	Responsible Minerals Procurement, Hazardous Substances Free	**Responsible Minerals Procurement Management** • Monitoring evolving trends in the requirements of responsible mineral procurement management and developing a corresponding responsible mineral procurement management list. • Employing effective tools (CMRT/EMRT, etc.) to conduct regular due diligence. • Aiming for 0 deficiencies during third party independent verification. **Hazardous Substance Free Management** • Identifying the relevance of regulations to customer products and developing a corresponding hazardous substance management list. • Conducting regular due diligence and providing effective compliance (testing) reports. • Aiming for 0 deficiencies during third party independent verification.	**0 Human Rights Violations and Hazardous Substances Incidents in 2024** General compensation principles are as follows: Requiring suppliers to make improvements and comply with local regulatory requirements.

Subject	Material Human Rights Issues	2024 Mitigation Measures	2024 Compensation Measures
Community	Air Pollution Water Resource	**Implementing the following measures to ensure environmental sustainability:** (1) Discharging wastewater in compliance with regulatory standards and continuously reducing discharge volumes: A. Air Pollution Reduction: Reducing volatile organic compounds emission. According to third-party verification in 2024, the efficiency of our processing equipment is above 98%, resulting in a 70% reduction in volatile organic compounds emission compared to 2022. B. Water Resource Shortage: • Diversifying Water Sources and Enhance Storage: We have constructed a water reservoir of 43,000 metric tons capacity and built 7 additional wells in our facilities, providing a combined daily water supply of 5,500 metric tons. • We collaborate with nearby Formosa Plastics Group facilities to establish an emergency response organization for water shortages, enabling mutual sharing of water resources during emergencies within the organization. • Water Conservation and Rainwater/Wastewater Recycling: Beyond rainwater reuse initiatives, we recycled a total of 5,590,000 metric tons of wastewater in 2024. • Establishing response measures aligned with government-issued water situation lights. C. Effluent Quality Control: • Collected wastewater is classified and directed to the appropriate sewage facilities for treatment. Our treatment efficiency has improved over the years. • We have established a real-time effluent quality monitoring system linked to the Environmental Protection Department of local government, enabling joint monitoring to ensure effluent quality remains within normal parameters. (2) We conduct monthly environmental inspections. (3) We collaborate with local communities to form an Environmental Quality Supervision Committee. Feedback from local stakeholders is gathered through quarterly Nanlin Technology Park Management Committee meetings.	**0 Community Complaints in 2024** General compensation principles are as follows: • Paying close attention to the evolutions of regulations and adopting corresponding measures. • Actively engaging with local schools, organizations, and groups to implement educational initiatives such as environmental conservation.
	Social Engagement	**We commit to engaging in public affairs and caring for the local communities, exerting social influence and promoting community development through the following measures:** • Talent Cultivation: We partner with schools to instill sustainability mindset in youths, promoting sustainability education to 1,536 students. • Environmental Conservation: We connect with diverse non-profit organizations to promote environmental awareness, maintain biodiversity, and move towards a low-carbon society, with 523 employees participating in 4 environmental conservation events. • Community Harmony: We participate in neighborhood (nearby community) public affairs to create a harmonious and mutually beneficial living environment, benefiting 16,671 people. • Humanistic Care: We integrate local resources to characterize regional humanistic landscape, with 552 employees participating in cultural events in 2024.	
Customer	Personal Data Protection and Information Security	**We implement the following information security management measures to protect customers' rights:** • We established the Confidential Information Management Procedure and Personal Data Management Rules, requiring all employees to read. • We conduct monthly information security awareness campaigns, and require employees to complete information security training courses and pass relevant assessments once every year to enhance personal data protection awareness. The completion rate was 100% in 2024. • Company confidential information is archived in the Document Control Center in accordance with internal procedures and classified by confidentiality level. Unauthorized disclosure of company confidential information is prohibited, and relevant evaluation mechanisms are also established. • We install metal detectors at entrances for inspecting information security-controlled items. • We regularly apply for ISO 27001 international information security management certification.	**0 Information Breach Incidents in 2024** General compensation principles are as follows: • We will inform the customers immediately and provide proper remedies.

Our risk occurrence rate in 2024 was 3.55%, a 0.23% reduction from 2023. This decrease resulted from the proactive organization of a wide range of health promotion events and seminars, along with regular health information sharing and awareness campaigns, ultimately enhancing our employees' focus on health management and providing them with helpful health knowledge. These initiatives covered topics such as nutritional diet, exercise, and psychological adaptation, enabling employees to better understand their physical conditions. Consequently, many have improved their health awareness, and we observed a significant decrease in abnormal health examination results and the number of employees with high workload.

3. Employee Protection and Communication

Zero-Tolerance for Harassment and Discrimination

Nanya Technology upholds a zero-tolerance policy for harassment and discrimination

Policy Declaration	To protect all employees from physical or psychological violations that may cause physical or mental illness while performing their job duties, Nanya Technology has established a "Prohibiting Workplace Violation Statement."
Zero Tolerance	We are committed to ensuring a *zero workplace violation* Note working environment, which includes absolutely no tolerance for workplace bullying by any managerial-level supervisor , nor any tolerance for workplace violations such as workplace violence among employees, or by visitors, customers, and strangers towards our employees.
Grievance Channels	All employees have a responsibility to jointly maintain and ensure a working environment free from workplace violations. Anyone who witnesses or hears of any workplace violation incident should immediately call the employee grievance hotline or use the internal grievance mailbox to report the incident. Grievance Hotline: 02-29045858 #1132, #1136 Grievance Mailbox: protection@ntc.com.tw
Training	We conduct workplace violation prevention training for all employees at least once every two years. Supervisory seminars are held as needed to enhance employee communication and reduce stress and frustration.
Disciplinary Measures	Grievance cases will be investigated confidentially by the Grievance Investigation Taskforce and arbitrated by the Grievance Review Committee. If the allegations are substantiated, disciplinary action will be taken in accordance with company management regulations. If criminal offenses are involved, we may also refer the cases to the judicial authorities for legal proceedings.
Remedial Measures	We will strictly maintain the confidentiality of the complainant's identity and provide assistance and compensation measures such as health guidance, work adjustment or reassignment, and follow-up on physical and mental well-being.

Note: Definition of Workplace Violation

Incidents where employees experience maltreatment, threats, harassment, discrimination, or attacks in a working environment (including commute) that clearly or implicitly endanger their safety, well-being, or health. Forms of workplace violation include:

I. Non-Sex or Non-Gender Related Violation

(1) Physical Abuse: Acts of violence or physical aggression causing harm (e.g., assault, scratching, punching, kicking, etc.).

(2) Psychological Abuse: Mental harm through coercion or humiliation (e.g., threats, bullying, severe verbal abuse, etc.).

(3) Verbal Abuse: Language offenses through inappropriate words or tone (e.g., bullying, intimidation, interference, etc.).

(4) Discrimination: Making employment decisions or impairing working conditions based on characteristics unrelated to the specific job requirements.

(5) Harassment: Repeated or continuous interference or disruptive behavior against a specific person's will, causing discomfort or a sense of threat.

II. Sex or Gender Related Violations

(1) Sexual Harassment: Sexual advances against a person's will (e.g., inappropriate sexual innuendos and actions, etc.).

(2) Gender Harassment: Remarks with gender discrimination or prejudice, particularly those that are insulting, demeaning, or hostile towards a particular gender.

Even before the issuance of the Workplace Violation Guidelines, Nanya Technology already established the Workplace Sexual Harassment Prevention, Grievance and Disciplinary Policy and the Nanya Technology Employee Protection and Complaint Regulations. These rules outlined relevant prevention and subsequent investigation and handling measures for employees facing inappropriate treatment in the workplace. Our company also has a counseling room in place and collaborates with the Teacher Chang Foundation, providing on-site counseling services as a channel for employees to confide and seek advice. Furthermore, we regularly conduct workplace mental health promotion seminars to offer stress relief channels for employees.

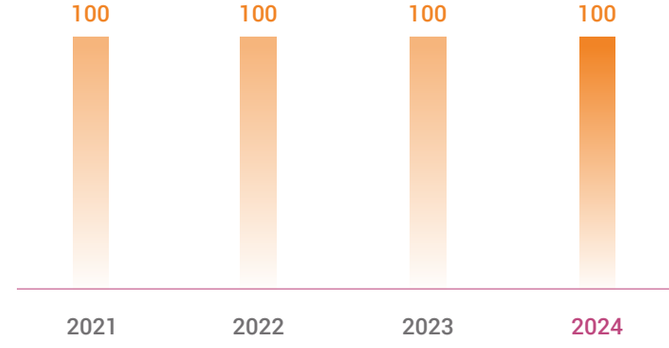
Establishing Norms

- We've integrated Workplace Sexual Harassment Prevention, Grievance and Disciplinary Policy and Nanya Technology Corporation Employee Complaint Guidelines into Nanya Technology Employee Protection and Complaint Regulations since 2019, and made relevant revisions in 2020 and 2023 respectively to enhance the comprehensiveness of our regulations.
- We've established the Workplace Sexual Harassment Prevention, Grievance and Disciplinary Policy based on regulatory mandates in 2024.

Implementing Actions

- Conducting annual online training for all employees on "Unsafe Workplace Behavior and Prevention training"
- Conducting employee protection, hazard identification and risk assessments for each department to further manage potential at-risk groups
- Strengthening the grievance investigation by establishing a permanent Grievance Review Committee
- Establishing a counseling room and collaborating with the Teacher Chang Foundation for on-site counseling services
- We've implemented the revised Workplace Sexual Harassment Prevention, Grievance and Disciplinary Policy in 2024 and engaged external experts, such as scholars and lawyers in relevant fields, to participate in complaint investigations.

Workplace Violation Training Statistics



"Unsafe Workplace Behavior and Prevention Training" Completion Rate

Grievance and Whistleblower Channels

Nanya Technology has established various grievance channels in accordance with the Nanya Technology Employee Protection and Complaint Regulations, the Workplace Sexual Harassment Prevention, Grievance and Disciplinary Policy, and the Nanya Technology Reporting Procedure. These channels provide internal and external stakeholders with avenues to report any illegal or unethical conduct when they witness illegal or inappropriate behavior that significantly affects the rights and interests of individuals or the Company, or when someone attempts to exploit their role for improper gains. Depending on the case, the Audit Department or the Grievance Review Committee will handle the report. For cases involving workplace violation, the Grievance Review Committee will form an investigation taskforce in accordance with legal regulations. Additionally, a dedicated whistleblower hotline (02-29061001) and mailbox (audit@ntc.com.tw) are published on the Company's official website to allow stakeholders to report incidents of rights infringements. Based on the details, category, nature and sensitivity of the cases, as well as the level of the reported individuals, an appropriate case handler will be assigned, or a taskforce will be formed for investigation. Cases involving managers or directors will be investigated by a taskforce composed of directors from the Management Audit Department. To protect whistleblowers, case handlers will maintain confidentiality by strictly prohibiting the disclosure of case details to irrelevant personnel during investigations. When relevant individuals are under investigation, discussions will be limited to aspects directly related to their involvement in the case to protect the complainants' identity. All relevant data will be handled and archived as confidential documents.

Number of Grievance and Reporting Cases Received in the Past Years, by Channel

		2021			2022			2023			2024		
Grievance Channel	Letter of Complaints (including anonymous reports)	5			4			0			3		
	Employee Grievance Form	0			0			2			3		
	Whistleblowing Hotline and Mailbox	1			1			1			1		
	Total	6			5			3			7		
		Rejected	Accepted		Rejected	Accepted		Rejected	Accepted		Rejected	Accepted	
			Substantiated	Dismissed		Substantiated	Dismissed		Substantiated	Dismissed		Substantiated	Dismissed
Type of Cases Related to the Code of Business and Ethical Conduct	Corruption and Bribery	0	0	0	0	0	1	0	1	0	0	1	0
	Illicit Gains	0	0	2	0	0	0	0	0	0	0	0	0
	Fair Competition	0	0	0	0	0	0	0	0	0	0	0	0
	Questionable Donations	0	0	0	0	0	0	0	0	0	0	0	0
	Conflicts of Interest	0	0	0	0	0	0	0	0	0	0	0	0
	Money Laundering or Insider Trading	0	0	0	0	0	0	0	0	0	0	0	0
	Intellectual Property Right Protection	0	0	0	0	0	0	0	0	0	0	0	0
	Privacy/Personal Data Protection	0	0	0	0	0	0	0	0	0	0	0	0
	Sexual Harassment	0	0	0	0	0	0	0	2	0	0	1	0
	Harassment	0	0	0	0	0	0	0	0	0	0	0	0
	Discrimination	0	0	0	0	0	0	0	0	0	0	0	0
	Environmental Protection	0	0	0	0	0	0	0	0	0	0	0	0
	Occupational Safety and Health	0	0	0	0	0	0	0	0	0	0	0	2
	Others	0	0	0	0	1	3	0	0	0	0	1	2
	Total	0	0	4	0	1	4	0	3	0	0	3	4
Resolved Cases		6			5			3			7		
Resolution Rate		100%			100%			100%			100%		

In 2024, there were a total of 7 reported grievance and whistleblower cases. Among these, 3 cases were substantiated, with 1 corruption case, 1 sexual harassment case, and 1 management issue. The case details are as follows:

Corruption Case (1) :

During multiple procurement processes, the individual violated company operating procedures by leaking confidential company information, requiring specific vendors to engage in bid rigging, favoring specific vendors, engaging in improper financial dealings with specific vendors, and accepting gifts, all of which constitute violations of the labor contract and Work Rules.

Measures Taken by the Company:

- Disciplinary Actions: Upon receiving the complaint, we immediately launched an investigation. After the issue was substantiated, the offender was removed from their job in accordance with Human Resources Management Regulations. This case has been referred to judicial authorities.
- Compensation: To prevent future corruption, we regularly conduct anti-corruption training and publish awareness campaigns through company-wide computer systems and bulletin boards on-site. Anti-corruption and illicit benefit audits have been incorporated into the scope of quality assurance.

Sexual Harassment Case (1) :

An individual exploited their position and the guise of business instruction to engage in prolonged physical harassment, inappropriate touching, and other unreasonable behavior towards multiple female colleagues in the workplace. Following the investigation processes, the allegation was substantiated.

Measures Taken by the Company:

- Disciplinary Actions: Upon receiving the complaint, we immediately separated the employees involved in the workplace. Relevant counseling was provided after the case was substantiated. Based on the severity of the circumstances, the offender received a major demerit and was transferred to another department in accordance with Human Resource Management Rules. We also instructed the department to reinforce training on the understanding of various forms of sexual harassment.
- Guidance: We provided with or referred the complainant to consultation, medical services, counseling, social welfare resources, and other necessary services. Relevant guidance was also enforced on the offender to ensure non-recurrence of the misconduct.
- Compensation: To prevent recurrence, we have adjusted the offender's job duty and reassigned their working environment. We will continue to track, review and monitor this substantiated case to prevent future incidents of workplace violation. Retaliation against complainants, whistleblowers, or those assisting with investigations is strictly prohibited, with offenders subject to disciplinary actions in accordance with company management regulations.

Management Issue Case (1) :

After investigation, dereliction of duty during overtime work on a rest day is substantiated after the investigation by the department.

Measures Taken by the Company:

- Disciplinary Actions: The offender was rated as an underperformer in performance evaluation and the incident was included in the year-end performance appraisal. A minor demerit was issued in accordance with Human Resources Management Regulations, and the offender was required to return the overpaid overtime wages.
- Compensation: Overtime and work productivity will be effectively controlled by setting work KPIs, conducting internal audits, and implementing other work management measures. The Company's departmental management practices will continue to be monitored through internal management processes.

4. Labor Relations and Communication

To cultivate harmonious labor relations, promote cooperation between labor and management, and enhance employee welfare, we have established diverse and transparent communication channels. These enable employees to express their views on fundamental working condition issues, including health and safety and employee benefits. We actively seek to understand employee concerns and address issues promptly to foster positive labor-management communication. For reporting illegal activities, we have a grievance channels, a whistleblower hotline, and a sexual harassment prevention hotline in place. Employees can also provide feedback on Company rules and regulations through the management system feedback channel. Employees can openly communicate with management on various public and private matters, working conditions, compensation and benefits, or personal opinions through the following channels:

Communication Meeting

Biannual All-Hands Meetings

The President addresses all employees twice a year, sharing updates on operations, revenue, market developments, and R&D progress

Biannual Administrative Liaison Meetings

Organized by the Employee Relations Department, these meetings provide updates on employee welfare initiatives and serve as a platform for open dialogue and feedback with administrative liaisons.

Quarterly Online Technical Staff Meetings

Held four times a year by the Manufacturing Division, these meetings are conducted online and provide technical personnel with updates on the company's operations, revenue, market developments, and R&D progress.

Regular Meeting with Labor Union Representatives

Bilateral Communication Platform

Sharing Corner

Feedback

Electronic Survey

Food Services Satisfaction Survey

Events Satisfaction Survey

Employee Engagement Survey

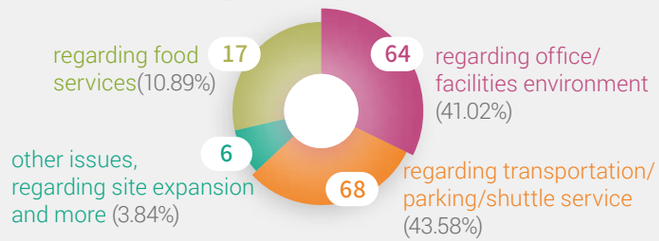
Number of complaints submitted through feedback platform in 2024

156

Average response time

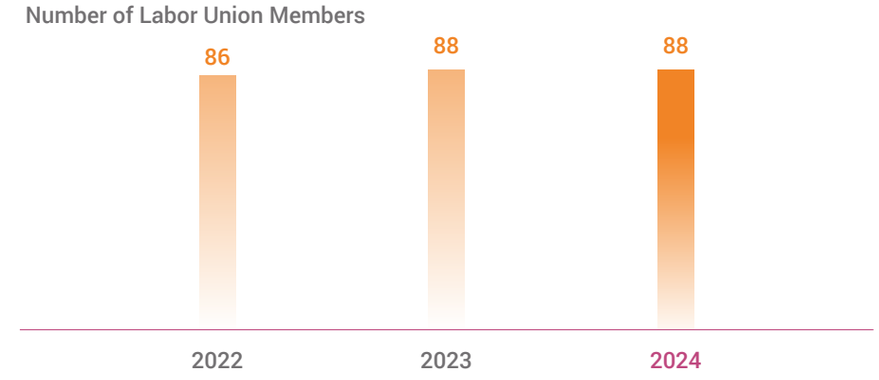
5 Days

Top 3 Complaints

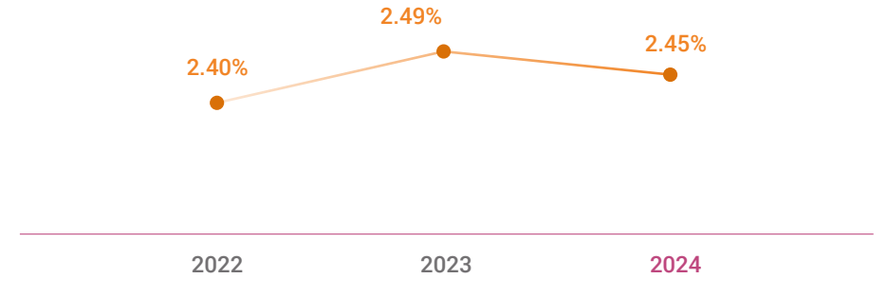


Nanya Technology established its labor union by employees in April 2012. For a long time, the company and the labor union have actively maintained bilateral communication channels and harmonious relationships. We exchange information and communicate on working conditions (e.g., evaluation of breaks) through various channels, allowing the labor union to fully exert its functions and express opinions, which thereby enhances harmonious labor relations and welfare. Despite the establishment of a Company labor union, no collective bargaining has been proposed or agreement signed to date. This is because the labor union and the Company have maintained diverse and smooth communication channels, with the Company actively responding to these discussions.

Number of Labor Union Members in Taiwan Over the Past Three Years



Labor Union Membership Rate[Note 1]



Note 1: Adjusting the calculation method and the labor union membership rate over the past 3 years.

4.2 DEI

1. Advancing Through Generations with Inclusion and Innovation

Through promoting DEI, we are committed to creating a workplace that respects differences, inspires creativity, and fosters collaboration. By embracing diverse recruitment and an inclusive culture, we empower every employee to fully realize their potential and continuously innovate. Together, across generations, we will generate greater value and competitiveness for the Company.

Action Strategies for DEI

People-oriented is the foundation of Nanya Technology's Diversity, Equity, and Inclusion (DEI) action strategies. We have established a vision and mission for DEI, formulated action strategies, and focused on cultivating diverse talent, strengthening internal communication and collaboration. Furthermore, through continuous learning and development opportunities, we aim to stimulate the innovative potential within employees, laying a solid structure for building a more diverse and inclusive corporate culture.

Vision

Embracing diversity, pursuing innovation and inclusion, and moving toward sustainability.

Mission

Building a workplace brimming with curiosity and collaboration, where diverse perspectives are valued, continuous innovation is encouraged, and new ways of thinking are embraced.

Action Strategy

- **Attraction:** Building an employer brand that highlights DEI to attract a wide range of talent.
- **Recruitment:** Integrating DEI values into all stages of the recruitment and hiring processes.
- **Onboarding:** Providing support to help new hires adapt to the organizational environment and ease into their roles.
- **Training:** Enhancing employee awareness and understanding of diversity, equity, and inclusion through training.
- **Development:** Cultivating a wider array of key talent for leadership positions to provide a diverse internal talent pool for succession.
- **Communication:** Establishing bilateral communication channels to gather employee feedback and continuously optimizing the Company's DEI initiatives.
- **Impact:** Forming strategic partnerships to promote and impact diversity across the broader society.
- **Improvement:** Regularly reviewing and adjusting our diversity strategies to ensure they remain aligned with organizational development and employee needs.

2024 Results

Building A Culture of Inclusion

15
cultural literacy seminars on inclusion and diversity

512
people voluntarily responded to the woMen Era Survey

2
seats on the Board of Directors are held by women

Employee Diversity

27.67%
of employees are women

34.89%
of managers are women

1.17%
of recruits are people with disabilities

Investing in Future Talent

130
interns in Tech, Technologies, Design and Finance are hired

NT$ 6million
allocated to the Future Star Scholarship

NT$ 4.87million
spent on industry-academia partnerships

2025 Key Performance Indicators

Leadership Diversity	• At least 1 seat on the Board of Directors are held by women • Continuously pursuing a diverse Board of Directors composition: Directors' expertise covers raw materials, finance, information technology, and semiconductors, forming a multifaceted group.
Cultivation of DEI Culture	• We hosted 6 DEI literacy seminars
DEI Trainings	• We hosted 1 DEI interview know-how training
Employee Feedback	• Please refer to the "Employee Engagement Survey" section
Listening to Our Employees	• Our president hosted 2 All-Hands Meeting • 156 employee feedback was addressed

2. Talent Sustainability and Diverse Recruitment Approach

Nanya Technology upholds a people-oriented philosophy that respects diversity. During talent recruitment, we make no distinction based on nationality, race, gender, age, sexual orientation, religion, political affiliation, origin, marital status, appearance, or physical or mental disabilities. We solely focus on whether an individual's personal attributes align with the requirements of the job opening.

Employee Diversity

Employees are Nanya Technology's most valued partners and the crucial driving force behind the Company's sustainable operations and innovative R&D. Deeply rooted in our people-oriented culture, we have created a people-centric and comfortable working environment. Our training is structured to promote employee learning, allowing them to receive systematic education, diverse learning and development resources. This helps our employees quickly develop semiconductor expertise and skills, strengthens our talent capital, and enhances the Company's competency. In addition to offering competitive remuneration and a bonus system to motivate and encourage our employees, the Employee Welfare Committee organizes vibrant and enriching recreational activities every year. We are committed to building a happy workplace where work and life can be balanced, and provide comprehensive care and concern for our employees.

We firmly believe that a high-quality and stable human resource pool contributes to the Company's increased productivity and competitive advantages. We continuously plan and provide an environment suitable for talent development, aspiring to become the best employer that nurtures talent through dedicated cultivation.

Diversity Recruitment Policy

Nanya Technology provides equal employment opportunities. Our operations are distributed both domestically and internationally, so our employees' nationalities are highly diverse. In addition to employing Taiwanese nationals, in 2024, we employed individuals from 13 different nationalities, including Mainland Chinese, French, German, Japanese, American, Burmese, Italian, Kenyan, South Korean, Turkish, British, Indonesian, and Malaysian, forming an internationally diverse workplace. In 2024, the total number of our foreign employees was 108, accounting for 2.92% of all employees. The top five nationalities[Note 1] were, in order, American, Mainland Chinese, Japanese, German, Indonesian, Burmese, Malaysian, French, and South Korean. The top five nationalities in management positions[Note 2] were, in order, Taiwanese nationals, American, Japanese, Mainland Chinese, German, French, and South Korean. Taiwanese nationals rank the highest, accounting for 91.48% of all managers.

We also align with and support the government's policy of encouraging the employment of people with disabilities, creating a friendly and diverse workplace. As of December 2024, we employed 42 individuals with disabilities in Taiwan, with a hiring rate of 1.17%. We will continue to employ a sufficient number of people with disabilities, providing suitable job vacancies to increase their employment opportunities and build a diverse and inclusive workplace.

Note 1: The numbers of German, Indonesian, and Burmese employees were the same, so they are listed together in fourth place. The numbers of Malaysian, French, and South Korean employees were the same, so they are listed together in fifth place.

Note 2: The numbers of German, French, and South Korean employees were the same, so they are listed together in fifth place.

Year	2021	2022	2023	2024
Number of Nationalities	15	16	16	14
Category of Nationalities	Taiwanese Nationals, Mainland Chinese, French, German, Japanese, American, Thai, Vietnamese, Burmese, Italian, Kenyan, South Korean, Turkish, British, Indonesian	Taiwanese Nationals, Mainland Chinese, French, German, Japanese, American, Thai, Vietnamese, Burmese, Italian, Kenyan, South Korean, Turkish, British, Indonesian, Malaysian	Taiwanese Nationals, American, Mainland Chinese, Japanese, German, Indonesian, Malaysian, French, Burmese, South Korean, British, Thai, Vietnamese, Italian, Kenyan, Turkish	Taiwanese Nationals, American, Mainland Chinese, Japanese, German, Indonesian, Malaysian, French, Burmese, South Korean, British, Italian, Kenyan, Turkish
Proportion of Foreign Employees (%)	3.26%	3.01%	2.99%	2.92%
Number of People with Disabilities Hired	36	36	40	42
People with Disabilities Hiring Rate (%)	1.05%	1.01%	1.13%	1.17%

Note: The calculation of people with disabilities hiring rate is based on the 3,589 regular employees in Taiwan

Distribution of Top Five Nationalities by Management and Employee Levels in 2024

Nationality	Number of Employees	Percentage of Total Employees	Number of Managers	Percentage of Total Managers
R.O.C	3585	97.08%	333	91.48%
American	63	1.71%	13	3.57%
Mainland Chinese	18	0.49%	3	0.82%
Japanese	8	0.22%	6	1.65%
German	3	0.08%	2	0.55%
Indonesian	3	0.08%	0	0.00%
Burmese	3	0.08%	0	0.00%
Malaysian	2	0.05%	0	0.00%
French	2	0.05%	2	0.55%
South Korean	2	0.05%	2	0.55%

Fair and Diverse Recruitment Channels

In 2020, to actively reduce potential bias and better align our talent recruitment process with our DEI strategy, we made non-work essential items like gender, age, and family status optional on our interview form. Furthermore, we leverage diverse recruitment channels. In addition to allowing resume submissions through our Company website and proactive applications via job search platforms, we vigorously engage with universities through campus recruitment events to identify the most suitable candidates.

Semiconductor Women's Empowerment Camp

In 2024, we joined forces with youth career development centers and schools to host the Semiconductor Women's Empowerment Camp, themed Tech Girls, Transforming the Future. We welcomed students from Taipei Municipal Zhongshan Girls High School and Keelung Municipal Girls High School for company tours. During these visits, female managers from our Company shared their journeys, offering valuable insights into the semiconductor industry and inspiring the students to confidently explore careers in this sector, thereby fostering their professional growth and encouraging more female talent to enter the semiconductor field in the future.

International Exchange Opportunities

To strengthen ties between international students and the semiconductor industry, support national talent recruitment policies, and promote post-graduation employment in Taiwan, we collaborated with Chang Gung University to host a delegation from the University of Colorado Denver. This international exchange opportunity served to introduce international students to career paths within the semiconductor industry.

3. Cultivating and Promoting a Culture of Diversity and Inclusion

We provide training to help employees understand DEI concepts, raise awareness of their potential unconscious biases, and consequently encourage changes in their conscious behaviors, fostering a workplace culture of inclusion and belonging. Through systematic learning programs, all employees, whether full-time or part-time, regardless of age or background, are provided with access to learning opportunities. We designed a series of courses to cover the following topics:

DEI Leadership

To continuously advance DEI principles within the Company, it's crucial that key leadership competencies adapt to new trends as time changes. Therefore, we specifically launched the "DEI Leadership" course for middle management, helping them understand and implement inclusive leadership by emphasizing DEI values in their daily management.

By doing so, we managed to foster a more open and inclusive working environment and facilitate overall employee development.

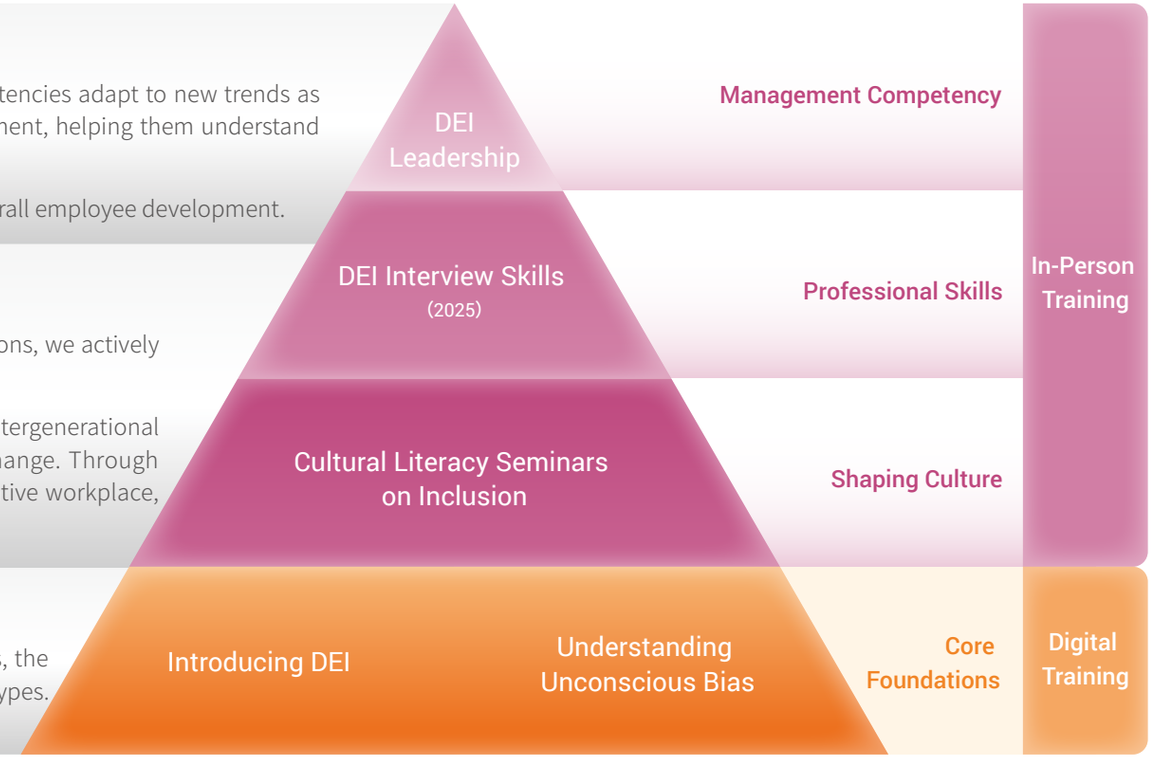
Cultivating a Culture of Inclusion and Cultural Literacy

To promote the understanding and internalization of diversity and translate them into practical actions, we actively organize inclusion and cultural literacy seminars and sharing sessions.

In 2024, we held a female growth-themed seminar, a cross-cultural handicraft workshop, and an intergenerational sharing session, inviting colleagues from Generations X, Y, and Z to engage in dialogue and exchange. Through interactions with internal and external experts and colleagues, we foster a harmonious and innovative workplace, shaping the Company's inclusive culture.

Building Core Foundational Knowledge

Our courses are designed to provide employees with a proper understanding of basic DEI concepts, the benefits of promoting DEI, the fundamentals of unconscious bias, and common workplace stereotypes. Through seminars and case studies, we enable employees to understand and apply DEI principles.



Furthermore, through our annual March 8th International Women's Day survey, we encourage employees to explore DEI issues from various perspectives. We are progressively integrating these values into daily routines and decision-making. Through these efforts, Nanya Technology is moving towards establishing a truly diverse, equitable, and inclusive workplace.

Pictures from DEI Leadership Course on April 30th

Mother's Day Special Event on May 9th

Women's Development Themed Seminar

Intergenerational Exchange on July 30th

Include three panelists representing the X, Y and Z generations

4.3 Talent Development

1. Attracting Talent

Stable Human Resource

The capital and technology-intensive semiconductor industry requires not only substantial investment in plant and manufacturing equipment costing tens of billions of NTD, but also a large number of talented engineering professionals for Nanya Technology's production operations. Nanya Technology's workforce structure is remarkably stable. In 2024, our Taiwan and overseas subsidiaries employed 3,693 regular employees (including 85 interns), with 87.16% categorized as professional staff [Note 1] and an additional 85 non-regular employees[Note 2]. This high-quality, well-structured workforce demonstrates stable growth, providing a strong foundation for process innovation, technological advancements, and new product development. The total number of regular employees at Nanya Technology in Taiwan is 3,589, accounting for 97.18% of the total workforce, while overseas subsidiaries employ 104 regular employees, accounting for 2.82%. The gender ratio among regular employees is approximately 2.6:1, with 2,671 male employees (72.3%) and 1,022 female employees (27.7%). In Taiwan, the majority of non-employee workers consist of approximately 400 subcontractors and about 100 outsourced personnel (including catering, cleaning, and security companies). Security guards are directly assigned by the Company, numbering around 40. The average age of our employees is 39.10 years, and the 30-50 age group constitutes our main labor force, comprising 68.48% of the total regular employees. The educational level of our workforce is primarily concentrated on the bachelor's and master's levels. All regular and non-regular employees are directly hired by the Company, with no part-time employees in 2024. 100% of our workforce is full-time.

Note 1: Professional staff refers to employees who do not work on frontline production and manufacturing

Note 2: Non-regular employees include consultants, fixed-term contract employees, and student workers

2024 Taiwan and Overseas Subsidiaries Employee Age Demographics

		Taiwan				Overseas Subsidiaries				Total					
		Female	Percentage of Total Female Employees in Taiwan	Male	Percentage of Total Male Employees in Taiwan	Female	Percentage of Total Female Employees Overseas	Male	Percentage of Total Male Employees Overseas	Female	Percentage of Total Female Employees	Male	Percentage of Total Male Employees	Male + Female	Percentage of Total Employees of All Genders
Under 30	Regular Employees	137	13.69%	488	18.86%	2	9.52%	25	30.12%	139	13.60%	513	19.21%	652	17.66%
	Non-Regular Employees	18	100.00%	57	85.07%	0	0.00%	0	0.00%	18	1.76%	57	2.13%	75	88.24%
30-50	Regular Employees	720	71.93%	1772	68.47%	12	57.14%	25	30.12%	732	71.62%	1797	67.28%	2529	68.48%
	Non-Regular Employees	0	0.00%	4	5.97%	0	0.00%	0	0.00%	0	0.00%	4	0.15%	4	4.71%
Over 50	Regular Employees	144	14.39%	328	12.67%	7	33.33%	33	39.76%	151	14.77%	361	13.52%	512	13.86%
	Non-Regular Employees	0	0.00%	6	8.96%	0	0.00%	0	0.00%	0	0.00%	6	0.22%	6	7.06%

In 2024, Nanya Technology had 33 female managers in executive and middle management positions, representing 12.55% of this level. This number has been increasing over the years and based on this trend, the projected percentage of female managers is expected to reach 13% by 2025. Due to the nature of the semiconductor industry and the available talent pool, management positions at this level are still predominantly held by men. However, in operational management roles, such as production foremen and production team leaders, the proportion of female managers is significantly higher at 93.07%, highlighting their crucial role in Nanya Technology's productivity. In management positions within production revenue-related departments, there were 118 female managers, accounting for 38.19%, showing no significant change compared to 2023.

Percentage of Female Employees Over the Past Four Years

Number of People/ Percentage	2021 Number of Females	2021 Percentage of Females[Note 1]	2022 Number of Females	2022 Percentage of Females[Note 2]	2023 Number of Females	2023 Percentage of Females[Note 3]	2024 Number of Females	2024 Percentage of Females[Note 4]
Total Employees	982	27.63%	1015	27.54%	1013	27.78%	1022	27.67%
Management	122	33.61%	125	34.44%	126	35.00%	127	34.89%
Executive	27	10.34%	30	11.49%	31	12.02%	33	12.55%
Frontline Management	95	93.14%	95	93.14%	95	93.14%	94	93.07%
Managers of Production Revenue-Related Departments[note 5] (Management)[note 6]	114	36.89%	116	32.04%	117	38.49%	118	38.19%
Female Employees in STEM-Related Positions[note 7]	428	15.92%	459	16.34%	458	16.43%	468	16.44%

Note 1, 2, 3 and 4: The calculation is based on the total number of employees of the group.

Note 5: Management positions include both executive and middle management (plant/division heads and above, department and section managers) and frontline management (production foremen, production team leaders).

Note 6: Production revenue-related departments exclude Planning and Administration, Operational Support, Quality Reliability Assurance, Legal Affairs, and Safety & Hygiene Department. The number of managers in production revenue-related departments includes frontline managers.

Note 7: STEM stands for Science, Technology, Engineering, and Mathematics related roles.

Note 8: Some figures and percentages for 2021-2022 have been revised; however, the statistical methodology remains unchanged.

Nanya's Talent Recruitment Video

Attracting High-Quality Talent

We adhere to the regulations of Taiwan's labor laws and our corporate labor ethics policy in recruitment and employment, providing equal opportunities and a fair environment. The selection of talent is based solely on individual professional skills and experience, without discrimination based on age, race, gender, sexual orientation, religion, political affiliation, origin, marital status, appearance, or physical or mental disability. Our systems for promotion, performance evaluation, training, and disciplinary actions after hiring are clearly defined, ensuring fair employment and training opportunities for everyone.

In 2024, our Taiwan recruitment efforts resulted in 411 hires with an investment of approximately NT$720,000, yielding an average cost per hire of NT$1,764. We employ diverse recruitment channels, including online advertisements and internal referrals, and posting talent recruitmen information on our official social media platform to enhance company visibility. Furthermore, we strengthen industry-academia collaborations to target students, focusing on their technical and practical skills to proactively identify and recruit outstanding talent and overcome recruitment challenges. Our university recruitment events, themed Leading the Future with Your Intelligence, feature on-campus interactions, communication, and seminars, encouraging aspiring tech professionals to bravely pursue and realize their dreams as well as contribute to the development of Taiwan's semiconductor industry. For the recruitment of frontline production workforce, we collaborate with local employment service centers in the vicinity of our plants, conducting ad-hoc on-site interviews to prioritize the hiring of local residents and promote local employment opportunities. All management positions in Taiwan are held by Taiwanese nationals, representing 100% local employment.

2021~2024 Total Recruitment Cost

	2021	2022	2023	2024
Total Recruitment Cost (in NT$)	1,286,210	1,304,183	493,388	724,968
Total Number of Hires[Note 1]	360	558	286	411
Recruitment Cost per Person (in NT$)	3,573	2,337	1,725	1,764

Note 1: The total number of hires refers to individuals who reported for duty within the current year (including those who may have subsequently departed in the same year)

Campus Career Fair Photo Gallery

To foster the growth of the semiconductor industry and our Company's operations, Nanya Technology actively recruits new talent to join our corporate family and move forward together. In 2024, new hires accounted for approximately 7% of our workforce, with a male to female ratio of approximately 3.64:1.

2021~2024 New Hires in Taiwan and Overseas

	2021	2022	2023	2024
Number of New Hires[Note 1]	270	412	175	260

2024 Total Taiwan and Overseas New Hires

Group			Female		Male		Total	
			Number of People	Percentage[Note 2]	Number of People	Percentage[Note 3]	Number of People	Percentage[Note 4]
New Hires[Note 1]	Region	Taiwan	55	5.49%	197	7.61	252	7.02%
		Overseas Subsidiaries	1	4.76%	7	8.43%	8	7.69%
	Age	Under 30	41	29.50%	161	31.38%	202	6.04%
		30-50	12	1.64%	39	2.17%	51	2.72%
		Over 50	3	1.99%	4	1.11%	7	0.77%
	Management	Executive	0	0.00%	2	0.05%	2	0.05%
		Frontline Management	0	0.00%	0	0.00%	0	0.00%
	Total New Hires		56		204		260	
	Percentage of Total Regular Employees		1.52%		5.52%		7.04%	

Note 1: New hires refer to individuals who were hired in 2024 and are currently employed (excluding those who departed within the same year)

Note 2, 3 and 4: The percentage is calculated based on the total number of employees of the respective group

2. Talent Retention

Embodying the nature of the semiconductor industry, Nanya Technology offers industry-competitive wages and is dedicated to promoting comprehensive welfare measures and training systems encompassing employees' career, life, and health. We foster a safe workplace where employees can fully utilize their potential and implement an employee assistance program, fulfilling our corporate social responsibility.

Comprehensive Work Security: Enforcing Legal Overtime Limits and Monitoring Turnover Rate

In response to industry changes and operational environment challenges, the Company continuously promotes fair and reasonable work practices, prioritizing the protection of employee work rights. Under the Formosa Plastics Group's human resource integration and utilization mechanism, we prioritize internal transfers over layoffs in terms of workforce adjustment. Job transfers and personnel separations are carried out in accordance with the Labor Standards Act and relevant regulations, with advance notice or notification provided. Supervisors will also engage in thorough communication with the individuals involved, ensuring compliance with legal requirements. To motivate employees to achieve organizational goals and retain outstanding talent, we have established a quarterly incentive bonus system, encouraging employees to actively pursue business targets and share in the Company's success.

Enforcing Legal Overtime Limits

- **Monitoring Working Hours**

Working hours are controlled based on the difference between clock-in/out or plant entry/exit times registered in our database. The control benchmarks are set at 13 hours for employees not working the 12-hour rotating shift and 14 hours for those who are. Each Tuesday, data identifying instances where employees exceeded the controlled hours between the previous Monday and Sunday is entered into internal HR management system (Notes) and summarized by section then sent for review by the respective department managers.
We also conduct checks on time spent in the plant exceeding individual scheduled work hours. For any instance where an employee stays in the plant beyond scheduled work hours by at least 1 hour, a report will be generated for the employees to confirm their attendance and to remind them to apply for overtime.

- **Overtime Management**

When the monthly payroll report reveals employee overtime in excess of 4 hours daily, 12 hours on rest days, or 46 hours per month in total, the internal HR management system (Notes) will generate a consolidated report. This report will be forwarded to the head of the employee's department, who is responsible for explaining the circumstances and outlining corrective actions. Through this management system, we effectively prevent employees from experiencing physical and mental stress due to overwork, and therefore achieve our core goal of Work-Life Balance.

- **Employees Overtime Pay Assurance**

According to internal audit enforcement rules for payroll procedures, Nanya Technology conducts monthly payroll self-audits, and randomly checks employee salary and overtime pay calculations to ensure accuracy.

- **Paid Annual Leave Assurance**

To protect employees' right to take leave, the Company follows the Labor Standards Act and gave about 66,000 days of special leave in 2024. A digital leave system and flexible leave policy are also in place to help employees effectively manage their time off. If the annual leave is not fully used within the year, employees can apply to carry it over. By the end of 2024, about 42,200 days of special leave were carried over to 2025. The Company also regularly reviews leave usage to ensure departmental compliance with the leave policy, thereby protecting employees' physical and mental health and fostering a good work-life balance.

Turnover Rate

In 2024, our voluntary turnover rate was 6.21% (with a male to female turnover ratio of approximately 3.29:1), an increase of 1.63% compared to 2023, which was 4.58%. Such an increase is attributed to the overall industry environment and market conditions raising employees' incentives to resign. To stabilize our workforce, starting in July 2024, we implemented several measures: an adjustment to the starting salary for entry-level employees with no experience, routine annual salary adjustments for all managers and employees, and structural salary adjustments for specific departments and professionals, aiming to ensure a happy and safe working environment for employees. Guided by a people-oriented philosophy, Nanya Technology continuously strives to earn employee trust and recognition by providing a positive working environment and comprehensive welfare. We also promote various retention programs and incentive measures to manage turnover risk and effectively retain talent. Moreover, we conduct individual interviews with employees intending to resign to understand their reasons and future plans, offering relevant advice as needed.

2021~2024 Taiwan and Overseas Turnover Rate Analysis

	2021	2022	2023	2024
Voluntary Turnover Rate	7.09%	8.8%	4.58%	6.21%
Total Turnover Rate	7.26%	9.05%	4.81%	6.35%

Note 1: Turnover Rate = (Number of resignations in January/Total number of employees at the end of January) x 100% + (Number of resignations in February/Total number of employees at the end of February) x 100% + ... + (Number of resignations in December/Total number of employees at the end of December) x 100%

Note 2: Voluntary turnover refers to instances where employees initiate their departure by expressing an intention to resign. The Company's primary measure of employee turnover is the voluntary turnover rate. Total turnover rate includes both voluntary turnover rate (including retirement) and involuntary turnover rate (including removal, layoff, death, etc.).

Note 3: Since 2019, we exclude direct interns (personnel changes resulting from the expiration of internship contracts) when calculating turnover rate.

Note 4: Since 2020, the voluntary turnover rate excludes those on unpaid leaves.

2024 Total Taiwan and Overseas Departed Employees

Group			Female		Male		Total	
			Number of People	Percentage[Note 2]	Number of People	Percentage[Note 3]	Number of People	Percentage[Note 4]
Total Departed Employees[Note 1]	Region	Taiwan	52	98.11%	168	94.38%	220	95.24%
		Overseas Subsidiaries	1	1.89%	10	5.62%	11	4.76%
	Age	Under 30	22	41.51%	72	40.45%	94	40.69%
		30-50	23	43.40%	84	47.19%	107	46.32%
		Over 50	8	15.09%	22	12.36%	30	12.99%
	Rank	Executive	1	1.89%	4	2.25%	5	2.16%
		Frontline Management	1	1.89%	0	0.00%	1	0.43%
	Total Departed Employees		53		178		231	
	Percentage of Total Regular Employees[Note 5]		5.23%		6.84%		6.39%	

Note 1: Total departed employees include voluntary resignation rate (including retirement) and involuntary turnover rate (including removal, layoff, death, etc.)

Note 2: Percentage of females among total departed employees

Note 3: Percentage of males among total departed employees

Note 4: Percentage of total departed employees

Note 5: Percentage of all employees refers to the proportion of female, male, and total departed employees to the total number of employees in December 2024 (excluding interns)

To ensure employees' retirement benefits, for those who have chosen the retirement system under the Labor Standards Act, we contribute 2% of their total monthly salary to a dedicated account at the Bank of Taiwan. In 2024, the accumulated Labor Retirement Reserve Fund totaled NT$620,799,499, and this amount has been fully provisioned. For employees who have opted for the retirement system under the Labor Pension Act, the Company contributes 6% of their individual monthly salary to their individual Labor Pension account. If employees choose to make voluntary contributions, these amounts are also deposited into their individual accounts, providing sufficient financial security upon retirement. Currently, employees under the new system account for 98.8% of our workforce.

3. Employee Engagement Survey

Nanya Technology conducts an annual Employee Engagement Survey for all employees to understand their level of recognition with the Company across aspects such as work, management, and organizational vision. This year's survey contains 28 questions across six aspects to collect employee feedback. The response rate for 2024 was 91.5%, with an average employee recognition score of 73%, a 2.5% decrease from 75.3% in 2023.

This decline is primarily due to the impact of the economic cycle on the DRAM industry in 2024, which resulted in less favorable performance of Nanya Technology and a tightening of relevant benefits and bonuses. Consequently, the survey results showed a more significant decrease in employee engagement across organizational vision, management team, and promotion and compensation, leading to an overall lower score compared to the previous year. Given the Company's approximate male to female employee ratio of 7:3, the generally lower recognition scores among male employees compared to the previous year also contributed significantly to the overall score decrease in 2024.

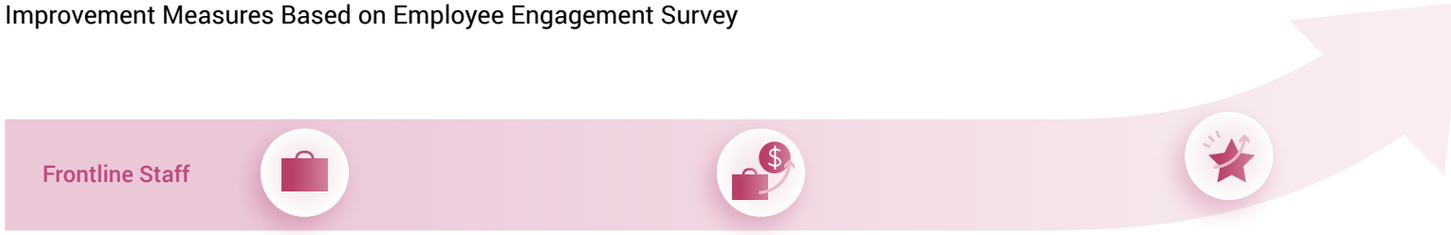
Employee's Average Recognition Score

Employee Engagement Survey	2021		2022		2023		2024	
Aspect	Female Employees	Male Employees	Female Employees	Male Employees	Female Employees	Male Employees	Female Employees	Male Employees
Employees' Personal Work Experience	71.3%	72.7%	72.3%	74.1%	70.6%	73.1%	72.0%	72.5%
Employee and Supervisor's Management Style	70.5%	74.3%	73.8%	79.0%	74.2%	78.5%	74.5%	77.2%
Employee's Understanding of Company Vision and Culture	79.5%	78.2%	82.0%	82.9%	81.8%	81.7%	79.3%	75.7%
Employees' View towards Management Team	74.7%	74.1%	73.0%	76.6%	74.3%	76.8%	73.1%	69.4%
Employee Peer Relationships	78.0%	79.9%	80.6%	81.7%	78.4%	80.6%	76.9%	78.1%
Employees' Satisfaction with Promotion and Compensation	57.2%	57.5%	68.6%	69.5%	64.9%	68.4%	63.4%	64.5%
Percentage of Employees Reaching Average Recognition Score	72.3%		76.2%		75.3%		73%	
Response Rate	93.4%		93.4%		93.4%		91.5%	

Note: This survey used a 10-point scale. Average Recognition Score refers to a rating of 7 or higher. The percentages in the fields represent the proportion of ratings that were 7 or above.

Based on the cross-analysis of the survey results, we found that frontline staff and employees with 3-5 years of tenure showed relatively lower recognition in areas such as work experience, promotion and compensation, and learning and growth. To enhance employee recognition and fulfill the purpose of the survey, we have developed the following improvement measures based on these needs:

Improvement Measures Based on Employee Engagement Survey



Frontline Staff

Work Experience

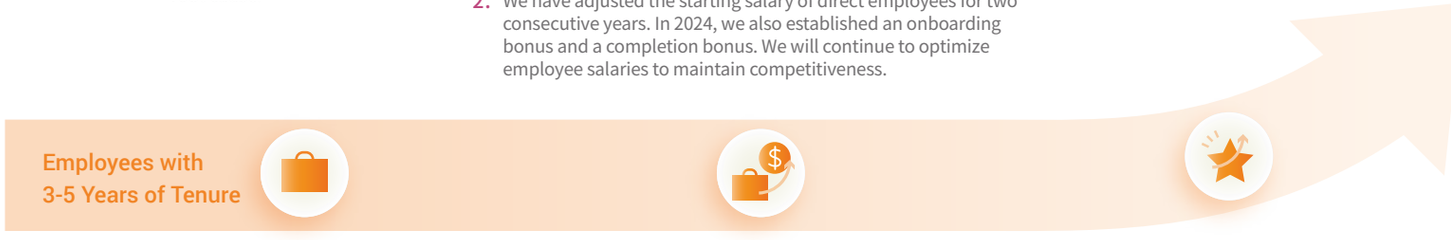
Enhancing employee protection to prevent workplace bullying through a case-specific approach and addressing the root cause.

Promotion and Compensation

1. We already provide 2 promotion opportunities for direct employees every year and will continue to optimize our promotion system (i.e., shortening the tenure) to guarantee promotions for outstanding employees.
2. We have adjusted the starting salary of direct employees for two consecutive years. In 2024, we also established an onboarding bonus and a completion bonus. We will continue to optimize employee salaries to maintain competitiveness.

Learning and Growth

We are developing experiential team-building and problem-solving learning programs.



Employees with 3-5 Years of Tenure

Work Experience

Enhancing employee protection to prevent workplace bullying through a case-specific approach and addressing the root cause

Promotion and Compensation

We have adjusted the starting salary of indirect employees for three consecutive years and optimized salaries based on experience and training. We will continue to improve employee salaries according to market levels to maintain competitiveness.

Learning and Growth

Developing a series of courses for outstanding next-generation talent focused on the efficient application of integrated thinking in the workplace.

Work-Life Balance Indicator

	2021		2022		2023		2024	
	Female	Male	Female	Male	Female	Male	Female	Male
Job Satisfaction	71.4%	73.8%	71.6%	75.2%	71.2%	74.9%	67.9%	68.3%
Achievement	68.6%	72.6%	69.9%	74.3%	68.8%	73.6%	69.8%	71.8%
Happiness	79.0%	78.1%	79.0%	79.2%	77.2%	77.4%	79.1%	79.9%
Pressure Balance	72.3%	74.1%	75.8%	75.6%	72.8%	74.6%	74.4%	75.0%
Belonging	76.6%	75.4%	79.0%	78.7%	75.9%	76.8%	71.6%	69.4%

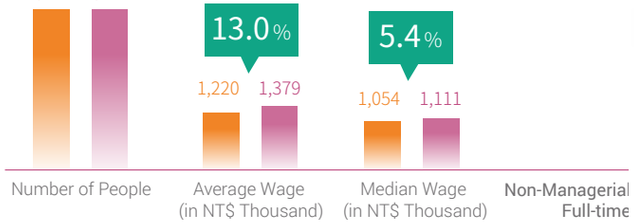
To actively build a workplace that promotes work-life balance, we have been distributing questionnaires since 2021 based on the employee wellbeing outcome measurement indicators developed by the University of Oxford's Wellbeing Research Center. The questionnaire items reflect indicators such as job satisfaction, sense of achievement, happiness, and pressure balance. These indicators are closely related to employee remunerations and benefits, and help us formulate relevant improvement measures.

4. Offering Good Remuneration

Nanya Technology's starting salary standards for new hires are primarily based on individual educational background and work experience, industry salary levels, local economic conditions, and labor market supply and demand, agreed upon in the employment contract. For the same job content and similar educational and work experience backgrounds, salary and benefit items and standards are consistent for both men and women, with no differentiation based on gender. Individual job performance is the key measurement determining employee remuneration and benefit adjustments.

To ensure the competitiveness of our overall remuneration package, our compensation and benefits system is planned and reviewed through local salary surveys and regional salary benchmarking associations, taking into account industry competitiveness, macroeconomic factors, and the sustainable operation of the corporate culture. Monthly salary includes base salary, meal/transportation/regional allowances, operational allowance, and efficiency bonus. Additionally, we provide variable remuneration such as bonuses, which are determined by individual employee performance and the achievement rate of organizational goals (or profitability), regardless of gender, to reward employees for excellent performance and share our success. In 2024, the average salary for full-time non-managerial employees was NT$1,379,000, a 13% increase compared to 2023. The median salary for full-time non-managerial employees was NT$1,111,000.

Non-Managerial Full-time Employees



Remuneration Designed for Talent Retention

Nanya Technology is a **constituent stock of the Taiwan HC 100 Index**, indicating highly competitive remuneration

Bonuses: Year-end bonus, three major festival bonuses (Chinese New Year, Dragon Boat Festival, Mid-Autumn Festival), Dragon Boat/Mid-Autumn Festival diligence bonus, job grade bonus

Long-term incentives including employee compensation, employee stock options (applicable to all Nanya Technology employees, with stock options granted based on employee performance and role), incentive bonuses, and annual salary adjustments

Valuing every employee's basic living needs, Nanya Technology is committed to providing salaries that exceed the benchmark living wage. To fulfill this commitment, we adopt the Anker methodology for estimating a living wage when regularly reviewing the internal salary structure. We also reference the Cost of Living Index on Numbeo and adjust our salary policy based on diverse factors, including trends in domestic consumer prices, variations in the cost of living across different locations, and practical living needs. Through market salary comparison analysis, we ensure employee compensation not only exceeds the local living wage benchmark but also provides a superior quality of life, allowing employees to work with peace of mind and without worries.

Recognizing that starting salaries and compensation conditions in Taiwan are consistent across genders, we conduct bi-annual regulatory reviews to ensure compliance with the requirements of the Gender Equality in Employment Act. However, an analysis of average compensation by gender reveals that female managers' average pay is slightly lower than that of their male counterparts. In 2024, the female-to-male average total salary ratio for management was 94.58%, and the total salary plus bonus ratio was 94.57%. This is mainly because there are more male mid-level and senior managers, leading to higher average male compensation. In 2024, the female/male average total salary ratio for non-management level employees was 105.84%, and the average total salary plus compensation ratio was 108.91%, with females slightly higher than males. This is mainly due to the higher average seniority of female employees compared to males, resulting in a higher average female remuneration. Overall, we provide competitive compensation and benefits. Employees enjoy a variety of welfare programs and facilities, which helps them maintain a stable quality of work and life.

Starting salary for frontline operators is

NT$28,810 and above **4.88% higher** than the minimum wage in 2024[Note 1]

Starting salary for bachelor's degree engineering positions is

NT$42,710 and above **55.48% higher** than the minimum wage in 2024[Note 1]

Note 1: Beginning January 1, 2024, the minimum wage has been raised to NT$27,470.

Male to Female Average Remuneration Ratio in Taiwan

Male to Female Remuneration Ratio	2021	2022	2023	2024
Female to Male Ratio of Average Total Salary for Executives	-	-	-	-
Female to Male Ratio of Average Total Salary + Compensation for Executives	-	-	-	-
Female to Male Ratio of Average Total Salary for Management	94.55%	95.68%	95.02%	94.58%
Female to Male Ratio of Average Total Salary + Compensation for Management	94.55%	95.28%	95.30%	94.57%
Female to Male Ratio of Average Total Salary for Non-Managerial Employees	108.71%	108.42%	106.99%	105.84%
Female to Male Ratio of Average Total Salary + Compensation for Non-Managerial Employees	111.47%	111.43%	109.28%	108.91%

Note: Total Salary is defined as regular compensation (including base salary, efficiency bonus, meal allowance, regional allowance, transportation allowance, operational allowance, professional premium and other payable items) + job grade bonus.

Compensation is defined as incentive bonus + employee compensation + festival bonus + Dragon Boat and Mid-Autumn Festival diligence bonus + year-end bonus.

Executives are defined as Assistant Vice President level and above managers. The number of female senior executives has been 0 for the past three years.

Management is defined as Section, Department, and Plant/Division heads.

5. Talent Empowerment

Talent Development Guidelines

Philosophy	Guided by a people-oriented philosophy and a commitment to sustainability, we champion lifelong learning and support employee career development to build a leading talent development system tailored to the semiconductor industry.
Strategy	By aligning with Company strategy, we continuously enhance talent cultivation and development, optimize our training and development system, and deepen education in diversity, equity, and inclusion. We systematically equip all employees with the necessary skills to achieve the Company's sustainable development goals.
Goals	2025 Goals: Percentage of key talents among all employees ≥ 7.5%; Internal employee substitution rate for job openings ≥ 60%.
System	We have established the Training Quality Management Manual, Human Resource Management Process Procedures, Training Operation Procedures, Detailed Rules for Training Implementation, Structured On-the-Job Training Implementation Guidelines, On-the-Job Learning Regulations, Internal Instructor Cultivation Regulations, Middle to Senior Management Talent Development Regulations, and Training Material Management Regulations.
Implementation	We formulate and execute annual talent development plans based on Com-pany strategy, reviewing relevant implementation indicators monthly. Execu-tives and Training Development Committee members also conduct quarterly and semi-annual reviews of project progress and talent development training performance at the Talent Development Committee meetings.

6. The Five New Initiatives: Innovation Practice, Development & Sales, Construction & Maintenance, Talent Development, Cultivation & Application

Despite intricate external environmental shifts and a sluggish market, Nanya Technology continuously generates growth momentum through innovation, persistently maintaining the critical driving force for sustainable operation and innovation. Talent remains the unwavering cornerstone of our innovation, operation, and sustainable development. To continuously cultivate and develop talent, we align our talent development strategy with the Company's development strategy each year, establishing clear talent development management guidelines and relevant employee training and development action plans. Furthermore, with strong support and active participation from executives, we continuously improve talent development mechanisms, enhance competencies, and offer diverse training programs.

Subsequent to our We Together. We Learn. We Grow Co-Learning Gathering, which commenced in 2021 and spanned three consecutive years, our talent cultivation program was revised in 2024 to align with the Company's development strategy. Consequently, we launched the Five New Initiatives: New Process Autonomous Technology, New Product Development and Sales, New Workforce Competencies Development, New Generation Management Skills, and New Skills Application & Cultivation Guidelines. The employee training and development action plans are outlined as follows:

The Five New Initiatives

New Process Autonomous Technology

Including the introduction and mass production of 1x nm new process autonomous technology, introduction of second-generation new process technology, production line development, overseas training, trade secrets, information security, technical papers, industry-academia collaboration, and outstanding team competitions.

New Product Development & Sales

Focusing on new product development, promotion and sales, covering job-specific essentials, business and marketing, competency enhancement, and industry-academia collaboration.

New Workforce Competencies Development

Addressing human resource supplementation and training for new plant construction, including new employee orientation camps, new employee training II, on-the-job training, production line competencies (direct employee training), and general education.

New Generation Management Skills

Targeting new generation leadership and communication skills, DEI talent cultivation, supervisor reserve training, diverse management of new generation employees, cultivation of outstanding next-generation talent, and the woMen Era series activities.

New Skills Application and Cultivation

Centering on the cultivation and application of new skills, including practical AI and designated on-the-job classes, "Learning from Others" technical seminars, external training, internal instructors, on-the-job learning, personal development, and team-building activities.

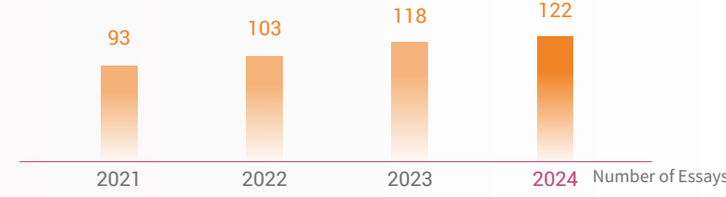
The Five New Initiatives encompass five aspects of employee training and development action plans, reflecting our diverse development and learning paths, categorized as follows:

New Process Autonomous Technology

Technical Papers and Technical Improvement/Physical Creation

We hold company-wide technical papers and technical improvement/physical creation competitions. Through these competitions, employees can learn from each other, enhancing their technical skills and their proficiency in writing technical papers. In **2024**, we received **122** entries, which is the highest number of submissions in our history.

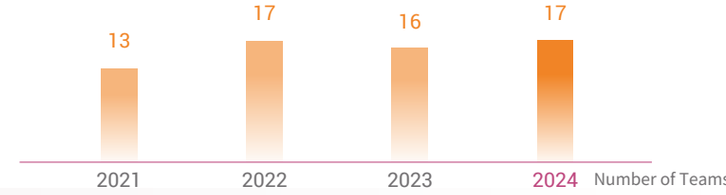
Number of Papers Submitted in the Past Years



Outstanding Team Competition

We aim to encourage collaboration between employee teams and jointly enhance professional technical skills, with the goal of establishing a successful team cooperation model that inspires active participation in cross-departmental projects, thereby shaping a high-quality teamwork culture and strengthening our independent technical capabilities. There were **17** participating teams in **2024**.

Number of Participating Teams in the Past Years



Industry-Academia Cooperation

We aim to enhance our research and development capacity, strengthen the talent and technical skills of young students, and cultivate semiconductor talents to meet the aligned needs of the industry and academia. Since 2018, we have accumulated a total of 38 collaborative projects, with an investment of NT$56 million. In 2024 alone, we partnered with **4** universities across **7** projects, contributing a total of NT$**4.87** million.

New Product Development & Sales

On-the-Job Training

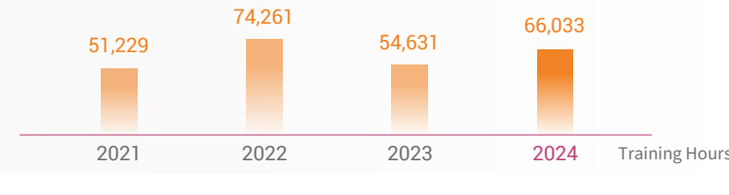
To build employees' professional knowledge, we implement systematic competency training that in-cludes mandatory job-specific essentials, one-on-one on-the-job mentorship, certification systems, and external training. We conduct our On-the-Job training according to the Structured On-the-Job Training (S-OJT) Implementation Guide-lines, which establish clear planning processes and system management. This framework creates learn-ing blueprints for each job role, builds employee professional capabilities, and strengthens the pro-fessional technical knowledge transfer system within each department, enabling them to plan more effec-tive on-the-job training, better integrate core com-petencies, shorten learning curves, and enhance organizational training effectiveness. In **2024**, **426** employees completed On-the-Job training, achiev-ing a **100%** completion rate. (We have maintained a 100% completion for the past four years.)

To effectively manage internal S-OJT training mate-rials across departments, we established Training Material Management Regulations and a corre-sponding knowledge management system workflow for material transmission and approval. This strengthens and manages training material updates, providing employees with a single portal for faster information retrieval and accelerated document classification. The system contains **6,357** internal training materials and operational documents, a 6.9% increase from the previous year.

Core Curricula

To address mandatory job-specific professional essentials for employees, government regulations concerning workplace safety and environmental hygiene, as well as customer product quality standards, we conduct various core training curricula. In **2024**, the total training hours for all training categories increased by **20.9%** compared to the previous year, reaching 66,033 person-hours.

Training Hours of Various Core Curricula in the Past Years

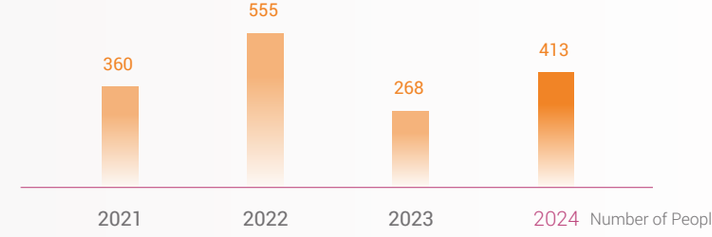


New Workforce Competencies Development

Orientation Camp

To facilitate new employees' understanding of the Company environment and the semiconductor industry, and to enable their rapid integration into the Company's organization and culture, we have designed a comprehensive series of new employee orientation camps and rigorous on-the-job training programs. These programs incorporate experiential and interactive learning to ensure new hires (including interns/student workers) can quickly adapt to the Company's organization and culture and complete the fundamental job training requirements, thereby shortening the learning curve. In **2024**, due to market influences and continued personnel control measures, we completed new hire orientation for **413** individuals across a total of 25 sessions.

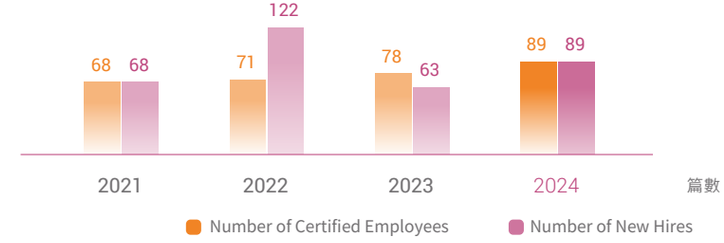
Number of Orientation Camp Participants in the Past Years:



Direct Employee Training

We provide pre-job training for direct employees to develop their professional skills and machine operation capabilities, enabling them to obtain machine operation certifications. In 2024, **89** individuals successfully obtained machine operation certifications. Leveraging our trainer system with corresponding incentives, we completed the training for **89** new direct employees, totaling **13,350** person-hours. Furthermore, we continued our trainer refresher courses for the third consecutive year, with **81** employees completing the program in **2024**.

Production Line Personnel Training Statistics in the Past Years:



New Generation Management Skills

Supervisor Reserve Training

To address Nanya Technology's growing demand for management talent, a three-year program was implemented to cultivate department and section management associates, equipping potential candidates with foundational core and management competencies. Since 2022, this program has developed a total of 150 management associates. The retention rate for these talents is **98%**, with **43** individuals promoted, representing a promotion rate of **28.7%**.

Outstanding Next-Generation Talent Cultivation

The Company values the development of young-generation employees and aims to stimulate the growth potential of next-generation talent. Starting in **2024**, we launched a program specifically for high-performing young-generation engineers, focusing on cultivating essential workplace application skills and outlining clear career paths. We have conducted two cohorts of this program, totaling **84** participants, and have achieved a retention rate of **98.8%** among them.

DEI Management for New Generation Employees

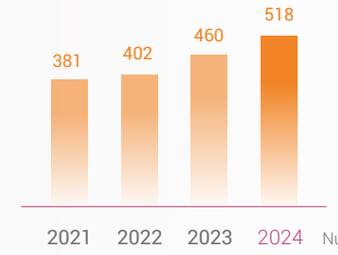
To enhance managers' DEI leadership skills and foster a deeper understanding of the new generation, we implemented a series of Diversity, Equity, and Inclusion (DEI) workplace training initiatives in 2024, starting with addressing unconscious bias. This aimed to build an inclusive culture and a sense of belonging, guiding managers to recognize unconscious bias and create more inclusive teams. A total of **317** managers participated in four training sessions.

New Skills Application and Cultivation

Artificial Intelligence Practices

In response to industry development and digital transformation, the Company actively establishes and enhances in-house AI technical capabilities. We continuously conduct practical and on-the-job AI talent cultivation programs to train internal AI professionals. Additionally, since 2019, we have been disclosing relevant AI projects in our Sustainability Report, such as: the Practical AI Application Training Program, the Smart Automation Improvement Project for Semiconductor Process Inspection, and the DRAM Smart Manufacturing Leadership Project. We have effectively extended these programs to various departments within the Company, as well as to external suppliers and students in academia. By applying AI to practical work scenarios, we aim to enhance work efficiency, reduce production costs, and improve corporate competitiveness across the board. As of **2024**, we have cultivated a total of **518** in-house AI practitioners.

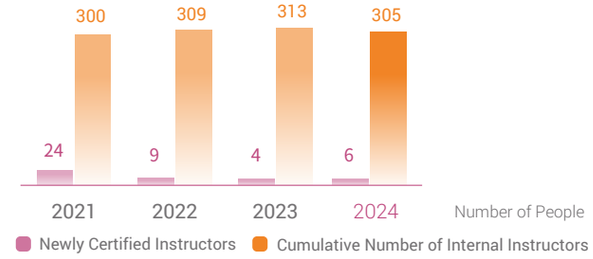
AI Professionals Cultivated in the Past Years



Internal Instructor Cultivation

Through our internal instructor training system and various internal instructor cultivation courses organized, we accumulate knowledge transfer and talent cultivation capabilities. To date, **305** employees have been certified as internal instructors, with **6** new instructors certified in **2024**. Additionally, with the support and participation of executives, we regularly hold an Outstanding Instructor Award and Recognition Ceremony every September. To express our gratitude and encourage instructors' continued contribution to Company training and to enhance internal instruction quality, we selected a total of 16 outstanding instructors across various categories in **2024**.

Number of New Internal Instructors in the Past Years



Personal Development

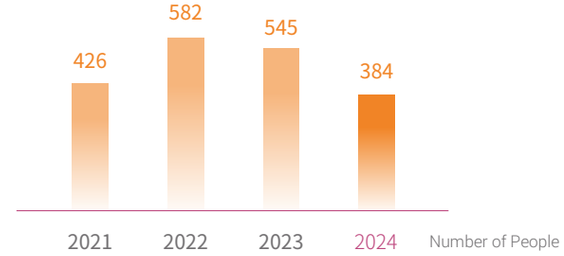
In accordance with the On-the-Job Learning Regulations, we provide administrative resources and incentive measures to encourage employees to pursue continuous learning and personal development plans, promoting lifelong learning and supporting their career growth. We offer a self-paced learning program, and in **2024**, the cumulative number of employees pursuing on-the-job degrees reached **745**. The employee substitution rate for job vacancies was **61.4%**. The employee substitution rate for management positions reaches **85.1%**.

Team-Building Activities

To reinforce our core values, we regularly hold annual strategy meetings for executives and management team-building activities to solidify the Company's annual strategic consensus and effectively achieve corporate goals. We also conduct team-building events for frontline, middle and executive management teams to pragmatically foster and inspire cross-departmental teamwork.

In **2024**, these team-building activities engaged a total of **384** managers of all levels across 4 sessions.

Number of Participating Managers of All Levels in the Past Years



Technical Papers and Technical Improvement/ Physical Creation Award Ceremony

Management Team-Building: All-Star Sports Day

Note: Projects for the new process will be detailed in the later chapter titled "Key Projects for Talent Development"

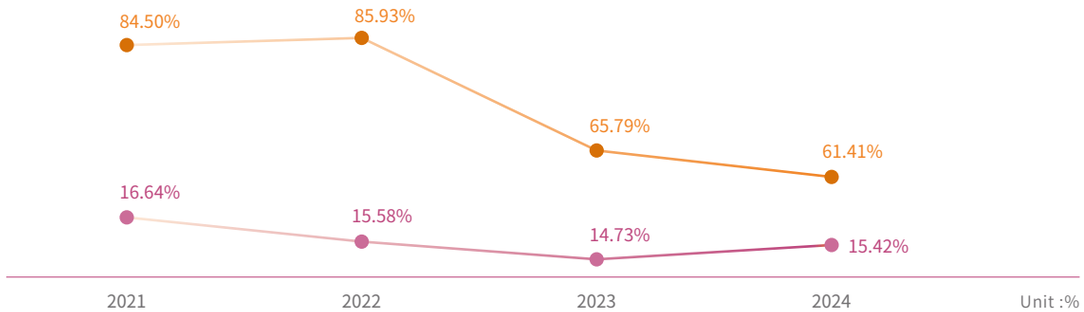
Diverse Development and Learning Paths

Based on the Five New Initiatives, Nanya Technology provides employees with diverse learning models, promotes lifelong learning and supports employee career development by offering a comprehensive and diverse range of learning channels to meet their varied learning needs. The four-year data for online courses, language learning subsidies, the cumulative number of employees pursuing on-the-job degrees, and the number of external training course participants is as follows:

	2021	2022	2023	2024
Total Online Training Hours (person-hours)	67,951	73,713	65,421	77,328
Language Learning Subsidies (in NT$)	213,606	264,068	192,660	191,054
Cumulative Number of Employees Pursuing On-the-Job Degrees	726	735	743	745
Number of External Training Participants	109	137	120	124

Employee Substitution Rate for Job Vacancies

To provide diverse training and development opportunities for employees, we offer career paths for promotions and assuming different roles, setting goals for employee promotion rates and employee substitution rates for job vacancies. In 2024, the employee promotion rate was 15.42%, and the employee substitution rate for job vacancies was 61.41%. Historical data is as follows:

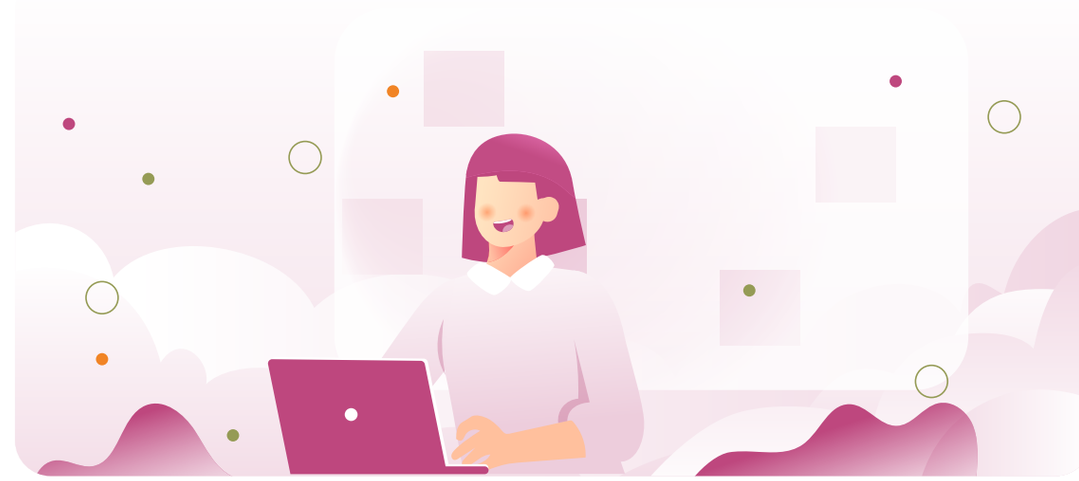


Note: Internal promotion rate for managerial job vacancies is 85.1%

2024 Employee Substitution Rate Statistics for Job Vacancies

		Female	Male	Total
Age	Under 30	8	18	26
	30-50	10	64	74
	Over 50	1	12	13
Rank	Management (A+B+C)	0	11	11
	Executive (A)	0	1	1
	Middle Management (B)	0	10	10
	Frontline Management (C)	0	0	0
	Non-Management	19	83	102

Note: Internal promotion rate for managerial job vacancies is 85.1%



7. Experience Sharing and Independent Learning

Following the launch of our independent learning initiative in 2021, we have offered three categories of independent learning programs, including Self-Learning Master, Learning Master Academy, and iCan. iMaker. In 2024, we introduced a brand-new independent learning program called "Learning Wishing Well."

To foster a diverse, flexible, and cross-disciplinary learning environment, and to cultivate employees' abilities in independent learning, cross-functional exploration, and lifelong learning, we aim to encourage department/employee-led independent learning initiatives that challenge individuals, drive a proactive learning culture among employees, and transform ourselves into a learning organization to enhance the overall competitiveness of both departments and employees. To this end, we have specifically planned the following employee independent learning initiatives:

Learning Wishing Well

The "Learning Wishing Well" is a platform designed for Nanya Technology employees to engage in independent learning and knowledge sharing. Employees can apply to become a Knowledge Expert (those who want to teach) and share their specialized knowledge and skills. Alternatively, they can also submit a Learning Wish (those who want to learn), proposing topics they wish to learn, which will then be matched with internal or external instructors. The Company provides corresponding course subsidies for successfully granted learning wishes. Courses are offered in both physical and digital formats, covering categories such as workplace skills, information technology, language learning, health and wellness, lifestyle and family, finance and investment, art literacy, and sports sharing.

Results of the 2024 Learning Wishing Well Project are as follows:

Wish comes true! A Collaborative Learning Platform at Nanya Technology

- I want to learn: 9 case
- I want to teach: 1 case
- Wish comes true: 8 case
- Total endorsements: 315 people
- Total completions: 345 people
- Average satisfaction score: 4.57

Note: The independent learning initiative aims to cultivate a diverse, flexible, and cross-disciplinary learning environment, fostering employees' abilities in independent learning, cross-functional exploration, and lifelong learning. By employing strategies such as promotion, sharing, customization, competition, and rewards, we are building a multifaceted learning organization. Employees are encouraged to demonstrate proactive learning motivation and engagement, promoting a continuous independent learning ambition. Our goal is for employees to apply their acquired knowledge for innovative thinking, enhance their willingness to learn, improve their learning abilities, and extend these benefits to their professional technical skills, ultimately boosting the overall competitiveness of the Company and stimulating personal development.

8. Talent Development Training Results

Despite the sluggish external market environment in 2024, our talent development and training-related indicators remained stable. The overall annual training execution rate reached 161.5%, and the total number of employees completing the annual training was 203,000, a 14% increase compared to the previous year. The performance data and indicator outcomes for talent development and training are detailed below:

2024 Employee Training Data Sorted by Age Groups

Item	Female			Male			Total
Age	Under 30	30-50	Over 50	Under 30	30-50	Over 50	
Number of Employees	139	732	151	513	1,797	361	3,693
Training Person-Hours (hr)	9,469	24,631	3,858	36,718	75,252	10,958	160,886
Average Training Hours per Person (hr)	68.1	33.6	25.5	71.6	41.9	30.4	43.6
Training Cost (in NT$)	235,972	1,556,255	337,700	7,476,041	14,927,776	2,290,701	26,824,445
Average Training Cost per Person (in NT$)	1,698	2,126	2,236	14,573	8,307	6,345	7,264

2024 Employee Average Training Data Sorted by Category

Unit: hour

Category	Female				Male				Total Hours			
	2021	2022	2023	2024	2021	2022	2023	2024	2021	2022	2023	2024
Management	20.0	21.8	26.9	23.4	22.5	27.6	33.0	28.7	7,855	9,288	11,100	9,786
Skilled Professionals	40.8	22.6	20.2	24.5	41.0	40.2	33.1	40.0	84,061	80,507	66,188	81,669
Core Administrations	72.5	73.2	63.0	78.2	70.6	91.8	76.7	95.7	46,966	57,216	47,714	60,158
Direct Employees	19.3	20.6	18.3	18.7	18.0	23.4	20.5	20.9	9,004	10,708	9,277	9,273

Note: The average training cost per male employee under 30 is higher than other categories primarily due to the inclusion of overseas training costs for professional technical engineers in this demographic.

2024 Management Training Data Sorted by Ranks

Item	Female			Male			Total
Management Ranks	Frontline Management	Middle Management	Executive	Frontline Management	Middle Management	Executive	
Number of Managers	94	30	3	7	165	65	364
Training Person-Hours (hr)	662	1,209	79	49	6,651	1,709	10,359
Average Training Hours per Person (hr)	7	40	26	7	40	26	28
Training Cost (in NT$)	130,297	453,723	64,660	9,703	2,495,475	1,400,960	4,554,818
Average Training Cost per Person (in NT$)	1,386	15,124	21,553	1,386	15,124	21,553	12,513

Note 1: One-on-one on-the-job mentorship is excluded from the total employee training hours

Note 2: Management positions include frontline management (production line foremen, team leaders), middle management (department and section heads), and executive management (plant/division heads and above)

Management Team-Building Activities: Raft Self-Building

To effectively align Company strategic goals with training execution plans, the effectiveness of our various training and development initiatives is assessed based on the Kirkpatrick Model (Levels 1 through 4), proposed by Donald Kirkpatrick from the United States. Specific KPIs are defined for each level of this model. Moreover, to link training outcomes with Company operational strategic goals, we have established a Level 5 category, Return on Investment (ROI), to measure the impact of training. This approach ensures a thorough and predictable evaluation of training effectiveness and its value.

	L1 (Reaction Assessment)	L2 (Learning Assessment)	L3 (Behavior Assessment)	L4 (Performance Assessment)	L5 (Return on Investment)
Item	• Course Satisfaction • Final Report	• Exam/Exercise • Written Essay • Certification	• Customer Satisfaction • Project Completion Rate	• Employee Promotion Rate • Employee substitution Rate • Key Talent Retention Rate • Achievements and Recognitions • Productivity and Sales • Improvement proposal	• Return on Human Capital Investment
KPI-2024 Goals	• Course Satisfaction ≧4.5	• Course Completion Rate ≧94% • Annual Project Completion Rate ≧100%	• Customer Satisfaction ≧91 • Project Completion Rate ≧90%	• Employee Promotion Rate ≧16% • Employee substitution Rate ≥65% • Key Talent Retention rate ≧98% • TTQS Talent Development Quality Award • No. of Improvement proposals ≧120	• Return on Human Capital Investment ≧ 10
2024 Performance	• Course Satisfaction ≧4.61	• Course Completion Rate: 94% • Annual Project Completion Rate ≧161.5%	• Customer Satisfaction: 95.6 • Project Completion Rate: 77.5%[1]	• Employee Promotion Rate: 15.42% • Employee Substitution Rate: 61.41% • Key Talent Retention Rate: 96%[2] • TTQS Talent Development Quality Golden Award • No. of Improvement proposals: 172	• Return on Human Capital Investment: 5.5[3]
KPI-2025 Goals	• Course Satisfaction ≧4.5	• Course Completion Rate ≧94% • Annual Project Completion Rate ≧100%	• Customer Satisfaction ≧91 • Project Completion Rate ≧90%	• Employee Promotion Rate ≧ 16% • Employee substitution Rate ≧ 60% • Key Talent Retention Rate ≧95% • No. of Improvement proposals ≧120	• Return on Human Capital Investment ≧10

Note 1: Due to product specification revisions, the project goal has been deferred by one quarter.

Note 2: The original calculation of the key talent retention rate was accumulated over 6 years, which resulted in the compounding of numbers. As a result, the calculation period has been updated to a 5-year basis.

Note 3: Due to cyclical factors in the market, revenue was lower than anticipated.

Level	Item	2021	2022	2023	2024	2024 Goals	Scores (10-point scale)
Level 5 Return on Investment (ROI)	Return on Human Capital Investment Ratio1[1]	16.7	10	4.8	5.5	≧10	5.5
	Training Cost as A Percentage of Revenue[2](%)	0.012	0.017	0.073	0.079	-	-
Level 4 Result	Employee Promotion Rate (%)	16.64	15.58	14.73	15.42	≧16	9.6
	Employee Promotion Rate (Tenure <3 Years) (%)	5.59	5.16	2.51	3.00	-	-
	Employee Promotion Rate (Tenure ≧3 Years) (%)	11.05	10.43	12.22	12.42	-	-
	Voluntary Turnover Rate (%)	7.26	8.80	4.58	6.21	≦6	9.7
	Key Talent Turnover Rate[3] (%)	0	0.5	2	4	≦2	9.6
	New Hires Turnover Rate[4] (%)	9.4	14.99	7.77	11.16	≦12	10
	Employee Substitution Rate (%)	84.5	85.9	65.8	61.41	≧65	9.9
	Number of Patents	465	812	953	910	375	10
	Number of Proposals on Kaizen Proposal System	214	224	202	172	≧120	10
Level 3 Behavior Assessment (Behavior)	Customer Satisfaction (Score)	93.8	94.7	94.6	95.7	≧91	10
Level 2 Learning Assessment (Learning)	Course Completion Rate (%)	94.7	94.5	94.3	96.0	≧94	10
Level 1 Reaction Assessment (Reaction)	Course Satisfaction (5-point scale)	4.59	4.61	4.65	4.61	≧4.5	10

Note 1: Return on human capital investment ratio = (revenue - (operational cost - human capital cost))/human capital cost

Note 2: Training expenses as a percentage of revenue = (annual training expenses/annual total revenue) * 100%

Note 3: Key talent refers to individuals holding critical positions essential for executing the Company's operational strategies who are difficult to replace

Note 4: New hire turnover rate is the turnover rate of new hires within their first three months of employment

9. Key Projects for Talent Development

To continue the comprehensive talent cultivation and development program, Co-Learning Gathering, our aim is to nurture well-rounded professional technical talent. In 2024, we further integrated our talent training action plans with the Five New Initiatives. This approach aligned our technical project plans and training development programs with the Company's operational strategies. The key training development projects and their outcomes in 2024 are outlined below:

Project Plans 1

1x Series Advanced Process Production Technology and Yield Enhancement Project

- Second-Generation Advanced Process High-Precision Alignment Technology
- Second-Generation Advanced Process Transistor Anomaly Improvement
- Second-Generation Advanced Process Product Key Yield Enhancement Solutions
- Third-Generation Advanced Process Core Circuit Miniaturization

The success of the development of the 1x series advanced process products marks a crucial milestone for the Company's sustainable operation. Effectively transferring this independently developed technology to the fabs, increasing yield, and achieving mass production are paramount tasks for the Company's operations. To address yield losses, thorough inspections are conducted on contributing factors. Through precise yield analysis combined with continuous evaluation and improvement via process experiments, we aim to resolve significant production yield losses.

Training Outcome Assessment and Operational Benefits (in NT$)	Kirkpatrick (L1~L5)	Employee Participation Ratio (as a percentage of total employees)
Employee Reactions: Training Course Satisfaction: 4.63	L1 Course Satisfaction	81%
Employee Learning: Training Completion Rate: 98%	L2 Course Completion Rate	
Employee Behavior: Project Completion Rate: 100%	L3 Project Completion Rate	
Efficiency Improvement: 1. Independently developed technology has been successfully transferred to the fabs, achieving a primary product yield of up to >83%. 2. 11 innovative analysis methodologies have been finalized, covering process changes, special process phenomena, and more, and resulting in the cumulative closure of 147 action plan items and 356 engineering analysis reports. **Case Study:** **Cross-Functional Collaboration Across Departments** 1. Process Integration: Introducing experimental conditions provided by the advanced process development unit and further optimizing them. Arranging main batch experiments and scheduling to implement the best conditions on the production line. 2. Process Development: Providing relevant information for each process step, including new technologies under development, facilitating real-time communication and collaboration with the factory to improve yield. 3. Production Technology: Conducting yield analysis, electrical analysis, and defect analysis for the main batch experiments. 4. Production Engineering: Effectively managing and addressing equipment and wafer batch anomalies, and assisting with experiment execution, capacity support, and improvements. 5. Production Manufacturing: Managing scheduling plans and production line progression for both pilot production and mass production phases while maintaining proportional anomaly analysis. **Yield Improvement:** Successfully transferring independently developed technology to the fabs and achieving a 33.6% increase in yield. **Outcomes:** Number of Completed Process Product Development Projects: 44 **Financial Values:** The Initial Mass Production Value of Second-Generation Products in 2024 Amounted to NT$54 Million	L4 Productivity	
Financial Values: NT$4,942 million (ROI: 183%)	L5 Return on Investment	

Project Plans 2

Smart Manufacturing Production Efficiency Enhancement Project

- Plans for Wafer Transportation and Production Efficiency in Fabs
- Improvement and Enhancement Solutions for Clean Room Equipment and Systems to Elevate Product Quality
- Information Management for Production Cycle Control

vDigitalized Facility Management and Smart Applications

In the rapid evolution of advanced semiconductor manufacturing, it is critical to optimize clean room space utilization and the transportation between advanced processes.
Furthermore, improvements to fab equipment and systems are essential for elevating product quality. Precise and efficient information management for production cycle control enables the implementation of smart manufacturing digitalization and intelligent applications, which in turn helps increase production efficiency and quality, thus significantly boosting the Company's operational performance.

Training Outcome Assessment and Operational Benefits (in NT$)	Kirkpatrick (L1~L5)	Employee Participation Ratio (as a percentage of total employees)
Employee Reactions: Training Course Satisfaction: 4.67	L1 Course Satisfaction	56%
Employee Learning: Training Completion Rate: 93%	L2 Course Completion Rate	
Employee Behavior: 116 Proposals Submitted for Product Quality and Productivity on Kaizen Proposal System	L3 Capacity Improvement	
Efficiency Improvement: 1. Total benefits created by cross-floor equipment transportation were NT$164.52 million. 2. Total benefits created by in-house wafer carrier inspection machine were NT$34.36 million, with labor cost savings estimated at 0.28 person/day, approximately NT$390,000/year. 3.Total benefits created by controlled information for streamlined processes and enhanced equipment output was NT$2.531 million/year, with labor cost savings brought by automation estimated at 3.47 people/day, approximately NT$2.170 million/year. There was an additional savings of NT$36 million/year from in-house software development by avoiding external purchases. 4. Digitalized facility management and the independent development of 12 facility AI smart applications, resulting in labor cost savings of approximately NT$3.28 million/year. **Case Study:** **Main Manufacturing Batch Cycle Time Reduction:** 1.Reduction of 12.3 Days in Waiting Time: In total saved 11.9 hours (9.8 minutes * 73 layers) for the implementation of yellow light FPO communication platform, 264 hours on equipment reservation time, 7.8 hours on FN film thickness estimation, and 11.84 hours on smart idle equipment function. 2. Reduction of 2.1 Days in Holding Time: Saved 1 hour on bypass waiting time. With an average of 50 passes applied per day, this results in a total time savings of 2.1 days. 3. Reduction of 0.58 Days in Transferring Time: Average overall transportation time for main batches has changed from 3.1 minutes to 2.4 minutes, a reduction of 0.7 minutes. With 1184 accelerated transportation stations installed, this translates to an approximate cycle time savings of 0.58 days.	L4 Performance	
Financial Values: NT$243 million (ROI: 237%)	L5 Return on Investment	

Unleashing Employee Performance

Nanya Technology's performance management aims to enhance and develop employee potential. Beyond providing a high-quality learning environment and a well-designed performance management system, it emphasizes positive interactions between supervisors and team members. In addition to routine annual performance appraisals, supervisors need to conduct quarterly performance assessments with their team members. Such interactive evaluation and communication allow supervisors to offer support and necessary care to employees, ultimately aiming to improve individual and organizational performance.

The evaluation process involves face-to-face meetings between supervisors and subordinates to define individual work objectives based on organizational goals. Supervisors then provide feedback to employees and evaluate performance based on the execution of these objectives. From 2015 to 2023, the coverage rate of individuals managed under multi-faceted performance assessment goals has consistently been 100%, and all employees are included in performance rankings. We leverage various performance management tools, including annual performance appraisals for all employees, quarterly performance reviews for general staff, 180-degree assessments, 360-degree assessments, and multi-faceted assessments such as sustainable development evaluations for executives.

To ensure the quarterly performance review questions for general staff are more comprehensive and optimized, the content of this evaluation was updated in September 2023. This allows for a comparison of self-assessment and supervisor assessment scores, providing the necessary data for subsequent analysis. Furthermore, the number of participants of the 180-degree assessments was expanded to include more subjects. This provides employees at various levels with the most appropriate feedback for improving their work performance, with a coverage rate of 28% in 2024. The 180-degree assessment involves supervisors at the Section Manager level and above, who regularly communicate and coordinate across different units. Direct supervisors are responsible for selecting peers with whom the employee has business contact for their evaluation. This includes 2-4 peers from within the employee's direct unit and 4-6 peers from indirect units. The 360-degree assessment is implemented for Plant/Division Heads and above, with their subordinates providing feedback on their management competencies. A total of 1,665 questionnaires were collected in 2024. The evaluation items for each assessment tool are detailed on the table below. Employees with better performance are rewarded, while the system prompts supervisors to continuously support employees with poorer performance until significant improvement is observed, without any gender bias.

Note: Starting from 2021, the 180-degree assessment has included Production Foremen, Production Team Leaders, Principal Engineers, Project Managers, and Executive Engineers for evaluation

Review Items

Category	Multi-Faceted Assessment	Goal Management	Agile Project Management	Team Collaboration Assessment
Subject of Assessment	Plant/Division Heads and Above Department Managers/Program Managers/Executing Engineers Section Managers/Project Managers/Principal Engineers Production Foremen/Team Leaders	Assistant Vice Presidents and Above	Department Managers/Program Managers Section Managers/Project Managers/Taskforce Leaders/Managers on Duty/Foremen Engineers/Managing Specialists Administrative/Technical/Business Assistants	Production Personnel
Assessment Frequency	Annually	Annually	Quarterly	Monthly
Assessment Methodology	180-Degree Assessment: To provide a more objective reference for performance evaluation, a 180-degree assessment is established specifically for Section Managers (and above). Given their frequent communication and coordination with various business units, their direct supervisors will select 4-6 peers or supervisors with whom they have business contact to provide feedback. 360-Degree Assessment: Subordinates of managers provide feedback on their management competencies for reference.	Managers first conduct a self-assessment, providing explanations and their perspectives on significant sustainability indicators. Subsequently, the President provides an initial evaluation of their subordinates' performance, which is then reviewed by the Chairman of the Board. Furthermore, quarterly Meeting with Cadre Members and semi-annual offsite meetings are held to collaboratively define strategic objectives while fostering bilateral communication.	Taking an employee-centric approach, the process begins with a self-assessment by the employees, allowing them to provide a description of their work and opinions. Subsequently. direct supervisors evaluate their subordinates' work performance, offering both encouragement and suggestions for improvement and support. This framework provides a platform for bilateral communication between supervisors and employees, ensuring that both parties can promptly understand each other's thoughts and performance improvement directions.	Supervisors conduct evaluations based on individual's capabilities in teamwork, cooperation, learning ability and other relevant criteria.

10. Youth Empowerment

Broadening the Talent Pool in Memory

Social Problems We Need to Address

By engaging with universities and leveraging academic research, we aim to bridge the gap between school and the workplace for young students, enabling them to adapt to professional environments more quickly. Simultaneously, we integrate industry and academic resources to collectively enhance the capacity of Taiwan's tech

Future

To attract exceptional talent and bolster our forward-looking research capabilities, we encourage students to dedicate themselves to academic research and demonstrate a spirit of continuous improvement as well as practical application of knowledge. To this end, we have established various scholarships, with the aspiration that outstanding students will continue their learning in their chosen fields, thereby strengthening the competitiveness of the semiconductor industry.

Understanding

To cultivate students' understanding of both theory and practice, enhance their awareness and understanding of industry trends, and strengthen their sense of cohesion and belonging, we provide students with opportunities for close interaction with the Company. Through site visits and corporate exchanges, students gain insights into the semiconductor industry. Additionally, by sharing the work experiences of alumni, we help students clarify their future career paths. Students in semiconductor research and development are a key focus for our cultivation efforts. Through school publicity and interconnected activities, we welcome younger students to join the Nanya Technology corporate family.

Outstanding

To foster collaboration between industry and academia and leverage academic resources effectively, we engage in industry-academia cooperation projects with major universities and sponsor campus events. We also establish strategic partnerships and strengthen interactions between faculty and students to enhance educational quality and ultimately boost the competitiveness of the domestic industry.

Cultivate

We actively cultivate talent within campuses through a two-way nurturing approach, designing internship programs that better align with both academic and industry needs. By establishing a comprehensive internship system, we effectively enhance students' employability, providing young individuals with an internship platform to learn cross-departmental communication and collaboration and showcase their professional skills. Such programs bridge the professional demands of industry and academia, promote correct workplace values and abilities, cultivate students' practical application of knowledge, allow them to experience the workplace early on, and foster the development of diverse skills, thereby proactively preparing future professionals.

Share

To strengthen the link between students' academic learning and real-world workplace scenarios, we conduct various seminars and specialized programs on campuses, engaging in face-to-face interaction and sharing with students. By collaborating with semiconductor professionals from industry, government, and academia, we aim to bridge the gap between education and employment by jointly developing industry courses aligned with workplace demands. Foundational courses are taught by university faculty in relevant fields to establish a strong theoretical base for students. Core practical courses are led by Nanya Technology semiconductor executives, who systematically impart their practical experience to students. This close integration of theory and application, delivered through an accessible teaching approach, guides students toward a new perspective on the semiconductor industry.

2024 Major Results

Future

- Granted scholarships to 18 students and held the Future Stars Scholarship Award Ceremony, recognizing 24 students (including those shortlisted). The total scholarships amount is around NT$6 million.

Outstanding

- Collaborated with 4 universities on 7 industry-academia cooperation projects, investing a total of NT$4.87 million.
- Sponsored 3 campus events with a total sponsorship amount of NT$870,000.

Understanding

- Hosted a total of 40 company visits, with approximately 1,470 participating faculty and students.

Cultivate

- Partnered with 12 schools for internship programs, hosting a total of 130 interns at our facilities, including 54 in indirect roles and 76 in direct roles.
- Organized 20 internship information sessions, reaching 817 participants, where supervisors explained the design of our internship program and invited previous interns to share their experiences.

Share

- We conducted 36 guest-lecturer sharing sessions at key universities in northern Taiwan in 2024, reaching approximately 2,227 students.

Our Footprint

Future

To cultivate cutting-edge semiconductor talent and encourage outstanding students to dedicate themselves to related research and innovation, empowering ambitious youths to pursue their future dreams and goals, we established the Future Stars Scholarship program. Online applications in September 2024 were divided into doctoral and master's categories, with a total scholarship of NT$600,000 awarded to 6 of the 24 shortlisted students.

To ease students' transition to employment upon graduation, we offer an internship scholarship program. Students who complete the internship with outstanding performance are selected for scholarship agreements, receiving financial aid and subsequent employment at Nanya Technology. The internship lasts for a full academic year. To enhance the quality of Taiwan's semiconductor talent pool, Chang Gung University established a Memory Profession Program. Through specialized curricula and industry internships, this program aligns students with industry development trends, preparing them for immediate employment after graduation and collaboratively cultivating the next generation of high-level memory R&D talent. In 2024, we provided scholarships to 18 students, totaling approximately NT$5.53 million.

Future Stars Photo Gallery

Outstanding

We collaborate with National Tsing Hua University, National Taipei University of Technology, Chang Gung University, and Ming Chi University of Technology on 7 industry-academia research projects focused on semiconductor application technology and product design R&D. Our collaboration involves regular discussions on research directions and results, and joint definition of research targets.

Our sponsorship supports domestic institutions making significant contributions to semiconductor academic research, including the National Taiwan University System-on-Chip (SoC) Center, the National Taiwan University Electrical Engineering Camp, and the Industrial Technology Research Institute's Very Large-Scale Integration (VLSI) International Symposium and Job Fair.

Cultivate

In 2024, we partnered with 12 universities on internship programs, establishing a comprehensive internship system to effectively enhance student employability and recruiting 130 interns.

In 2024, we successfully retained 13 interns as full-time employees in their original units and matched 5 others to suitable roles in different departments based on their professional skills. This allows their internship experience to lead to employment, showcasing their talents, bridging academic and industry needs, and fostering positive workplace values and competencies.

The Emerging Workforce Training Program utilizes school resources and professional curricula to equip students with industry-relevant skills, guiding them to contribute to the semiconductor sector.

To address specialized talent needs in chip layout for product design and R&D, we collaborated with the National Taiwan University of Science and Technology on a 200-hour Chip Layout Talent Development Program, jointly cultivating academic knowledge and practical skills of layout design engineers with a strong emphasis on hands-on layout drawing. In 2024, we successfully recruited 3 individuals through various channels, aiming to fill technical and specialized talent gaps.

Understanding

We invite faculty and students from universities in norther Taiwan for company visits, enhancing their understanding of Nanya Technology and aiding their career exploration. Many visits are linked to internship programs, even leading to internship opportunities for students to showcase their talents. We consistently improve the quality of these visits to offer greater benefits to participants.

We sponsor the National Taiwan University System-on-Chip (SoC) Center and the Electrical Engineering and Computer Science College to host the Electrical Science Camp and Electrical Engineering Camp, nurturing students in semiconductor R&D. Through group activities and facility tours, we offer in-depth insights into semiconductor industry trends and broadly recruit talented engineering students from across Taiwan.

To spark female students' interest in semiconductors, we unite women in the industry through the Tech Girls, Transforming the Future campaigns. We organize visits and tours for high school girls, guiding their understanding of the semiconductor industry's development landscape. We also invite accomplished female senior executives from Nanya Technology to share their academic and career journeys, encouraging more young women to enter the field.

National Taiwan University Electrical Engineering Camp

Share

We delivered guest lectures at 7 universities, integrating practical workplace skills into their curricula. This collaboration aims to develop industry-relevant courses that balance theory and practice, introducing students to the semiconductor field through engaging and accessible presentations.

Our ongoing collaboration with Ming Chi University of Technology involves hosting practical semiconductor industry lectures. Experienced supervisors serve as guest lecturers, connecting students' workplace skills with practical discussions to enhance their professional competency and bridge the gap between school and industry.

National Taiwan University System-on-Chip (SoC) Center Seminar

4.4 Safe Workplace

1. Employee Care

Nanya's Happy Corporate Video

W.A.K.E Up Actions: Fostering a Friendly Workplace

Beyond offering industry-competitive wages, Nanya Technology promotes an Employee Assistance Program (EAP), complemented by its WAKE Up Actions initiative which provides comprehensive welfare across four key pillars: Wellness, Assistance, Kindness, and Exercise. Our goal is to build a happy workplace and cultivating a group of joyful tech professionals.

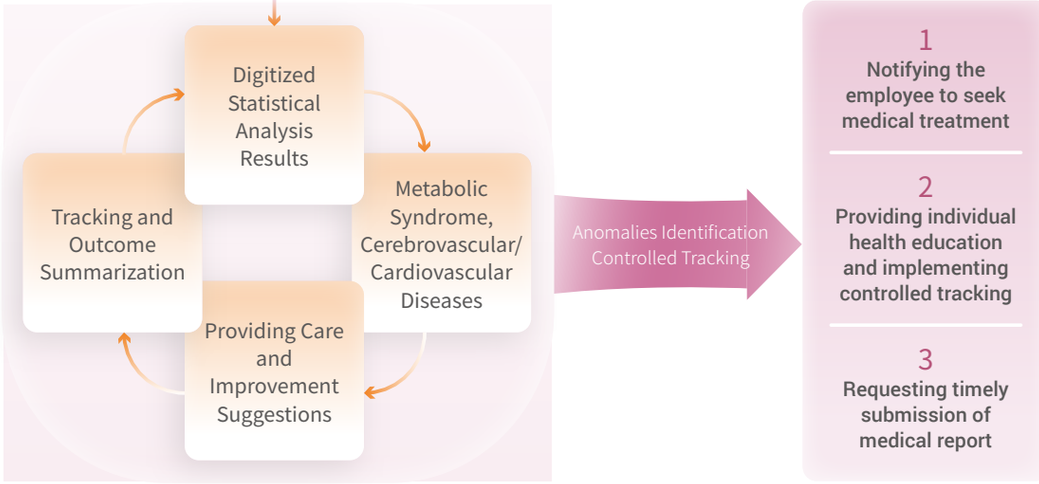
happy workplace ▶cultivating a group of joyful tech professionals

Wellness

Collaborating with the professional medical team at Chang Gung Memorial Hospital, we offer employee regular health examinations with frequencies exceeding legal mandates: once every five years for employees under 30, once every three years for those aged 30 to 45, once every two years for those aged 45 to 65, and annually for employees aged 65 and above. Additionally, our health examinations include three cancer screening items (alpha-fetoprotein, carcinoembryonic antigen, oral cancer screening) and waist circumference measurement. We maintain an on-site Health Center staffed with legally compliant nurses and regularly scheduled visiting physicians. Any abnormal findings from these health examinations, including issues with liver function, blood glucose, metabolic syndrome, and cerebrovascular/cardiovascular conditions, are closely monitored by our nurses and physicians, who provide health education, improvement recommendations, and follow-up care.

	Abnormal Blood Pressure	Abnormal Liver Function	Abnormal Blood Glucose Level	Metabolic Syndrome	Low Risk	Medium Risk	High Risk	Total Number of Employees Receiving Health Examinations
2021	8.16%	8.09%	1.68%	91.48%	83.45%	13.50%	3.05%	1,311
2022	7.69%	5.07%	1.61%	3.57%	84.78%	14.29%	0.93%	1,184
2023	10.52%	5.48%	0.90%	0.82%	83.10%	15.85%	1.05%	1,334
2024	6.73%	4.91%	1.54%	1.65%	81.36%	17.31%	1.33%	1,427

Digitized Tracking and Management Process



The Health Center provides employees with maternal health protection, injury and illness management, preventive healthcare, weight management, and smoking cessation counseling. Leveraging the medical resources of our enterprise group, Chang Gung Memorial Hospital, we provide healthcare services at a medical center level. Employees and their families benefit from subsidies for medical services at Chang Gung Memorial Hospital, including preferential discounts on non-National Health Insurance co-payments and health check-up discounts. In 2024, medical subsidies totaled NT$11,958,342.

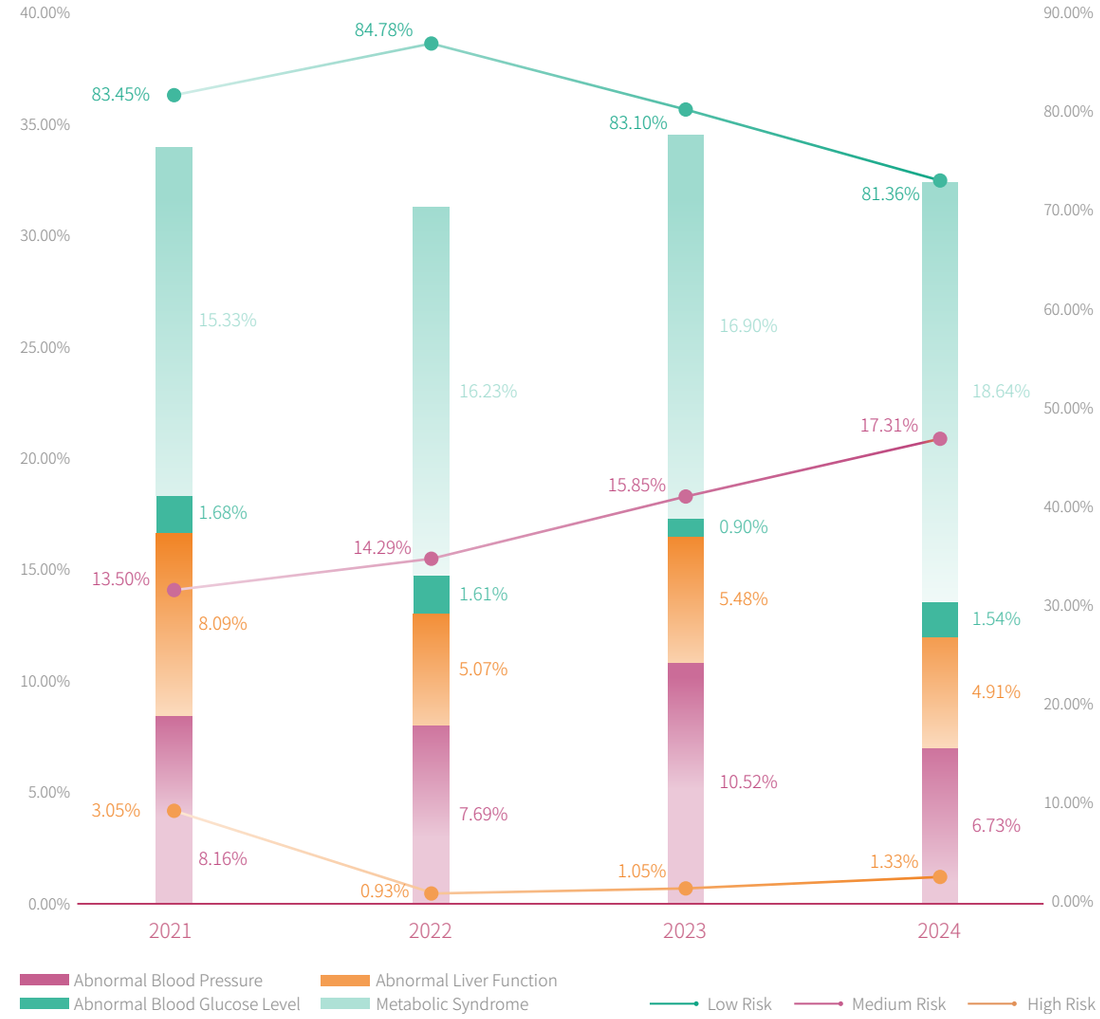
Since 2019, our Company has partnered with charitable organizations to host weight loss competitions, encouraging employees to participate individually or in teams of five. This initiative aims to help employees manage their weight while also channeling charitable funds to those in need. In 2024, 466 employees participated, achieving a total weight loss of 924.2 kg. Over the past six years, the cumulative number of participants has reached 2,645, with a total weight loss of 6,344.9 kg.

2024 Charitable Weight Loss Event

XBB.1.5 Covid-19 Vaccination

Quit Smoking Together. Joyful Smoking Cessation Campaign

Employee Health Examination Data Over The Years



Note 1: Risk assessment is based on health examination data (age, cholesterol, high-density cholesterol, blood pressure, diabetes, smoking history) to estimate the 10-year risk of developing ischemic heart disease

Note 2: In 2024, a total of 1,427 employees received health examinations, with a total cost of NT$2,532,990

Assistance

To ensure a friendly and convenient working environment for our employees, the Company offers various welfare measures, including dining, accommodation, shuttle services, and parking. Our Employee Welfare Committee plans a wide range of annual benefits and activities. The Welfare Committee comprises 9 members: 1 appointed by the Company, 6 appointed by the labor union, and the remaining 2 elected by employees from different departments. In 2024, welfare expenditure totaled approximately NT$30,000,000, with 8,455 employee participations in Welfare Committee events. Other expenses covered holiday and birthday gift vouchers, employee children's scholarships, group insurance, cultural and recreational activities, club activities, as well as childbirth and hospitalization subsidies.

Additionally, to address employee commuting needs during the expansion, we have built three nearby parking lots for cars and one parking lot for motorcycles, with shuttle services to and from each to accommodate various shifts and schedules. Nanya Technology also offers diverse regular day shift options, demonstrating our commitment to a comfortable working environment and flexible scheduling to meet different employee preferences.

2024 Family Day in Window On World Theme Park.

We built parking towers at Nanlin Technology Park, offering 901 car and 644 motorcycle parking spaces for employees, along with a shuttle service to and from the facility.

Shift	Start of Shift	End of Shift
A	7:30	16:30
B	8:00	17:00
C	8:30	17:30
D	9:00	18:00

Major Benefits

Sense of Ritual

- Offering seasonal dishes on special holidays
- Offering extra meal allowances during the Lunar New Year
- Partnering with charitable organizations to host a Lunar New Year market

Sense of Happiness

- Offering employee dormitory options at discounted prices
- Providing car and motorcycle parking and shuttle services to make commuting more convenient for employees
- Planning for convenience stores, coffee/fruit bars, and fair trade pantry to create a balanced work atmosphere

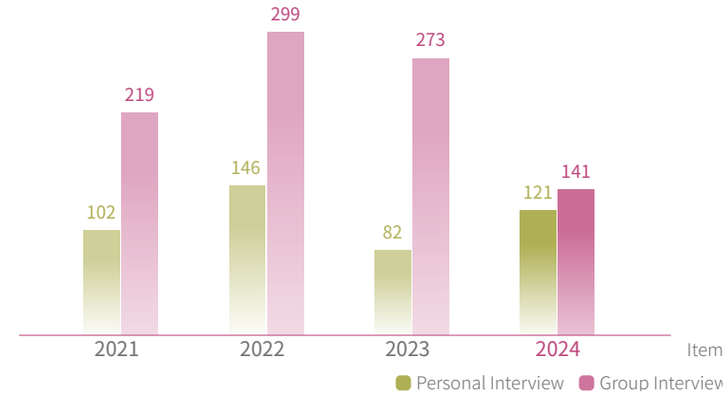
Sense of Participation

- The Employee Welfare Committee plans the annual Family Day, movie screening, baseball outing, and other activities to increase employee and family engagement
- Collaborating with charitable organizations to host cultural and environmental activities, encouraging employees and their families to participate

Kindness

To facilitate the swift adaptation of new employees to their workplace, we have dedicated advisors who offer regular care, consultation, and guidance during their first two years, as well as to employees proactively seeking help, referred by supervisors, or on long-term sick leave. This reduces initial insecurity and accelerates their integration into the Company. Since 2019, we have also partnered with the Teacher Chang Foundation, an external professional psychological counseling organization, to support employees facing difficulties by using scientific methods to clarify the nature of the problems, face challenges, and seek solutions. The Teacher Chang Foundation provides 6 free professional counseling sessions monthly, each lasting 1 hour, available to employees as needed without limit. This combination of professional counseling from the Teacher Chang Foundation and our internal advisors offers a systematic approach to prevent and resolve employee issues, ensuring stable work quality and mental and physical well-being. Employee feedback indicates that the Teacher Chang Foundation's services are highly beneficial in addressing various family, childcare, and parenting concerns.

Number of New Hires Receiving New Workplace Adaptation Guidance Services

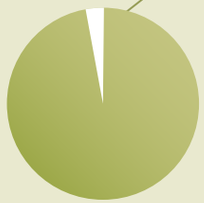


Teacher Chang Foundation Counseling Services Result

70 Attendances

Utilization rate reaches **97.2%**

with 70 attendances out of a total of 72 sessions annually



Counseling Services Satisfaction: **4.87** (5-point scale)

Distress Improvement: **8.77** (10-point scale)

Mental Health and Stress Relief Seminar

3 Mental Health Seminars

137 Participants

Satisfaction Score: **4.69**

Supportive Environment for Childbirth and Childcare

To ensure a supportive work environment for female colleagues, we provide priority parking for pregnant employees and have established lactation rooms to promote gender equality. Additionally, our Health Center conducts maternal health hazard assessments for pregnant and breastfeeding employees.

In compliance with the Occupational Safety and Health Act, Nanya Technology also implements hazard assessment, control, and control banding measures for jobs potentially hazardous to maternal health. For female employees who are pregnant or within one year postpartum, we provide health protection measures, such as work adjustments or job transfers, based on physician suitability assessments and maintain relevant records. We also regularly provide employees with health education and women's health seminars. Our on-site professional nurses offer childcare consultation to pregnant employees. Additionally, thoughtful mothers' rooms with private lockers, refrigerators, and water heaters are available across plant areas, providing a quiet and comfortable environment for nursing mothers to express milk.

Nanya Technology offers a system of unpaid parental leave, allowing employees to freely apply for childcare leave to achieve work and family life balance without childcare concerns, thus ensuring family and social stability. Primary caregivers receive the legally mandated 8 weeks of paid maternity leave, plus the option to apply for up to 24 weeks of parental leave at 80% of their insured salary, totaling 34 weeks of childcare leave. Non-primary caregivers receive the legally mandated 7 days of paternity leave, plus the option to apply for up to 24 weeks of parental leave at 80% of their insured salary, totaling nearly 26 weeks of childcare leave.

In 2024, 339 employees were eligible for parental leave (88 females, 251 males), and 43 employees applied (23 females, 20 males). Moreover, to alleviate the burden of childcare on employees, Nanya Technology has partnerships with several kindergartens, offering employees benefits such as discounts on registration fees, monthly fees, transportation fees, and extended care.

To further reduce childcare costs and encourage childbirth, the Company established a Birth Incentive Program in July 2022, providing a one-time NT$20,000 birth allowance for each newborn, along with a monthly childcare allowance of NT$2,000 until the child turns 6. In 2024, 625 employees received these subsidies, totaling NT$15,080,000.

Unpaid Parental Leave Application and Return to Work Rate in Taiwan

Item	2021			2022			2023			2024		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Number of People Eligible for Parental Leaves	101	244	345	91	236	327	87	230	317	88	251	339
Number of People Applied for Parental Leaves	19	5	24	23	9	32	16	13	29	23	20	43
Number of Employees Expected to Return to Work During the Year (A)[Note 1]	10	5	15	12	5	17	8	6	14	15	12	27
Number of Employees Returned to Work During the Year (B)[Note 2]	7	3	10	9	5	14	7	3	10	12	10	22
Number of Employees Remained 12 Months upon Return	5	2	7	5	3	8	9	5	14	6	3	9
Return Rate (B/A)	70.00%	60.00%	66.67%	75.00%	100%	82.35%	87.50%	50.00%	71.43%	80.00%	83.33%	81.48%
Retention Rate[Note 3]	83.33%	100%	87.50%	71.43%	100%	80.00%	100%	100%	100%	85.71%	100%	90.00%

Note 1: Number of Employees Expected to Return to Work During the Year excludes employees who applied for consecutive parental leaves within the current year.

Note 2: Number of Employees Returned to Work During the Year includes those who returned to work earlier than their originally scheduled leave end date within the current year.

Note 3: Retention Rate refers to the percentage of employees who returned to work after parental leave and remained employed for more than one year.

Exercise

To promote work-life balance, we have established a gymnasium and a LOHAS Center, while also encouraging sports clubs to foster a culture of exercise, advancing the physical and mental well-being of employees.

Comprehensive Sports Complex and LOHAS Center

Our comprehensive sports complex and LOHAS Center feature a rooftop running track, basketball court, badminton court, billiard tables, table tennis, aerobics rooms, massage chairs, and fitness equipment.

The total number of visits to the sports complex and LOHAS Center in 2024

60,794 People

Promoting Sports and Exercises

To promote employee physical and mental well-being, Nanya Technology supports various sports clubs like running, basketball, table tennis, badminton, and softball clubs in organizing activities. Moreover, we launched the Sports Festival in 2019, inviting creative proposals from departments and clubs to utilize sports venues and facilities, aiming to achieve the combined benefits of promoting exercise, fostering creative thinking, and a vibrant company atmosphere. A total of 13 proposals were approved, leading to 899 Sports Festival activities in 2024

13 departments came up with Sports Festival proposals in 2024

2. Occupational Health and Safety

Nanya Technology's Taiwan plant holds ISO 45001 Occupational Health and Safety Management System certification. 3,985 personnel (3,589 employees and 400 non-employees), representing 97.5% of all personnel, were certified under the management system and audited by both internal and external organizations. The remaining personnel not included are all from overseas offices. Adhering to the RBA Code of Conduct and local regulations, we are committed to providing a safe, healthy, and high-quality working environment for our employees and ensuring the safety of contractors, thus protecting the health and safety of all workers. This demonstrates our commitment to providing a safe, healthy, and high-quality working environment for our employees and ensuring the safety of contractors, thus protecting the health and safety of all workers. By establishing management organizations, formulating management regulations and procedures, and implementing regular internal audits based on the PDCA management cycle, we drive various operations to effectively prevent incidents, striving to achieve our goal for zero occupational injuries and diseases.

Our Occupational Safety and Health Committee meeting is convened monthly, which exceeds legal requirements. The meeting is chaired by the Executive Vice President with executives, department heads, and Committee members, with 41.7% representing labors. They jointly advise on and deliberate the occupational safety and health management system, the status of safety and health goals, incident investigations, and project performance. To enhance safety and health communication as well as legal compliance, we regularly verify local regulations and review internal management policies, contingency response procedures, and environmental safety operating procedures. For known higher-risk work environments like those involving ionizing radiation, noise, arsenic, indium, mercury, and n-hexane, we provide appropriate personal protective equipment and annual special health examinations (296 employees in 2024, with 0 Level 4 work-related health abnormalities). We also conduct regular Safety Walk and Talk (SWAT) sessions–led by executive-level, Safety and Health Department, and department managers–to foster in-depth discussions on safe and unsafe work behavior, how to improve them, and continuously prioritizing employee workplace health and safety.

Safety and Health Guidelines

To prevent occupational accidents and ensure safety, health, and a quality working environment for all workers, we have established the Environmental, Safety and Hygiene Management Manual and related regulations in alignment with the ISO 45001 management framework principles. This framework empowers our workforce to anticipate hazards during business activities, proactively preventing occupational accidents.

Safety and Health Training

Our efforts encompass comprehensive safety and health training for all employees, safety training for the contingency response taskforce (covering workers' rights to withdraw from imminent danger and protection from subsequent retaliation), regular legal certification in-service training, and the creation of knowledge articles on our internal website. In 2024, we provided 54,058 person-hours of safety and health training to 3,372 participants, including 21,825 person-hours for 726 participants in legally required and special hazardous operation supervisor training.

Hazards Identification and Risks Assessment

ISO 45001-trained personnel across all departments conduct regular and ad-hoc reviews of workplace hazard identification and risk assessments through a three-step process: recognition, assessment, and control. This involves identifying physical, chemical, ergonomic, biological, and psychological hazards with the potential to cause occupational accidents and diseases. Risk levels are then determined based on consequence, frequency, and likelihood. Consequently, high-risk units proactively propose safety and health improvement action plans, resulting in 33 management plans in 2024 aimed at reducing medium-to-high risks and enhancing systematic improvement opportunities.

Performance Assessment System

To ensure alignment with ISO 45001 management framework principles, we utilize internal and external audits, safety and health department environmental inspections and proposals, and departmental independent inspection proposals (with a 2024 independent inspection rate of 96.3%, surpassing the 93.9% annual target). We also conduct safety and health performance evaluations for each unit and internal audits by the safety and health department. To ensure audit effectiveness, our internal auditors are externally certified as ISO 45001 occupational health and safety management system lead auditors. In 2024, these efforts included 38 internal audits, leading to 11 corrective action requests. Moreover, we foster bilateral communication through internal audits, conduct annual third-party external audits, and leverage the Safety & Environment Event Tracking System (SETS), where employees proactively propose and track the improvement of environmental deficiencies (1,555 cases).

Procurement Management

To comply with the principles of the ISO 45001 management framework, we have integrated safety and health requirements into our Procurement Operating Procedures and related regulations. For instance, procuring equipment requires the attachment of specific safety and health specifications, and the safety and health department must co-sign the initial purchase of high-pressure gas equipment.

Note: The ISO 45001 Occupational Health and Safety Management System certification encompasses Nanya Technology's Fab 3, and the management system covers all workers within the plant.

Contingency Response and Preparation

We have established Contingency Procedures for Non-Conforming Situations. Our 24/7 central control room receives incident reports and initiates non-conforming handling procedures. We have outlined a comprehensive contingency plan, which includes 58 drills for high-risk units. Additionally, we collaborate with local authorities on emergency and disaster drills for materials posing public hazards and toxic substance leaks to continuously enhance our disaster response measures.

Incidents Investigation and Prevention

Upon confirmation of occupational accidents, near misses, or events affecting mental and physical well-being, the affected units and the Safety and Health Department will form an Accident Investigation Taskforce. The affected units propose corrective actions, which the Safety and Health Department reviews, examines, and continuously tracks for improvement. The department where the incident occurred must conduct a Root Cause Analysis (RCA), identifying direct, indirect, and basic causes, and effectively propose improvement and prevention measures to prevent recurrence before case closure. We convene a monthly Safety and Health Committee meeting, exceeding legal requirements. During these meetings, affected units present and promote awareness of the causes of occupational accidents and the related improvement plans to prevent similar occurrences in other departments. We had a total of 21 near misses in 2024, with the majority being liquid-related events (15 incidents, accounting for 71.4%), for which key improvements, such as preventing pipe joint leaks, have been identified and corresponding prevention measures proposed.

Incident Occurrence

- Immediately report the incident to the central control room and notify personnel in the affected unit as well as safety and health staff.
- Assist with on-site first aid for the injured and sending them to the hospital.

Incident Investigation Taskforce

- Staff from the affected unit and safety and health department immediately collect evidence at the scene of the incident and begin a preliminary investigation and analysis of the cause.
- The affected unit proposes corrective actions, which are reviewed and examined by the safety and health department.

Corrective Actions

- The safety and health department conducts a follow-up review of the corrective actions and continuously tracks improvements.
- The safety and health department reviews and closes the case.

Occupational Injury Management

In 2024, the on-site employee disabling injury frequency rate (number of disabling injuries per million working hours) was 0.41, and the disabling injury severity rate (lost workdays per million working hours) was 5, indicating that we failed to reach the goal of zero disabling injuries. When occupational injury incidents occur, thorough investigation and analysis are conducted to determine the root cause, and improvement measures are proposed. Occupational injuries are categorized as physical, chemical, ergonomic, biological, and psychological. In 2024, all 3 incidents (100%) were classified as physical hazards, including 1 fall and 2 pinch injuries.

Total Work Hours, Occupational Accident and Occupational Disease Statistics

	2021	2022	2023	2024	2024 Goals
Total Work Hours (hr)	6,872,456	7,073,064	7,174,192	7,310,688	-
Number of Occupational Injury on Record (person)	0	0	3	3	-
Occupational Injury Incident Rate on Record (Disabling Injury Frequency Rate, FR)[*2]	0	0	0.41	0.41[*5]	0.18
Number of Severe Occupational Injury (person)[*1]	0	0	0	0	-
Severe Occupational Injury Incident Rate	0	0	0	0	-
Disabling Injury Severity Rate (SR)[*3]	0	0	18	5	6.2
Frequency-Severity Indicator	0	0	0.09	0.05	-
Number of Diagnosed Occupational Disease	0	0	0	0	0
Occupational Disease Diagnosed Rate	0	0	0	0	0
Absence Rate	0.28%	0.16%	0.27%	0.34%	0.55%
On-Site Independent Inspection Rate[*4]	99.3%	94.1%	95.2%	96.3%	93.9%
Number of proposals involving all employees for safety and health	1,215	1,440	1,215	1,555	

Note 1: In 2024, we had zero occupational injury-led fatalities. The rate of severe occupational injuries (excluding fatalities and cases with lost workdays exceeding six months) is calculated per million working hours.

Note 2: The Frequency Rate (FR) and Severity Rate (SR) of disabling injury are based on the Company's reported occupational accident statistics. They do not include contractor injuries, injuries sustained during employees' commutes to and from work, or minor injuries resolvable with on-site first aid.

Note 3: The absence rate includes sick leaves and occupational injury leaves (the goal for 2025 is <0.41%).

Note 4: Independent inspection rate = (Number of deficiencies from each department's proposals on Kaizen Proposal System/Number of deficiencies from Safety and Health Department proposals) * 100%.

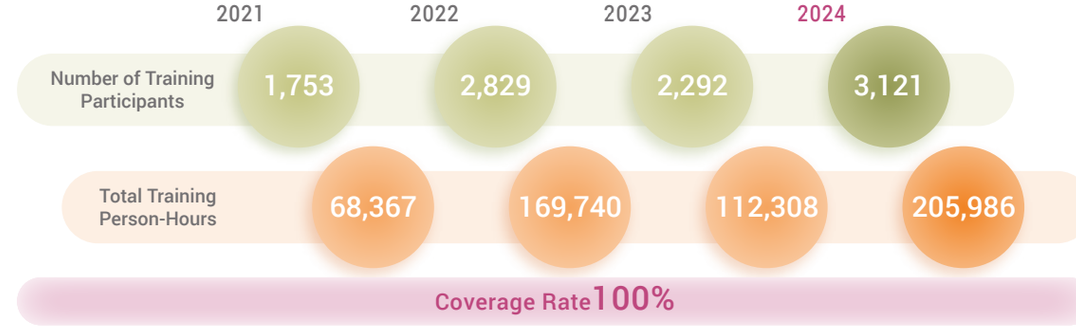
Note 5: In 2024, there were 3 incidents (100%), all physical hazards (1 fall and 2 pinch injuries). To address these, we conducted safety awareness campaigns on walking, mandatory two-person material pushing to prevent deviation, and ensuring sufficient material handling space

Contractor Safety Management

Nanya Technology adheres to Formosa Plastics Group's internal regulations and establishes comprehensive contractor management standards, such as the Construction Safety and Health Engineering Guidelines, which serve as the basis for contractor requirements. Every collaborating contractor is required to sign a construction contract (agreement) and a workplace safety notice which inform them of the working environment, potential hazards, and relevant safety and health regulations. Furthermore, contractors are guided to conduct Job Safety Analysis (JSA), and their personnel are strictly required to execute work according to the review results, in order to achieve zero incidents and zero accidents. All contractor personnel must receive our "Pre-Entry Safety and Health Training for Contractors" before commencing any work on-site. The purpose of the training is to inform them about workplace environmental hazards, mandatory regulations, and to enhance their safety awareness.

Contractor Total Work Hours and Occupational Accident Statistics

Year	2021	2022	2023	2024
Total Work Hours (hr)	339,387	562,977	409,371	423,265
Number of Occupational Injury (people)	1	0	1	1
Workdays Lost	7	0	8	10
Occupational Injury Incident Rate on Record (Disabling Injury Frequency Rate, FR)	2.94	0	2.44	2.36
Disabling Injury Severity Rate (SR)	20	0	19	23
Number of Severe Occupational Injury (people)	0	0	0	0
Severe Occupational Injury Incident Rate	0	0	0	0



5

Green

A Producer via Green Technology

5.1 Nature and Climate Management.....97
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93%
The reduction rate of perfluorocarbon (PFC) emissions during industrial processes

74,078 MWh
Total energy savings from energy conservation measures completed between 2017 and 2024

Outperformed SBT Annual Reduction Target

2024 Scope 1+2 emissions reduced by 12.9%
Scope 3 emissions reduced by 19.4%

Committed to ***Creating Shared Value***, Nanya Technology actively inventories potential environmental impacts from its operations, and address topics such as nature, climate, energy, resources, pollutant emissions, and circular utilization. By focusing on product design and advanced technological R&D at the source, we aim to provide consumers with more effective, lower-carbon products. In addition, we have adopted standards that exceed regulatory requirements and align with global sustainability frameworks to prevent or reduce the risks of impacts. Sustainability performance indicators have also been formulated to review progress, so as to ensure that we fulfill our commitment to green production.

Strategy and Performance of Material Topics

◆ Exceed ◆ Achieved ◆ Partially Achieved

Material Topics & Strategy	2024 Goals	2024 Performance and Goal Achievement	2025 Goals
Greenhouse Gas (GHG) Management • SBT target: 25% reduction of Scope 1+2 GHG emissions by 2030 compared to the 2020 baseline (469,744 tCO_2e, 100% coverage), and 27% reduction of product unit emissions by 2030 compared to the 2020 baseline (1,151,865 tCO_2e, 100% coverage). • Energy savings and carbon reduction: Setting short-, medium-, and long-term reduction targets and actively implementing relevant management measures. • Low-carbon manufacturingt: Advancing production technologies to reduce GHG emissions during the manufacturing process.	10.0% reduction in Scope 1+2 GHG emissions compared to 2020	◆ Reduction by 12.9%	12.5% reduction in Scope 1+2 GHG emissions compared to 2020
	10.8% reduction in Scope 3 GHG emissions per product unit compared to 2020	◆ Reduction by 19.4%	13.5% reduction in Scope 3 GHG emissions per product unit compared to 2020
	Reduction rate exceeding 93% in process perfluorocarbon (PFC) emissions	◆ Reduction rate reached 93%	Reduction amount exceeding 93% in process perfluorocarbon (PFC) emissions
	0 days of production interruption due to climate change-related disasters	◆ Keep at 0	0 days of production interruption due to climate change-related disasters
Energy Management • Implementation of energy conservation measures: Systematic energy management via ISO 50001 to improve energy efficiency. • Innovative applications: Acquiring the latest energy conservation technologies and methods through external collaboration and training.	Implementation of energy conservation measures that resulted in a cumulative energy savings of 72,500 MWh ($2.61x10^8$ MJ) from 2017 to 2024.	◆ 74,078 MWh ($2.67x10^8$ MJ)	Implementation of energy conservation measures that result in a cumulative energy savings of 75,000 MWh ($2.7x10^8$ MJ) from 2017 to 2025.
	Renewable energy usage of 25,000 MWh ($9x10^7$ MJ)	◆ 35,230 MWh ($1.268x10^8$ MJ)	Renewable energy usage of 45,000 MWh ($1.62x10^8$ MJ)
Water Management • Risk response: Establishing backup water sources as well as water reservoirs and coordinating water usage via inter-facility emergency response organizations. • Wastewater reclamation and reuse: Building categorized treatment systems and implementing multi-stage reuse mechanisms to improve reclamation rates. • Water usage reduction: Reducing water usage through daily management.	>38.5% reduction in total water consumption per unit of production capacity compared to 2017	◆ 35.1%[Note1]	>35.5% reduction in total water consumption per unit of production capacity compared to 2017 [Note2]
	Production losses due to water restrictions: 0 wafers	◆ 0 wafers	Production losses due to water restrictions: 0 wafers
	Average percentage in key water pollution indicators exceeds regulatory standards by 50% or more	◆ 61%	Average percentage in key water pollution indicators exceeds regulatory standards by 52% or more
Waste and Pollution Prevention • Circular economy: Increasing reuse rate of waste for more efficient resource utilization. • Source reduction: Continuously promoting waste reduction and increasing recycling rates. • Volatile organic compounds (VOCs): Continuously enhancing prevention equipment.	Number of environmental regulation violation cases: 0	◆ 0 cases	Number of environmental regulation violation cases: 0
	On-site audit and guidance rate for waste treatment vendors >90%	◆ 100%	On-site audit and guidance rate for waste treatment vendors >98%
	Volatile organic compounds (VOCs) reduction rate >91%	◆ >96.4%	Volatile organic compounds (VOCs) reduction rate >92%

Note 1: Product capacity in 2024 decreased by approximately 1.7% compared to 2023, and non-conforming MBR membrane in wastewater treatment led to a decrease in water recovery, resulting in unit production water consumption failing to meet the goal.

Note 2: The original 2025 target for reducing water consumption per unit of production capacity was >38.5%. This was adjusted to >35.5% due to product and capacity conditions.

Note 3: The original 2023 targets for reducing GHGs, perfluorocarbons, and VOCs emissions per chip were removed due to sensitivity to economic fluctuations, which hinders objective comparison of reduction performance.

5.1 Nature and Climate Management

Numerous scientific studies have shown that Earth's ecosystems have already been altered by human activities. For example, global warming has led to climate change and biodiversity loss. In response, Nanya Technology acknowledges the dependencies and risks that our operations (production site: Nanlin Technology Park) and value chain pose to nature and climate. In 2023, we became an early adopter of the Task Force on Nature-related Financial Disclosures (TNFD). Following the TNFD and the Task Force on Climate-related Financial Disclosures (TCFD) recommendation guidelines, we announced a biodiversity policy and established a robust LEAP operational mechanism to assess nature- and climate-related dependencies and risks across our operations, upstream suppliers, and downstream customers. We also formulated response strategies and actions, set management targets and indicators, and aim to mitigate impacts of risks.

Nanya Technology identifies material topics related to nature and climate through interviews with executives and relative personnel. These issues are managed through a robust corporate governance framework that facilitates two-way engagement between the Board of Directors and executive management, which in turn supports the implementation of nature and climate-related governance. This section summarizes key points based on the TNFD and TCFD frameworks. For full details, please refer to our *2025 Task Force on Nature- and Climate-related Financial Disclosures Report*.

1. Adaptation

In line with the disclosure framework, we developed strategies and actions to address nature- and climate-related issues in four aspects—governance, strategy, risk management, and indicators and targets. We aim to reduce the impacts of dependencies and risks, and our 2024 efforts are outlined below:

Aspect	Management Strategies and Actions	2024 Implementation Status
Governance	• At the Board of Directors' governance level, nature and climate are listed as Board of Directors topics, and a Sustainable Development Committee was established to implement relevant management practices. • At the executive level, management participates in quarterly sustainable management and risk management meetings to review performance and resolve action items. A cross-departmental Sustainability and Risk Management Division under the President Office is responsible for coordination. • Efforts are underway to strengthen governance capabilities on nature and climate among the Board of Directors, management, and all employees.	• In 2024, 6 Board of Directors meetings and 2 Sustainable Development Committee meetings were held to review topics such as the *Sustainability Report*, the *TNCFD Report*, greenhouse gas emissions, carbon fees and self-determined reduction plans, IFRS Sustainability Disclosure Standards implementation, and sustainability rating performance. • Each year, the Risk Management Steering Center evaluates the identified material nature- and climate-related risks. In 2024, response measures were implemented for 164 risks based on their risk levels, and the risks are continuously monitored. • In 2024, Board members completed 96 hours of training, with courses covering a diverse range of topics such as ESG governance, economics, corporate governance, sustainable finance, green finance, climate change, TNFD, AI, and legal compliance.

Aspect	Management Strategies and Actions	2024 Implementation Status
Strategy	**Resilience and adaptation** ● Conducting biodiversity sensitivity analysis of operational sites. ● Identifying nature- and climate-related dependencies and impacts of operations. ● Assessing nature- and climate-related management across the value chain. **Mitigation and transition** ● R&D of low-carbon products, production via green technology, sustainable supply chain management, and development in harmony with nature reduce Nanya Technology's impact on nature and the climate effectively. **Stakeholder engagement** ● Gathering and consolidating feedback from external stakeholders through various platforms. ● Organizing nature- and climate-related events to communicate Nanya Technology's sustainability principles to relevant stakeholders.	**Resilience and adaptation** ● Making use of geographic information systems and publicly available government data and assessing whether Nanya Technology's operational sites fall within a 2-kilometer radius of biodiversity-sensitive areas. ● Gathering stakeholder concerns on nature- and climate-related issues, and holding cross-departmental workshops to identify short-, medium-, and long-term risks and opportunities. In total, 14 high-dependency factors and 9 material impact factors were identified. ● Simulating nature- and climate-related risk scenarios to assess their impacts on operations, strategy, and financial planning. (1) Transition scenarios: National decarbonization pathways (NDC), IEA WEO net-zero pathways (APS, NZE); (2) Physical scenarios: AR5 RCP2.6, 4.5, 6.0, and 8.5. ● 50 questionnaires were distributed to key suppliers. The analysis identified 2 high-risk, high-exposure dependency factors and 5 factors of high concern to suppliers. **Mitigation and transition** ● Considering the risks and opportunities associated with various climate transition and physical scenarios, as well as the characteristics of Nanya Technology's operations, strategies have been formulated around green product R&D, green manufacturing, adaptation enhancement, and collaboration with sustainability ● Conducting annual ecological monitoring and restoration efforts to minimize the impact on critical local areas during operational expansion. We also plan to continue with ecological restoration as a form of environmental compensation. **Stakeholder engagement** ● Actively participating in industry associations to jointly lead nature- and climate-related initiatives and sharing Nanya Technology's practical experiences. ● We collaborate with local organizations to coordinate environmental education, environmental protection initiatives, and cultural preservation events that strengthen ties with the local community. Since 2023, we have actively explored possible environmental compensation measures, and will work to protect and restore natural habitats near operational sites to help foster a better community environment.

Aspect	Management Strategies and Actions	2024 Implementation Status
Risk Management	• In line with the Company's Risk Management Procedure, we assess the materiality of risks and opportunities arising from various scenarios related to natural factors and climate change. Relevant response plans are formulated, integrated into the Enterprise Risk Management (ERM) framework, and regularly confirmed by senior management. A comprehensive contingency plan was formulated for nature- and climate-related risks. • Carbon fee forecast: The Ministry of Environment announced the fee-charging rates of carbon fees in 2024. The carbon fee program took effect as of January 1, 2025, with collection of fees beginning in 2026. • GHG emissions for Scopes 1, 2, and 3 are inventoried and verified annually to identify emission sources and prioritize management efforts. • Promoting product life cycle assessments and addressing emission hotspots.	• Key risks identified are primarily transition risks, including changes in the national energy structure, customer demand for low-carbon products, and the impact of fulfilling SBT commitments. These three mid-term risks are estimated to have a financial impact equivalent to approximately 3-4% of the Company's annual revenue. • Pertaining to the collection of carbon fees in 2026, if carbon fees are calculated at NT$300/$tCO_2e$, the estimated payment would be NT$145 million; at NT$100/tCO_2, the estimated payment would be NT$40 million—equivalent to 0.5%-1.6% of annual revenue. • Major opportunities identified include product technology and new market development. As the net-zero trend continues, smart clean energy technologies are expected to drive growth in DRAM demand. According to IEA scenario analysis, the clean technology market is projected to triple by 2030. The Company will seize this opportunity by continuing to invest in innovative R&D resources, which accounted for 22.5% of total revenue in 2024. • The WRI Aqueduct Tool was used to assess the Company's short- and long-term (2050) water stress levels, which were found to be medium-to-low risk (10-20%), indicating that it is not located in a water-stressed region. According to Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP)'s Climate Change Water Hazard Map, the Company will not face the risk of water scarcity under the RCP 8.5 scenario in the middle of this century (2036-2065). Since the introduction of water conservation charges in 2023, our efforts in water conservation and reclamation have qualified Nanya Technology for the lowest rate, which limits the annual water cost increase to only about 3% with minimal impact on operational costs. • GHG emissions in 2024 will be fully inventoried and verified by May 2025. A 100% product environmental footprint inventory has been completed. Management plan improvements have been launched for the top three carbon footprint hotspots identified in 2024.
Indicators and Targets	**Emission risk** • Scope 1: Uncertainty in the development of new abatement technologies may reduce the removal efficiency of fluorinated process gases. This could lead to tighter air pollution control and emissions standards in the semiconductor industry, and increase VOCs treatment costs. • Scope 2: Growing electricity demand will raise the share of renewable energy and carbon fee expenses, and increase operational costs. • Scope 3: The main emission sources come from goods and services purchased in the upstream value chain, which increases supplier management costs. **Mitigation goals** • Conducting annual inventory and verification for Scope 1, 2, and 3 GHG emissions. • Setting GHG management and energy/resource recycling targets. • SBT reduction target: 25% reduction of Scope 1+2 GHG emissions by 2030 compared to the 2020 baseline (469,744 tCO_2e, 100% coverage), and 27% reduction of Scope 3 product unit emissions by 2030 compared to the 2020 baseline (1,151,865 tCO_2e, 100% coverage). **Adaptation goals** • Enhancing the Company's drought resilience and increasing water reclamation rates. • Promoting certifications for green and smart factories. • Participating in CDP's climate change and water security projects, disclosing related information, and engaging with stakeholders.	**Mitigation indicators** • The 2024 inventory and verification of Scope 1, 2, and 3 GHG emissions was completed and covered 100% of revenue. • 2024 market-based GHG emissions: 409,000 tons; unit emissions: 416 kg per 4Gb kpcs—a 1% reduction from 2020. • 20 raw material usage proposals were completed via the Kaizen Proposal System in 2024. • NT$36.17 million was invested in 2024 to complete 27 energy conservation programs, achieving 5,513 MWh of energy savings,2,613 tCO_2e of carbon reductions, and NT$16 million in electricity cost savings. • Renewable energy strategy: 35.23 million kWh of renewable energy was used in 2024, accounting for 4.4% of total electricity consumption. • A self-determined carbon fee reduction plan is scheduled for submission to the Ministry of Environment in June 2025. The plan is in line with benchmark reduction rates, and the need to increase renewable energy procurement was determined after assessment. • 2024 SBT implementation results: Scope 1+2 emissions reduced by 12.9%; Scope 3 emissions reduced by 19.4%. **Adaptation indicators** • Volume of reclaimed and reused water in 2024 totaled 5.59 million cubic meters. • Achieved Alliance for Water Stewardship (AWS) Platinum Certification in 2023. • Included in CDP's Climate Change and Water Security A List in 2024.

2. Mitigation

The main sources of greenhouse gas emissions in semiconductor fabs are electricity and perfluorocarbons (PFCs). Electricity is essential for operations and production, powering all machinery and equipment in the facility; perfluorocarbons (PFCs), used in manufacturing processes, are high global warming potential (GWP) greenhouse gases.

Greenhouse Gas Inventory

The Company conducts its GHG inventory with reference to ISO 14064-1, Ministry of Environment's Climate Change Response Act, Regulations for the Management of the Inventory, Registration, and Verification of Greenhouse Gas Emissions, Greenhouse Gas Emissions Inventory Guidelines, and the WBCSD/WRI GHG Protocol. Organizational boundaries are defined using the 100% operational control approach. At present, all Scope 1, Scope 2, and Scope 3 GHG emissions are verified by SGS, a third-party certification institution, in accordance with international standards.

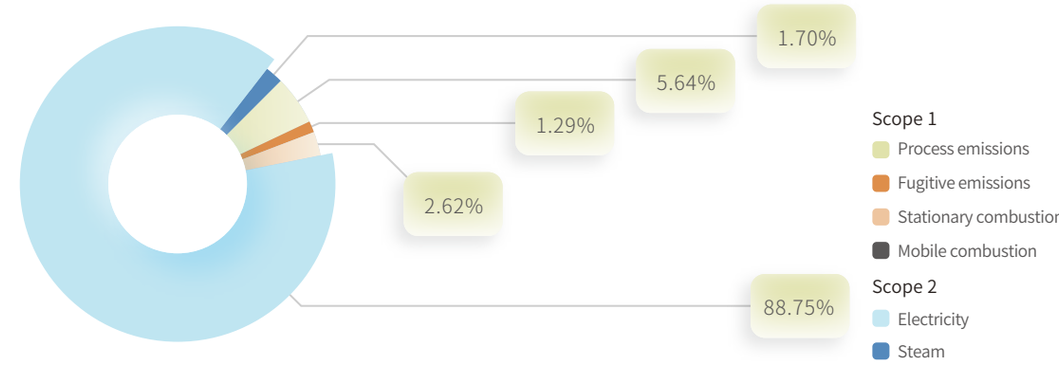
The inventory covers all of Nanya Technology's production sites and 100% of revenue. The main sources of GHG emissions are purchased electricity and steam (approximately 87.45%) and process emissions (approximately 8.89%). In 2024, total GHG emissions amounted to 409,138 metric tons of CO_2e (tCO_2e). Scope 1 emissions were 39,063 tCO_2e, with no emissions resulting from combustion of biomass fuel. Scope 2 emissions were 370,075 tCO_2e.

GHG emission factors were based on those announced by Taiwan's Ministry of Environment in February 2024, as well as Taiwan's Energy Administration of the Ministry of Economic Affairs and Nan Ya Plastics' own emission factors for steam at their own facilities. Global Warming Potential (GWP) values were drawn from the IPCC Fifth Assessment Report. Compared to 2020, GHG emissions in 2024 decreased by 12.9%, and the number of wafers produced decreased by approximately 22.8%. In terms of emissions per unit wafer, the 2024 emissions intensity was 0.88 $kgCO_2e$/wafer area (cm^2), lower than in 2023. In terms of emissions intensity per unit of wafer output, the 2024 GHG emissions per kilopieces were 416 ($kgCO_2e$/kpcs), representing a 1% reduction compared to 2020.

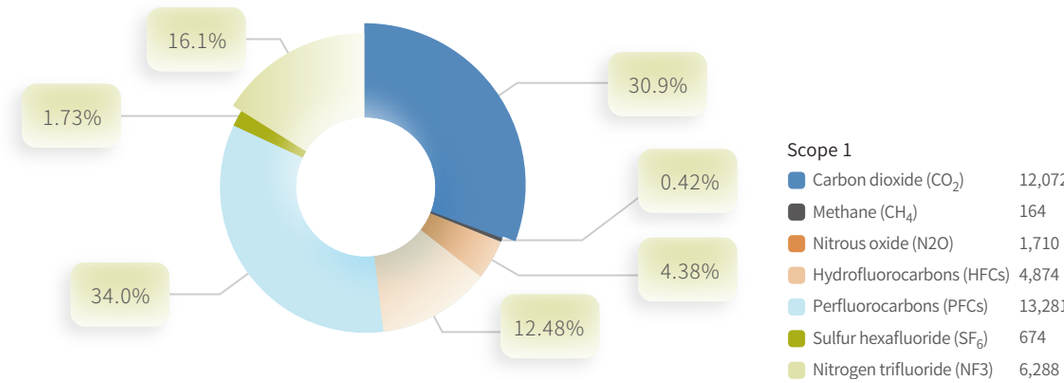
Note 1: GHG emissions per unit area of wafer output.

Note 2: This inventory was conducted in accordance with the Ministry of Environment's 2024 Greenhouse Gas Emissions Inventory Guidelines.

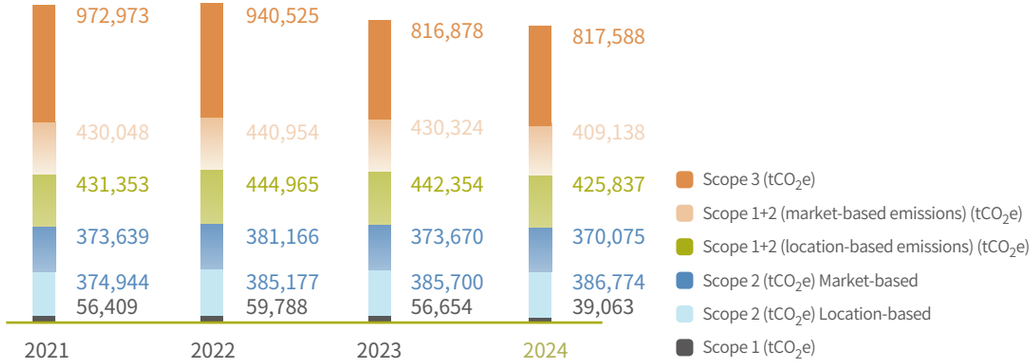
Percentages of 2024 Scope 1 and Scope 2 Emissions by Category



2024 Percentages of Scope 1 Greenhouse Gas Emissions



Greenhouse Gas Emissions by Scope



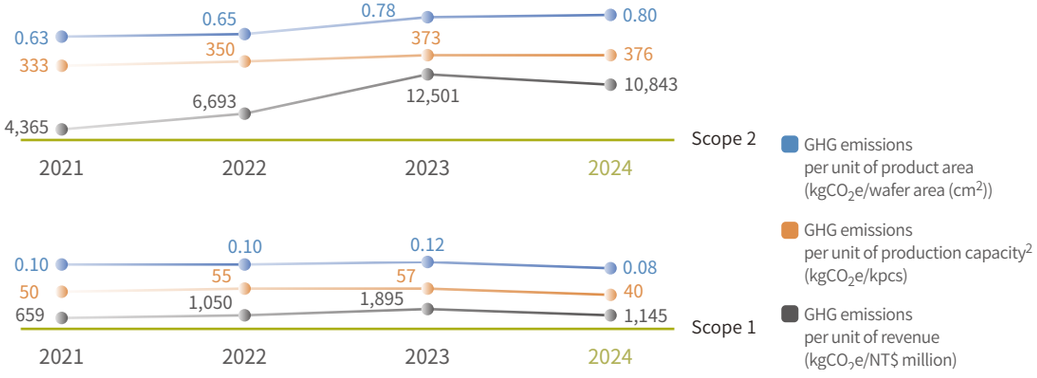
Note 1: There are 9 types of PFC emissions in total, including the process gases from carbon tetrafluoride (CF4), perfluoro-propane (C3F8), hexafluoro-butadiene (C4F6), octafluorocyclobutane (C4F8), trifluoro-methane (CHF3), difluoromethane (CH2F2), fluoromethane (CH3F), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3).

Note 2: Other direct emissions include CO2, CH4, N2O from processes, and HFCs and SF6 from non-process sources, such as fire extinguishers, refrigerators, freezers, and switch gear.

Note 3: Energy indirect emissions include electricity and steam consumption. The carbon emission factor for electricity is based on the Energy Administration of the Ministry of Economic Affairs' published value of 0.474 kgCO2e/kWh, as of April 14, 2025.

Note 4: In accordance with the GHG Protocol Scope 2 Guidance (2015), GHG emissions are calculated and disclosed using both "Location-based" and "Market-based" methods respectively since we purchased renewable energy. In the above table, the location-based Scope 2 GHG emissions are calculated by multiplying the total electricity used in each area by the average emission factor for that area. On the other hand, market-based emissions are calculated by multiplying contracted renewable energy by their corresponding emission factors.

Scope 1+2 Greenhouse Gas Emission Intensity



Note 1: This table includes GHG emissions from Scope 1 and Scope 2.

Note 2: Production capacity is calculated using the output of good electronic chips; with the output of various products converted into the equivalent number of 4Gb chips. The unit of measurement is per kilopieces (kpcs).

To make value chain GHG inventories more comprehensive, we conducted Scope 3 inventory in accordance with the Greenhouse Gas Protocol and achieved ISO 14064-1 certification. In 2024, emissions from 7 Scope 3 categories were verified. Among all emission categories, the highest GHG emissions came from the use of sold products, followed by purchased goods and services, and subsequently fuel- and energy-related activities not included in Scope 1 or 2.

Scope 3 Emissions in 2024

Scope 3 Category	Calculation Basis	Scope 3 Emissions (tCO_2e)
Purchased goods and services*	Carbon emissions from purchased primary materials and auxiliary materials used in the production process	157,262
Fuel- and energy-related activities not included in Scope 1 or 2*	Upstream GHG emissions from purchased fuels and energy, covering extraction through delivery (B2B)	77,817
Upstream transportation and distribution*	Carbon emissions from transport of main and auxiliary materials from suppliers and packaging plants to the Company's facilities, calculated by ton-kilometers	2,372
Downstream transportation and distribution	Carbon emissions from product delivery from the Company's facilities to its customers, calculated by ton-kilometer	2,272
Investment	Carbon emissions from the investment associate company, Formosa Advanced Technologies, calculated based on equity ownership	35,841
Employee commuting*	Carbon emissions from company shuttles and employee commuting	1,723
Business travel*	Carbon emissions from employees' international business travel by air	130
Waste generated during operations*	Carbon emissions from waste generated during production, including transportation and treatment of waste	1,328
Use of sold products*	Carbon emissions from electricity consumed during customers' use of products	501,684
Capital equipment	Investments related to procurement of equipment and construction	37,159
Total		817,588

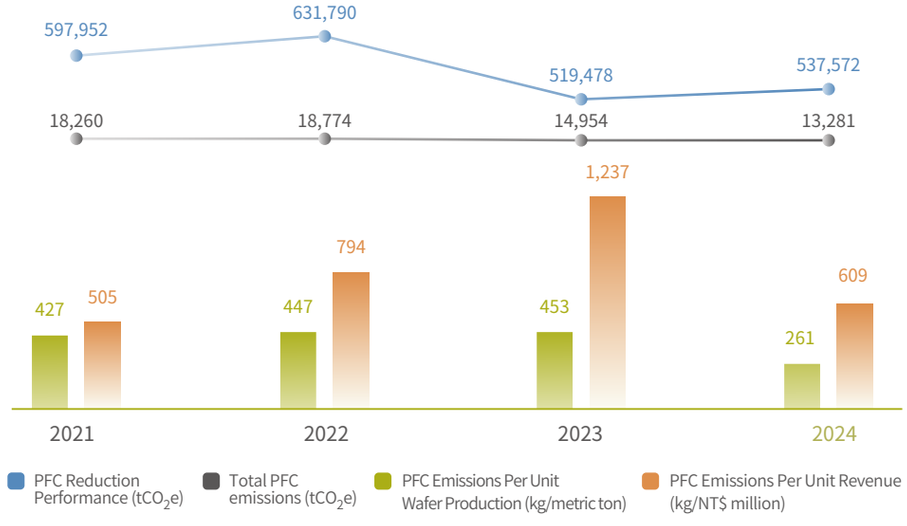
Note: The main emissions factor sources for each Scope 3 category are as follows: For purchased goods and services: SimaPro 9.4.0.2 database (IPCC 2021 GWP 100). For fuel- and energy-related activities, upstream and downstream transportation and distribution, employee commuting, operational waste, and use of sold products: Product Carbon Footprint Platform. For business travel: ICAO Carbon Emissions Calculator. For investments: GHG emissions allocated based on equity share in investees.

Note: Those marked with * indicate verified items.

Greenhouse Gas Reduction

The Company actively promotes voluntary emission reductions and participates in the annual voluntary GHG reduction program launched by the Industrial Development Administration, Ministry of Economic Affairs. Given the high global warming potential (GWP)[1] of perfluorocarbons (PFCs), we have implemented phased GHG reduction plans since 2006. During facility planning, we procured high-efficiency local scrubbers[2]. Currently, the thin-film and etching areas use burn-type PFC local scrubbers, which use high temperatures from combustion to destroy PFCs. To reduce fugitive PFC emissions, Nanya Technology established local scrubber acceptance criteria for PFC reduction rates: CF_4 gas treatment efficiency must exceed 90%, reduction rates of C_3F_8, C_4F_6, C_4F_8, CHF_3, CH_2F_2, and SF_6 must exceed 95%, and NF_3 reduction must exceed 99%. After installation, all local scrubbers undergo PFC abatement verification using FTIR[3] to align with future reduction trends.

PFC Emissions Trend

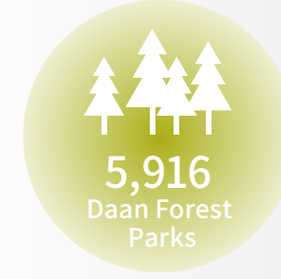


By installing high-reduction-rate local scrubbers for PFCs during facility planning and implementing process PFC reduction initiatives, we set a reduction target of at least 90%. From 2021 to 2024, the reduction rate of process PFC emissions exceeded 93% each year, achieving a cumulative reduction of 2,286,792 tCO_2e—equivalent to the annual carbon absorption of 5,916 Daan Forest Parks.

Note: Based on the estimation published by the Energy Administration, Ministry of Economic Affairs, that one Daan Forest Park absorbs 386.5 metric tons of CO_2 annually.)

the reduction rate of process PFC emissions

a cumulative reduction of tCO_2e



the annual carbon absorption

Note 1: Global Warming Potential (GWP) refers to the warming impact of a gas relative to CO_2 (with CO2's GWP set at 1). In this context, high GWP refers to gases with a GWP greater than 675. (Based on GWP values from the IPCC Fifth Assessment Report (FAR))

Note 2: Local exhaust gas treatment unit.

Note 3: Fourier-transform infrared spectrometer.

Carbon Disclosure Project

Upholding the principle of transparent disclosure, we have participated in the Carbon Disclosure Project (CDP), a nonprofit initiative, since 2009, annually disclosing data related to GHG emissions and reduction. From 2021 to 2024, we consistently achieved Leadership level ratings in the CDP Climate Change project. In addition to disclosing carbon emissions-related information through CDP and this report, Nanya Technology also voluntarily reports GHG emissions and reduction data through the Responsible Business Alliance (RBA) greenhouse gas reporting system, and provides product carbon emission data to enable customers to calculate the carbon footprint of their products.

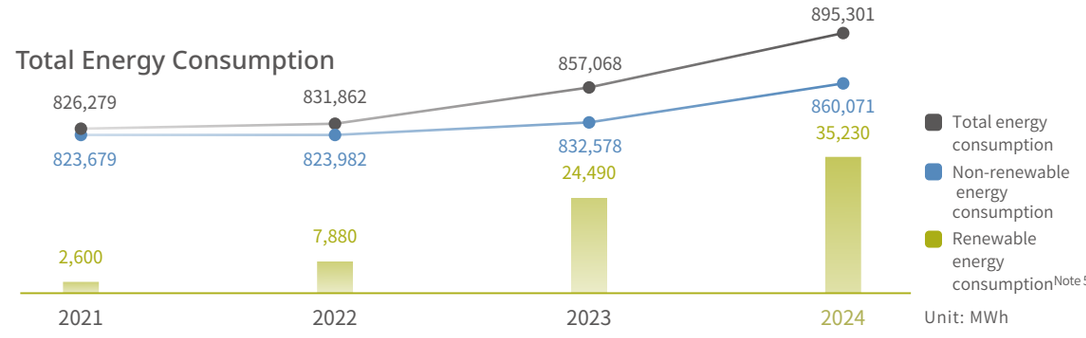
5.2 Energy Resource Management

1. Energy Management

Energy Structure

The environmental impact and finite availability of fossil fuels have become critical concerns, making effective energy management an urgent priority. Nanya Technology primarily uses purchased electricity, steam, and natural gas, and does not generate energy in-house. Indirect energy use which results in GHG emissions includes raw material transportation within facilities, raw material suppliers' production activities, waste transportation/treatment, employee business travel, and commuting. In 2024, the primary energy sources used by Nanya Technology were purchased electricity (89.5% of total energy consumption), natural gas (6.6%), and steam (3.9%). Aside from a portion of purchased electricity sourced from renewable energy, the rest were non-renewable. Diesel was also used, but its consumption was extremely low—less than 0.03% of total energy consumption—so it was excluded from energy consumption statistics. We began purchasing renewable energy (electricity) in 2020. By 2024, renewable energy (electricity) accounted for 3.94% of the Company's total energy consumption. accounting for 4.4% of total electricity consumption. In 2024, production capacity[Note 1] decreased by 1.7% compared to 2023. However, due to the continued implementation of advanced process technologies, total energy consumption increased. Thus Nanya Technology's total energy consumption (electricity + natural gas + steam) in 2024 reached 895,301 MWh (3.223×10^9 MJ), including 860,071 MWh (3.096×10^9 MJ) of non-renewable energy and 35,230 MWh (1.268×10^8 MJ) of renewable energy—a 4.46% increase from 2023. Electricity consumption was 801,326 MWh (2.885×10^9 MJ[Note 2]), comprising 35,230 MWh (1.268×10^8 MJ) of renewable energy and 766,096 MWh (2.758×10^9 MJ) of non-renewable energy. Natural gas usage was 58,923 MWh[Note 3] (2.121×10^8 MJ, 5,630,508 m^3), and steam usage was 35,051 MWh[Note 4] (1.262×10^8 MJ, 46,340 metric tons). In terms of energy intensity, energy consumption per unit of production capacity in 2024 was 0.91 MWh/kpcs, a 6.2% increase from 2023.

Nanya Technology has developed an Energy Review Management Procedure to effectively manage its energy use and consumption. This procedure allows the Company to assess conditions of energy use and consumption, identify major energy-consuming operations and energy-saving opportunities, establish controls, and set measurable improvement targets to achieve energy conservation benefits. The process begins with creating an energy review checklist, calculating energy consumption by equipment unit, identifying major energy-consuming equipment, establishing energy baseline data, and setting suitable performance indicators to achieve specific energy-saving goals. The effectiveness of energy-saving initiatives is then regularly evaluated. In addition, monthly meetings are held to audit energy reviews. After



2021-2024 Electricity Consumption

	2021	2022	2023	2024
Renewable electricity (MWh)	2,600	7,880	24,490	35,230
Non-renewable electricity (MWh)	728,787	736,419	741,952	766,096
Electricity consumption per unit of production capacity (MWh/kpcs)	0.65	0.68	0.77	0.81

2021-2024 Natural Gas Consumption

	2021	2022	2023	2024
Natural gas consumption (m^3)	4,682,857	4,780,740	5,228,039	5,630,508
Natural gas consumption (MWh)	48,702	50,030	54,711	58,923
Natural gas consumption per unit of production capacity (m^3/kpcs)	4.2	4.4	5.2	5.7

2021-2024 Steam Consumption

	2021	2022	2023	2024
Steam consumption (metric ton)	61.066	49,620	47,482	46,340
Steam consumption (MWh)	46,190	37,532	35,915	35,051
Steam consumption per unit of production capacity (metric ton/kpcs)	0.054	0.046	0.047	0.047

Note 1: Production capacity is calculated using the output of good electronic chips; with the output of various products converted into the equivalent number of 4Gb chips. The unit of measurement is per kilopieces (kpcs).

Note 2: Based on the Energy Product Unit Heating Value Table updated in 2024 by the Energy Administration, Ministry of Economic Affairs for unit conversion, 1 kWh = 860 kcal = 3.6 megajoules; 1 MWh = 3,600 megajoules.

Note 3: The electric energy of natural gas is calculated as 1 m^3 = 10.465 kWh (based on the Energy Product Unit Heating Value Table updated by the Energy Administration, Ministry of Economic Affairs, in 2020; 1 kWh = 860 kcal, 1 m^3 = 9,000 kcal).

Note 4: The steam used on-site is converted into saturated steam at 132.88 ℃. According to the saturated steam table, 1 metric ton of steam equals to 650,500 kcal/metric ton, which is equivalent to 756.4 kilowatt-hours of energy (based on the conversion rate of 1 kWh = 860 kcal).

Note 5: Renewable energy used on-site is green electricity purchased from external sources. In 2020, only certificates were purchased; from 2021 onward, electricity and certificates are purchased in bundle.

we evaluate factors such as cost of improvements, energy-saving potential, equipment lifespan, regulatory requirements, and implementation difficulty, priorities are set and energy-saving plans are launched accordingly. Results are reported and future goals are approved at annual executive review meetings. Furthermore, the Company continually explores new energy-saving technologies and applications through external seminars and training, internal forums, and other means. We continue to invest in R&D to introduce innovative energy-saving solutions and to reduce energy consumption. For example, in 2021, we completed the implementation of smart controls for our chilled water system, investing NT$49.9 million and significantly reducing power consumption by 18%. In 2024, we invested NT$23 million to replace the ceramic zeolite rotor of the VOCs air pollution and exhaust gas treatment system with fiberglass rotors, resulting in a significant 50% reduction in natural gas consumption.use and consumption, identify major energy-consuming operations and energy-saving opportunities, establish controls, and set measurable improvement targets to achieve energy conservation benefits. The process begins with creating an energy review checklist, calculating energy consumption by equipment unit, identifying major energy-consuming equipment, establishing energy baseline data, and setting suitable performance indicators to achieve specific energy-saving goals. The effectiveness of energy-saving initiatives is then regularly evaluated. In addition, monthly meetings are held to audit energy reviews. After we evaluate factors such as cost of improvements, energy-saving potential, equipment lifespan, regulatory requirements, and implementation difficulty, priorities are set and energy-saving plans are launched accordingly. Results are reported and future goals are approved at annual executive review meetings. Furthermore, the Company continually explores new energy-saving technologies and applications through external seminars and training, internal forums, and other means. We continue to invest in R&D to introduce innovative energy-saving solutions and to reduce energy consumption. For example, in 2021, we completed the implementation of smart controls for our chilled water system, investing NT$49.9 million and significantly reducing power consumption by 18%. In 2024, we invested NT$23 million to replace the ceramic zeolite rotor of the VOCs air pollution and exhaust gas treatment system with fiberglass rotors, resulting in a significant 50% reduction in natural gas consumption.

Renewable Energy and Usage Planning

In terms of renewable energy usage, Nanya Technology implements planning and execution in the following three key phases.

Phase 1: In-house evaluation and pilot implementation

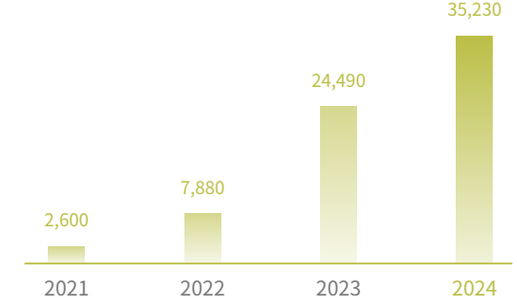
In 2020, Nanya Technology purchased 362 Taiwan Renewable Energy Certificates (T-RECs) via the renewable energy trading platform. The Company began assessing available space at existing facilities and installed a 27.36 kW rooftop solar PV system on a new building, which was completed and commissioned in 2022. The system generated 27 MWh in 2024 (sold to Taipower). Future new facilities will fully utilize land resources and consider the installation of green energy equipment.

Phase 2: External collaboration

Through external partnerships, Nanya Technology collaborated with renewable energy sellers to obtain larger electricity supply. We adhered to regulatory requirements, and the usage gradually soared. In 2024, the Company used 35,230 MWh (1.268×10^8 MJ) of externally purchased solar power, accounting for 4.4% of the Company's total electricity consumption. Total investment amounted to NT$179.5 million, and carbon emissions were reduced by 17,404 metric tons[1].

Phase 3: Aligning with international standards and achieving net zero

In alignment with global initiatives such as SBT and RE100, Nanya Technology has set a target for renewable energy to account for 25% of total electricity consumption by 2030. The Company will pursue transfer supply contracts from large-scale renewable energy projects as it moves toward 100% renewable energy use.



Note 1: CO_2e emissions from electricity use are calculated using the most updated emission factor in 2023 published by the Energy Administration, Ministry of Economic Affairs: 0.494 kgCO_2e/kWh.

Enhancing Energy Usage Efficiency

To effectively reduce the environmental impact of the greenhouse effect, Nanya Technology integrated energy conservation into its facility design from the outset, adopting energy-saving technologies such as a dual-temperature chilled water system, waste heat recovery and utilization in freezers, and more. Over the years, we continue to introduce various energy-saving technologies, improving equipment through various mindsets including automated controls, enhanced equipment performance, energy recovery, and improved production management. Additionally, energy conservation is prioritized during the equipment design and procurement phases. Nanya Technology implemented the ISO 50001 Energy Management System in 2018 and completed its certification. To strengthen employee awareness of energy conservation, we provide training programs to equip designated energy management personnel in each department. These trained individuals support the implementation of departmental energy management tasks and energy-saving initiatives. Currently, there are 119 qualified energy management personnel, and a total of 347 participants have completed training over the years.

In 2020, the Company invested NT$21.8 million to build an energy management platform—the Energy Consumption Real-Time Monitoring Platform, which enables statistical analysis and smart energy-saving management of system operations. It also supports energy consumption management and improvements across various organizations and machineries. In 2023, energy baseline data was added to optimize the system's functionality, enabling more timely analysis of equipment energy consumption and stronger oversight. Optimization was completed in June 2024. In addition, water and energy conservation experts

are assigned with the help from the Energy and Water Conservation Service Team within participating companies of the Group and collaborate with specialists from other Group companies to provide on-site guidance and conduct inspections at various facilities, including those of the Company. These efforts span Formosa Plastics Group's facilities in northern, central, and southern Taiwan, with the goal of enhancing water and energy conservation performance across all facilities through expert audits and targeted support.

Nanya Technology's energy-saving target for 2030 is a cumulative energy savings of 103,000 MWh/year from 2017 to 2030. In 2024, NT$36.17 million was invested in 27 energy-saving projects, generating a total energy-saving benefit of 5,513 MWhNote 1/year (1.985x10^7 MJ/year).

For 2025, the Company plans to implement **30** projects (27 new and 3 continuing)

with an estimated savings of **3,301 MWh/year** (1.188x10^7 MJ/year)

Energy Conservation Programs

Energy Conservation Programs Completed in 2024

Energy conservation from process equipment management:	17 programs
Energy conservation from non-process equipment management/improvement:	2 programs
Improvements to process equipment:	2 programs
Energy conservation from lighting improvement and management:	4 programs
Energy conservation from air pollution treatment equipment:	1 programs
Energy conservation from wastewater treatment equipment:	1 programs

Energy Conservation Benefits

5,513 MWh/year (1.985x10^7MJ/year)

Carbon Reduction (tCO_2e) 2,613

Planned Energy Conservation Programs for 2025

Energy conservation from process equipment management:	8 programs
Energy conservation from improvements to process equipment:	6 programs
Energy conservation from CDA equipment:	1 programs
Energy conservation from lighting improvement and management:	5 programs
Energy conservation from non-process equipment management:	6 programs
Energy conservation from improvements to non-process equipment:	2 programs
Energy conservation from chillers:	1 program
Energy conservation from air conditioners:	1 program

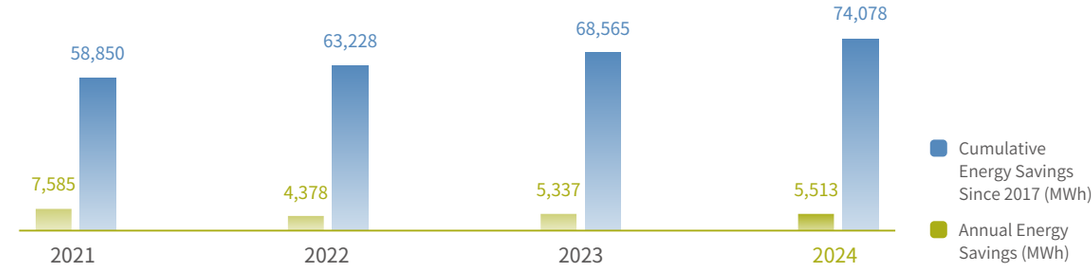
Estimated Energy Conservation Benefits

3,301 MWh/year (1.188x10^7MJ/year)

Carbon Reduction (tCO_2e) 1,565

Note 1: Energy consumption reductions are primarily calculated based on the measured consumption of equipment before and after improvement. Where measurements are not feasible, calculations are based on the difference in rated power multiplied by operating hours.

Historical Performance in Energy Conservation



Energy Consumption Real-Time Monitoring Platform

Energy Conservation Program Highlights

Replacing the zeolite rotor concentrator of VOCs exhaust gas treatment system

Natural gas savings of 129,210m³ per year

The VOCs air pollution and exhaust gas treatment system originally used ceramic zeolite rotor concentrators. After prolonged use, their efficiency declined. A comparison of ceramic zeolite rotors versus fiberglass rotors under equal airflow showed that fiberglass rotors offer higher efficiency and concentration ratio, with natural gas consumption significantly reduced to half that of ceramic rotors. After we replaced two sets of zeolite rotor concentrators with fiberglass ones, efficiency was greatly increased—VOCs treatment capacity improved from 150 ppmv to 300 ppmv, saving 129,210 m³ of natural gas per year.

Energy management optimization: Lam EOS chiller deactivated and replaced with PCW cooling,

saving 350,000 kWh per year

- In the Lam EOS system, the iCDS (HF 1:300) chemical tank relies on a dedicated chiller to regulate circulation temperature. The primary energy consumption comes from the compressor in the chiller.
- Testing and verification confirmed that using the facility's PCW alone can adequately control iCDS temperature.
- The chiller's internal compressor was shut down, and internal piping within the chiller was modified so that the PCW pipeline bypasses the compressor and connects directly to the iCDS chemical tank, thereby reducing the energy consumption associated with compressor operation.
- Energy consumption is reduced by 345,600 kWh per year.

2. Water Resource Management

Due to global climate change, rainfall in different regions of Taiwan has become increasingly polarized, resulting in both flooding and water shortages occurring simultaneously. Therefore, as a key member of the semiconductor industry, Nanya Technology has long been attuned to the water scarcity risks brought about by global climate change and deeply understands the impact that climate change and water can have on operations. To mitigate its environmental impact and the risks associated with water shortages, Nanya Technology continues to advance water conservation initiatives and is further committed to water reclamation and reuse. In 2023, the Company adopted the Alliance for Water Stewardship Standard (AWS), and was awarded AWS's highest certification level in 2024, Platinum, following its 2023 assessment. From the source of every drop of water to its use and final discharge, Nanya Technology practices pragmatic and effective water management to protect the ecosystem. Cherishing every drop of water, we continue to improve water usage efficiency while actively aligning with the international AWS standards and implementing the Five Outcomes to achieve sustainable water management in a systematic and ongoing manner.

Nanya Technology's efforts in water resource management have been recognized by international environmental evaluation bodies. From 2022 to 2023, the Company received an "A" leadership rating in the CDP Water Security category for two consecutive years. From 2022 to 2024, we also received the Taiwan Corporate Sustainability Award's Water Resource Management Leadership Award for three consecutive years. In 2024, the Company was awarded Platinum-level certification by the Alliance for Water Stewardship Standard, affirming its commitment to tackling climate change and water resource management while contributing to global sustainability goals.

Nanya Technology's Water Management Policy

A	B	C	D	E
Through employee training, organizational planning, and the implementation of water conservation and emergency response systems, we continuously optimize water resource management across our facilities.	We disclose quantifiable water performance indicators, with a core objective of continuously enhancing water usage efficiency.	Aiming to improve effluent quality, we continuously enhance our water treatment systems to reduce the impact of our operations on local basins.	Through environmental education and continuous monitoring, we strive to safeguard the health of vital water-related areas.	We have implemented comprehensive environmental hygiene measures and drinking water quality systems across our facilities to reduce the risk of infectious disease.

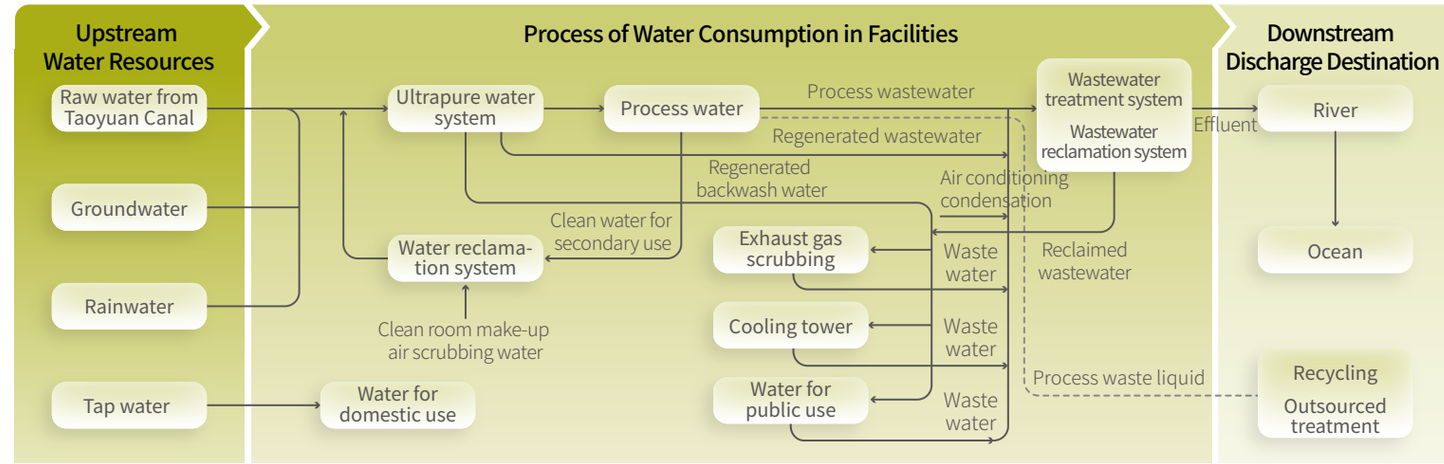
Nanya Technology's water resource management policies and requirements apply to all operational, R&D, and manufacturing sites. Matters related to water usage, conservation, and risk assessments are compiled annually and reported to the Board of Directors for review.

Actively managing water indicators and implementing conservation in operations to maximize the use of water resources.	Assessing risks and opportunities under climate change to mitigate the impact of water scarcity.	Engaging relevant stakeholders to promote awareness and conservation of water resources.	Implementing a categorized wastewater treatment system as well as multiple reclamation and reuse processes to maximize water utilization efficiency.	Complying fully with regulations and continuing to strengthen water treatment facilities to reduce the risk of environmental pollution.

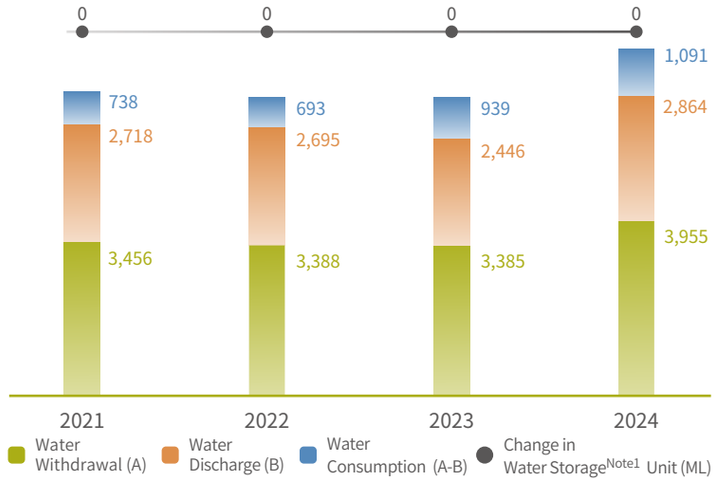
Water Resource Structure

In 2024, Nanya Technology's total water withdrawal was 3,955 million liters, primarily sourced from Taoyuan Canal (approximately 91.5%, or 3,619 million liters), followed by well water (approximately 7.9%, or 314 million liters), and tap water (approximately 0.6%, or 22 million liters). Rainwater has been recycled and reused over the years, but it was temporarily suspended in 2024 due to equipment changes for the expansion of new facilities. Nanya Technology's total water withdrawal in 2024 increased by 16.9% compared to 2023. Despite this, production capacity in 2024 decreased by 1.7% from 2023. In terms of water usage intensity, water consumption per unit of production capacity was 4.02 kiloliters/kpcs, an 18.8% increase from 2023. Total ultrapure water consumption in 2024 was 3,484 million liters, a 2.5% increase compared to 2023. In terms of water usage intensity, ultrapure water consumption per unit of production capacity was 3.54 kiloliters/kpcs, a 4.3% increase from 2023.

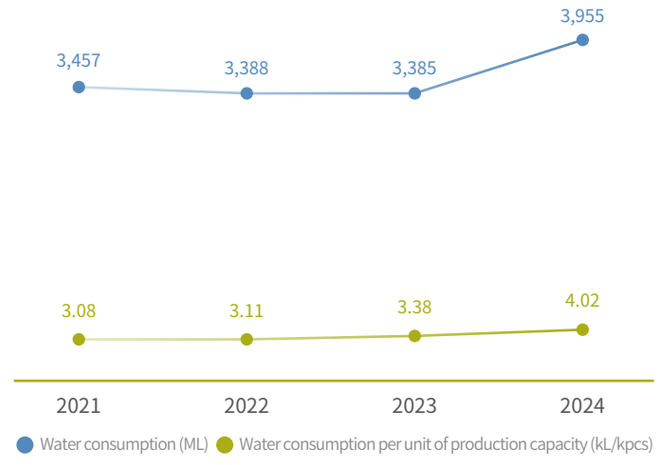
Nanya Technology's Water Usage Structure



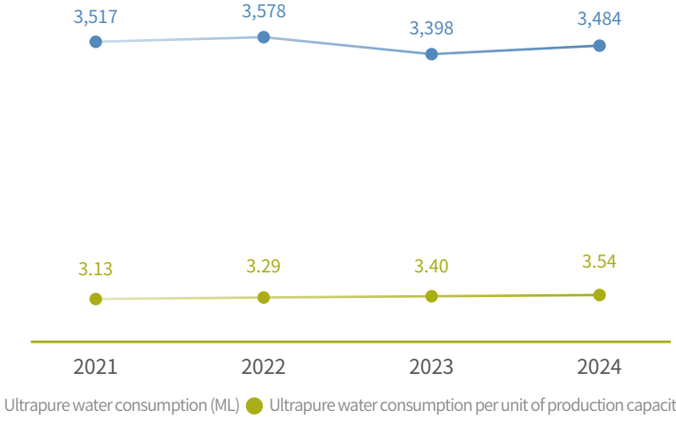
Nanya Technology's Water Consumption



2021-2024 Water Consumption Trend



2021-2024 Ultrapure Water Consumption Trend



Note 1: Change in water storage = storage on 12/31 of the year - storage on 1/1 of the same year

Water Resource Risk Management

Water Risk Factors	Assessment Boundaries	Stakeholders Considered	Assessment Methodology	Assessment Results and Responses
Water-related dependencies and impacts	• Nanya Technology's operational sites • Upstream supply locations • Downstream shipment locations	• Local residents • Government agencies • Suppliers • Customers	• The WRI Aqueduct Tool of the World Resources Institute (WRI). • The IPCC AR5 RCP8.5 scenario maps published by the Disaster Risk Adaptation (hereinafter referred to as "DR.A") platform of the National Science and Technology Center for Disaster Reduction (hereinafter referred to as "NCDR"). • We referred to the System of Environmental-Economic Accounting (SEEA) as we identified dependencies and impacts based on provisioning, regulating and support, and cultural services through interdepartmental workshops.	• A risk simulation analysis of water sources found that 91.5% of the Company's water supply comes from the Taoyuan Canal, which is fed by Shimen Reservoir. The current water stress level is low. Both the short-term and long-term (up to 2050) water stress risks are categorized as medium-to-low (10-20%), indicating that it is not located in a water-stressed region. • An assessment of 31 Taiwan-based supplier locations showed that 22 are situated in high-risk areas for flooding and drought (levels 4 and 5), mainly concentrated in central and southern Taiwan. • Among 23 shipment locations assessed for climate change risk (flooding), 15 were identified as high-risk. • Water is a critical ecosystem service on which Nanya Technology depends. The substantial water use in semiconductor manufacturing can also lead to additional impacts—from the competition for water with nearby communities or businesses to possible ecological degradation from overconsumption. • Nanya Technology discharges wastewater during its operations. Even if the wastewater discharged is compliant with regulations, it may still exceed the local environmental capacity, leading to biodiversity loss. • A supplier water resource sharing meeting was held in September 2024 to assist suppliers in water management and conservation measures. Around 30 suppliers attended the event. • In 2024, a total of 19 suppliers underwent on-site audit and guidance. 9 of them completed water conservation programs, resulting in annual water savings of 272 million liters. In 2025, 25 suppliers are expected to receive audits and support, with estimated annual water savings of 100 million liters.
Future Water Availability	• Nanya Technology's operational sites	• Local residents • Government agencies	• According to the TCCIP Climate Change Water Hazard Map, the Company will not face the risk of water scarcity under the RCP 8.5 scenario in the middle of this century (2036-2065).	• In northern Taiwan, the annual average rainfall is projected to increase by 12%, while spring rainfall may decrease by 5%. The Company's backup water supply exceeds the projected reduction in rainfall. Even if the water supply from the Shimen Reservoir declines during spring due to reduced precipitation, assessments show that production needs can still be met, with no risk of water shortage. • The Shimen Reservoir, which supplies water to Nanya Technology, provides about 800 million liters per day. The Company's daily water consumption is approximately 11 million liters, representing a regional water impact level of 1.38%. • We coordinate and communicate with the Irrigation Agency and the Northern Region Water Resources Branch of the Water Resources Agency. In times of water scarcity, we cooperate with government contingency plans to ensure effective utilization of water resources, reduce the impact of water shortages in supply basins, and maintain supply stability.

Water Risk Factors	Assessment Boundaries	Stakeholders Considered	Assessment Methodology	Assessment Results and Responses
Future Water Quality	• Nanya Technology's operational sites	• Local residents • Government agencies	• Implementation of sustainable water management (AWS)	• All wastewater is separately collected and discharged to the appropriate wastewater treatment facilities. Over 20 distinct pipelines are used to segregate and convey different types of wastewater. To ensure that the quality of discharged water meets standards, real-time monitoring is conducted in coordination with the Environmental Protection Department, with sampling and analysis conducted every quarter by external contractors to further strengthen our wastewater quality control. • During typhoon season, sediment buildup during reservoir discharge increases turbidity in the Shimen Reservoir, which can affect water supply. However, the reservoir's multi-level intake project was completed in 2021, significantly mitigating high turbidity. In addition, a rapid sedimentation tank has been installed at our facility, capable of treating raw water with high turbidity (<10,000 NTU). Therefore, the risk of future water supply disruptions caused by water quality and high turbidity is considered low.
Local Stakeholders	• Nanya Technology's operational sites	• Local residents	• The Shimen Reservoir, which supplies water to Nanya Technology, provides about 800 million liters per day. The Company's daily water consumption is approximately 10 million liters, representing a regional water impact level of 1.25%.	• The Company's production water primarily comes from the Taoyuan Canal, drawn directly under a water supply agreement with the Irrigation Agency, which manages the Irrigation Aqueduct. The agreement stipulates the volume of water to ensure supply stability and permits withdrawals beyond contract levels in emergencies, increasing water-use flexibility. • The Environmental Quality Supervision Committee: Every quarter, Nanya Technology commissions a third-party organization to conduct monitoring surveys on the local ecology, hydrology, and air quality around the facilities. The survey results are then reported to the Environmental Quality Supervision Committee. • Nanya Technology, in collaboration with nearby Formosa Plastics Group facilities, has established an emergency response organization for water shortages. Through this organization, facilities can coordinate emergency water allocation and support. To date, there have been no incidents of production losses due to water shortages.
Water-Related Regulations	• Nanya Technology's operational sites	• Local residents • Government agencies	• Regulation on water conservation charges.	• In 2024, the Company achieved a water reclamation rate of 95.9%[Note], verified by a third-party certification body. This exceeds the government's industry benchmark range of 50%-85% and qualifies for the lowest announced rate. The estimated annual water fee increase is only around 3%, posing a minimal impact on operational costs. • Nanya Technology communicates with local residents and the public by disclosing information related to its water management, including real-time monitoring of effluent discharge, to address public concerns.

Note: The water reclamation rate for water conservation charge calculation is based on the formula specified by the Industrial Development Administration, Ministry of Economic Affairs.

Nanya Technology mainly sources its water from Shimen Reservoir, drawing it through the Taoyuan Canal for production use following treatment. The water is drawn independently using a gravity-fed system, which operates by gravity flow, ensuring no impact on the water resource ecology or other usage. Additionally, rainwater is collected for production use, and tap water is supplied for domestic purposes. Nanya Technology currently operates a single manufacturing facility located in New Taipei City, Taiwan. Due to the highly uneven geographic and seasonal distribution of rainfall in Taiwan, regional and seasonal droughts are common. Using the World Resources Institute's Aqueduct Tools, Nanya Technology assessed its water source—the Taoyuan Canal, which is fed by the Shimen Reservoir and supplies 91.5% of the Company's water. The current water stress level is low, and both the short-term and long-term (up to 2050) water stress risks are categorized as medium-to-low (10–20%). According to the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP), under the RCP 8.5 scenario for the mid-century period (2036-2065), northern Taiwan is expected to see a 12% increase in annual average rainfall, though spring rainfall will decrease by 5%. In summary, the water sources at Nanya Technology's operational sites are located in areas with medium-to-low short-term risk, while the number of consecutive dry days in northern Taiwan may increase by 1.2-2 days on average in the future. The Company uses a large amount of water for its manufacturing processes—approximately 11 million liters of water daily. An increase in water shortage or droughts can elevate the risk of operational disruption.

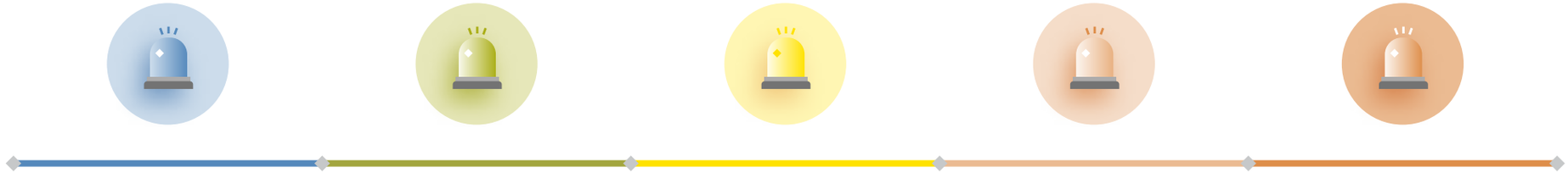
In line with international water security and management standards, Nanya Technology continues to strengthen its water management system and expand its water recycling capacity. The Company has established a robust contingency plan to mitigate the immediate impacts of short-term drought. The facility has a 43-million-liter water reservoir, a 0.5-million-liter detention basin for effective rainwater reclamation during the rainy season (temporarily suspended during FAB 5A construction), and seven wells. Nanya Technology also formed an emergency response organization for water shortages with neighboring plants of Formosa Plastics Group for mutual water-sharing support. Improvement work has been completed at the Shimen Reservoir watershed. The risk of service disruption due to turbidity from heavy rainfall has decreased. The Company can handle raw water turbidity up to 10,000 NTU, enabling it to manage most conditions. In terms of water reclamation and reuse, the effective treatment of acidic/alkaline wastewater, hydrofluoric wastewater, and organic wastewater using dedicated reclamation equipment led to the total volume of reclaimed water reaching 5,590 million liters in 2024. Through internal adaptation capacity and water recycling systems, Nanya Technology can operate for up to 21 days without an external water supply. As of now, there have been no production losses due to water shortages.

Nanya Technology continues to improve standard procedures and processes. It assesses water-related risks through its environmental and operational risk management frameworks, promotes related improvement measures, and formulates contingency plans. These are regularly reviewed by the Sustainable Development Steering Center and the Risk Management Steering Center at quarterly meetings. Moving forward, Nanya Technology will continue to enhance our capacity for water use and management. Newly constructed plants will include water regeneration centers, storage reservoirs, and backup water sources to address the uncertainties of climate change.

Diversified Water Sources to Reduce Production Risks

As part of the FAB 5A expansion, the Company has submitted a new application to the Taiwan Water Corporation for municipal water to be supplied for processes, with a daily volume of 11 million liters. Plans are also in place to construct 8 additional groundwater wells outside the facilities, providing 7.2 million liters per day. In addition, the municipal water supply from the Taishan facility will be integrated, along with upgrades to related equipment and pipelines, contributing another 2 million liters daily. The Company continues to monitor government initiatives for regenerated water. As there are currently no suitable regenerated water programs available in the vicinity of our facilities, we will remain attentive to future plans and adopt such initiatives when feasible.

Nanya Technology's Drought Response Mechanism



Water Situation Light	Blue (Normal)	Green (Water Supply Concern)	Yellow (Stage 1)	Orange (Stage 2)	Red (Stage 3)
Government Response Measures	Stable water supply	Enhanced water sourcing and moderately diversified distribution	Reduced water pressure during off-peak or designated hours	5-20% reduction in water supply to industrial users	Rotating or scheduled water suspension by zone or plant-wide
Nanya Technology's Response Measures	Water is drawn from the Taoyuan Canal to support production under normal conditions.	Water is supplied from the Taoyuan Canal, water reservoir, and 7 in-plant wells.	Water is supplied from the Taoyuan Canal, water reservoir, and 7 in-plant wells.	Water is supplied from the Taoyuan Canal, water reservoir, and 7 in-plant wells.	Water is supplied from the Taoyuan Canal, water reservoir, and 7 in-plant wells. If supply falls short, well water from the Group's Chang Gung Golf Course will be drawn to support water supply, coordinated by the corporate emergency response team.

Water Resource Conservation

In terms of water management, Nanya Technology prioritizes reducing water consumption and enhancing reclamation and reuse, while also designing water-saving processes. To improve water use efficiency, Nanya Technology has set a long-term water resource management goal to reduce water consumption per unit of production capacity by 37% by 2030 compared to 2017 levels. It is hoped that improvements to production processes and equipment can enhance water usage efficiency and water reclamation volume, as well as reduce water consumption. Water conservation efforts span all operational, R&D, and production sites, with the current focus outlined as follows:

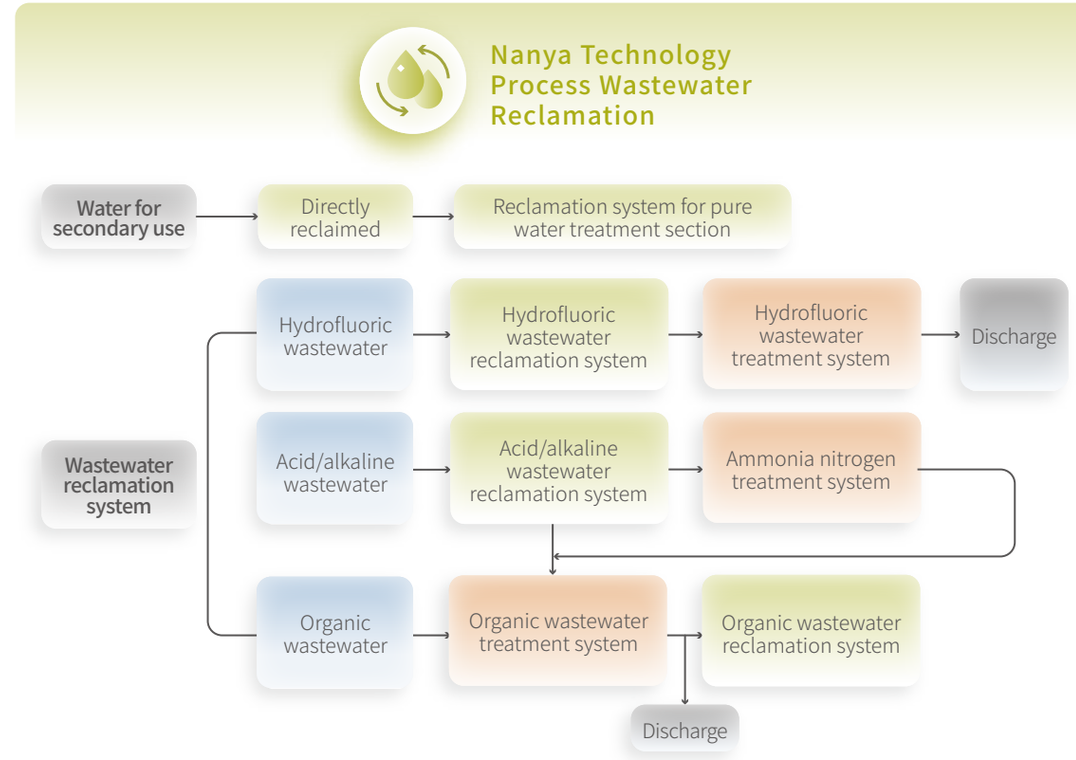
A
Implementing programs to effectively conserve water.

B
Achieving reductions through conservation methods such as reduction and reclamation.

C
Promoting savings through daily management practices.

D
Establishing a categorized wastewater treatment system and implementing multiple reclamation processes to maximize water utilization efficiency.

Nanya Technology actively implements a variety of water-saving measures and has intensified its water reclamation efforts in recent years. Our facility currently has reclamation systems in place for acidic and alkaline wastewater, hydrofluoric wastewater, and organic wastewater, complemented by various conservation initiatives. The reclamation rate continues to improve annually. In 2023, improvements and expansions to the hydrofluoric wastewater reclamation system at FAB 3AN were completed, along with the construction of a new COD and total nitrogen treatment system for hydrofluoric wastewater, which includes water reclamation functionality. We estimate these efforts will increase annual reclaimed water volume by 522 million liters. In 2024, the combined reclaimed water volume from wastewater reclamation systems, process reclamation systems, and pure water process wastewater reclamation reached a total of 5.59 billion liters, accounting for 141.3% of total water withdrawal.



In 2024, six water conservation programs were completed, yielding an annual water savings of 22,258 kiloliters. These include 1 involving switching to reclaimed water for certain equipment to boost reclaimed volume, 1 for domestic water conservation, 2 to reduce equipment operation, and 2 to improve water conservation efficiency for equipment.

Water Conservation Programs Completed in 2024

annual water savings of
22,258 kiloliters

In 2024, **6** water conservation programs were completed

- **1** involving switching to reclaimed water for certain equipment to boost reclaimed volume
- **1** for domestic water conservation
- **2** to reduce equipment operation
- **2** to improve water conservation efficiency for equipment

Project Description	Water Saving Effectiveness (kL/Year)	Share of Annual Water Savings
Replacing the hydrochloric acid scrubber in the ultrapure water system with reclaimed water	18,250	82.0%
Installing water-saving valves on sensor-activated faucets	1,196	5.4%
Water-saving initiatives through equipment parameter adjustments (2 programs)	466	2.1%
Water-saving initiatives through reduced equipment operation (2 programs)	2,346	10.5%

Water Conservation Programs to be Implemented in 2025

The estimated water-saving benefit is **61,160** kiloliters/year

In 2025, a total of **8** water conservation programs will continue to be implemented

- **4** involving equipment and operational parameter adjustments
- **3** for reducing equipment water usage
- **1** expanding the application of reclaimed water to further increase reuse volume

Project Description	Estimated Water Saving Effectiveness (kL/Year)
Introduction of OWWR-II reclaimed water into the pure water system to increase reclaimed water use	45,000
Scrubber equipment parameter adjustment (4 programs)	13,103
Improvement of water-saving measures in cleaning empty chemical barrels (2 programs)	867
Water-saving improvements in acid exhaust scrubber tower	2,190

Collaboration and Dialogue

In addition to ongoing internal water resource management and evaluations, Nanya Technology actively enhances water use efficiency and promotes water conservation and reclamation. The Company engages in communication, dialogue, and collaboration with various stakeholders through a variety of channels. It also communicates with government agencies to learn about national water policies and infrastructure plans, facilitating further collaboration and fulfilling corporate responsibility. Nanya Technology also shares experiences with suppliers and provides guidance to encourage water conservation across the supply chain and create shared social value. Furthermore, we also communicates with local residents and the public, and disclose information about its water management to alleviate their concerns.

Subject	Communication, Dialogue, and Collaboration
Government Agencies	• We engage with the Semiconductor Industry Association and regularly attend Water Resource Diversification Management and Cooperation Platform meetings held by the Water Resources Agency to exchange ideas, communicate, and collaborate on water-related policies. • We coordinate and communicate with the Irrigation Agency and the Northern Region Water Resources Branch of the Water Resources Agency. In times of water scarcity, we cooperate with government contingency plans to ensure effective utilization of water resources, reduce the impact of water shortages in supply basins, and maintain supply stability. • We attend meetings on road surface improvement and pipeline coordination meetings hosted by Taoyuan City Government's Office of Road and Accessory Maintenance to learn whether construction interfaces might affect water supply. • In coordination with the Irrigation Agency, we participate in the Flow Monitoring Implementation Project by installing electronic flow meters with RS-485 transmission interfaces at the Taoyuan Canal intake point. These devices transmit real-time and cumulative water flow data to the Agency's cloud network, enabling real-time monitoring and accurate tracking of water usage. This facilitates precise water allocation by reservoir authorities and helps prevent water resource waste.
Suppliers	• Suppliers are required to sign a Corporate Social Responsibility Commitment. The Supplier Risk Assessment (SAQ) includes sections on water resource management and TCFD-aligned physical risk identification. A cross-comparison was conducted using IPCC AR5 RCP8.5 scenario maps published by the National Science and Technology Center for Disaster Reduction (NCDR) through its Disaster Risk Adaptation (DR.A) platform. Water resource risks were assessed for 19 significant suppliers to ensure they have water management measures and contingency plans in place for water shortages. On-site audits were conducted for high-risk and key suppliers, with corrective guidance provided to address any identified deficiencies. As a result, the Company has determined that physical risks of climate change pose limited impact to Taiwanese suppliers and are unlikely to cause production disruptions. • Through meetings with suppliers, the Company shares knowledge, engages in dialogue, and offers guidance on water management and conservation measures. Suppliers are encouraged to implement water conservation initiatives and enhance their water management measures. In September 2024, approximately 30 suppliers participated in such a session, aiming to draw from Nanya Technology's experience and jointly enhance water management practices across the supply chain. • Annual targets are set, and together with the ESG team, on-site audits and guidance visits are conducted at suppliers' facilities. In 2024, a total of 19 suppliers underwent on-site audits and guidance visits, with 9 suppliers completing water conservation projects, resulting in an annual water savings of 272 million liters. In 2025, 25 suppliers are expected to receive audits and support, with estimated annual water savings of 100 million liters.

Subject	Communication, Dialogue, and Collaboration
Local Residents	• Since its establishment, Nanya Technology has collaborated with the local community to form the Environmental Quality Supervision Committee. Every quarter, Nanya Technology commissions a third-party organization to conduct monitoring surveys on the local ecology, hydrology, and air quality around the facilities. The survey results are then reported to the Environmental Quality Supervision Committee. • The Company engages with the Environmental Quality Supervision Committee to understand community concerns and incorporates relevant issues into its ISO 14001 management system for regular evaluation. • To ensure that effluent water quality falls within normal parameters and to address concerns among residents in the discharge basin, Nanya Technology has implemented a real-time effluent monitoring system that is directly connected to the Environmental Protection Department, enabling joint real-time monitoring to ensure effluent water quality remains normal.
Corporations and the General Public	• By participating in various community activities, Nanya Technology can share its water management experience, for example, by hosting green factory tours and engaging in knowledge exchange with visiting officials and companies regarding Nanya Technology's water management practices and water-saving achievements. • Water and energy conservation experts are assigned with the help from the Energy and Water Conservation Service Team within participating companies of the Group and collaborate with specialists from other Group companies to provide on-site guidance and conduct inspections at various facilities, including those of the Company. These efforts span Formosa Plastics Group's facilities in northern, central, and southern Taiwan, with the goal of enhancing water and energy conservation performance across all facilities through expert audits and targeted support. • Since 2019, the Company has operated a YouTube channel, using content such as vlogs, animations, and edited videos to present topics including corporate image, sustainability, manufacturing processes and products, employee well-being, and social engagement—enhancing the richness and immediacy of communication. Among the content, the animated video *Environmental Sustainability—The Source of Water* communicates Nanya Technology's commitment to water resources and recycling. This video stood out among nearly ten thousand global entries and was honored with the 2021 iF Design Award in Germany. • Since 2023, Nanya Technology has also published its *Alliance for Water Stewardship Report* via its official website (Corporate Sustainability ESG) (https://www.nanya.com/ESG/storage/file/f4723d72-7a43-4f49-9979-f3f00b1c49af?v=1709694452).

3. Raw Material Reduction and Reuse

Raw Material Reduction

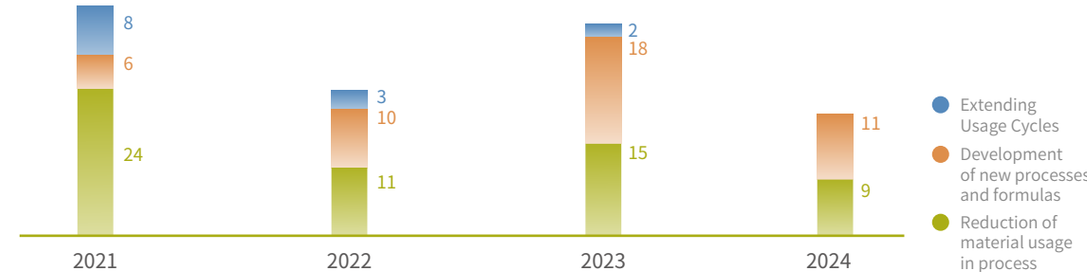
Nanya Technology regularly reviews the rationality and appropriateness of raw material usage in production, and simplifies manufacturing processes to reduce material consumption. The Company's designated team sets annual raw material reduction targets and regularly reviews overall performance in raw material reduction. In 2024, a total of 20 proposals for raw material usage improvements were completed via the Kaizen Proposal System, including the development of new processes and formulas as well as reducing process duration to reduce consumption. Among the 2024 improvement proposals, process parameter optimization and volume reduction improved slurry usage efficiency in the CMP area, achieving a maximum annual reduction of 135.4 metric tons in consumption.

2024 Performance of Raw Material Usage Improvement via Kaizen Proposal System

Category	Number of Proposals	Items Proposed	Benefit (NT$/Year)
Development of new processes and formulas	11	Optimizing process conditions and developing high-productivity processes and formulas reduced the use of photoresists, chemicals, and slurry (11 proposals)	21,117,596
Reduction of material usage in processes	9	Improving production efficiency and optimizing equipment parameters reduced the use of photoresists, specialty gases, and chemicals (9 proposals)	12,108,222

Plans and Measures	Reduction (Metric tons/Year)
Waste slurry: process condition optimization	135.4
Waste chemicals: process condition optimization	34.5
Waste photoresist reduction: process condition optimization	0.4
Total reduction	170.3

Performance in Raw Material Consumption



Raw Material Consumption and Output

Raw Materials for Production	Usage	Renewable	Non-Renewable
Raw wafers (kpcs–12 inches)	665	–	V
Process chemicals (metric tons)	51,670	–	V
Process gases (million cubic meters)	7,255	–	V
Electricity (million kWh)	801	–	V
Freshwater (ML)	3,955	V	–
Wafer packaging material (metric tons)	55	V	–

Product	Capacity
Raw wafers (kpcs–12 inches)	637

Exhaust gas	Emissions
Greenhouse gases (tCO_2e)	409,138
Volatile organic compounds (metric tons)	14.24
Sulfides (metric tons)	1.66
Nitrogen oxides (metric tons)	11.21

Wastewater	Emissions
Wastewater volume (ML)	2,864

Waste	Capacity
General industrial waste (metric tons)	5,881
Hazardous industrial waste (metric tons)	16,522
Electronic waste (metric tons)	4.4

Each year, Nanya Technology conducts a materiality assessment of environmental impacts in accordance with the ISO 14001 Environmental Management System. High-risk items are prioritized for management planning. After a comprehensive evaluation, feasible items are selected for implementation that year. To implement source reduction, manufacturing processes are streamlined to minimize raw material usage and reduce waste generation.

Waste Impact Assessment Results	Upstream	Nanya Technology	Downstream
Sources of Impacts	• Extensive use of small gas cylinders results in more residual gas.	• Raw materials and associated materials contain hazardous substances. • Large volumes of acidic and alkaline chemicals are used. • Extensive use of monitor wafers in production.	• Products require a large amount of packaging materials. • Products contain hazardous substances.
Potential Impacts	• Resource waste: Volume of residual gas. • Increased carbon emissions: More frequent transport increases internal and external carbon emissions.	• Violating international regulations and customer specifications could lead to product returns, contract penalties, as well as potential soil contamination or wastewater pollution due to hazardous material discharged via waste. • Large amounts of waste are generated, with limited disposal locations and capacity, while the waste that undergoes treatment or recycling still requires landfilling.	• Solid waste pollution: Packaging waste such as EPE cushioning material and cardboard boxes may result in solid waste pollution if improperly handled. • Resource waste: Excess packaging waste could result in unnecessary consumption of resources, as some packaging materials are recyclable and reusable. Discarding such materials as waste constitutes resource waste.
Mitigation Measures	• Replacement of small gas cylinders with large cylinders to reduce residual gas and cylinder usage.	• Establishment of a hazardous substance free management system to ensure that wafers, IC packaging, and DIMM module products comply with international regulations and customer-specific requirements for hazardous substance management. • a. 24 raw material usage improvement proposals were completed via the Kaizen Proposal System. b. In-plant regeneration, such as converting copper sulfate waste liquid into copper foil. c. Outsourced recycling and reuse of waste acid, such as sulfuric and phosphoric acids. d. Monitor wafers recycled and reused 8 to 11 times.	• Promoting the return of packaging materials from customers for reuse by NTC. • Disposal of waste electronic equipment must comply with EU environmental directives such as WEEE, RoHS and EuP.

4. Recycling and On-Site Resource Recovery

Ratio of Recycled Materials Used as Raw Materials for Production

During the production process, monitor wafers are required to check process conditions. These wafers, after use, are reprocessed and reused. Each monitor wafer can be reused approximately 8 to 11 times, depending on the specific process. This not only reduces the cost of purchasing brand-new monitor wafers but also significantly lowers waste generation.

By raising the yield of reclaimed wafers that were returned to each supplier, the amount of reclaimed wafers will increase, thereby raising the proportion of reclaimed wafers used in internal production. Defects are regularly reviewed with suppliers, who then implement process improvements and revise specifications. Since 2021, suppliers have adjusted their manufacturing processes to reduce scrap caused by defects, raising the average yield of returned products from 80% to 85%. As a result of the stable yield of returned products, reclaimed wafer input rate increased from 79% in 2021 to 83% in 2023, and remained steady at 83% in 2024; it is projected to reach 85% in 2025.

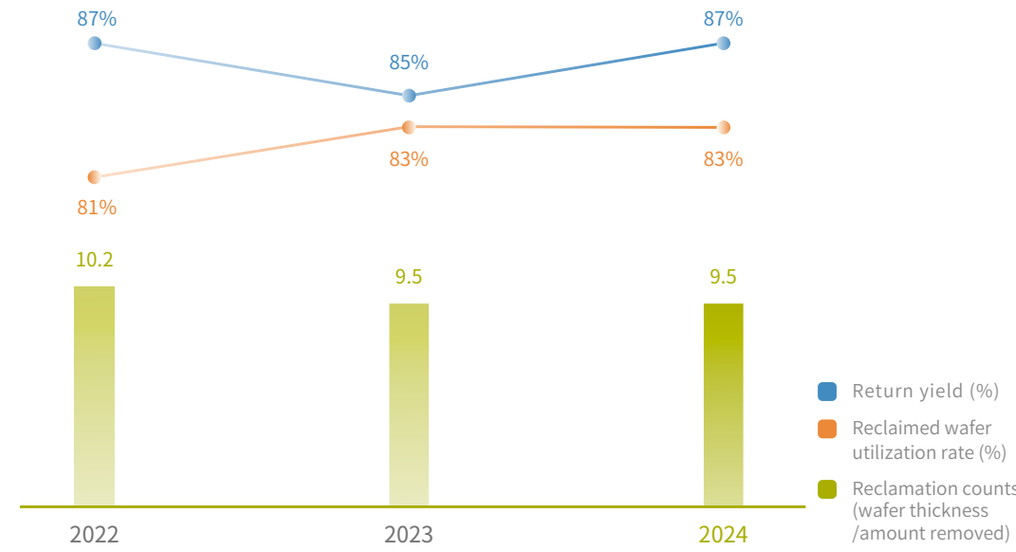
Reuse of Packaging Materials for Product Testing and Shipment

Packaging materials used for shipping products to external testing or packaging facilities—including cartons, shipping boxes, cushioning material, and wafer carriers—are actively recovered and reused internally. Wafer carriers used for raw wafers are also collected and reused for product shipments, achieving a reuse rate close to 100%. These practices minimize packaging usage and reduce waste generation. This approach reduces the use of approximately 12,000 brand-new 12-inch wafer carriers annually, reducing around 55 metric tons of plastic.

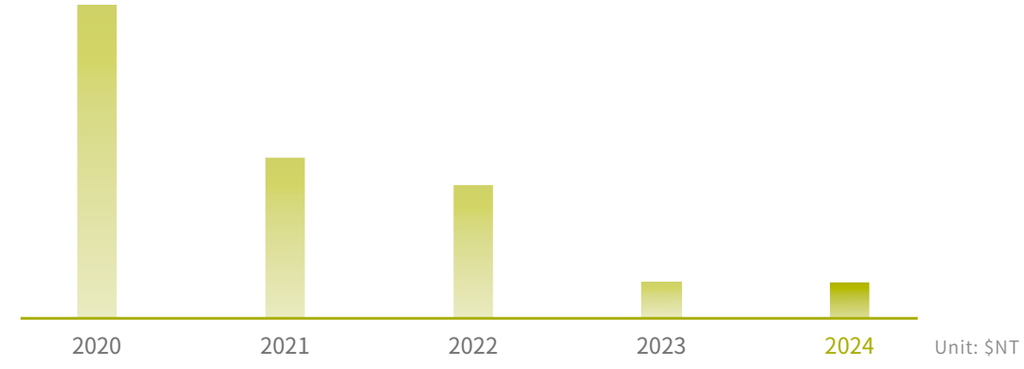
Reduction of Product Packaging Materials

To support recycling and waste reduction efforts, the finished goods warehouse began taking steps to reuse recyclable packaging materials. Reusable packaging materials from returned products are repurposed for storing goods, contract manufacturing operations, or fulfilling product exchanges resulting from customer complaints. This approach helps reduce the frequency of issuing new packaging materials and submitting procurement requests, thereby promoting reuse, reducing packaging material consumption, and lowering associated costs. In 2024, this initiative saved NT$14,962. Although the monetary savings are modest, this initiative makes a meaningful contribution to environmental protection and resource recovery. Specific results are as follows:

Reclaimed Wafer Return Yield And Usage Trend (2022-2024)



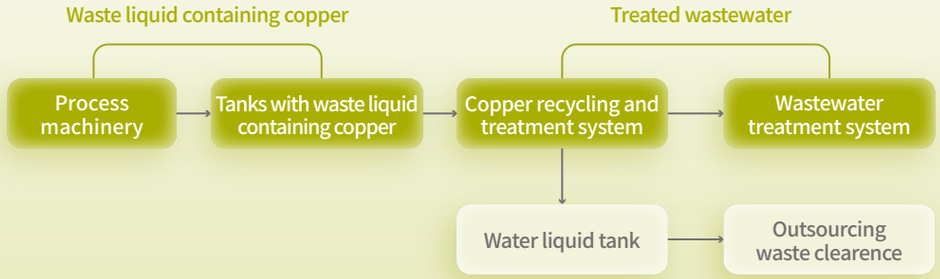
Cost Savings



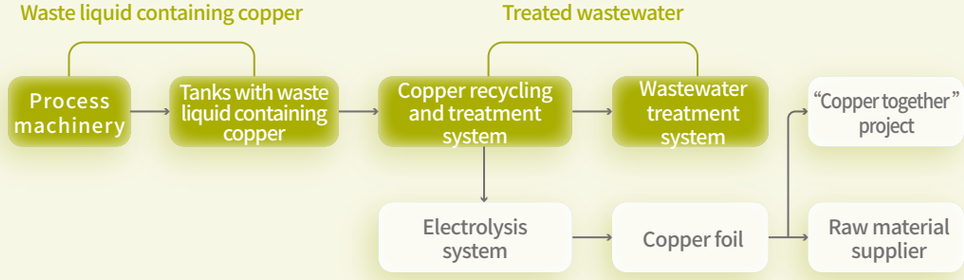
Waste Reduction Technology and Copper Waste Liquid Electrolytic Regeneration System

Nanya Technology invested NT$8.19 million to build an electrolytic regeneration system for copper waste liquids. After resin adsorption and regeneration, the system produces high-concentration copper sulfate waste liquid, which is then electrolyzed to recover copper foil. Through the Copper Together project, the Company collaborated with Ming Chi University of Technology and New Taipei City-based artist Ching-Tai Chuang to turn recycled copper foil into artwork, enhancing engagement with stakeholders. The copper foil is also reused as industrial-grade raw material, achieving the benefits of resource circularity. In 2024, a total of 1,070 kilograms of copper foil was produced.

Original Copper-Containing Waste Liquid Treatment Flowchart



Copper-Containing Waste Liquid Treatment Flowchart After Addition of Regeneration Technology

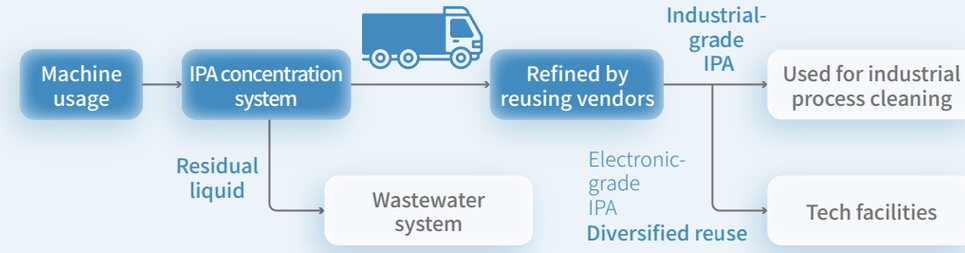


Isopropanol Recycling System for Resource Circularity

In 2017, Nanya Technology invested NT$20 million to implement an isopropanol recycling system, increasing the concentration of isopropanol in process discharge to reduce disposal volumes (cutting 130 disposal trips per month and saving NT$21 million monthly in disposal fees). Isopropanol wastewater that cannot be concentrated is repurposed as a carbon source for ammonia nitrogen wastewater treatment, replacing externally purchased methanol. Nanya Technology actively minimizes waste while maximizing resource circulation, embodying its commitment to corporate sustainability. In 2024, the Company reduced IPA disposal volume by 635,420 kg.

Original Isopropanol Waste Liquid Treatment Flowchart

Isopropanol Waste Liquid Refining Treatment Flowchart After Optimization



5.3 Environmental Pollution Prevention

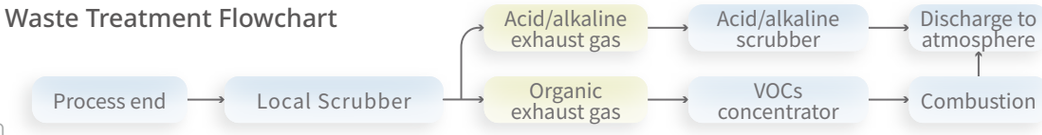
In alignment with our commitment to environmental protection and environmental impact assessments, Nanya Technology regularly monitors key environmental impact factors within our development sites, such as air quality, noise and vibration, surface and underground water quality, traffic flow, as well as the ecosystem for animals and plants. Since 2014, there have been no recorded violations of environmental regulations. Nanya Technology also collaborates with regulatory authorities to confirm that our development sites are not located in environmentally sensitive or areas with designated purposes. Through its environmental, safety, and health policies, the Company is fully committed to waste reduction and resource reuse initiatives to meet legal requirements and fulfill environmental protection commitments. Each year, we evaluate opportunities for waste reduction, as well as the types and quantities of recyclable waste and wastewater. Based on this evaluation, we establish annual goals and incorporate these plans into our annual budget and work schedule.

1. Air Pollution Control

Since the establishment of its facilities, Nanya Technology has placed great emphasis on pollution prevention. In addition to implementing environmental management programs to effectively reduce raw material consumption and lower the concentration of exhaust emissions, Nanya Technology uses air pollution control equipment that meets regulatory standards. These include local scrubbers, acid/alkaline exhaust gas scrubbers, VOCs zeolite rotor concentrators, and afterburners ("VOCs" refers to volatile organic compounds; local scrubbers are point-source gas treatment devices). Testing has confirmed that pollutant emissions have consistently complied with, or been lower than, the limits set by government environmental regulations. The Company does not emit ozone-depleting substances (ODS). To maintain the optimal performance of treatment equipment, each unit undergoes regular maintenance and inspection. Operators receive thorough training to ensure the systems function properly and that emissions do not pose a threat to the surrounding environment.

The primary air pollutants generated by Nanya Technology include acidic, alkaline, and organic exhaust gases. Since trichloroethylene is not used as a raw material, no hazardous air pollutants (HAPs) are emitted. Based on the characteristics of each exhaust type, appropriate treatment processes and equipment are used. After being generated at the process level, emissions pass through local scrubbers to remove specific substances. Acidic and alkaline gases are routed to respective scrubbing towers before being discharged into the atmosphere. Organic exhaust is adsorbed by a zeolite rotor, concentrated, and then destroyed in afterburners, with combustion efficiency reaching 99%, well above regulatory standards. The overall VOCs (volatile organic compound) reduction rate is maintained at above 90% to meet regulatory requirements. In 2024, the VOCs emission intensity per unit of production capacity was 12.9 g VOCs/kpcs 4Gb eq.

Waste Treatment Flowchart



Emission Trends

	2021	2022	2023	2024
Volume of VOCs generated (metric ton)	15.68	17.31	14.24	12.72
VOCs emissions per unit wafer area (kg/wafer area m^2)	0.27	0.29	0.30	0.27
VOCs emission per unit of production capacity (g/kpcs)	14.0	15.9	14.2	12.9
VOCs emission per unit of revenue (g/NT$ million)	183	304	476	373

Trends in Other Air Pollutant Emissions

	2021	2022	2023	2024
NOx (metric ton)	10.34	10.50	11.21	12.65
SOx (metric ton)	1.66	1.66	1.66	2.12

Air Pollution Reduction

To reduce emissions of inorganic acidic gases, Nanya Technology has continued optimizing the operating parameters of its existing air pollution control equipment annually. In 2024, the Company plans to invest NT$55 million in its 3A and 3A-N plants to install additional scrubbers downstream of the current central scrubbers. This two-stage scrubbing process is expected to enhance the removal of inorganic acids from emissions, with completion anticipated by the end of 2025 and a projected reduction efficiency of over 80%.

Air Pollutant	Before Improvement	After Improvement
VOCs emissions from 3A Plant P131 duct (metric ton)	8.06	2.36

In 2022, Nanya Technology added a dust removal tower to the plant's air pollution control system to reduce particulate matter emissions at the 3A Plant. Using atomized water scrubbing and impact interception, the system reduces particulate emissions. Third-party verification confirmed that reduction efficiency can reach up to 77%. In 2024, we planned to invest an additional NT$30 million to install a dust removal tower at the 3A-N Plant to reduce particulate matter emissions, with completion expected by the end of 2025.

Air Pollutant	Before Improvement	After Improvement
Total suspended particulates in 3A Plant P106 duct (mg/m^3)	79	18

To effectively monitor VOCs emissions, Nanya Technology conducts monitoring not only at VOCs emission ducts but also at acidic and alkaline exhaust ducts. This ensures that air pollution control equipment operates at optimal condition.

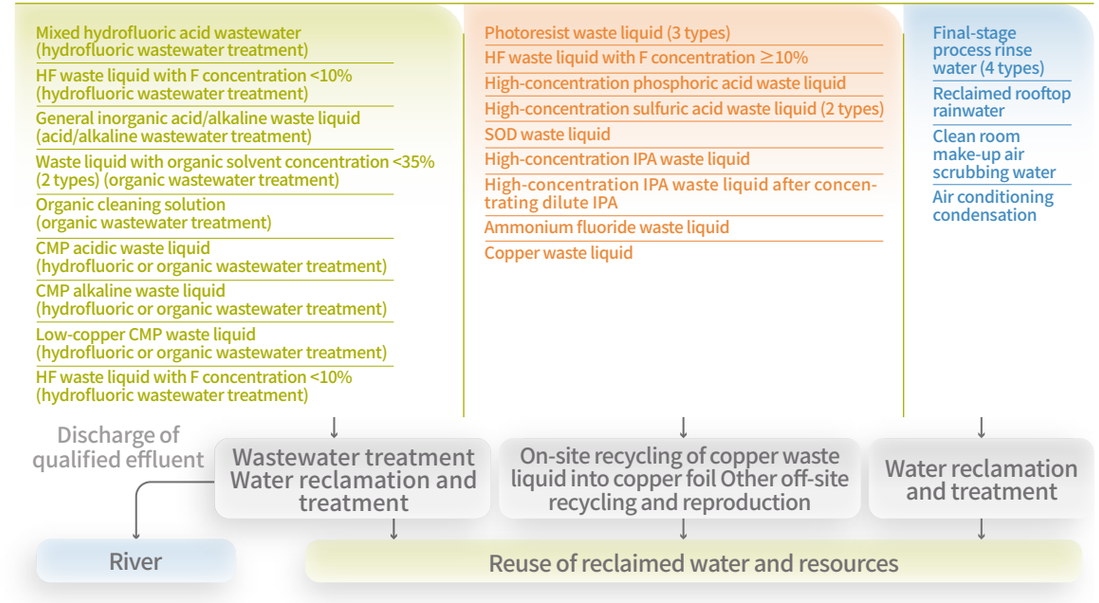
2. Water Pollution Control

All wastewater at Nanya Technology is collected and categorized before being discharged to the appropriate treatment facilities. Since its establishment, Nanya Technology has collaborated with the local community to form the Environmental Quality Supervision Committee. Every quarter, we commission a third-party organization to conduct monitoring surveys on the local ecology, hydrology, and air quality around the facilities. The survey results are then reported to the Environmental Quality Supervision Committee. Nanya Technology engages with the Environmental Quality Supervision Committee to understand the concerns of local residents, incorporating those issues into the Company's ISO 14001 management system for regular evaluation. To ensure that effluent water quality falls within normal parameters and to address concerns among residents in the discharge basin, Nanya Technology has implemented a real-time effluent monitoring system that is directly connected to the Environmental Protection Department, enabling joint real-time monitoring to ensure effluent water quality remains normal.

After meeting discharge water quality standards, 100% of the effluent is discharged on land into Dake Creek. The water quality complies with Class D surface water standards, making it suitable for irrigation, secondary industrial use, and environmental conservation. The creek ultimately flows into the Tamsui River before being discharged into the ocean. To prevent serious environmental pollution and ecological impacts resulting from non-conforming effluent quality, we have remained committed to water pollution prevention, and continue to upgrade and invest in wastewater treatment facilities. 28 distinct pipelines are used to segregate and convey the different types of wastewater within the facility, primarily categorized into organic wastewater, general acidic/alkaline wastewater, hydrofluoric wastewater, high-concentration waste liquids, and water that can be directly reclaimed, processed, and reused for secondary uses. Different types of wastewater are treated separately according to their specific characteristics. In addition to meeting regulatory discharge standards, wastewater suitable for reuse is recovered through the reclamation system and reused to reduce the overall discharge volume. In addition, our site was redeveloped on an existing lot within our facility, so no large-scale removal of vegetation surrounding the designated construction area was required. Wastewater is properly treated before being discharged into Dake Creek, and the receiving water body and surrounding habitats are not designated as national or international protected areas. Investigations also found no impact on the habitats of protected species or risk of habitat destruction.

In 2024, total wastewater discharge reached 2,864 million liters. Due to non-conforming handling of the membrane bioreactor (MBR) system during wastewater treatment, the volume of water reclaimed decreased, leading to an increase in wastewater discharge. As a result, total wastewater discharge in 2024 rose by 17.1% compared to 2023, and wastewater discharge per unit of production capacity increased by 19.1% for the year. Due to the Ministry of Environment's phased tightening of discharge limits for ammonia nitrogen in effluent, a new regulation was introduced in 2013 requiring the ammonia nitrogen concentration in effluent to be below 70 mg/L. This limit was further tightened to 30 mg/L in a second phase in 2015. In response to these regulatory changes and rising environmental awareness, Nanya Technology implemented multiple improvement measures. Wastewater sources were managed through a diversion strategy, including segregated collection of effluent from equipment using ammonium fluoride to prevent high-concentration ammonia nitrogen from directly entering the wastewater treatment system. The existing final sedimentation tank was converted into an aerobic nitrification tank, and a membrane bioreactor (MBR) system was added as the final treatment unit. These improvements significantly reduced ammonia nitrogen concentrations to well below regulatory limits, lowered effluent turbidity, and improved overall effluent water quality. Since the chemical oxygen demand (COD) of effluent is also a key concern for regulatory authorities, Nanya Technology installed an IPA concentration system in 2018. Previously, equipment discharging low-concentration IPA would send wastewater directly into the treatment system, resulting in excessive COD loads. With the new system in place, low-concentration IPA wastewater is collected and concentrated into high-concentration IPA using a high-temperature negative-pressure process, and then transported off-site by a contractor. This approach reduces COD levels in raw water and effectively enhances control over effluent water quality. In anticipation of increased pollutant loads due to future production expansion—and to further reduce discharge pollutant concentrations—Nanya Technology invested NT$430 million in 2018 to build a new hydrofluoric wastewater COD and total nitrogen treatment system. The system was completed and operational in 2023. It keeps ammonia nitrogen discharge consistently below 10 mg/L and COD below 30 mg/L, significantly reducing environmental impact. After a series of improvements, ammonia nitrogen test results in 2024 ranged from 0.2 mg/L to 11.1 mg/L, with an average of 4.3 mg/L. COD ranged from 15.3 mg/L to 31.7 mg/L, with an average of 23.1 mg/L—all well below regulatory limits.

Sorting and Processing 28 Types of Wastewater



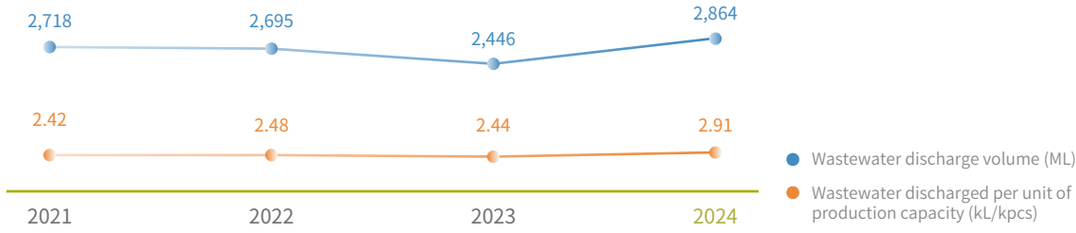
Nanya Technology's Wastewater Discharge by Receiving Water Body and Volume

Total discharge volume (ML[Note 1])		2021	2022	2023	2024
By discharge destination[Note 1]	Surface water	2,718	2,695	2,446	2,864
	Groundwater, seawater, water from third parties, or water provided to other organizations by third parties[Note 2]	0	0	0	0
Total water discharge	Freshwater (total dissolved solids ≤ 1,000 mg/L)	2,718	2,695	2,446	2,864
	Other water (total dissolved solids >1,000 mg/L)	0	0	0	0
By wastewater treatment level	Untreated	0	0	0	0
	Treated on-site in compliance with Ministry of Environment effluent standards	2,718	2,695	2,446	2,864

Note 1: Nanya Technology discharges wastewater into Dake River (surface water), which is not located in a water-stressed area.

Note 2: Includes municipal water suppliers and wastewater treatment plants, public or private utility companies, and other entities involved in supplying, transporting, treating, disposing, or using water and wastewater.

Wastewater Discharge Trend (2021-2024)



2024 Effluent Water Quality Test Results

Testing item		Unit	Regulatory standard	Testing result			Compliance with standards
				Minimum	Average	Maximum	
FAB 3A	pH	-	6-9	7.1	7.4	7.6	Yes
	Chemical oxygen demand (COD)	mg/L	<100	15.3	23.1	31.7	Yes
	Suspended solids (SS)	mg/L	<30	1.25	3.5	6.5	Yes
	Fluoride ions	mg/L	<15	9.89	11	11.6	Yes
	Ammonia nitrogen	mg/L	<30	0.2	4.3	11.1	Yes

3. Waste Management

Waste Generation Profile

In 2024, Nanya Technology generated a total of 22,732 metric tons of waste, of which 22,419 metric tons (98.6%) were recycled and reused through external service providers, with no in-house recycling. The total amount of waste directly disposed of was 4,816 metric tons, including 4,504 metric tons (19.81%) reused after treatment, 285 metric tons (1.25%) incinerated, 21 metric tons (0.09%) either solidified and landfilled or directly landfilled, and 6 metric tons (0.03%) treated through other methods such as physical recycling or refining for reuse.

In 2024, Nanya Technology's waste generated per unit wafer production capacity was 23.10 kg/kpcs 4Gb eq, an increase of 3.17% compared to 2023. The volume of general waste outsourced for treatment was 6,060 metric tons, with a unit wafer production capacity of 6.16 kg/kpcs 4Gb eq, an increase of 4.76% compared to 2023. The volume of hazardous waste outsourced for treatment was 16,671 metric tons, with a unit wafer production capacity of 16.94 kg/kpcs 4Gb eq, an increase of 2.6% from 2023. The Company's primary hazardous industrial waste consists of acidic waste liquids, including sulfuric acid, phosphoric acid, and hydrofluoric acid. In recent years, the Company has partnered with recycling organizations to apply for various reuse projects, shifting away from conventional chemical treatment (acid-base neutralization) followed by final disposal. Instead, these waste acids are now processed by third-party vendors and recycled into other industrial raw materials. For example, sulfuric acid is converted into aluminum sulfate solution for use in wastewater treatment or as a raw material, and hydrofluoric acid is refined into industrial-grade sodium fluorosilicate or sodium fluoride. In 2024, 13,017 metric tons of waste sulfuric acid and 1,266 metric tons of hydrofluoric acid were recovered and reused, achieving a 100% recovery rate for acidic waste liquids. The Company will continue to reduce waste, increase recycling volumes, and promote circular use to achieve effective reuse of waste and reduce landfill as part of its sustainability targets.

General and hazardous industrial waste at Nanya Technology is managed in a centralized manner by the respective departments responsible for their generation. Activities include storage, removal, inspection, and reduction initiatives. Annual training is provided to relevant personnel to ensure familiarity with regulations and compliance. In 2024, a total of 27 employees were trained as seed instructors. In addition, the Company conducts irregular audits of waste contractors to ensure that removal and treatment practices comply with regulations. Annual reviews and execution of waste or source reduction projects are conducted to verify legality and ensure that all waste is properly handled or reused to prevent further environmental impact. In 2024, through the waste review process, we identified and completed 6 proposals to reduce raw material consumption through the Kaizen Proposal System. These included reducing process duration, extending usage cycles, and cutting down process consumption. The most impactful improvement came from shortening pickling time in the wet etching area, effectively reducing the use of sulfuric acid and hydrogen peroxide by 12,064 liters and 6,032 liters per month, respectively. From 2014 to 2024, Nanya Technology did not engage in any transboundary movement of hazardous waste. All hazardous industrial waste was handled by qualified domestic contractors, with a total of 43 certified waste treatment vendors engaged in 2024.

100%

All waste generated by Nanya Technology is **100% outsourced for processing**, and is reprocessed by contractors into industrial-grade raw materials, construction materials, or other raw materials.

98.6%

This also includes resource recovery through incineration as fuel. In 2023, **the overall waste recovery rate reached 98.6%**, with a 99.8% recovery rate for hazardous waste.

Summary of Nanya Technology's Outsourced Waste Recycling and Reuse

Category/Year	2021	2022	2023	2024
Total amount of waste processed by outsourcing (metric tons)	24,586	23,981	22,403	22,732
Amount of waste recovered (metric tons)	23,321	22,089	22,123	22,419
Waste recovery rate (%)	94.9	92.1	98.8	98.6
Amount of general waste processed by outsourcing (metric tons)	7,113	6,383	5,881	6,060
Amount of general waste recovered (metric tons)	6,452	4,951	5,626	5,775
General waste recovery rate (%)	90.7	77.5[Note]	95.7	93.5
Amount of hazardous waste processed by outsourcing (metric tons)	17,473	17,598	16,522	16,671
Amount of hazardous waste recovered (metric tons)	16,870	17,137	16,497	16,644
Hazardous waste recovery rate (%)	96.5	97.4	99.8	99.8

Note: The drop in the general waste recycling and reuse rate was due to organic sludge being thermally recovered in 2021 and categorized as recyclable waste, whereas in 2022 it was incinerated without recovery.

Nanya Technology's Off-Site Resource Recovery List

01. Low-Concentration Isopropanol Wastewater: Waste is collected and treated via a concentration system to generate high-concentration isopropanol wastewater. The wastewater is subsequently recovered by external vendors and refined into industrial-grade isopropanol.

02. Waste Photoresist Solution: External vendors recover and recycle the solution to produce industrial-grade PGMEA (propylene glycol monomethyl ether acetate) and EBR (edge bead remover).

03. Waste Sulfuric Acid: External vendors recover and recycle the waste acid to produce industrial-grade sulfuric acid.

04. Waste Phosphoric Acid Recycling vendors process and recycle the waste acid to produce industrial raw materials such as ammonium sulfate.

05. Calcium Fluoride Sludge: Hydrofluoric acid wastewater undergoes a chemical process to generate inorganic calcium fluoride sludge. External vendors then recover and reuse the sludge as industrial flux material or as a raw material for cement production.

06. Copper-Containing Waste Liquid: The liquid is processed in-house via electrolysis equipment to produce copper foil. External vendors then collect and recycle this material to manufacture copper wire and other finished products.

07. Organic Sludge: Organic wastewater is collected and treated through a biological treatment system to produce organic sludge. External vendors then recover and thermally treat the sludge for its application as a raw material in ready-mix concrete and other construction materials.

08. Inorganic Sludge: Inorganic river sand sludge, generated from raw water filtration, is sent to brick factories, where it is mixed and fired into bricks for use as building materials.

09. SOD Waste Liquid: Waste SOD is collected and processed by recovery vendors into finished products such as banana oil (amyl acetate).

Nanya Technology Corporation's Waste Generation Overview in 2024

Hazardous Waste	Amount Generated	Recycled and Reused	Disposed Directly
Waste acid solution	14,718	14,092	626
Waste solvent	1,925	103	1,822
Containers	11	0	11
Electronic waste	6	0	6
Others	11	0	11
Subtotal	16,671	14,195	2,476

General Waste	Amount Generated	Recycled and Reused	Disposed Directly
Sludge	5,285	3,586	1,699
Packaging materials	170	6	164
Employee domestic waste	250	0	250
Mixed metal scrap	22	1	21
Mixed waste plastic	191	0	191
Others	143	127	16
Subtotal	6,060[Note2]	3,720	2,340[Note2]

	Amount Generated	Recycled and Reused	Disposed Directly
Total Amount	22,732[Note2]	17,915	4,816

Nanya Technology Corporation's Waste Recycling and Reuse Overview in 2024

Hazardous Waste	On-Site	Off-Site	Total Amount
Reused for original purpose	0	14,092	14,092
Recycled and reused[Note1]	0	0	0
Other ways of recycling	0	103	103
Subtotal	0	14,196[Note2]	14,196[Note2]

General Waste	On-Site	Off-Site	Total Amount
Reused for original purpose	0	6	6
Recycled and reused[1]	0	0	0
Other ways of recycling	0	3,713	3,713
Subtotal	0	3,720[Note2]	3,720[Note2]

	On-Site	Off-Site	Total Amount
Total Amount	0	17,915[Note2]	17,915[Note2]

Nanya Technology Corporation's Waste Treatment Overview in 2024

Hazardous Waste	On-Site	Off-Site	Total Amount
Incinerated and used as energy	0	2,449	2,449
Incinerated without heat recovery	0	11	11
Solidification and landfill	0	9	9
Other disposal operations[Note1]	0	6	6
Subtotal	0	2,476[Note2]	2,476[Note2]

General Waste	On-Site	Off-Site	Total Amount
Incinerated and used as energy	0	2,055	2,055
Incinerated without heat recovery	0	273	273
Solidification and landfill	0	12	12
Other disposal operations[Note3]	0	0	0
Subtotal	0	2,340	2,340

	On-Site	Off-Site	Total Amount
Total Amount	0	4,816	4,816

Note 1: In response to updates in GRI indicator requirements, waste categories have been further subdivided and regrouped. This has caused a shift in recycling ratios compared to previous years, but the total annual waste output in metric tons remains unchanged.

Note 2: Slight discrepancies between total output and the sum of individual items are due to rounding.

Note 1: Other disposal operations for hazardous waste include physical treatment, chemical treatment, etc.

Note 2: Slight discrepancies between total output and the sum of individual items are due to rounding.

Note 3: Other disposal operations for general waste refer to physical treatment (e.g., re-crushing and sorting), etc.

4. Environmental Costs and Benefits

Nanya Technology introduced the environmental accounting system in 2008, followed by an environmental benefit accounting system in 2009, which was fully implemented in 2010. By adopting the environmental accounting system, the Company can monitor environmental expenditures, evaluate their effectiveness, and provide specific and correct disclosures on its environmental efforts to stakeholders. Environmental accounting, based on regulations set by the Ministry of Environment, categorizes and calculates environmental expenditures for internal management and helps external stakeholders understand the Company's efforts in environmental initiatives. According to aggregated statistics, the Company invested NT$247.399 million in environmental capital expenditure and spent approximately NT$900.544 million in environmental expenditure, totaling NT$1,147.943 million in 2024. With a total revenue of NT$34.132 billion in 2024, environmental expenditures accounted for 3.36%.

Environmental Accounting Expenditures (NT$ thousands)

	2021	2022	2023	2024
Environmental capital expenditure	151,394	498,249	124,328	247,399
Environmental expenditure	722,020	722,904	741,346	900,544
Total	873,414	1,221,153	865,674	1,147,943
Environmental expenditure/percentage of revenue (%)	1.43	2.14	2.90	3.36

Environmental Accounting Expenditures in 2024 (NT$ thousands)

	2021	2022	2023	2024
Energy (electricity) conservation programs	18,166	11,680	16,278	22,052
Waste reduction programs	3,759	0	0	0
Programs to reduce raw material usage in processes	4,973	8,233	4145	3,795
Tangible benefits from recycling and reusing industrial waste	5,118	13,195	13014	24,948
Electricity savings from low-power use and process improvements	969,353	1,081,896	1,568,178	2,468,680
Total benefit	1,001,369	1,117,026	1,601,615	2,519,475
Violations of environmental regulations	0	0	0	0
Fines for violations of environmental regulations	0	0	0	0
Unpaid fines for violations of environmental regulations	0	0	0	0

ISO 14001 Management Program Results over the Past Four Years (NT$ thousands)

Cost Categories	Description	Environmental Expenditure	Environmental Capital Expenditure
Corporate operational costs	Pollution prevention costs: Cost of control measures for air pollution, water pollution, and other types of pollution.	584,974	247,399
	Global environmental protection expenses: (1) Expenses related to climate change prevention (2) Other expenditures associated with global environmental protection.	189,055	0
	Resource and energy conservation and recycling costs: (1) Improving resource utilization efficiency (2) Costs for waste reduction, recycling, and reprocessing (3) Energy-saving expenses	114,658	0
Upstream and downstream costs associated with suppliers and customers	(1) Green procurement (2) Expenses incurred from providing environmentally friendly products	79	0
Management activity costs	(1) Cost of environmental education and training for employees (2) Expenses incurred for obtaining external certifications (3) Expenses incurred for measuring environmental impacts (4) Others	11,368	0
R&D costs	Expenses incurred for product research and development for the sake of environmental protection	0	0
Social activity costs	Expenses for environmental improvements such as nature conservation, afforestation, and beautification	347	0
Environmental taxes and regulatory fees	(1) Expenses from air pollution (2) Audit fees and certification fees for pollution control	63	0
Total		900,544	247,399
Total		1,147,943	

Internal Management System's Audit Records over the Past Four Years

	2021	2022	2023	2024
ISO 14001	Number of Deficiencies 2 Resolution Rate 100% Deficiency Type | A total of 2 issues, which included deficiencies in the management of temporary waste storage sites and failure to conduct regular follow-ups on the management plan. All issues were resolved.	Number of Deficiencies 9 Resolution Rate 100% Deficiency Type | A total of 9 issues, which included outdated labeling at waste storage sites, incorrect entries in environmental aspect review records, and incomplete or outdated significance evaluations. All issues were resolved.	Number of Deficiencies 7 Resolution Rate 100% Deficiency Type | A total of 7 issues, which included incorrect entries in comprehensive assessment forms on the operational aspect, incomplete or outdated significance evaluations, and deficiencies in the management of temporary waste storage sites. All issues were resolved.	Number of Deficiencies 7 Resolution Rate 100% Deficiency Type | A total of 7 issues, which included outdated labeling at waste storage sites, incorrect entries in environmental aspect review records, and incomplete or outdated significance evaluations. All issues were resolved.
ISO 45001	Number of Deficiencies 6 Resolution Rate 100% Deficiency Type | Issues included incomplete hazard identification forms and regulation identification forms, as well as deficiencies found during the inspection and maintenance of environmental detectors, totaling 6 cases. All issues were resolved.	Number of Deficiencies 29 Resolution Rate 100% Deficiency Type | Issues included incomplete hazard identification forms, insufficient training, outdated documents, inadequate risk control measures, deficiencies during drills not incorporated for procedure revisions, and insufficient follow-up on non-conforming events, totaling 29 cases. All issues were resolved.	Number of Deficiencies 26 Resolution Rate 100% Deficiency Type | Issues included incomplete hazard identification forms, insufficient training, outdated documents, inadequate risk control measures, deficiencies during drills not incorporated for procedure revisions, and insufficient follow-up on non-conforming events, totaling 26 cases. All issues were resolved.	Number of Deficiencies 11 Resolution Rate 100% Deficiency Type | Issues included incomplete hazard identification forms, insufficient training, outdated documents, inadequate risk control measures, deficiencies during drills not incorporated for procedure revisions, and insufficient follow-up on non-conforming events, totaling 11 cases. All issues were resolved.

6

Responsible Procurement

A Promoter of Shared Values

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NT$110.78 million

From 2019 to 2024, the refund for blue-collar migrant workers regarding items such as brokerage fees, transportation fees, service fees, medical examination fees, and document fees totaled NT$110.78 million, benefiting 4,432 individuals.

29 smelters

Among suppliers of strategic metals subject to international import/export restrictions (aluminum, copper, nickel, and zinc), the number of smelters recognized by the RMI in supplier reports: 29

255 smelters

Among suppliers of 3TG metals (tin, tantalum, tungsten, gold), cobalt, and mica, the number of smelters recognized by the RMI in supplier reports: 255

Suppliers have always been Nanya Technology's most crucial partners in our operations. We aim to strengthen our collaboration to create greater value and share the benefits of our partnership, as we work hand-in-hand toward a more sustainable future.

Strategy and Performance of Material Topics

◆ Exceed ◆ Achieved ◆ Partially Achieved

Material Topics & Strategy	2024 Goals	2024 Performance and Goal Achievement	2025 Goals
Sustainable Supply Chain Management Conflict-free Minerals and Responsible Minerals Sourcing Management: Nanya Technology ensures that all products are free from conflict minerals. Supply Chain Risk Management: Suppliers undergo regular evaluations covering quality, delivery, service, cost, technology, and sustainable management.	100% adoption in conflict-free minerals and responsibly sourced minerals	◆ 100%	Adoption in conflict-free minerals and responsibly sourced minerals: 100%
	100% completion rate of the self-evaluation questionnaire by significant suppliers	◆ 100%	Completion rate of the self-evaluation questionnaire by significant suppliers: 100%
	100% improvement rate in the audit findings of high-risk sustainable suppliers	◆ 100%	Improvement rate in the audit findings of high-risk sustainable suppliers: 100%
	100% signing rate for the Supplier Code of Conduct	◆ 100%	100% signing rate for the Supplier Code of Conduct
	100% completion rate of audits and guidance for significant suppliers	◆ 100%	100% completion rate of audits and guidance for significant suppliers
	At least 2 cases of supplier sustainability counseling	◆ 2	At least 2 cases of supplier sustainability counseling

6.1 Supply Chain Overview

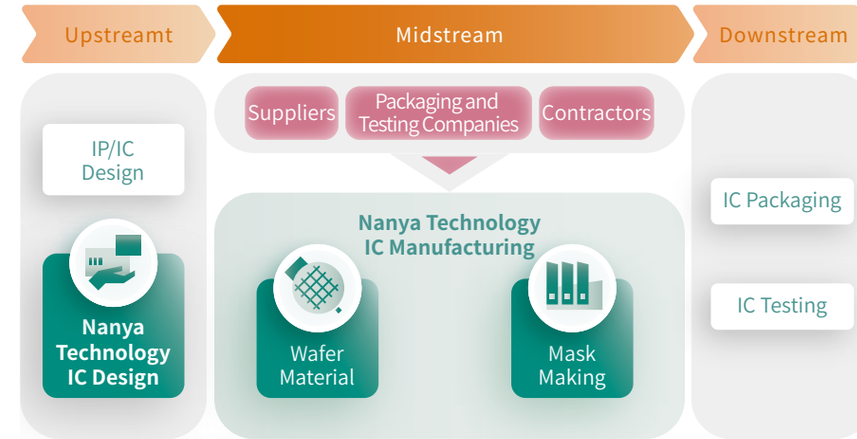
1. Nanya Technology Industry Chain

The IC industry, including DRAM, can be divided into upstream, midstream, and downstream segments. These encompass IC circuit design, mask making/wafer materials, IC manufacturing, and IC packaging and testing, among other specialized units. Nanya Technology focuses on the research, design, manufacturing, and sales of ICs, positioning itself in the upstream (IC design) and midstream (IC manufacturing) of the industry supply chain.

During the upstream product design and test verification phase, Nanya Technology's headquarters strives to fulfill the technical demands of customers across regions like Taiwan, China, Southeast Asia, Europe, the United States, Japan, and Korea, so as to enhance customer service efficiency and foster closer customer relationships. The headquarters also engages in occasional technical exchanges based on customer demands, and provides technical support and assistance to resolve design and testing challenges.

In the midstream production and sales phase, Nanya Technology communicates regularly with customers. Weekly forecasts of future customer demands are relayed to the headquarters, which then converts these global demand estimates into a production plan. This plan is adjusted every week to meet customer demands and maximize benefits. Meanwhile, Nanya Technology collaborates with downstream companies to build a comprehensive industry chain.

Nanya Technology Industry Chain



2. Supply Chain Model

Based on the manufacturing process, Nanya Technology's suppliers are categorized into two types: *suppliers* and *contractors*. Suppliers are further divided into two categories based on the products procured: *production materials* and *non-production materials*. Among them, *production materials* suppliers are our primary suppliers, including *suppliers of raw material* and *suppliers of professional spare parts* (providing spare parts for clean room production equipment and related packaging materials). Compared to 2023, our supplier structure shows no significant change.

To effectively manage suppliers and allocate relevant resources, Nanya Technology considers factors such as geopolitical risks and local regulations, raw material properties and components, environmental safety and health, labor ethics and human rights management, business ethics, and business continuity and management systems. These risk factors are categorized into four types: *supplier location*, *supplier product category*, *supplier operations*, and *sustainable governance*. Significant suppliers are identified according to the assessment results for these risk factors, including Tier 1 raw materials and professional spare parts suppliers, non-Tier 1 raw material suppliers, and high-risk suppliers.

Factors considered include:

Supplier Geographical Distribution (Raw Materials and Professional Spare Parts Suppliers)

	2021	2022	2023	2024
Asia	266	273	270	292
Americas	102	96	81	103
Europe	32	28	27	34
Oceania	31	18	13	12
Total	431	415	391	441

Supplier geographical distribution is based on the actual shipping locations. Therefore, calculation is based on the number of facilities per location.

Supplier Categories

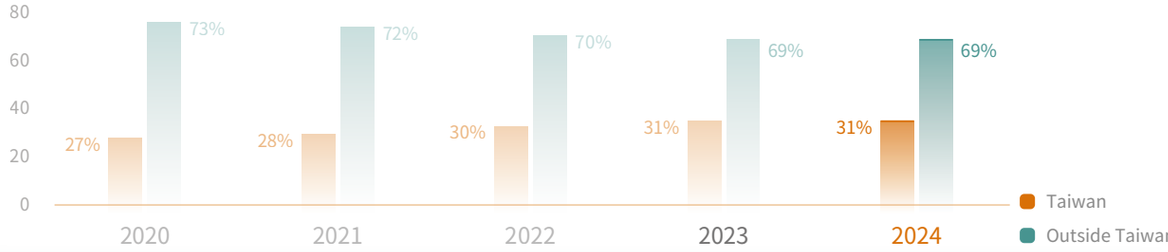
	Year	2021	2022	2023	2024
Raw Materials	Number of Tier 1 suppliers	80	80	79	85
	Significant suppliers in Tier-1	80	80	79	85
	Percentage of Significant suppliers in Tier-1 (%)	100%	100%	100%	100%
	Percentage of procurement amount from Significant suppliers in Tier-1 (%)	100%	100%	100%	100%
Professional Spare Parts	Number of Tier 1 suppliers	215	202	194	210
	Significant suppliers in Tier-1: High risk	11	12	10	11
	Percentage of Significant suppliers in Tier-1 (%)	5%	6%	5%	5.2%
	Percentage of procurement amount from Significant suppliers in Tier-1 (%)	9%	4%	6%	14.6%
Total	Number of Tier 1 suppliers	295	282	273	295
	Significant suppliers in Tier-1	91	92	89	96
	Percentage of procurement amount from significant suppliers in Tier-1	72	71	77	76.1%
	*Number of significant suppliers non Tier-1	80	80	79	75

* Non-Tier 1 suppliers are Tier 1 raw materials suppliers

3. Local Procurement

To improve service efficiency, shorten delivery times, and reduce environmental impact, Nanya Technology prioritizes local procurement. We have steadily increased this proportion over the past four years. However, as most semiconductor equipment and technologies are manufactured abroad or through international collaborations, the majority of raw materials for the semiconductor industry are currently still produced overseas. As a result, our foreign procurement expenditures exceed domestic procurement. Nanya Technology will continue to collaborate with local suppliers to increase procurement within Taiwan, thereby boosting employment opportunities and driving economic development. We work hand-in-hand with suppliers to create even greater value.

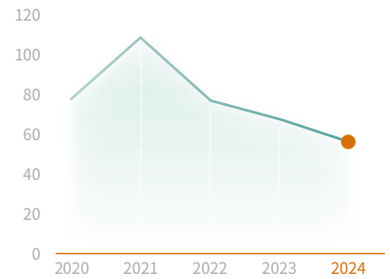
2020-2024 Local Raw Materials Procurement Ratio



Green Procurement

In response to global environmental protection campaigns, we continue to procure energy-saving, low-pollution, renewable, recyclable, and green construction materials, along with other eco-friendly products and equipment. We hope this initiative will encourage an overall transformation throughout our supply chain, thereby increasing the effectiveness of our green procurement. In 2024, our total green procurement amounted to NT$61,591,840, which is NT$13,242,000 lower than in 2023. This reduction is primarily due to the filters, pumps, and LED bulbs replaced in 2023 not yet nearing the end of their life cycles. Nanya Technology will continue to explore opportunities to replace our procurement items with green products.

Total amount of green procurement (NT$ Million)



6.2 Sustainable Supply Chain Management

Nanya Technology deeply believes that the sustainable growth of our supply chain is essential to the sustainable development of our business. Therefore, we invest resources in managing and collaborating with our suppliers, hoping to drive sustainable growth throughout our supply chain and embody the value of shared success.

1. Sustainable Supply Chain Management Strategies

Nanya Technology's Sustainable Supplier Development Strategies

Sustainable Supplier Risk Control

- We conduct risk evaluation through supplier self-evaluation questionnaires, and enhance supplier risk management through audits and tracking improvements.

Supplier Collaboration and Exchange

- Based on partnership and mutual assistance, we guide suppliers to improve their social, economic, and environmental performance through regular supplier seminars and assessments. Our aim is to promote sustainable development among all our suppliers

Enhancing Supplier Sustainability Capabilities

- While pursuing economic benefits, Nanya Technology also pays attention to environmental and social sustainability issues. We work with suppliers to advance sustainability projects

Responsible Mineral Sourcing

- Nanya Technology is committed to managing conflict-free minerals and implementing a responsible mineral sourcing strategy to meet current and future market expectations as well as legal and regulatory requirements

Nanya Technology Sustainable Suppliers Management Strategies

Nanya Technology's screening criteria for direct production material suppliers mandate not only ISO 9001 and ISO 14001 third-party verification but also rigorous internal evaluations. Utilizing an electronic supplier evaluation management system, we assess suppliers across six key aspects: quality, delivery, service, cost, technology, and sustainability. The sustainable management indicator (sustainability) accounts for 19% of the overall score, ensuring suppliers meet our requirements for sustainable supplier management. Furthermore, once a supplier is selected, we conduct audits to confirm the effective implementation of their sustainable management practices.

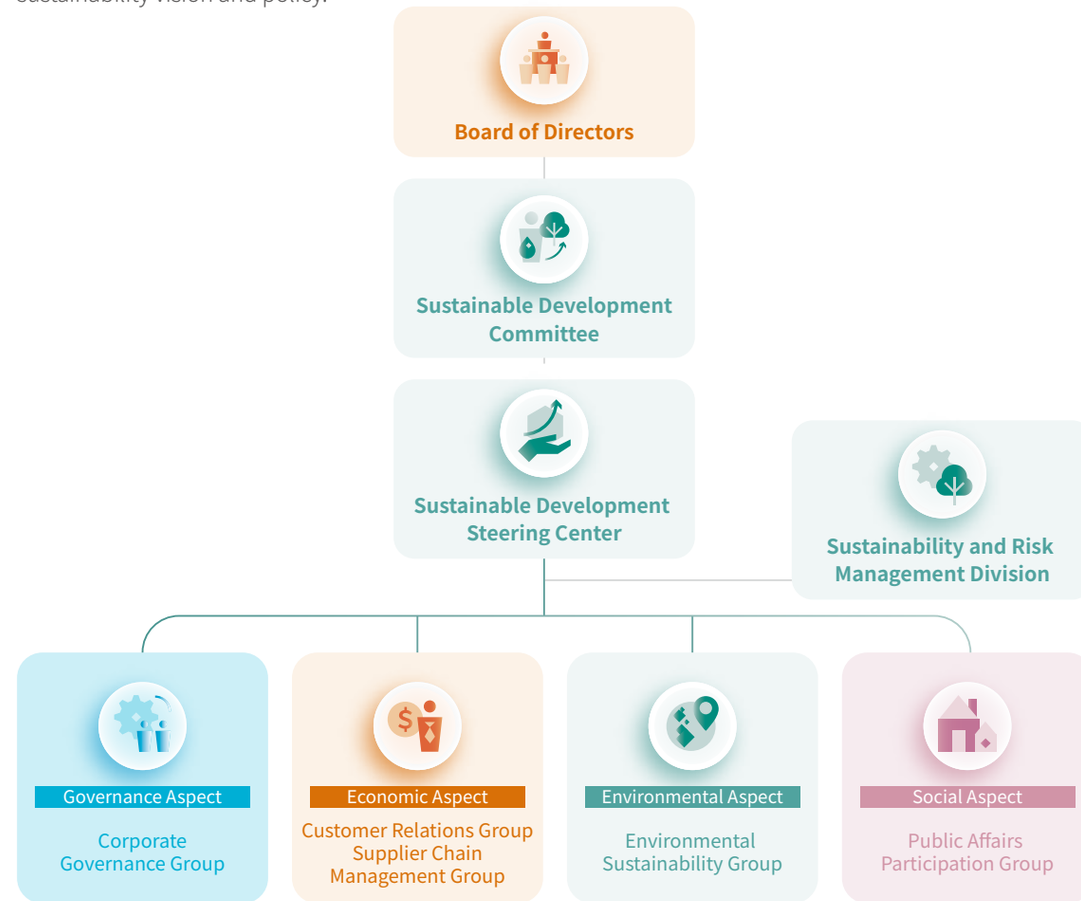
Six Strategies for Supplier Management[Note 1]

Note 1: The top 5 strategies for supplier management are quality, delivery, service, technology, and sustainability.
Note 2: Sustainability
- Green environment evaluation criteria include ISO 14001 certification, energy and resource conservation, greenhouse gas reduction, and waste recycling rates
- Social responsibility evaluation criteria include commitments to complying with local labor laws

Supplier Chain Management Group

Advancing sustainable supply chain management is one of Nanya Technology's key sustainability initiatives. Hence, Nanya Technology established the Sustainable Development Committee under the Board of Directors, which is composed of the Chairman, four Independent Directors, and two Executive Directors. This committee then oversees the Sustainable Development Steering Center and the Sustainable Management Division, which are in charge of executing our initiatives. Our sustainability initiatives are divided into four major management categories: corporate governance, economic, social, and environmental aspects. These four areas are further supported by various departments, forming taskforces such as the Public Affairs Participation Group, Corporate Governance Group, Customer Relations Group, Supplier Chain Management Group, and Environmental Sustainability Group, which drive relevant sustainability projects. Nanya Technology annually reports the progress and effectiveness of our sustainability initiatives to the Sustainable Development Committee. After the Sustainable Development Steering Center examines their efficacy, the committee then further reports these findings to the Board of Directors.

The Supplier Chain Management Group reports its sustainable supply chain initiatives and progress to the Sustainable Development Steering Center. The Chief Sustainability Officer reports the results to the Sustainable Development Committee twice a year. The Sustainable Development Committee then presents these findings to the Board of Directors. Finally, the Board of Directors makes decisions on areas requiring optimization or improvement, ensuring that the goals of these initiatives align with the company's sustainability vision and policy.



Internal Training

To foster awareness regarding sustainable supply chains among our procurement staff, we conduct annual training on "Sustainable Supply Chain Management Processes." These courses cover topics such as supplier sustainability risk assessment standards and procedures and green procurement, enabling our procurement staff to integrate sustainability concepts into their daily operations. To ensure that all internal employees align with the company's sustainable supply chain management initiatives in their daily work and decision-making, we offered eight sustainability courses in 2024, with 27,173 participations, totaling 38,820.8 hours of training.

Corporate Governance

- Information Security Guidelines
- Promoting Guidelines on Insider Trading and Internal Material Information Handling
- Anti-Corruption Basics
- Introduction to Risk Management
- Responsible Minerals Sourcing Management
  (New; company-wide training initiated in 2024)

Environment

- ISO 50001 Energy Management System Awareness
- Green Product Training

Social

- Labor and Ethics Regulations Awareness

8 sustainability courses

27,173 participations

totaling **38,820** hours of training

Additionally, as part of our sustainable supply chain projects' low-carbon and carbon footprint verification and reduction initiatives within our sustainable supply chain projects, all participants attended a carbon inventory management training course on November 3, 2023. This course covered carbon management practices, carbon platform navigation and usage, and key aspects of greenhouse gas (GHG) inspection. This training, totaling six hours per person, ensured that relevant personnel are familiar with the knowledge and execution of carbon inventory, and enable them to integrate these approaches into their daily operations to facilitate project advancement.

Supplier Training

To enhance suppliers' awareness of Nanya Technology's Sustainable Supply Chain Management Process and sustainability vision, we organized the 2024 Nanya Technology Sustainable Supply Chain Training and Sharing Seminar on June 24, 2024. A total of 50 participants from 33 Taiwan-based raw material suppliers attended the sessions. The seminar covered our water resource management practices, supplier training on environmental standards, supply chain cybersecurity, and the goals and content of our human rights and sustainability initiatives. We hope to work with suppliers to create sustainable value and build a sustainable environment.

2. Sustainable Supply Chain Management Process

Nanya Technology has established a comprehensive supply chain management procedure. We ensure our suppliers meet our standards and requirements through a cycle involving five key processes: sustainability regulation, active risk assessment, sustainability risk assessment questionnaire, sustainability audit/improvement guidance, and supplier capability building. Through risk assessment and audits, we monitor the risk level of our supply chain and guide suppliers to improve and build capacity, gradually strengthening the sustainability performance of the supply chain.

1 Sustainability Regulation

- Suppliers need to adhere and sign the Nanya Technology Supplier Code of Conduct
- 100% signing rate of the Responsible Mining Policy and Conflict-Free Metals Declaration by suppliers of 3TG + cobalt-related materials

2 Active Risk Assessment

We proactively investigate suppliers' locations, procurement amount, product categories, and ESG compliance status to conduct initial risk assessment. This allows us to actively identify and mitigate supply chain risks

3 Sustainability Risk Assessment Questionnaire

Nanya Technology conducts the Supplier Sustainability Self-Assessment Questionnaire to ensure the effective implementation of supplier sustainability practices. After reviewing the risks exposed through the self-assessment, our procurement and sustainability teams will further identify suppliers with higher ESG risks and conduct relevant procurement audits and guidance measures.

4 Sustainability Audit/ Guidance and Improvement

- Desk Audits: Collecting self-assessment questionnaires and relevant evidence to conduct desk audit on risks
- On-site Audits: Conducting on-site audits on high-risk suppliers to confirm risk status
- Improvement Guidance: Guiding suppliers by providing improvement directions and procedures for non-compliance items

5 Capacity Building

- Reward: In addition to awards, excellent suppliers are considered favorably in future selection processes, increasing their opportunities for partnerships
- Elimination: If a supplier fails to improve in two years, we will gradually eliminate them from our supplier pool through reduced orders, order reassignment, or cessation of cooperation
- Capacity Building: Collaborating with suppliers to promote ESG-related projects

Sustainability Regulation

To ensure suppliers understand and gradually implement corporate sustainability, Nanya Technology has established a Supplier Code of Conduct and provides training to suppliers, requiring their signatures annually.

In 2024, 370 suppliers (including Tier 1 and non-Tier 1 significant suppliers) completed the signing process, resulting in a 100% signing rate and 100% training completion rate. Meanwhile, we also required all 3TG and cobalt-related suppliers involved in responsible minerals sourcing to sign our Responsible Mining Policy and Conflict-Free Metals Declaration, and achieved a 100% signing rate.

370 suppliers

100% signing rate

100% training completion rate

Scope of Supplier Code of Conduct

Labor

- Freedom of occupation
- Young labor
- Work time
- Wage and benefits
- Humane treatment
- Non-discrimination
- Freedom of association

Health and safety

- Occupational safety
- Emergency response
- Work injuries and occupational diseases
- Industrial hygiene
- Physical labor work
- Machine maintenance
- Public health and accommodation
- Health and safety information

Environment

- Environmental permits and reports
- Pollution prevention and resource conservation
- Hazardous substances
- Solid waste
- Exhaust gas emission
- Substance control
- Water resource management
- Energy consumption and greenhouse gas emission

Ethics regulation

- Ethical management
- No illicit gains
- Anti-corruption
- Information disclosure
- Intellectual property
- Fair trade, advertisement, and competition
- Identity protection and anti-retaliation
- Responsibly sourced minerals
- Privacy

Management system

- Corporate commitment
- Management responsibilities and duties
- Legal and customer requirements
- Risk assessment and risk management
- Improvement Goals
- Training
- Communication
- Employee feedback, participation, and grievance
- Audit and evaluation
- Corrective measures
- Documentation and records
- Supplier responsibility

Commitment toprotecting ecological resources

- Biodiversity
- Zero deforestation
- Land conservation

Risk Assessment

01 First Step of Risk Assessment: Active Risk Assessment

Nanya Technology examines and investigates the fundamental conditions of all suppliers, including potential impacts across environmental, social, and governance aspects, partnership closeness, geographical location, industry sector, and product features. We aim to identify and manage suppliers with potential risks, thereby actively controlling and mitigating overall supply chain risks.

- Supplier Location: Assessing risk factors related to conflict minerals, natural disaster exposure, and human rights in supplier locations
- Product Categories: Assessing whether materials used in production contain hazardous substances (e.g., RoHS/PFOS/PFAS) and if alternative materials are available
- Supplier Operations: Assessing the operational risks faced by the supplier and determining if they have established contingency plans

Partnership Closeness	Based on procurement amount, we assess different supplier categories (such as raw materials, facilities management, and subcontractors) and the supply capacity of key raw materials (e.g., whether production capacity or human resources are sufficient
Environment	Failed to identify environmental protection regulations and managing hazardous substance
Society	Failed to identify safety and health regulations and assess child labor-related risks
Governance	Failed to identify corruption and material shortage-related risks
Region/ Country	We examine and investigate supplier locations to assess whether they are affected by conflict minerals, situated in high-risk or natural disaster-prone areas, or face human rights risk issues
Industry Sector	For suppliers of different industries, we identify industry-specific risks based on their relevant risks of concerns (e.g., supply chain disruption risks for raw material suppliers,, and hazardous substance management and human rights risks (such as child labor and migrant workers) for contractors)
Product Features	Based on material properties, we screen key materials that contain heavy metals and hazardous substances

02 Second Step of Risk Assessment: Sustainability Risk Assessment Questionnaire

To ensure the effective implementation of supplier sustainability practices, we distribute the Sustainability Risk Assessment Questionnaire to both Tier 1 suppliers and non-Tier 1 significant suppliers. We require suppliers to conduct self-assessments and provide supporting evidence, such as management system certifications. The results of these self-assessments serve as the basis for our sustainability risk management. The questionnaire considers potential impacts across the governance, social, and environmental aspects. For the governance aspect, we consider factors such as anti-corruption, ethical and legal misconduct, and disciplinary measures. For the social aspect, we consider potential risks regarding labor practices, human rights standards, business ethics, and health and safety. For the environmental aspect, we consider environmental management, greenhouse gas emissions, and other potential impacts.

We completed sustainability risk assessments for all 370 Tier 1 suppliers (including Tier 1 significant suppliers) in 2024, and achieved a 100% completion rate. We found no suppliers engaged in material risks of forced or compulsory labor. After screening, we identified the 20 lowest-scoring suppliers (the bottom 5%) and completed their document and on-site audits in December.

Supplier Sustainability Practices Investigation

Year		2021	2022	2023	2024
Tier 1 Suppliers	Investigated	295	282	273	295
	Response Rate	100%	100%	100%	100%
Tier 1 Significant Suppliers	Investigated	91	92	89	96
	Response Rate	100%	100%	100%	100%
Non-Tier 1 Significant Suppliers	Investigated	90	80	79	75
	Response Rate	100%	100%	100%	100%

Note: Tier 1 suppliers include Tier 1 significant suppliers

Supplier Sustainability Risks Investigation Results

Tier 1 Significant Suppliers	High risk	16
	Percentage of high risk suppliers (%)	17%
Non-Tier 1 Significant Suppliers	High risk	4
	Percentage of high risk suppliers (%)	5%

Note: Tier 1 suppliers include Tier 1 significant suppliers

Sustainability Audit

Nanya Technology implements various audits, including desk audits and different types of on-site audits (second-party, third-party, and industry standard audits), to verify suppliers' sustainability efforts and guide their improvements. During these audits, we review their current compliance with regulations and human rights standards, as well as relevant management practices. We then provide suppliers with directions for improvement and engage in discussions, requiring them to establish relevant processes for significant deficiencies. Three months after an audit, we review the improvement on deficiencies and request supporting evidence.

In 2024, a total of 20 high-risk suppliers received sustainability audits, achieving 100% coverage of high-risk suppliers. These audits identified 61 non-compliant items. All high-risk non-Tier 1 significant suppliers had no non-compliant items. For deficiencies identified during audits, Nanya Technology guides and assists in their improvement, and all have been successfully corrected.

20 high-risk suppliers received sustainability audits

100% coverage of high-risk suppliers

61 non-compliant items

Forms of Sustainability Audits

	Methods	Target	Number of Targets
Desk Audit	Through Sustainability Risk Assessment Questionnaire and collecting relevant documents	Tier 1 suppliers and significant suppliers (including Tier 1 and non-Tier 1 suppliers)	370
On-site Audit: Second Party Audit	Conducted by Nanya Technology	High-risk suppliers (Tier 1 suppliers and significant suppliers)	16
On-site Audit: Third Party Audit	Conducted by independent third parties	Raw materials suppliers	4
Industry Standards Audit	Based on RBA standard	Tier 1 suppliers and significant suppliers (including Tier 1 and non-Tier 1 suppliers)	20

Sustainability Audit

	2024 Goals	2024 Performance
Number of Suppliers Receiving Desk/On-site Audits	352	370
Percentage of Significant Suppliers	-	46%
Number of High-risk Suppliers	18	20
Deficiencies Improvement Rate	100%	100%
Number of Suppliers Eliminated	0	0

Guidance on Deficiencies Identified during Audits

	2024 Goals	2024 Performance
Number of Suppliers Receiving Guidance	18	20
Percentage of Significant Suppliers Receiving Guidance (%)	100%	100%

Nanya Technology analyzes the results of its Sustainability Risk Assessment Questionnaires to identify high-risk suppliers. Based on supplier characteristics, we provide additional audits and guidance. For deficiencies identified during these audits, we issue the Corrective Action Request (CAR) that require suppliers to submit improvement plans. Recognizing that improving material deficiencies can sometimes be constrained by upstream industries, resource availability, and project timelines, we have aligned the improvement schedule for all suppliers. During annual audits, we review deficiencies found in the previous year and require suppliers to implement corrective measures within two years. If a supplier fails to meet this deadline, the issue is reviewed by the Material Review Board (MRB) of the Supplier Review Committee. For serious cases, we may take actions such as continued communication, order reduction, order reassignment, or termination of cooperation to effectively control and mitigate relevant risks. No supplier was eliminated in 2024.

High-Risk Supplier Sustainability Audit Statistics

Year		2021	2022	2023	2024
Number of Suppliers Audited		20	20	18	20
Average Audit Score		88	89.97	90.45	93
Number of Non-Compliant Items		81	74	57	61
Violation Category and Number of Violations	Labor and Ethics	Work Rules not established or not approved: 8	Work Rules not established or not approved: 8	Work Rules not established or not approved: 3	Work Rules not established or not approved: 3
		Human rights rules not established or violations: 16	Human rights rules not established or violations: 15	Human rights rules not established or violations: 10	Human rights rules not established or violations: 13
		Work hours/wages rules not established or violations: 2	Work hours/wages rules not established or violations: 3	Work hours/wages rules not established or violations: 3	Work hours/wages rules not established or violations: 2
		Grievance channels not established or violations: 4	Grievance channels not established or violations: 12	Grievance channels not established or violations: 4	Grievance channels not established or violations: 6
		Information security not established or violation: 4	Information security not established or violation: 3	Information security not established or violation: 2	Information security not established or violation: 4
		Disciplinary and rewards procedures violations: 7	Ethical rules not established or violations: 3	Ethical rules not established or violations:7	Ethical rules not established or violations: 2
		Ethical rules not established or violations: 5	Supply chain management deficiencies: 4	Supply chain management deficiencies: 7	Insufficient frequency of labor and ethics training: 5
		-	Insufficient frequency of labor and ethics training: 1	Insufficient frequency of labor and ethics training: 5	Labor and ethics management system to be enhance: 8
		-	Labor and ethics management system to be enhance: 1	Legitimate counseling correction or reward and punishment system not establishe: 2	-
	Total	46 in total	50 in total	41 in total	43 in total
	Environmental, Safety and Hygiene	Labor safety control deficiencies: 19	Labor safety control deficiencies: 11	Labor safety control deficiencies: 4	Labor safety control deficiencies: 7
		Health control deficiencies: 2	Health control deficiencies: 7	Health control deficiencies: 4	Health control deficiencies: 1
		Fire safety control deficiencies: 5	Fire safety control deficiencies: 1	Fire safety control deficiencies: 4	Fire safety control deficiencies: 9
		Environmental protection control deficiencies: 9	Environmental protection control deficiencies: 5	Environmental protection control deficiencies: 4	Environmental protection control deficiencies: 1
	Total	35 in total	24 in total	16 in total	18 in total

6.3 Enhance Supply Chain Sustainability

To address evolving sustainability trends and updates, Nanya Technology enhances suppliers' sustainability as well as their awareness and capacity in sustainable development through seminars and project-based guidance.

1. Sustainable Supply Chain Seminar

In 2023, Nanya Technology adopted the Taskforce on Nature-related Financial Disclosures (TNFD) and integrated its LEAP identification process to incorporate nature and climate risk management guidelines into our sustainable governance framework. In 2024, we released our *Nature and Climate-related Financial Disclosure Report*. To enhance nature and climate risk management across our entire value chain, we first check suppliers' geographical locations for proximity to biodiversity-sensitive areas and survey suppliers to evaluate their understanding and self-assessment of nature-related risks.

Recognizing TNFD as an emerging risk and financial disclosure framework, Nanya Technology hosted a "Nature and Climate Co-prosperity Supply Chain Workshop" on November 26, 2024. Approximately 30 suppliers, from industry sectors ranging from chemical manufacturing to electronics and plastic products, sent their climate and nature specialists to participate. This initiative aimed to deepen suppliers' understanding of environmental sustainability issues and strengthen nature and climate strategy management in the upstream supply chain.

During the workshop, experts from National Taiwan University of Science and Technology and National Taipei University of Technology were invited to present on theories and practices of climate and nature sustainability management. The sustainability team of our supplier, Formosa Advanced Technologies, also gave a talk about their projects on decarbonization and biodiversity under the theme "The Best Energy Is Energy Saving," showcasing case studies of energy-saving projects that reduced energy use and carbon emissions in production. This talk not only vividly introduced practical energy-saving experience but also strengthened collaboration across the value chain.

Additionally, our team of experts guided suppliers through a self-assessment of nature and climate risks. The assessment results revealed that the primary ecosystem services on which the supply chain depends include "water resource supply," "disease control," and "storm mitigation." Among the material natural impact risk items, "waste management" emerged as the most prominent issue, followed by "indirect energy use" and "climate change." These findings will reinforce Nanya Technology's management of upstream suppliers and provide crucial data for future strategic planning, all aimed at building a more resilient and sustainable supply chain. For more details, please refer to Chapter 3 of our Nature and Climate-related Financial Disclosure Report.

Every year, we evaluate raw materials, components, and equipment suppliers across six dimensions: quality, technology, delivery, service, cost, and sustainability (which includes aspects such as energy management, energy saving and carbon reduction, and human rights ethics). Excellent suppliers receive occasional awards as recognition. Their annual evaluation results are also considered for future supplier selection, and are crucial for increasing their partnership opportunities, such as supplying additional items.

2024 Nature and Climate Synergy Supply Chain Workshop

Suppliers share cases to facilitate exchanges on sustainability

2. Supply Chain Sustainability Projects

By focusing on labor rights and employment equity, we strengthen human rights protections for all workers within our organization and across our supply chain. Through a comprehensive approach, we help suppliers build their own human rights protection mechanisms, which then gradually extend throughout the entire supply chain.

Three Zeros Human Rights Initiative Advancement Project

Capacity Building Goals

We promote the "Three Zeros Human Rights Initiative" among our significant suppliers, aiming for zero violations in terms of humane treatment, forced labor, and discrimination.

Number of Suppliers

2022: 15;
2023: 8;
2024: 8

Project Period

2022-2030

Estimated Benefit

We strive to strengthen human rights protection, mitigate human exploitation, establish a supportive workplace environment, and eliminate sweatshops

Quantitative Evaluation of Benefit

- **2022-2023 Initiatives and Advancement**
  (1) For suppliers joining our "Three Zeros Human Rights Initiative," we will continue to communicate and provide guidance in alignment with audit schedules. We will also investigate their current internal systems to determine if they will be included as key suppliers.
  (2) For suppliers not yet joining our "Three Zeros Human Rights Initiative," we will continue to promote the initiative and communicate with them monthly.
- **2024-2025 Mitigation and Remedial Measures:**
  (1) For suppliers joining our "Three Zeros Human Rights Initiative," we will continue to communicate, guide, and track their progress in alignment with audit schedules.
  (2) We will track the establishment of human rights systems for audited suppliers (approximately three suppliers) and guide them in drafting their human rights code of conduct every month.
  (3) We will continue to encourage other suppliers to join our "Three Zeros Human Rights Initiative."
- **2026-2028 Termination and Prevention:**
  Track the status of suppliers' human rights system establishment, and guide them in drafting human rights risk assessment standards and promoting risk identification and compensation measures.
- **2029-2030 Tracking and Disclosure:**
  Compile human rights due diligence report and disclose it regularly.

Product Carbon Footprint Inventory

Capacity Building Goals

Promoting carbon footprint inventory among raw material suppliers and packaging/testing contractors

Number of Suppliers

We began collaboration with 10 suppliers in 2023

Project Period

Conducted baseline establishment from 2023-2024
Conducted carbon inventory for 6 suppliers in 2024
Aiming to conduct carbon inventory for 4 suppliers in 2025

Estimated Benefit

1. Aligning with global climate change initiatives
2. Reducing the Company's product carbon footprint
3. Achieving SBT certification and reach targets by 2030

Quantitative Evaluation of Benefit

- **Inventory**
  Since 2017, Nanya Technology has annually conducted product environmental footprint assessments to identify suppliers contributing to the increase of our product carbon footprint, including prominent companies supplying wafers, packaging and testing, and key suppliers of chemicals and specialty gases.
- **Goal Setting:**
  We prioritize our top 30 raw material suppliers and contractors by carbon emissions to promote our "Carbon Reduction Plan and Long-Term Net Zero Emissions Target"
- **Communication:**
  We engage in promotion and communication with our top 30 carbon-emitting raw materials suppliers and packaging and testing contractors. We encourage their participation in the low-carbon and carbon footprint inventory and reduction projects of the Ministry of Economic Affairs' Industrial Development Administration, which are guided by the Industrial Technology Research Institute. Nanya Technology and 10 supply chain partners aim to jointly achieve a 6,300 metric ton reduction in carbon emissions over two years (November 2023 to October 2025).
- **Progress Tracking/Feedback:**
  (1) Over a two-year cycle, the Industrial Technology Research Institute and National Taiwan University of Science and Technology will guide suppliers in product carbon footprint inventory and low carbonization energy-saving projects.
  (2) In 2023, we first conducted a supply chain baseline survey and then commissioned the Industrial Technology Research Institute and National Taiwan University of Science and Technology to host workshops on greenhouse gas and carbon footprint inventory, which enhanced our knowledge in carbon footprint management and data verification.
  (3) In 2024, we conducted carbon inventory for six supply chain products. We installed the Industrial Technology Research Institute's smart electricity meters to identify high-power consumption hotspots in factories. We are also advancing the carbon reduction project with our supply chain partners.
  (4) In 2025, we plan to conduct carbon inventory for an additional four supply chain products. We will also guide 10 supply chain products in obtaining the ISO 14067 Product Carbon Footprint Verification Certificate and showcase the results of our carbon reduction project.

Low Carbon Transformation Transportation Project

Capacity Building Goals

To support green supplier development, we established a collaborative upstream-downstream decarbonization model. Nanya Technology partnered with wafer suppliers to switch from air to sea freight for wafer transportation, achieving low-carbon logistics in 2024.

Number of Suppliers

1 supplier in 2024

Project Period

2022-2030

Estimated Benefit

1. Reducing carbon emissions
2. Optimizing logistics to reduce loading/unloading frequency and labor costs
3. Reducing reliance on high-carbon forms of transportation, and enhancing supply chain resilience and adaptability

Quantitative Evaluation of Benefit

- **Annual emissions reduction:**
  35,162 kgCO2e reduced in 2024 through shifts in forms of transportation
- **Carbon Reduction per Unit:**
  0.671 kilogram of carbon emissions reduced per wafer

Joint Renewable Energy Procurement Project

Capacity Building Goals

To actively expand our sustainability impact, we jointly procure renewable energy with Formosa Advanced Technologies to achieve our green transformation goals together.

Number of Suppliers

1 supplier in 2024

Project Period

2024-2034

Estimated Benefit

1. Jointly procuring renewable energy with our supply chain partner for the first time to take concrete steps toward realizing green manufacturing together.
2. Increasing the possibility of future collaborations with more partners for carbon reduction and green transformation.

Quantitative Evaluation of Benefit

Starting in 2024, Nanya Technology will procure 25 million kWh of green power annually, totaling 250 million kWh in ten years.
Formosa Advanced Technologies will procure 15 million kWh annually, totaling 150 million kWh in ten years.

Supplier Capacity Building

	2024 Goals	2024 Performance
Numbers of Suppliers Participating in Capacity Building	18	37
Percentage of Significant Suppliers	100%	70%

6.4 Responsible Mineral Sourcing Management

Nanya Technology is committed to managing conflict-free minerals and implementing a responsible sourcing strategy. We actively manage the responsible sourcing of tantalum, gold, tin, tungsten, and cobalt to meet current and future market expectations as well as legal and regulatory requirements. We have also published a Responsible Mineral Sourcing Policy to align with the requirements for responsible minerals sourcing, uphold our responsibilities as part of the Responsible Business Alliance Responsible Minerals Assurance Process (RMAP). Contractors and raw materials suppliers whose products use or contain gold, tantalum, tin, tungsten (3TG), cobalt, or mica must comply with our company's Responsible Mineral Sourcing Policy and cooperate with supply chain investigations.

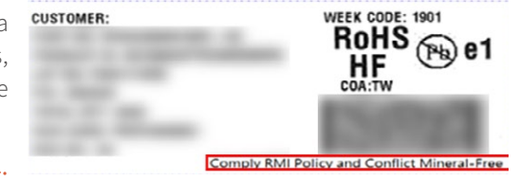
Since 2009, in response to customer demands, Nanya Technology has begun surveying its supply chain for the sources of metals such as gold, tantalum, tin, tungsten, cobalt, and mica. We require our subcontractors and raw materials suppliers to use the survey tool templates provided by the Responsible Minerals Initiative (RMI) to collect relevant information. Our management has evolved from an early approach that focused on not using minerals from conflict-affected areas to emphasizing that companies must adopt a responsible attitude when procuring minerals. We expect our supply chain to conduct ethical and responsible mineral sourcing investigations.

As a result, Nanya Technology conducts at least one supply chain survey on responsible mineral sourcing annually. Suppliers handling gold, tantalum, tin, and tungsten (3TG) are required to complete the Conflict Minerals Reporting Template (CMRT), while those handling cobalt and mica must use the Extended Minerals Reporting Template (EMRT) as their survey tool. These tools help collect information on smelters and mineral sources for gold, tantalum, tin, tungsten (3TG), cobalt, and mica, ensuring the supply chain does not illegally finance warlords or armed groups, nor engage in activities that violate fundamental human rights. All 3TG and cobalt-related suppliers are required to sign a Responsible Mining Policy and Conflict-Free Metals Declaration, as well as confirm that the list of smelters provided complies with the responsibly sourced minerals mandates of the Responsible Business Alliance (RBA).

Since 2022, Nanya Technology has added the statement "Comply with RMI Policy and Conflict Mineral-Free" to its product labels, declaring that the company's products meet the mandate of the Responsible Minerals Initiative (RMI) and are free from conflict minerals.

To address potential risk exposures that may arise from future supplier changes or unforeseen events, the Company has put in place the following alternative and contingency measures:

- Material Substitution Strategy: For critical metals, the Company continues to develop and validate environmentally friendly alloys, recycled metals, or other non-3TG alternative materials that ensure product performance and meet customer requirements.
- High-Risk Supplier Replacement Mechanism: If a supplier is found to be involved in conflict minerals, the Company will immediately initiate the alternative supplier evaluation process.



- Supplier Education and Collaboration Enhancement: Regular training sessions are conducted on Responsible Mineral Sourcing Management to strengthen supplier awareness and improve their risk management capabilities.
- Disclosure and Communication Mechanism: Should a risk event occur, the Company will disclose the resolution in our Sustainability Report, based on the facts, to ensure transparency.

We will continue to strengthen our responsible mineral sourcing management as an integral part of our sustainable supply chain, and uphold the highest standards of corporate responsibility.

1. Preparing for Investigation

Nanya Technology's supply chain has a multi-tiered relationship with raw mineral sources. Therefore, before conducting investigations, we first examine the raw materials in our supply chain to identify the applicable categories of gold, tantalum, tin, tungsten, cobalt, and mica in our products. This allows us to screen for suppliers that require conflict mineral investigations. We conduct interconnected investigations across supplier tiers using and cross-referencing the standard investigation tools defined by the Responsible Minerals Initiative (RMI) to obtain the most up-to-date list.

The gold, tantalum, tin, tungsten, cobalt, and mica metal minerals currently applied in our product supply chain are as follows:

Metal Name	Applicable Products	Applicable Categories
Gold	RDL, IC, DIMM	Gold plating, gold wire
Tantalum	Wafer, DIMM	Wafer processing target, passive component alloy material
Tin	IC, DIMM	solder paste, solder ball, solder wire
Tungsten	Wafer, DIMM	Wafer processing target, passive component alloy material
Cobalt	Wafer, DIMM	Wafer processing target, passive component alloy material
Mica	IC Packing	Tray Hardener Additive

Additionally, in 2024, Nanya Technology expanded its responsible mineral sourcing surveys to include aluminum, copper, nickel, zinc, natural graphite, and lithium, in response to global supply and demand strategies and customer requirements for adding critical minerals.

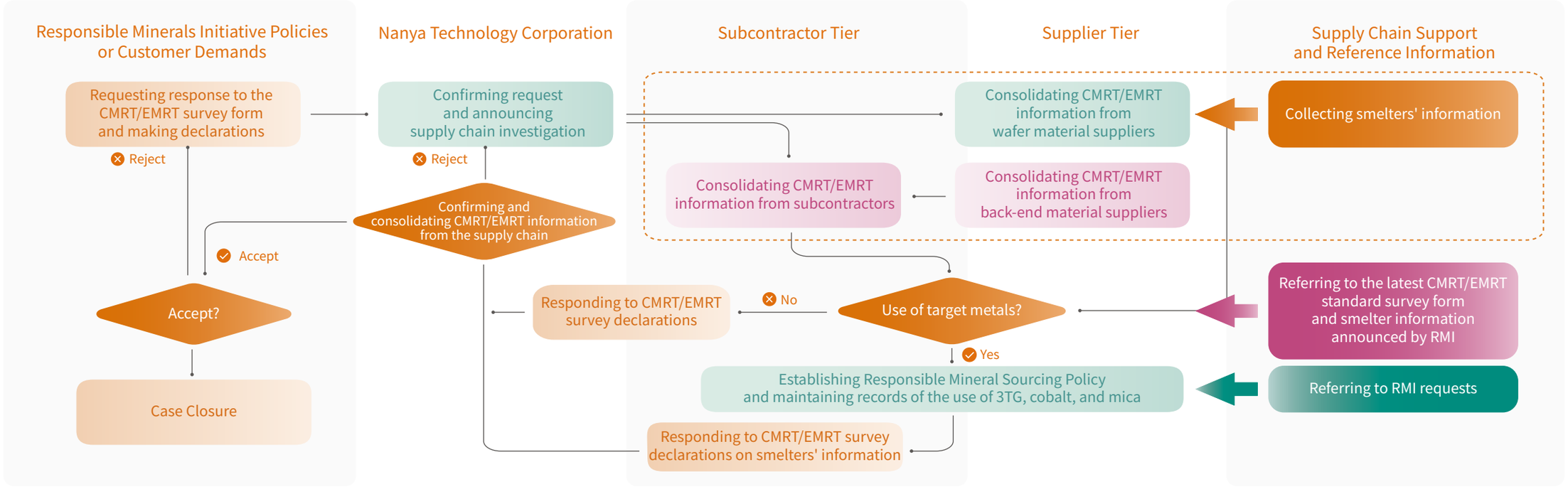
In addition, in response to the impact of international supply and demand strategies and customers' desire to conduct responsible mineral procurement traceability investigations on other metals of concern like Aluminum, Copper, Nickel, Zinc, Natural Graphite and Lithium have been added in 2024.

The aluminum, copper, nickel, zinc, natural graphite, and lithium metals currently used in our company's product supply chain are applied as follows:

The metal minerals currently used in our company include Aluminum, Copper, Nickel, Zinc, Natural Graphite and Lithium.

Metal Name	Applicable Products	Applicable Categories
Aluminum	Wafer	Wafer process target
Copper	Wafer, IC, DIMM	Wafer process target, copper foil, copper plating, copper wire Wafer target, copper foil, copper plating, copper wire
Nickel	RDL, IC, DIMM	Nickel plating
Zinc	IC	Copper Clad Laminate
Natural Graphite	Not use	Not applicable
Lithium	Not use	Not applicable

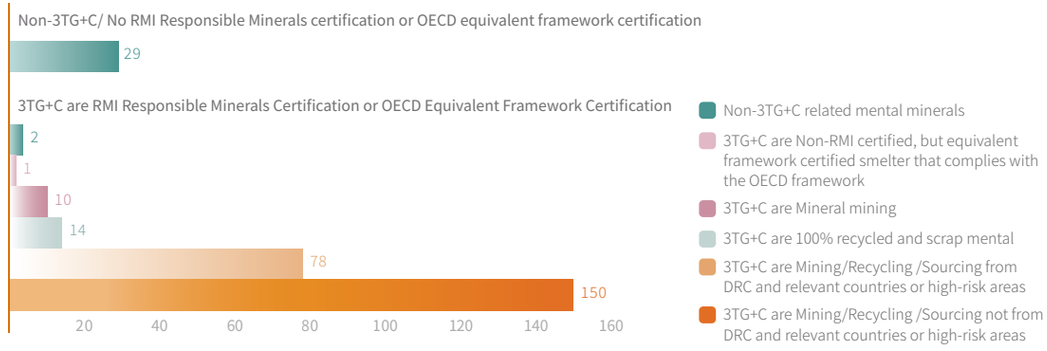
Responsible Mineral Sourcing Investigation Proces



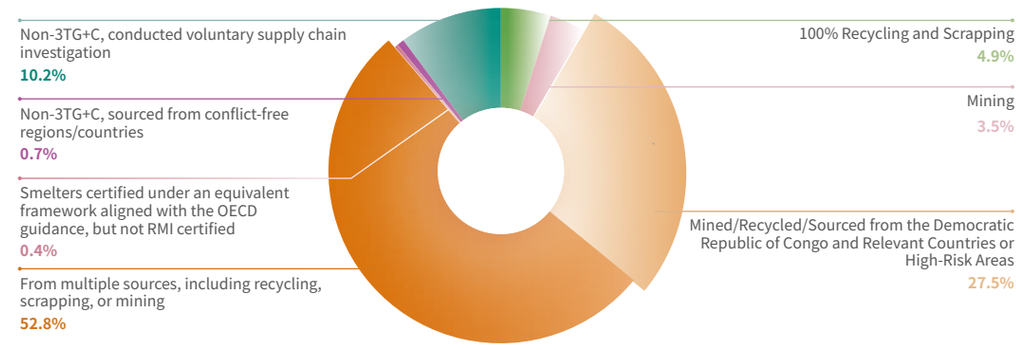
2. Aggregated Survey Data for Targeted Metals

As a DRAM supplier, Nanya Technology conducted due diligence on its supply chain. After comparing its findings with the Responsible Minerals Initiative (RMI) qualified smelter list, 284 smelters or suppliers were identified in the 2024 supply chain investigation. Among them, 255 smelters or suppliers reported information concerning the gold, tantalum, tin, tungsten, cobalt, and mica currently used in our company's product supply chain.Additionally, for metals like aluminum, copper, and nickel used in our products, 29 smelters or suppliers have also reported information. Currently, all 255 3TG+C-related smelters are recognized by the Responsible Minerals Initiative (RMI). Furthermore, these 255 smelters are 100% compliant with conflict-free metals and Responsible Minerals Assurance Process (RMAP) requirements, or possess RMI Responsible Minerals certification or equivalent OECD framework certification, making a substantial contribution to the environment and the industry supply chain. Approximately 27.5% (78) of these smelters reported that their mineral sources might originate from the Democratic Republic of Congo or adjoining countries, or from recycled/scrap metals. According to supply chain reports, these 78 smelters have all confirmed that their mineral sources comply with the Responsible Minerals Assurance Process (RMAP) policy requirements and have been approved as legitimate smelters by the Responsible Minerals Initiative (RMI).

Disclosure and Certification Status of Responsible Metal Sourcing of Smelters



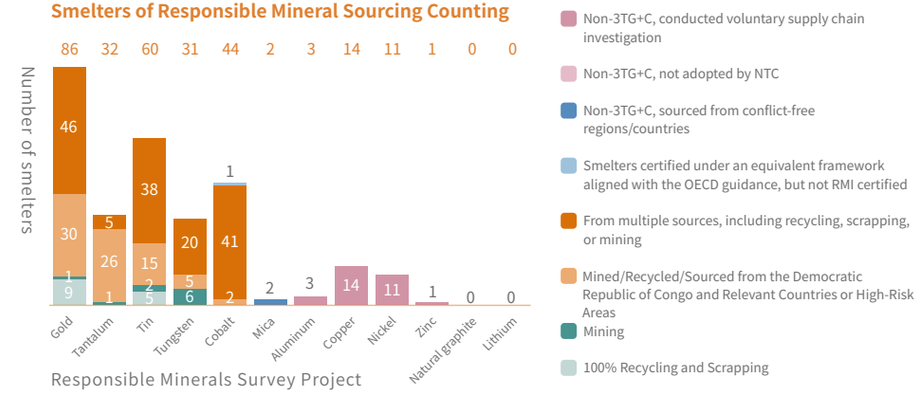
Responsible Mineral Sourcing Ratio



Responsible mineral sources

Nanya Technology will continue to conduct due diligence based on the Responsible Minerals Assurance Process (RMAP) policy to lower risks across our supply chain. Nanya Technology aims to meet the following standards through our responsible mineral guarantee investigation process:

1. Identifying which products and component materials contain 3TG+C
2. Collecting relevant data using standardized survey tools provided by the Responsible Minerals Initiative Organization
3. Supply chain data summarization and tracking to encourage the supply chain to use qualified smelters that meet RMAP requirements
4. Responsible mineral sourcing process management includes risk classifications and risk mitigation measures
5. Communicating and disclosing management policies to upstream and downstream stakeholders



Since conducting conflict free mineral supply chain surveys in 2009, Nanya Technology has made continuous improvements by aligning with RBA-RMI management guidelines and the latest customer requirements based on survey results. The company continues to communicate with suppliers, identifies survey criteria, analyzes findings, and adjusts its conflict-free management indicators and the Responsible Mining Policy as needed, demonstrating the positive outcomes of our cyclical management approach.

Supply Chain Responsible Mining Investigation Cyclical Diagram

3. Prospects

As smelter data collection in response to the Responsible Minerals Initiative (RMI) becomes a norm, various natural resources are gradually depleting, many of which are under the management and control of a few countries or governments due to geographic factors. The extraction of these resources often entails significant energy consumption, water pollution, land degradation, and even human rights violations. Therefore, companies should fulfill their social responsibilities by focusing on environmental protection, labor rights, and fundamental human rights. They should uphold the principles of lawful procurement and extend these management indicators to their suppliers.

Over the past decade, Nanya Technology has addressed customer and societal demands by conducting surveys on materials such as rare-earth elements, semi-metals, and volatile organic compounds. Nanya Technology actively incorporates alternative vendors into its qualified supply chain, ensuring that all suppliers actively participate in surveys and progressively align with corporate indicators. This approach not only meets legal requirements but also fulfills customer expectations and supports sustainability.

7

Common Good

An Active Contributor to Society

7.1 Social Influence.....145
7.2 Social Engagement.....148
7.3 Love Connection × Nanya Technology Volunteer Team...158

57%

Total investment in social engagement amounted to NT$20,545,733, a 57% increase compared to the previous year

4,131 participants

Promoting fair-trade concepts toward responsible consumption

3,571.5 hours

The hours Nanya Technology has spent on social engagement increased by 22% compared to the previous year

Dedicated to social engagement, Nanya Technology has become an active contributor to society by engaging in public affairs and local care initiatives. We leverage our social influence to promote community development and advance toward a sustainable and prosperous future.

Strategy and Performance of Material Topics

Exceeded goals | Achieved | Not achieved

Material Issues	2024 Goals	2024 Performance & Goal Achievement	2025 Goals
Social Engagement • Talent Cultivation: Collaborating with schools to instill sustainability concepts in young students, and developing a diverse new generation of professional talent • Environmental Conservation: Connecting different types of non-profit organizations to promote environmental concepts, maintaining ecological diversity and moving toward a low-carbon society • Community Harmony: Engaging in neighborhood (nearby community) public affairs to create a harmonious and mutually beneficial living environment • Humanistic Care: Integrating Local Resources to Characterize Regional Humanistic Landscape	Annual growth of social engagement hours reaches 10% or greater	◆ The total hours of social engagement reached 3,571.5 hours, representing an annual growth of approximately 22% (compared to 2,929.5 hours in 2023)	Annual growth of total social engagement person-hours reached 10%
	≧150 volunteers	◆ 150 volunteers to date	Volunteers account for ≥5% of total employees
	≧1,100 semiconductor talent cultivated in total (Since 2021)	◆ 1,226 semiconductor talent cultivated in total to date	≧1,500 semiconductor talent cultivated in total (Since 2021)

7.1 Social Influence

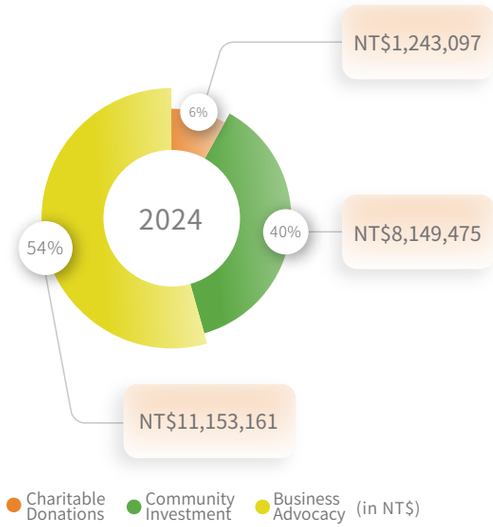
Aiming to be the best DRAM partner for the smart world, Nanya Technology strives to drive revenue and return profits to its shareholders. At the same time, Nanya Technology actively engages in public welfare activities, creates positive impact, and moves toward mutual prosperity with stakeholders. The Company aligns its core value with the United Nations Sustainable Development Goals (SDGs), and has developed four social engagement pillars unique to Nanya Technology, including Talent Cultivation, Environmental Conservation, Humanistic Care, and Community Harmony. Based on these four pillars, we design a range of action plans with short, medium, and long-term goals. By integrating Nanya Technology's internal and external resources, we collaborate with stakeholders such as customers, suppliers, government agencies, schools, and NGOs to create greater impact through social engagement actions.

1. Measuring the Benefits and Impact of Social Good

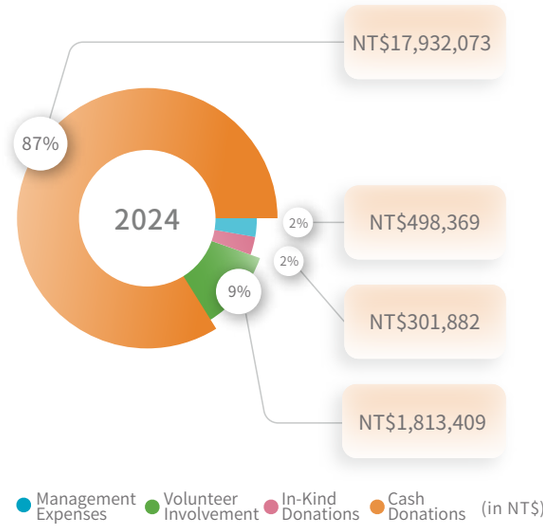
Believing that change begins with action, Nanya Technology fully understands the importance of making an impact. Therefore, we adopt the London Benchmarking Model (LBG) to measure the benefits and impacts of public welfare activities. This allows us to allocate resources more reasonably and adjust our charity programs to better align our core operations with social needs. We are confident that our innovation capabilities empower us to develop solutions that address social issues. Shared value is the core principle driving Nanya Technology's involvement in social good. In the short term, we aim to maximize the benefits of our invested resources, while in the long term, we anticipate that our involvement will positively influence the behavior, awareness, and well-being of those we help.

In 2024, Nanya invested a total of NT$20,545,733 in social engagement, which includes industry-government-academic research collaboration projects, charitable activities, sponsorships and donations, as well as employee-initiated Love Connection activities. We will continue to use the LBG model to assess the effectiveness of public welfare activities, ensuring effective use of resources. This approach will deepen and expand Nanya Technology's long-term impact on society, ultimately realizing the vision of a beautiful home built on mutual benefits.

Types of Social Engagement



Resources Invested in Social Good



Resources Invested in Social Good Over the Past Four Years

		2021	2022	2023	2024
Cash Donations	Budget (in NT$)	41,148,561	39,828,214	8,860,491	17,932,073
	Percentage (%)	89.35%	83.59%	68.02%	87.28%
In-Kind Donations	Budget (in NT$)	997,500	3,666,283	1,625,873	301,882
	Percentage (%)	2.17%	7.69%	12.48%	1.47%
Volunteer Involvement	Budget (in NT$)	208,728	238,276	1,645,470	1,813,409
	Percentage (%)	0.45%	0.50%	12.63%	8.83%
Management Expenses	Budget (in NT$)	3,700,418	3,912,243	894,825	498,369
	Percentage (%)	8.03%	8.21%	6.87%	2.43%

2. Business and Social Benefits Driven by the Four Key Pillars of Social Engagement

Pillars of Social Engagement	Social Problems Addressed	Business Benefits	Social Benefits	Corresponding SDGs
Talent Cultivation	• Educating global citizens about sustainability concepts • Cultivating design thinking in youth for effective problem-solving • Supporting technical talent to ensure stable supply of semiconductor professionals • Cultivating specialized talent	• Managers serving as mentors (4 managers engaged) • Online exposure (press releases in 2 media outlets) • Supporting student athletes with professional expertise (8 people)	• Promoted sustainability education to 1,536 students • Sponsored athletes with funding (NT$278,000)	
Environmental Conservation	• Improving public environmental knowledge and literacy, establishing concepts of environmental protection and sustainability awareness • Organizing cleanups to restore a clean public environment • Protecting biodiversity by preventing habitat degradation and the spread of invasive species, which contribute to biodiversity loss	• Employee cohesion (523 employees participated) • Online exposure(2,837 social media interactions) • Online exposure(press releases in 5 media outlets) • Environmental advocacy (2 environmental advocacy activities engaged)	• Environmental biodiversity (70.5 kg of mikania vine removed) • Ocean-friendly activities (63.6 kg of coastal waste removed)	
Humanistic Care	• People-oriented approach to improve public humanistic literacy and broaden their perspectives • Supporting local cultural and artistic development • Helping local cultural and historical groups dedicated to their hometowns • Providing care and platforms for disadvantaged groups to promote their ideas • Promoting responsible consumption concepts and developing mutually beneficial lifestyle	• Employee cohesion (552 employees participated) • Charity (4 certificates of appreciation awarded) • Supporting local farmers (8 farms supported)	• Responsible consumption (charity sales and farmers' markets generated approximately NT$360,000 in product sales) • Reducing wealth inequity (9 organizations supported) • Boosting the community economy (179 kg of fair-trade coffee purchased) • Promoting responsible consumption (reached approximately 4,131 people)	
Community Harmony	• Focusing on local welfare, aligning neighborhood services, promoting neighborhood well-being, and implementing social welfare efforts • Aligning social resources to promote local sustainable operations	• Strengthening neighborhood relationships (2 certificates of appreciation awarded)	• Deepening community communication (helped improve road facilities, benefiting 16,671 people in surrounding neighborhoods) • Enhancing neighborhood disaster prevention capacity (5,100 fire extinguishers replaced and refilled)	

7.2 Social Engagement

Nanya Technology's investment in social engagement is more than one-way public welfare activities or donations. We aim to address current social and environmental issues. Therefore, as we shape our four key pillars of social engagement, we continue to link resources from industry, government, academia, and research to create positive impact. We take the initiative in promoting Talent Cultivation, Environmental Conservation, Humanistic Care, and Community Harmony. Through presenting our outcomes, Nanya Technology aims to communicate our commitments toward Interaction, Mutual Benefits, Locality, and Connection with the public.

To encourage employees to engage in social good, Nanya Technology has established a volunteer team since 2021, inviting employees to join and participate in company-organized charitable actions or organize charity activities independently. Receiving positive support from colleagues, we hope to bring help and care to society in need through this approach. In 2024, the total hours of social engagement reached 3,571.5 hours.

Social Engagement Pillars	Key Actions	Employee Roles	Actual Practices
Talent Cultivation	• Sustainable education blueprint	• Instructor • Event planner	• Teaching and sharing related knowledge and practical experience • Contacting schools to plan and assist with project implementation
Environmental Conservation	• Biodiversity • Earth Hour 60 Earth Day 365	• Promotion • Long-term support • Event volunteer	• Actively promoting initiatives and providing resources to organize environmental conservation activities • Volunteering their own spare time for long-term participation local ecological conservation actions • Colleagues bringing family members to participate in environmental education activities
Humanistic Care	• Enhancing cultural industries • Responsible consumption	• Event planner • Resource collection • Venue setup • Event volunteer	• Planning activities with arts groups, charity organizations, small farmers, etc. • Integrating various resources to organize industry-government-academic project activities • Assisting with event setup and welcoming guests • Supporting local small farmers and charity organizations while raising awareness about local culture
Community Harmony	• Partnering with neighborhoods	• Resource • collection • Logistical support	• Assisting in the collection and distribution from various resources, and inviting relevant organizations or individuals to participate in activities • Participating in charitable work, providing supplies, and supporting activities

Special Project

Love Connection × Nanya Technology Volunteer Team

One may go fast,
but a group may go even farther

Talent Cultivation

Sustainable Education Blueprint –Instilling ESG Sustainability Concepts in Youth

Partners

Ming Chi University of Technology, Taiwan Crossover Co-Creation Association (TCCA), Taiwan IC Industry & Academia Research Alliance (TIARA), Taipei First Girls High School, and Hsinchu Shu Guang Girls' High School

Educated 1,536 students in total

Sponsored 5 national athletes and 3 sports talents

Sports: table tennis, skating, taekwondo, and competitive gymnastics

Nanya Technology is committed to tackling various sustainability issues and actively promotes awareness and understanding of Environment, Social, Governance (ESG), Corporate Social Responsibility (CSR), the United Nations Sustainable Development Goals (SDGs), climate change, and more. We combined our resources with school to provide in-depth ESG training to each student, and enable sustainability concepts to flourish on campus. The sustainable education blueprint project aims to connect industry, government, academia, and research to nurture technological professionals, while further supporting diverse talent, empowering women, and promoting outstanding students with cross-disciplinary expertise to achieve quality education.

Design Thinking • Creative Integration

For three consecutive years, Nanya Technology has collaborated with Ming Chi University of Technology, integrating the school's University Social Responsibility (USR) initiatives with design thinking courses to instill a deep understanding of sustainability in students' hearts. Through people-oriented design concepts, students are guided to identify problems and opportunities from user needs, and enhance their cross-disciplinary design capabilities. Students will also interact with peers from different departments in class, brainstorming creativity through design thinking methodology, and exploring solutions to cultural and social issues from a sustainability perspective.

Managers from Nanya Technology shared a lecture on SDGs with over 900 first-year students at Ming Chi University of Technology

SDGs Sustainability Concepts

Nanya Technology shares key sustainability trends, the contexts for implementing corporate sustainability and related case studies, enabling students to understand global sustainable development goals.

Managers from Nanya Technology provided business-oriented feedback andpresented awards during the ESG design competition finals

Green Sustainability × Product Design

Sophomore students from different departments are grouped togerther to propose innovative products and reflect on environmentally friendly production, manufacturing, and processes during product design, while implementing design thinking tool. They are asked to participate in competitions and encouraged to transform sustainability concepts into practical products and solutions.

Managers from Nanya Technology shared business-oriented insights on workplace ethics, talent cultivation and sustainable impact with junior students

Business Ethics

The course elaborates how businesses can leverage their expertise and social influence to solve problems and implement corporate sustainability from a corporate perspective. In turn, students explore ethical issues that companies face in society through group discussions, value sharing and self-reflection, and create multimedia presentations about business ethics at the end for course evaluation.

Cross-Disciplinary Innovation and Women Empowerment

Nanya Technology believes technology can change the world. The Company invests resources in young students to develop cross-disciplinary expertise and the promotion of women empowerment, with the commitment to creating a technology environment that embraces DEI. Nanya Technology was invited to participate in communication platforms organized by the Taiwan Crossover Co-Creation Association (TCCA) and Taiwan IC Industry & Academia Research Alliance (TIARA), which not only provides learning and growth opportunities for young students, but also demonstrates to the public the important role of technology in promoting sustainable development. We hope to inspire more women to join the technology field, break traditional gender barriers, and contribute to the creation of a diverse and inclusive technology ecosystem.

TCCA Annual Conference for Innovation

TCCA, Taipei First Girls High School, and Yu Cheng Senior High School

Nanya Technology sponsored and supported the TCCA Annual Conference for Innovation. We shared our ESG projects and how the technology industry today is working towards sustainability in environmental, social, and corporate governance aspects. We also encourage students to pursue their dreams and fuse interests, passion and work together.

This communication platform serves as a bridge between industry professionals and students, showcasing how companies cultivate cross-disciplinary, diverse talents, while supporting both talent cultivation and sustainable industry development.

YST Meetup

TIARA, Social Enterprise Research Center of NTHU, and Shu Guang Girls' High School

At the YST Meetup, Nanya Technology demonstrated its commitment to student growth and female empowerment in the technology industry. Through appropriate guidance and support, female students can fully develop their potentials, find their characteristics and positioning in different fields, and achieve excellent performance in the technology industry. With this activity, we also hoped to inspire more females to join the technology industry and break traditional gender barriers to create a diverse and inclusive technology ecosystem.

Student-Athlete Scholarship

Nanya Technology's education blueprint extends beyond graduate schools, colleges, and high schools in the DRAM industry. Recognizing that some students excel beyond their academic studies and possess other talent, we are committed to helping them fulfill their dreams. As a result, Nanya Technology serves as a resource provider, offering student athletes with stable financial support during their training. Starting in 2022, Nanya Technology began providing the Student-Athlete Scholarship to colleagues' children. All athletes under 24 who meet national team qualifications or have demonstrated outstanding performance in the National Games, National High School Games, and games recognized by the Ministry of Education are eligible to apply. As of 2024, Nanya Technology has sponsored 10 national team athletes and 7 sports talents.

Nanya Technology held an annual volunteer recognition ceremony. The volunteer team's Convener (President) and Deputy Convener (Executive Vice President) were invited to attend and honor colleagues who actively participated in various public welfare activities throughout the year.

Additionally, the parents of Student-Athlete Scholarship recipients are also invited to attend the ceremony and receive recognitions for their contributions to nurturing young athletes for Taiwan. In 2024, a total of 8 outstanding athletes received the Scholarship, including 1 national team member in table tennis, 1 in skating, 2 in gymnastics, and 5 in taekwondo. 3 other athletes who achieved outstanding performance in basketball, taekwondo and baseball also received the Scholarship.

Applicant Requirements	• Nanya Technology employees' children • Athletes aged 24 or younger • Applicants must meet one of the following qualifications in the current or previous year
Qualifications	Qualified as a national team member under the Regulations for the Selection, Training, and Participation of National Team Coaches and Athletes
	Participated in national competitions: Ranked top three in the National Games, National Intercollegiate Athletic Games, National High School Games, or other comprehensive sports competitions recognized by the Ministry of Education

Corresponding Pillars

- The design thinking courses explore how to adopt design thinking methodology to tackle environmental issues, such as water resources and the circular economy. Students are required to develop a process or product in their final report for evaluation.
- The courses guide students to integrate design thinking and cultural creativity when designing a comprehensive service workflow and supporting products.their final report for evaluation.

Environmental Conservation

Earth Hour 60 Earth Day 365: Responding to International Environmental Conservation Actions to Broaden Our Impact

Partners

Taoyuan City Government, Earth Hour, The Society of Wilderness, Semiconductor Equipment and Materials International (SEMI) and supplier partners

Network Influence

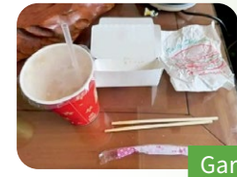
2,837 Facebook Interactions

Nanya Technology organizes a series of Earth Hour 60 Earth Day 365 events to raise awareness about environmental conservation through hands-on experiences. Externally, Nanya Technology works with various partners to support world environmental conservation days; internally, we raise environmental awareness each year with a different theme, thereby increasing everyone's understanding about topics ranging from ecology, natural habitats, to climate change. Through company-organized hands-on activities, Nanya Technology fosters a sense of mission among colleagues to protect the Earth.

Arbor Day

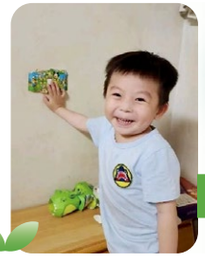
Nanya Technology participated in Taoyuan City's tree planting event with Mayor Simon Chang, government officials, local representatives, business groups, and citizens. Nanya's employees received native tree seedlings and participated in tree planting, passing on correct values of environmental protection.

Garbage Produced from a Single Meal



Behind our convenient lives lie many environmental issues that often go unnoticed. Nanya Technology invited colleagues to document and share on Facebook photos of the garbage produced from a single meal, and raised awareness of the waste we often take for granted. This activity helped colleagues understand the Earth's limited resources and reflect on the resource usage in their daily lives, thereby strengthening their understanding about environmental conservation.

Earth Hour



Nanya Technology supported the global Earth Hour lights-off event on March 23. According to 2024 statistics from Taiwan Power Company, Taiwan saved 289,000 kW that day, reducing carbon dioxide emissions by approximately 143,055 kg. Colleagues were invited to share on Facebook ways to protect the environment that go beyond simply turning off lights, encouraging them to integrate environmental concepts into their daily routines.

Eco-Quiz

To improve internal understanding of Taiwan's current waste situation, we educated employees on recycling and waste reduction. The initiative covered topics such as Taiwan's waste output, how to calculate the value of recycling, and the operation of resource recycling. We offered an online quiz and encouraged employee participation. 162 employees achieved perfect scores. The goal of this Quiz is to raise awareness about resource consumption and encourage reflection on how individuals can reduce waste and make a positive impact on the planet.

Earth Day

On April 22 (Earth Day), Nanya Technology, in collaboration with Semiconductor Equipment and Materials International (SEMI), joined forces with members of the Semiconductor Climate Consortium (SCC) and the SEMI Sustainable Manufacturing Committee. We encourage employees and supplier partners to promote Earth Day advocacy through Facebook posts, raising public awareness and attention about sustainability issues!

Species Survey

Nanya Technology partnered with the Society of Wilderness to promote awareness of the natural environment surrounding its facilities. Employees and their families were invited to observe various species within the area, fostering greater respect for the ecosystem. Utilizing the globally recognized iNaturalist platform, participants uploaded photos of the species they encountered to help build an ecological database of Nanya Technology's surroundings. This initiative strengthened the ties between community and land, and enhanced awareness of environmental sustainability. A total of 650 observation records covering 170 species were uploaded that day.

Environmental Conservation

Biodiversity-Clean Rivers Lead to Blue Seas

Partners

The Society of Wilderness, New Taipei City Volunteer Service Center, and Ming Chi University of Technology

70.5 kg of mikania vine removed

63.6 kg of coastal waste removed

A comfortable and clean environment not only affects ecosystem balance but also relates to the quality of human lives. Clean rivers and blue oceans rely on our collective efforts for protection. Reducing waste at the source, protecting ecology, and caring for the environment are the keys to a better future. Knowing the importance of environmental protection by heart, Nanya Technology has actively hosted environmental conservation activities for many years. Each year, we mobilize numerous volunteer colleagues and their families to take practical action in protecting biodiversity and making significant contributions to maintaining sustainable development.

Mountain Cleanup

Nanya Technology is located in the Nanlin Technology Park, an ecologically rich hilly area in Taishan District. Each year, the company calls on Nanya Technology volunteer team for environmental mountain cleanups around its facilities. In this meaningful activity, every member works together to remove garbage and clear leaves from ditches in the forest. Beyond preserving the cleanliness of the mountains, the mountain cleanup activity also provides opportunities for colleagues and their families to go out together on weekend mornings, relaxing and sharing family time.

Wugu Wetland Restoration: Removing Mikania Vine

To protect biodiversity in Wugu Wetland, Nanya Technology has partnered with the Society of Wilderness since 2020 to remove mikania vine, an extremely harmful plant recognized by the International Union for Conservation of Nature (IUCN) as one of the world's 100 worst invasive species. Invasive species pose a serious threat to local ecosystems as they spread quickly, block sunlight from native plants, reduce native species populations, and can even cause extinction. To effectively combat the hazard of mikania vine, Nanya Technology mobilized 73 volunteers (including their families) to manually remove the plants, successfully extracting a total of 70.5 kg. Additionally, volunteers helped clear reeds from the wetland, creating more habitat for crabs and other creatures. Nanya Technology endeavors to preserve the wetland ecosystem and safeguard biodiversity through these efforts.

Volunteers and their families helped keep the mountains clean

Mountain cleanup activities are held annually to raise awareness of the surrounding environment

Nanya Technology's volunteer team worked with the Society of Wilderness every year to remove the invasive mikania vine from Wugu Wetland to maintain biodiversity.

Removing mikania vine is essential for maintaining wetland biodiversity. This year, a total of 70.5 kg was removed.

River Waste Survey

Nanya Technology has long prioritized water resource issues, actively supporting water conservation efforts through green production practices. This year, seven volunteers participated in the River Waste Survey Training Program, in collaboration with Ming Chi University of Technology and the Society of Wilderness. They received professional training starting in March and began conducting field surveys and environmental monitoring in May, focusing on the Dake Creek in Taishan District. In total, the volunteers devoted 157.5 hours to training and surveys. Through site visits and surveys, the volunteers documented the types and quantities of river waste. These survey results contribute to improving river environments. By harnessing the power of citizen scientists, we aim to develop collaborative solutions to river waste issues through public-private partnerships. Nanya Technology demonstrates its corporate social responsibility through concrete actions, protecting the ecological environment as a key aspect of its sustainable business practices.

Volunteers conducted field surveys around the Dake Creek

Volunteers participated in the River Waste Survey Training Program

Parents and children picked up garbage on the beach

Group photo of all employees and their families, showcasing the results of the beach cleanup

Beach Cleanup

To address problems caused by excessive use of single-use products, which harm ecosystems and affect animal habitats, Nanya Technology actively promotes environmental conservation education and encourages the reduction of single-use products. This year, we organized a low-carbon, low-plastic beach cleanup activity with 83 employees and their families participating. During the activity, employees brought their own water bottles to refill with on-site drinking water. The lunch boxes provided on that day also featured plastic-free zongzi (rice dumplings), aiming to lead by example in improving the beach landscape and reducing additional garbage. Through this public welfare activity, we cleaned up a total of 63.6 kg of garbage.

Corresponding Pillars

Starting with the area around Nanya Technology facilities and the Tamsui River basin, we not only clean the environment but also give volunteers an opportunity to explore and connect with the surroundings, thereby strengthening their bond with the community.

Humanistic Care

Promoting Cultural Industries: Salvaging Local Crafts and Creating New Memories

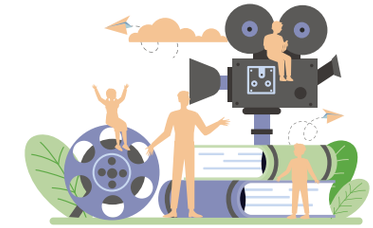
Partners

Ministry of Culture TAICCA (Taiwan Creative Content Agency), Taishan District Office, Ming Chi University of Technology, Upper Taishan Temple, Mingzhi Academy, EZ Show Drum Studio, Tien Circus Theatre, The A-Nee-Gu Troupe and more

Enhancing domestic cultural industries with annual funding of NT$3 million

Supporting Domestic Cultural Industry Development

As Taiwan's cultural industries continue to grow, the key to their development lies in the collaboration between businesses, government agencies, and cultural organizations. In response, Nanya Technology actively contributes resources to domestic film and arts groups. Through family days, movie screenings, and parent-child activities, we invite arts groups to perform, not only driving diverse cultural and artistic development but also encouraging employees to engage with cultural activities and cultivate an appreciation for the arts. By sponsoring arts and cultural events, Nanya Technology builds partnerships that create win-win situations for both the economy and culture, contributing to a more diverse and vibrant cultural landscape in Taiwan.



Support for the Domestic Film Industry

A private screening of the Taiwanese film Doubles Match was held for employees and their families to enjoy together in the theater.

Support for Domestic Art Performances

A special welcome performance by Tien Circus Theatre was held during Nanya Technology's Family Day.

Support for Domestic Troup Performances

Complimentary tickets were offered to employees and their families to attend the troupe performance of A-Nee-Gu's Doggy Can Talk! YA~.

Community Building Program: Integrating Local Resources to Characterize Regional Humanistic Landscape

Located in Taishan District, Nanya Technology integrates resources from government agencies, businesses, community groups and residents, and jointly plans and implements local cultural preservation and promotion programs. We have partnered with Ming Chi University of Technology to support the *Northern Taiwan First Academy Cultural Corridor Development Program*, a University Social Responsibility (USR) initiative by the Ministry of Education, contributing to the renaissance of local arts in Taishan. Through concrete actions, we actively support regional revitalization and community building. Working with local arts groups and organizations, we arrange cultural education programs, guided tours, and various experience activities such as the Taishan Renaissance and the *Taishan Lion Dance Cultural Festival*. These actions help the public learn about Taishan's temple heritage and highlights of local culture. Through these actions, Nanya Technology supports community building in Taishan and helps create new *memories* around valuable local traditional *skills*.

(1) Taishan Renaissance Series Activities

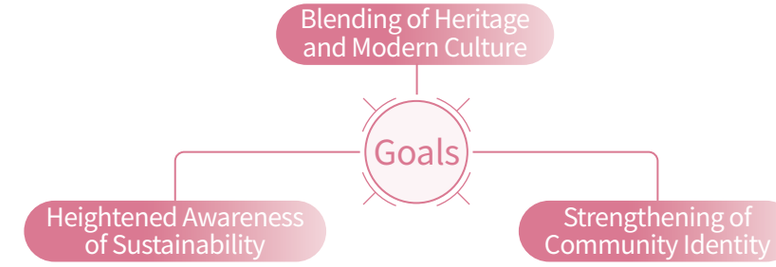
While economic development receives lasting public attention, maintaining the soft power of local culture and supporting local revitalization through concrete actions are important issues that extend beyond the scope of urban renewal. Nanya Technology partners with Ming Chi University of Technology to organize the Taishan Renaissance project, working with local temples, cultural and historical organizations, and arts groups. The project features guided tours, traditional craft workshops, and other activities, fostering a deeper public understanding and respect of local history while encouraging more people to care about and participate in local culture.

This project focuses mainly on temples, drum arts, and bamboo weaving in Taishan District:

- Temples: Starting with Taishan District's most representative temple Upper Taishan Temple, Nanya Technology and Min Chi University jointly promote events such as the *Upper Taishan Temple 270th Anniversary Couplet Competition* and *Taishan Sketching Competition*. Through interactive activities, traditional culture is effectively introduced to the public.
- Drum Arts: Drum culture, which originated from temple traditions, extends beyond the temples themselves to encompass handicrafts. Drum-making craft in Taishan District is well-known among temples. To preserve and showcase local drum culture, we have organized the *Taishan Drum Arts Competition* for three consecutive years already, as well as the *Taishan Prayer Drums Celebration* performance at Upper Taishan Temple Square. Local drum groups delivered innovative performances using traditional instruments, blending *Song, Dance, and Music* to cultivate local interest, create new connections across generations, and give traditional culture a new expression.
- Bamboo Weaving: Dake Village in Taishan District was once known as the "Bamboo Village," but due to industrial development, bamboo weaving was gradually replaced by plastic products. To preserve and revive traditional bamboo weaving skills, wind chime bamboo weaving workshops were specially organized in 2024 for both Nanya Technology's employees and the public, allowing participants to experience the beauty of local culture. Through these hands-on experiences, public participation was encouraged, raising social awareness and interest in the art of bamboo weaving.

(2) Taishan Lion Dance Cultural Festival

The *New Taipei City Taishan Lion Dance Cultural Festival*, an important cultural event in the Taishan area, is hosted annually by the Taishan District Office with Nanya Technology serving as a co-organizer. This event began as a celebration of the birthday of "Master Xianying," the main deity of both Upper Taishan Temple and Lower Taishan Temple (celebrated annually on September 18 in the lunar calendar). Due to the frequent inclusion of lion dance performances in temple celebrations, the *Taishan Lion Dance Championship* was created to showcase this cultural tradition. As the ceremonial activities grew larger, what started as a local cultural event has since 2006 evolved into Taiwan's landmark lion dance competition, the *Taishan Lion King Championship*, which has been held for 18 consecutive years. Nanya Technology has sponsored this traditional local event for 6 consecutive years.

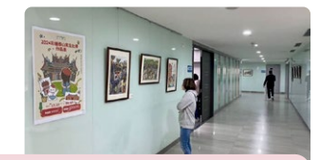


Bamboo Weaving Workshop

Taishan Drum Arts Competition

Taishan Sketching Competition

Taishan Prayer Drums Celebration


Winning works from the Taishan Sketching Competition were displayed in Nanya Technology's lobby

Taishan Lion Dance Cultural Festival

Corresponding Pillars

Located in Taishan, New Taipei City, Nanya Technology joins forces with local Ming Chi University of Technology to organize various traditional events, starting locally to help promote valuable local traditional culture.

Humanistic Care

Responsible Consumption: Every Purchase is a Vote for the Future You Want

Partners

Taipei Branch of Agency of Rural Development and Soil and Water Conservation, MOA, FairTrade Taiwan, charity organizations, and local small farmers

Employee purchases around **NT$360,000** worth of products

Promotion reached **4,131** people

Advocating for responsible consumption, Nanya Technology supports the United Nations Sustainable Development Goal SDG12: Responsible Consumption and Production. By encouraging every consumer to buy products that value ecological balance, support local industries, prioritize health, and low-carbon footprint. To further this mission, Nanya Technology launched a series of engaging activities for both employees and the public. Through its positive influence, Nanya Technology raised public awareness about responsible consumption, helping consumers realize that every purchase is a step toward shaping our future.

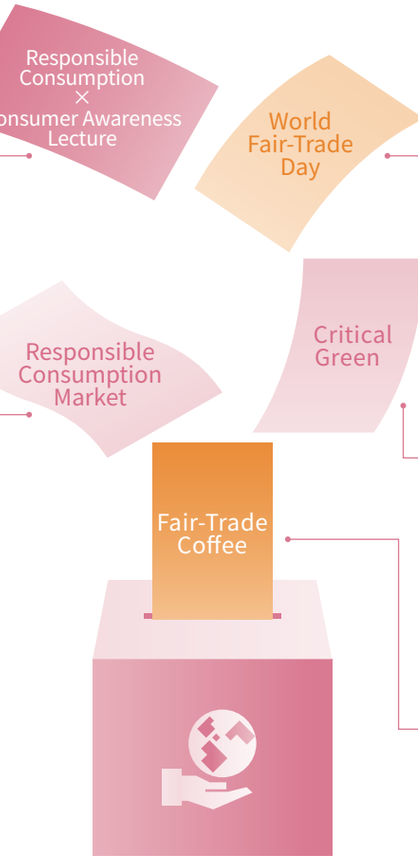
Nanya Technology partnered with the Taipei Branch of the Agency of Rural Development and Soil and Water Conservation, MOA, to organize in-company lectures. Professional speakers were invited to introduce responsible consumption issues, explaining the impact and significance behind every product we purchase. The lectures emphasized that, beyond quality and price, consumers should also consider the stories behind each product and recognize the power of collective action that everyone can contribute to.

Nanya Technology invites charity organizations to hold charity sales during festive events. Through tangible purchasing actions, we support products made by these organizations, helping individuals from sheltered workshops apply the job skills they've learned.

At the same time, in collaboration with the Taipei Branch of Agency of Rural Development and Soil and Water Conservation, MOA, we invite local small farmers to hold farmers markets. These events promote the concept of responsible consumption, create closer connections between employees and locally sourced food, and encourage the purchase of environmentally friendly products, further supporting the sustainable development of the land we live on.

Partner Charity organizations

Down Syndrome Foundation R.O.C. (Abrazo Sheltered Workshop), Shan Love Social Welfare Association (Seedling Workshop), TriBake Social Enterprise (TriBake Roomy Sheltered Workshop), Genesis Social Welfare Foundation, Eden Social Welfare Foundation (Eden Bakery Café), Victory Social Welfare Foundation (Victory Kitchen), and Just Love Public Welfare Association (Lu Lu Heya Sheltered Workshop)



Nanya Technology sponsored FairTrade Taiwan to organize an event "Guided Dadaocheng Walking Tour," open to the public. The tour took participants through Dadaocheng to learn about fair-trade concepts. Both the on-site lecture and guided tour received enthusiastic feedback and featured a stamp collection activity to support businesses aligned with fair-trade and sustainability principles.

Nanya Technology sponsored FairTrade Taiwan to support the Taipei Music Center, bringing together musical performances and market activities. By uniting artists, entrepreneurs, musicians, and performers, the event showcased sustainability issues through reflective perspectives and styles that differed from traditional approaches

Since 2018, Nanya Technology has introduced fair-trade coffee in the company pantries. For just NT$10, employees can enjoy a cup of fair-trade coffee, making it easy for colleagues to support sustainability. Nanya Technology has also established a fair-trade demonstration pantry to promote fair-trade and SDGs. This initiative helps colleagues understand that the cup of coffee they enjoy in the pantry every day represents much more than just the beverage itself.

Community Harmony

Partnering with Neighborhoods: Engaging in Neighborhood Public Affairs to Create a Harmonious and Mutually Beneficial Living Environment

Partners
Taishan District Office

Sponsored a total of approximately **NT$6.85 million**

Protecting Road Users' Safety

Located in Taishan District, the access road near the facilities serves as a crucial commuting route for employees traveling between Taishan, Nanlin Technology Park, and Nanya Technology. However, this access road is narrow and poses significant traffic safety risks during peak hours. With new facility expansion projects underway, the presence of gravel trucks and construction vehicles has further increased these risks. To enhance road safety, Nanya Technology is supporting the Taishan District Office through an adoption sponsorship, assisting in a two-phase annual project to optimize the access road.

Year-End Dining Gathering

Understanding the needs of local disadvantaged groups, Nanya Technology has been regularly collaborating with Nan Ya Plastics Corporation and the Taishan District Office since 2020 to organize year-end dining gatherings. These events aim to address local needs and provide care for disadvantaged residents in the community.

Zhongyuan Pudu (Ghost Festival Offering)

Zhongyuan Pudu (ghost festival offering) is a significant folk religious ceremony. To foster community harmony and respond to local needs, Nanya Technology has long supported Taishan District Office in organizing Zhongyuan Pudu ceremonies, aiming to promote traditional culture.

Promotion of Local Arts

Nanya Technology supports arts promotion and values its bonding with the local community. In collaboration with Nan Ya Plastics Corporation, Nanya Technology sponsored Apple Theater's performance of *The Adventure in Candy Forest* at the Taishan Gymnasium. Local residents were invited to enjoy the show with their families, enriching children's artistic experiences while fostering closer ties with the community.

7.3 Love Connection × Nanya Technology Volunteer Team— One May Go Fast, But a Group May Go Even Farther

9 Projects Completed

A Total of 144 People Involved

Love Connection

To expand its impact and bring various charitable ideas to light, Nanya Technology has started Love Connection in 2021. This advocacy encourages employees to propose ideas based on social issues they care about. Nanya Technology provides funding to support employees and turn these meaningful ideas into real actions, spreading kindness throughout Nanya and fostering a positive cycle. This year (2024), 9 projects have been successfully completed, indicating that this project is growing and becoming popular among employees. This measure not only advances various social engagement goals but also provides a platform for employees to participate, share experiences, and build a better society together. This initiative will continue to unite more people and resources, delivering greater positive energy to society.

Implementation Measures for Love Connection

Only 3 people needed for joint proposals + Maximum subsidy amount of NT$50,000 = For making positive impacts

Bringing Love to Rural Areas Through Dental Care

Applying and implementing entities:
Human Resources Department, Safety & Hygiene Department

Project overview: Elementary schools in the remote Alishan area of Chiayi County face limited resources and a prolonged shortage of daily supplies due to their isolated location. Indigenous tribal children in the area are raised by their grandparents and often lack proper oral care. To address supply shortages and improve dental health, Nanya Technology's employees applied for funding through the Love Connection project and organized internal fundraisers. They purchased 300 sets of toothpaste and toothbrushes, along with other supplies, and delivered them to seven extremely rural elementary schools in Alishan.

Bringing Warmth to Elders Living Alone in Yilan's Remote Indigenous Tribes

Applying and implementing entities:
Global Sales Supporting Department, Business Management Division, Quality Reliability Assurance Division, Materials & Assets Division and Information Technology Division (22 employees total)

Project overview: With the Chinese New Year holidays approaching, compassionate employees came together to bring warmth to elders living alone. They partnered with Gratitude Garden, a volunteer group founded by doctors in the Taoyuan area, to deliver supplies to elders living alone in the Yingshih indigenous tribes of Datong Township, Yilan, bringing them warmth and comfort.

Volunteer Training for Animal Rescue, Organized by the Taiwan Cetacean Society

Applying and implementing entities:
Sustainability and Risk Management Division

Project overview: 8 Nanya Technology volunteers who are particularly concerned about environmental issues dedicated their weekend time to participate in animal rescue volunteer training courses organized by the Taiwan Cetacean Society, contributing a total of 22 hours. Through the courses, they gained deeper knowledge of marine ecology and basic environmental education, while also developing essential skills for caring for stranded wildlife, addressing the shortage of on-duty volunteers.

After-School Tutoring for Children

Applying and implementing entities:
Product Testing Service Division
Project overview: Motivated employees came together in collaboration with the Yingtao Prospect Association to support children from disadvantaged/working-class families in the Yingge area of New Taipei City. The initiative included after-school tutoring classes, science camps, and morning English reading courses. These tutoring programs were conducted in the computer classrooms of Zhonghu Elementary School and the student classrooms of Yongji Elementary School in Yingge District.

Marine Debris Cleanup

Applying and implementing entities:
Nanya Technology Diving Club
Project overview: Driven by their passion for the ocean, members of the diving club have actively participated in marine debris cleanup events organized by the Ocean Clean Cooperative for two consecutive years since 2023, alongside their regular diving activities. By combining their love for diving with a commitment to marine environmental protection, they contributed to safeguarding the planet.

Father's Day Charity Run

Applying and implementing entities:
Employee Relations Department of Human Resources Division and Running Club
Project overview: In collaboration with the annual Father's Day charity run co-organized by the Love Runners Association and Ming Chi University of Technology, employees were encouraged to participate with their children. After completing the run in matching sportswear and sharing check-in photos, Nanya Technology donated NT$888 per team—a symbolic amount that plays on the Chinese homophone for "Father is Great"—to a running companion group for the visually impaired. The initiative promoted physical activity while also supporting the visually impaired.

Sustaining Love for Stray Animals

Applying and implementing entities:
Manufacturing Support Section
Project overview: Initiated by a group of pet-loving colleagues, this project provided food and supplies to the ACT for Animals. They extended their love for their own pets to stray animals and took concrete actions to reduce the overpopulation of stray cats and dogs.

Bike Club Sending Love to Hualien and Taitung

Applying and implementing entities: Bike Club
Project overview: On April 3, 2024, a magnitude 7.2 earthquake and several aftershocks caused serious damage in the Hualien area. The Bike Club integrated their annual 200 km cycling event in Hualien and Taitung with Nanya Technology's funding of the Love Connection project. Members personally delivered the funds to the Hualien Indigenous Children's Home to support children affected by the earthquake, helping them restore a safe and secure life as soon as possible.

Supporting Autistic Children

Applying and implementing entities:
Design Division
Project overview: Colleagues from the Design Division voluntarily organized a group purchase of 266 packages of Peace Rice from the Taiwan Autistic Family Supporting Association, supporting efforts to help autistic children become more self-reliant. They further extended their compassion by donating all purchased rice to Renyou Sanatorium, a residential facility dedicated to caring for children with moderate, severe, and profound intellectual disabilities.

Nanya Technology Volunteer Team

150 volunteers | Co-hosted **13** physical social engagement events | Held **2** volunteer lectures | **440** participants responded

To enhance Nanya Technology's commitment to social engagement, the Nanya Technology Volunteer Team was established in 2021. The President serves as the Convener, the Executive Vice President as Deputy Convener, and the Vice President as Team Leader to strengthen volunteer recruitment efforts. Established in 2021 during the pandemic, the team faced challenges in promoting events and increasing participation. However, as pandemic restrictions eased in 2022, there were 150 volunteer partners actively participating in various public welfare activities both within and outside Nanya Technology by 2024. These included New Year charity sales booths, Arbor Day activities, charity runs, local cultural celebrations, and environmental conservation events. To enhance volunteer professionalism, a series of volunteer lectures and appreciation tea parties were organized in 2024, allowing volunteers to learn together, share experiences, and strengthen their understanding of ESG sustainability principles.

- Event Support: Nanya Technology's volunteers actively support a wide range of social engagement events, including in-factory New Year charity sales, fundraising events under Love Connection, and external charity and environmental conservation events. The presence and participation of volunteer colleagues and their families play a vital role in ensuring these events run smoothly and successfully.
- Volunteer Lectures: Two volunteer lectures were held in 2024. The first lecture focused on sea turtle species and explained step by step how marine waste affects the marine environment. Adopting environmentally friendly habits in daily life is encouraged to promote environmental sustainability. The second lecture, presented by a project assistant from Ming Chi University of Technology's General Education Center, introduced river waste surveys. This lecture covered the impacts of river pollution and emphasized the power of citizen scientists through river waste surveys. The survey results have helped draw attention from local organizations and gained support from both public and private sectors. Both lectures this year focused on water resource issues, aiming to increase employee awareness and responsibility for water resources and jointly protect the ecological environment.
- Volunteer Environmental Ecology Day: Working with the Butterfly Conservation Society of Taiwan, volunteer employees and their families were invited to the Yi Xue Keng Eco Park near Nanya Technology's facilities. There, they learned about various types of butterflies and their strong interdependent relationships with plants and the local environment, highlighting how butterflies serve as sensitive indicators of environmental change. As long as the environment remains unchanged, most local butterfly species will reappear every year. With guidance and introductions from the instructors, colleagues gained insight into the rich ecology and biodiversity surrounding the area where Nanya Technology is located.
- Volunteer Recognition Ceremony: Nanya Technology holds an annual volunteer recognition ceremony and invites the volunteer team's chief convener (general manager) and deputy convener (executive vice president) to attend and recognize colleagues who have enthusiastically participated in various public welfare activities throughout the year, highlighting the value of the volunteer team.

Volunteer Team Footprints

Internal Event Support

Application and fundraising under the Love Connection

Charity sale event support

External Event Support

Taoyuan Arbor Day - *Greening the Earth, Breathing Nature Together* event

River waste training and survey engagement

Support the aid station at the Father's Day Charity Run

Support the registration station at Taishan Prayer Drums Celebration

Volunteer Lectures

Caring for Sea Turtles and Striving for a Plastic-Free Ocean—A lecture on marine waste and environmental protection

River waste survey lecture

Volunteer Environmental Ecology Day

Butterfly ecology camp

Volunteer employees and their families explored butterfly species

Volunteer Appreciation Tea Party

Group photo of colleagues attending the Volunteer Appreciation Tea Party

Honorary volunteer recognition

8

Integrity and Transparency

A Trustworthy Company

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Superior Customer Service

Nanya Technology supports customers in early-stage product development and verification by providing parameter measurement services on customer platforms, enabling early detection and resolution of compatibility issues before mass production. In 2024, Nanya Technology completed a total of 1,032 measurement service cases and 27 joint qualification service cases.

140 Suppliers

Nanya Technology improved information security management for its supply chain by selecting 140 suppliers for audits, an increase of 164% compared to last year.

TOP 5%

Nanya Technology ranked in the top 5% among listed companies in the 11th (2024) Corporate Governance Evaluation.

Complying with regulations and ethical norms, Nanya Technology consistently strengthens its corporate governance and risk management mechanism through comprehensive education and training programs. These efforts help cultivate business ethics among all employees, drive mutual benefits across industry, and position Nanya Technology as the most trusted company.

Strategy and Performance of Material Topics

◆ Exceeded goals ◆ Achieved ◆ Not achieved

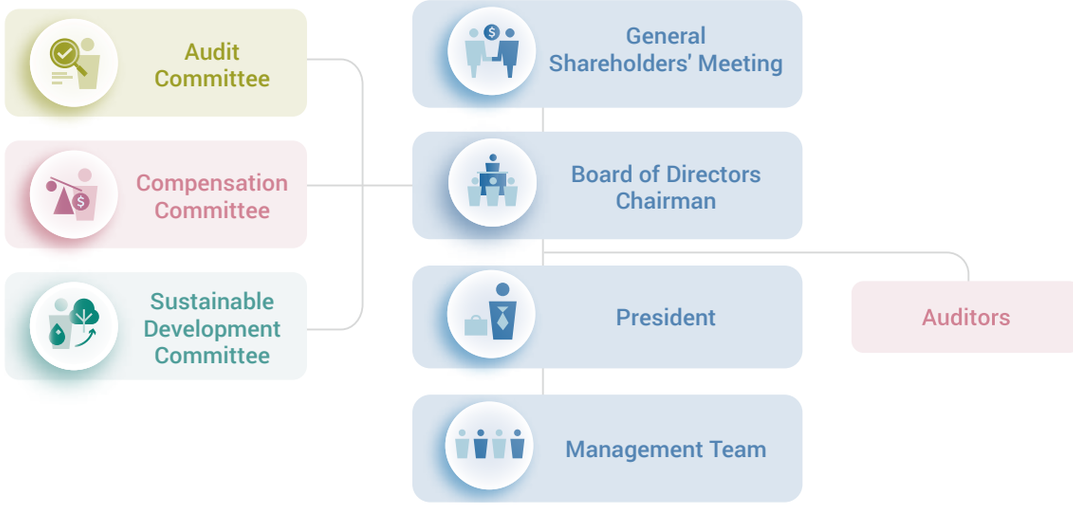
Material Topics and Strategy	2024 Goals	2024 Performance and Goal Achievement	2025 Goals
Risk Management • Risk Management: Establishing effective risk mitigation mechanisms and procedures. • Loss Control: Conducting operational stress tests and reducing operating costs. • Effectiveness: Engaging all employees in risk management training and conducting regular operational risk drills.	Conduct 4 regular quarterly meetings and report to the Board of Directors twice	◆ Conducted 4 regular quarterly meetings and reported to the Board of Directors twice	Conduct 4 regular quarterly meetings and report to the Board of Directors twice
	Contingency plan completion rate: 55 items	◆ 72 items	Contingency plan completion rate: 64 items
	Stress testing: Conduct 7 aspects annually	◆ 9 aspects	Stress testing: Conduct 7 aspects annually
	Education and training: 100% of all employees engaged	◆ 100%	Education and training: 100% of all employees engaged
Ethical Management • Focus on both internal and external operations: Conducting regular internal education, training, and awareness campaigns, extending initiatives to external stakeholders, ensuring sufficient reporting channels and protective measures to foster a culture of workplace ethics and legal compliance.	Material violations of regulations: 0 cases	◆ 0 cases	Material violations of regulations: 0 cases
	Corruption: 0 cases	◆ 1 cases[Note 1]	Corruption: 0 cases
	Employee labor ethics training completion rate: 100%	◆ 100%	Employee labor ethics training completion rate: 100%
	Employee antitrust training completion rate: 100%	◆ 100%	Employee antitrust training completion rate: 100%
	Workplace violation: 0 cases	◆ 1 cases[Note 2]	Workplace violation: 0 cases
	Violation of trade secrets: 0 cases	◆ 0 cases	Violation of trade secrets: 0 cases
Customer Service • Design and Testing: Utilizing global engineering support services to resolve issues with customer design and testing. • Production and Sales: Implementing rigorous quality control and improving delivery efficiency. • Customer Complaint Procedure: Promptly resolving customer issues through customer compliant management system.	Customer satisfaction score: over 91 points	◆ 95.7 points	Customer satisfaction score: over 91 points
	Customer platform parameter measurement services: 940 cases	◆ 1,032 cases	Customer platform parameter measurement services: 950 cases
	Customer product joint qualification services: 25 cases	◆ 27	Customer product joint qualification services: 25 cases
	Customer technical sharing and training sessions: 94 sessions	◆ 96 sessions	Customer technical sharing and training sessions: 96 sessions

Note 1: For the Company's anti-corruption measures, please refer to page 183 of this report.

Note 2: For details on the handling measures of the 1 workplace violation cases, please refer to page 62 of this report.

8.1 Corporate Governance

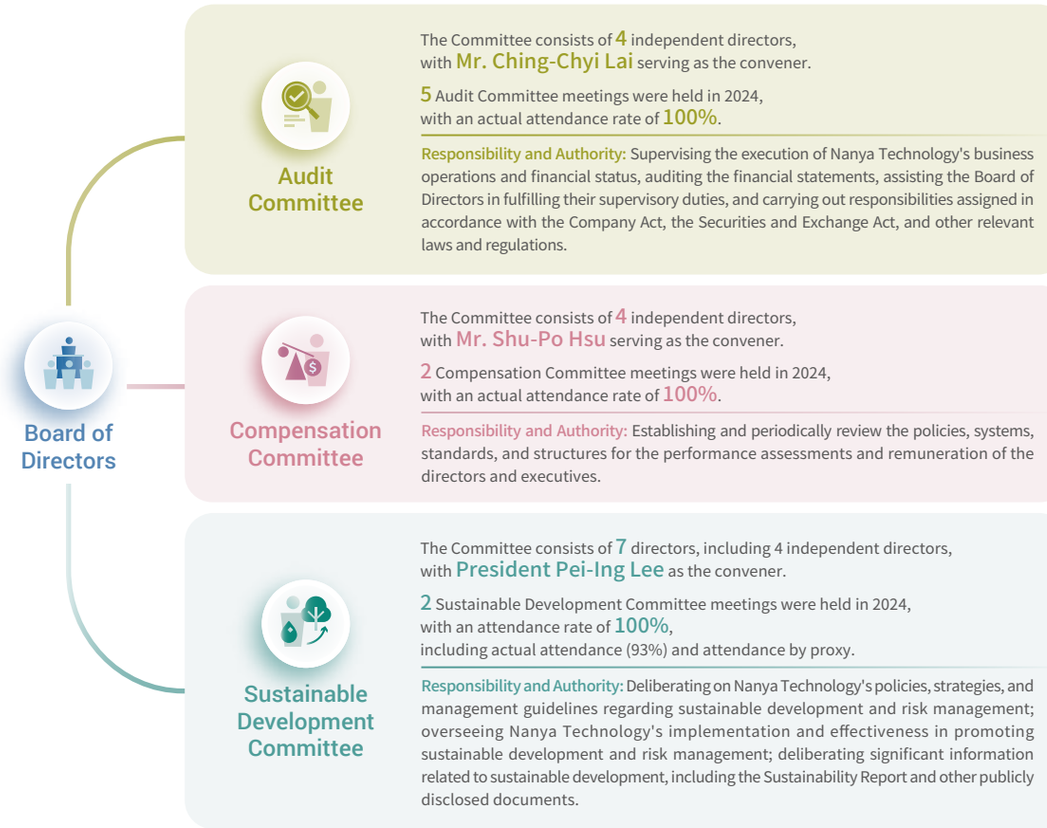
Nanya Technology believes that we can strengthen our operations and ensure the rights of shareholders through sound and efficient corporate governance mechanisms. In 2025, Nanya Technology was ranked in the top 5% of listed companies in the 11th (2024) Corporate Governance Evaluation for the seventh time, affirming the Company's continued commitment to corporate governance.



1. Operations of Board of Directors and Functional Committees

The operations of Nanya Technology's Board of Directors are carried out in accordance with applicable regulations and resolutions of shareholders' meeting. The Board members possess professional knowledge, skills, and literacy required for performing their duties. They shall adhere to the principle of sustainable management in order to maximize value for shareholders. The Board of Directors' primary responsibilities include ensuring the transparency of the Company's information, compliance with laws and regulations, appointment of the Chief Executive Officer, formulation of profit distribution proposals, and supervision and guidance of company operations. Nanya Technology has established its Articles of Incorporation as the basis for corporate governance and operations. In accordance with the Company Act, any changes to the Articles must be approved by a shareholders' resolution before taking effect in order to protect shareholders' rights. Following the provisions in the Articles of Incorporation, Nanya Technology has purchased liability insurance for board members to cover legal compensation responsibilities arising from the performance of their duties, allowing board members to focus on fulfilling their responsibilities. To establish a sound board governance system, strengthen supervision functions, and enhance management capabilities, Nanya Technology has formulated the Rules of Meetings of the Board of Directors, which outlines provisions for the conduct of Board meetings. In addition, the Company's Corporate Governance Principles stipulate that directors should maintain an annual Board meeting attendance rate of at least 80%, which is also included in the board performance evaluation. A total of 6 Board meetings were held in 2024, with directors achieving an actual attendance rate of 100%.

To enhance supervisory functions and strengthen management mechanisms for the Board of Directors, Nanya Technology has established the Audit Committee, Compensation Committee, and Sustainable Development Committee under the Board of Directors. Each functional committee is accountable to the Board and submits relevant proposals to the Board for resolution.

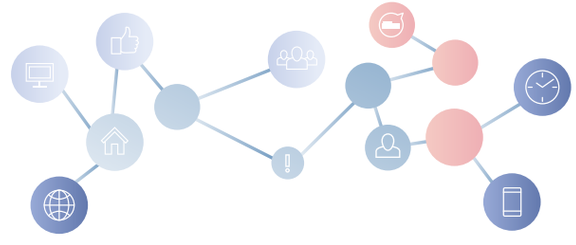


Management of Conflicts of Interest

Nanya Technology has incorporated provisions for avoiding conflicts of interest into the Rules of Meetings of the Board of Directors, as well as the charters of the Audit Committee, Compensation Committee, and Sustainable Development Committee, and within our Ethical Corporate Management Principles. Directors, managers, and stakeholders attending or participating in Board or committee meetings must disclose the material details of any interests they or the legal entities they represent may have in order to prevent a conflict of interest arise with any agenda item. If such a conflict poses a risk of harming the Company's interests, they shall refrain from participating in discussions or voting on the matter and must recuse themselves accordingly. They are also prohibited from voting on behalf of other directors, thereby safeguarding the independence of the Board of Directors' oversight. Furthermore, Nanya Technology has established a Code of Ethics for Directors and Managers, requiring relevant personnel to uphold ethical standards in the performance of their duties and to avoid personal interests or potential conflicts that could compromise the Company's overall interests, thereby preventing actions that may harm the interests of the Company or its shareholders. For information about directors' concurrent positions, cross-shareholdings between the Company and other stakeholders, as well as details about major shareholders and related parties, please refer to the "B. Corporate Governance Report" and "C. Capital and Shares - List of Major Shareholders" sections of our 2024 Annual Report and the information on "Related Party Transactions" notes in the consolidated financial statements.

Nomination and Election of Directors

Nanya Technology has established fair, just, and transparent Rules for the Election of Directors and encourages shareholders to participate in the nominations and elections of directors. Key considerations for director selection should include not only professional expertise, background experience, diversity, and independence, but also the ability to monitor the Company's ESG-related material topics. Besides the Board of Directors, shareholders who hold more than 1% of Nanya Technology's total issued shares may submit a list of director candidates to us. The Board will check the independence qualifications of independent director candidates before including them in the candidate list. In addition, Nanya Technology's Articles of Incorporation stipulates that the Board of Directors shall consist of 9 to 12 members, including at least 3 independent directors, with a 3-year term. Nanya Technology has also established regulations for evaluating the performance of the Board of Directors and conducts regular annual evaluations. The evaluation results serve as a reference for the nomination and re-election of directors.



Board Diversity

Nanya Technology's Corporate Governance Principles stipulate that the composition of the Board of Directors shall reflect diversity, with no restrictions based on gender, race, or nationality. The current Board of Directors consists of 12 members from diverse professional backgrounds, including 4 independent directors and 1 female director, accounting for 33% and 8% respectively. Among the independent directors, one holds a Certified Public Accountant license, and no independent director concurrently serves as an independent director of more than 3 other public companies. There are 8 directors who are not employees of Nanya Technology, accounting for 67%, and the Chairman also does not serve as a Nanya Technology executive, with clear division of duties. As of the end of June 2025, 1 director is aged 51-60, 5 directors are aged 61-70, and the remaining directors are aged over 70. In addition, the average term of service of the directors is 10.5 years. The academic and professional backgrounds of the Board members are aligned with the Company's material ESG topics, encompassing R&D innovation, risk management, climate strategy, and green product development. Relevant information about the directors can be found in the "B. Corporate Governance Report" section in our 2024 Annual Report.

Board Diversity Implementation

Continuous Learning for Board Members

To enhance the competencies of the directors, Nanya Technology arranges at least 6 hours of training courses for the directors every year. In 2024, the directors received a total of 96 hours of training courses, with an average of 8 hours per director. The courses cover a diverse range of subjects including economics, corporate governance, risk management, ESG sustainable governance, climate change, sustainable finance, green finance, nature-related financial disclosures, insider trading prevention, AI-related topics, and legal regulations. For details on training courses provided to directors, please refer to pages 52~54 of our 2024 Annual Report.

In addition to diverse professional backgrounds, our directors have experience as senior executives, government officials, or public representatives, equipping them with a wide range of abilities required to perform their duties as directors. In 2025, Nanya Technology will continue to arrange training courses for directors on sustainable development, corporate governance, and risk management, aligning with emerging trends in sustainability issues and corporate governance to enhance the overall competencies of the Board.

Performance Evaluation of the Board of Directors

To implement corporate governance, enhance the Board of Directors' functions, and improve operational efficiency through performance goals, Nanya Technology has established the Performance Evaluation of the Board of Directors, incorporating corporate sustainability indicators such as *legal compliance*, *corporate governance*, *risk management*, and *sustainable development* into the self-evaluation criteria. The Board of Directors and functional committees undergo performance evaluations annually. The relevant data thereof can be used as a reference for director remuneration and nomination for re-appointment. In 2024, performance evaluations were conducted for the overall Board of Directors, individual directors, as well as the Audit, Compensation, and Sustainable Development Committees. According to the evaluation results, all were rated as *excellent*. The results were reported to the Board of Directors on December 18, 2024. For the implementation of performance evaluations in 2024, please refer to pages 25~26 of our 2024 Annual Report.

2. Remuneration of Directors and Senior Executives

Nanya Technology's independent directors receive a fixed monthly remuneration, as well as transportation allowances based on attendance at Board meetings or functional committees; they do not receive any variable remuneration. Other directors only receive transportation allowances based on attendance and are not granted any additional remuneration. No director receives director's remuneration.

The remuneration of Nanya Technology's managers comprises monthly salaries and various bonus schemes, pension plans, and evaluation systems. All components are approved by the Compensation Committee and subsequently submitted to the Board of Directors for resolution prior to implementation. Members of the Compensation Committee are all independent directors and provide external remuneration recommendations. The committee members meet at least twice a year to ensure the reasonableness and competitiveness of remuneration.

Salary adjustments, bonuses, and other remuneration for senior executives at Nanya Technology are determined based on the Company's operational performance as well as personal contributions and achievements. Consideration is also given to economic, environmental, and social impacts, along with other corporate governance indicators aligned with sustainable development. The Human Resources Department drafts recommendations based on industry salary benchmarks, which are reported to and reviewed by the Compensation Committee before being submitted to the Board of Directors for resolution and implementation. Remunerations of the President and Vice President are determined in accordance with Company policy. Fixed remuneration consists of monthly salary, diligence incentives, year-end bonuses, monthly pension contributions (under both the new and old pension systems) in line with Nanya Technology's Retirement Policy, and employee welfare funds. Variable remuneration includes special incentives, performance-based bonuses, and employee bonuses granted on special occasions, aligned with the Company's retention measures and business performance.

Taiwan

In 2024, the highest-paid employee at Nanya Technology received approximately **11.83** times the median total compensation of all other employees.

In 2024, the increase in total compensation of the highest-paid employee was **3.16** times greater than the increase in the median total compensation of all other employees, compared to 2023.

In Addition to Annual Performance Assessments, Senior Managers Undergo 360-Degree and Sustainable Development Evaluations Across the Following Aspects:

- Economic Performance
- Comprehensive Customer Service
- Ethical Management
- Sustainable Supplier Management
- Sustainable Management Mechanism
- R&D and Innovation
- Occupational Health and Safety
- GHG Management and Energy Management Under Climate Change
- Resource Recycling
- Environmentally Friendly Products
- Employee Growth and Career Development
- Talent Retention and Employee Care
- Risk Management

Shares Held by Senior Executives

March 31, 2025

Title	Name	Shares	Title	Name	Shares
President	Pei-Ing Lee	1,265,098	Assistant Vice President	Mark Mao	0
Executive Vice President	Lin-Chin Su	480,601	Assistant Vice President	Jeff Lin	250,027
Vice President	Joseph Wu	250,000	Assistant Vice President	Rex Chen	26,000
Vice President	Rex Chuang	450,000	Assistant Vice President	Chuan-Jen Chang	163,048
Vice President	Yau-Ming Chen	0	Assistant Vice President	Wooder Yang	0

8.2 Risk Management

To strengthen functions of the Board of Directors and its risk management mechanisms, Nanya Technology has established a Sustainable Development Committee under the Board of Directors to oversee risk management operations, environmental protection, social responsibility, corporate governance and other actions to help Nanya Technology achieve sustainable operation goals. Per the Sustainable Development Committee Charter, the committee requires at least 3 members, with more than half being independent directors. Currently, the committee consists of 4 independent directors and 3 directors, all 7 possessing expertise in crisis handling and risk management across various areas.

Nanya Technology has established its Risk Management Regulations approved by the Board of Directors. The risk management policies aim to effectively identify, analytically evaluate, actively manage, and continuously monitor various risks, while raising risk awareness among all employees. The goal is to raise risk awareness among all employees, maintain risks within acceptable levels, and ensure that risk management is comprehensive, effective, and optimized for maximum benefit.

1. Missions and Commitments

Risk Management Missions

We establish and maintain an effective risk management system, continuously improving it to reduce operating costs, ensure stable profitability, create a quality work environment, and achieve the goal of sustainable business operations.

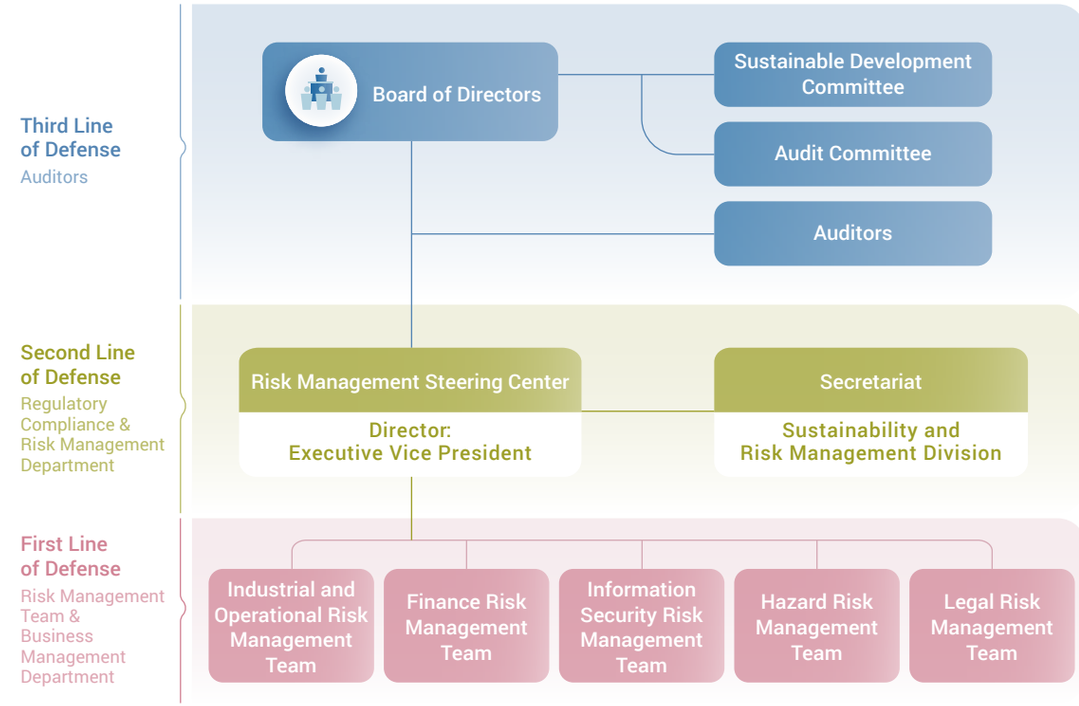
Risk Management Commitments

- All employees shall adhere to their commitments and managers in particular should lead by example and fulfill their supervisory responsibilities.
- We shall ensure that all employees receive adequate training and have the skills for performing various risk management tasks to ensure the Company's normal operations.
- We shall provide necessary resources to maintain the effective operations of risk management mechanisms and continue to implement improvement measures to reduce risks.
- We shall strengthen communication with stakeholders, raise risk awareness among all employees, and thoroughly implement our risk management policy.

2. Organization and Operations

The Board of Directors serves as the highest decision-making and supervisory body for risk management, responsible for establishing Nanya Technology's risk management policies and related regulations. It oversees the implementation and effective operation of the risk management system. The Sustainable Development Committee reviews the Company's risk management policies, strategies, and management approaches, and supervises the execution of risk management initiatives and implementation plans to ensure the achievement of risk management objectives. The Sustainable Development Committee meets at least twice a year and reports the operations of risk management measures or major risk items to the Board of Directors in a timely manner.

In order to ensure smooth and effective risk management operations, Nanya Technology has established a three-line defense mechanism as shown in the organizational chart below.



Nanya Technology established the Risk Management Steering Center in accordance with its Risk Management Regulations. Led by the Executive Vice President as Director and composed of department heads from across the Company, the Center promotes and oversees the implementation progress and overall risk control efforts of all risk management teams. The Risk Management Steering Center convenes quarterly meetings to review the performance of each risk management team and evaluate their business continuity plans, ensuring they are appropriate, relevant, and effectively implemented. Moreover, to align with the Company's operational strategies, the Center has established five risk management teams: industrial and operational, finance, information security, hazard, and legal. Each risk management team is composed of dedicated personnel appointed by various business management departments. Besides assisting these departments with gathering information on risks from both internal and external environments and performing daily risk monitoring, each risk management team also tracks and assesses the risk level of various risk factors, implements improvement measures, and reports the implementation results of risk management measures to the Center.

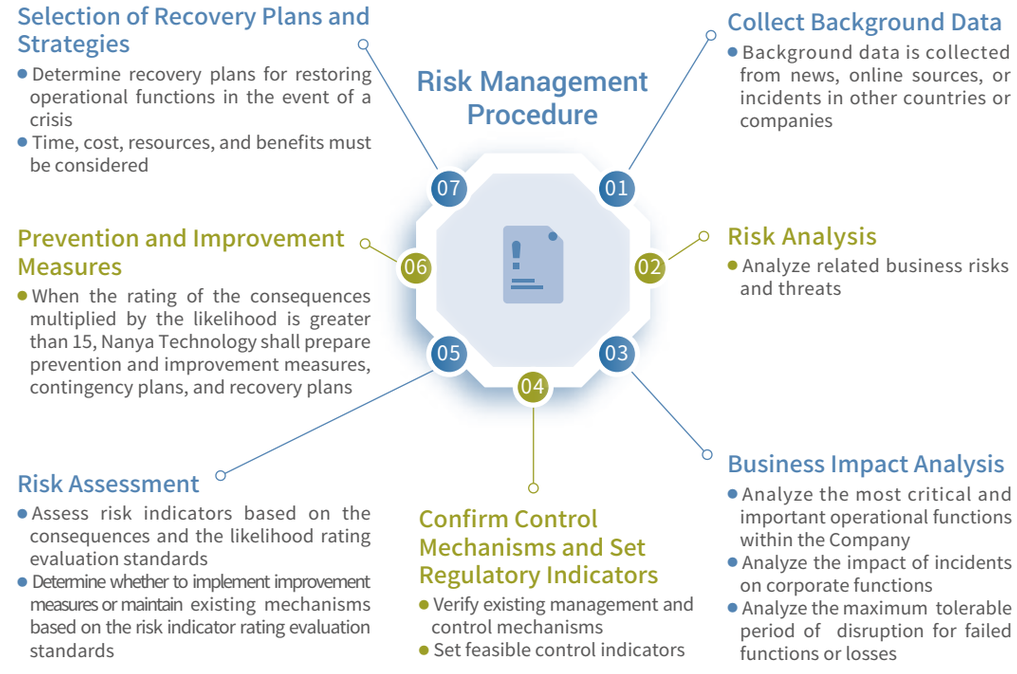
Nanya Technology established the Sustainability and Risk Management Division, a dedicated risk management organization, to implement risk management and operations. The Division's main task is to assist the Risk Management Steering Center in formulating management approaches, planning and implementing relevant activities, and supervising the operations of each risk management team to ensure proper risk control.

The Auditors annually check the status of risk management policy implementation and high-risk items, providing improvement suggestions when needed and following up on improvement results. They regularly report audit findings and the progress of improvement measures to the Audit Committee, effectively managing both existing or potential company risks. To verify the proper implementation of Nanya Technology's risk management system, the Company commissions a third party to conduct external audits every two years. The verification was commissioned to AFNOR, an international certification company for the French standardization, and was completed in May 2025, resulting in the issuance of a valid statement of alignment with the guidelines and principles of ISO 31000.

Responsibilities of the Risk Management Steering Center

3. Risk Management System

Nanya Technology's risk management system identifies and analyzes the risks that the Company faces. It sets appropriate risk appetite and control procedures, and monitors all risks and compliance with risk appetite limits. Through the risk management system, Nanya Technology identifies potential risks and opportunities, effectively managing them to ensure smooth business operations. This approach helps create value for shareholders, employees, customers, and the society, contributing to Nanya Technology's achievement of sustainable development goals.



Nanya Technology integrates its long-term business strategic goals with Enterprise Risk Management (ERM), incorporating the mechanisms and rationale of the ISO 31000 guidelines, to establish its risk management policies and procedures as guiding principles. Each year, Nanya Technology reviews risk items that have external impacts, are newly identified or increasingly significant, may pose long-term potential impacts, or exhibit notable and tangible characteristics. Nanya Technology lists these risk items as emerging risks for the next 3-5 years and continuously tracks them. Through long-term planning and promotion, the Company builds risk awareness among all employees, embedding it into each department's daily operations to ensure the Company's normal operations.

4. Risk Appetite and Management Principles for Major Risk Categories

When analyzing risk ratings, various business management departments evaluate the characteristics and impact levels of identified risk factors, determine appropriate quantitative or qualitative measurement indicators, assess risk levels, and define risk appetite and tolerance limits. Based on the above requirements, the Sustainability and Risk Management Division consolidates relevant information and reports it to the Risk Management Steering Center for resolution. The approved decisions then serve as the foundation for daily risk control and management. The Risk Management Steering Center reviews risks and implements relevant measures on this basis to ensure that various business strategies comply with the principles for managing risk appetite.

Determine Risk Appetite

- **Risk Management Steering Center**: Determine company-level risk appetite and tolerance
- **Business Management Departments**: Determine risk appetite and tolerance

Risk Control and Management

- **Risk Management Steering Center**: Supervise risk management activities to ensure compliance with risk appetite
- **Business Management Departments**: Manage and respond to risks based on risk appetite

Risk appetite and corresponding management principles

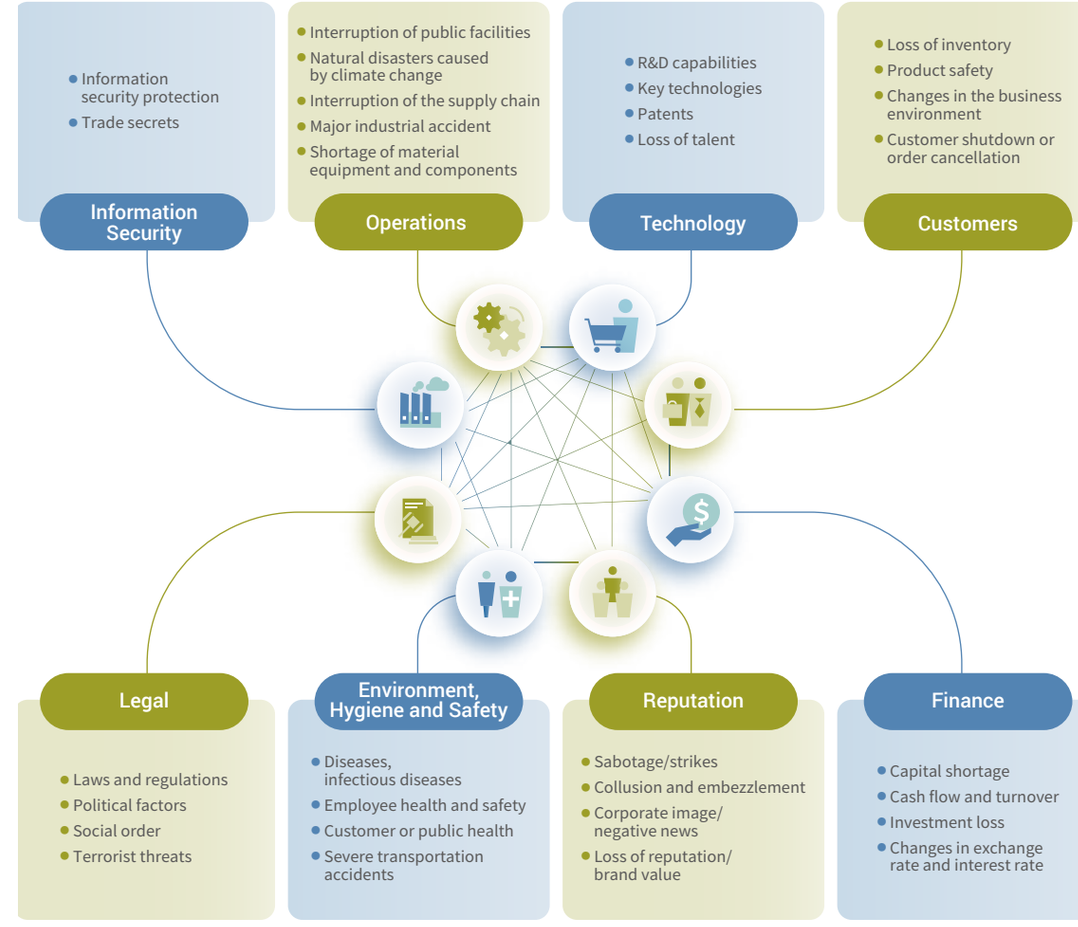
High **Risk Appetite**	I L M
A disciplined risk-taking approach tends to be adopted to maximize possible benefits.	
Medium **Risk Appetite**	A C E G H J K O Q S T
The balance between positive benefits and negative costs needs to be constantly evaluated when making decisions.	
Low **Risk Appetite**	B D F N P R
Risks that require active avoidance or related actions to minimize or eliminate the likelihood of occurrence.	

Risk appetites for 20 major risk categories

A. Damage of Material Facilities, Equipment, and Components
B. Interruption of Public Facilities
C. Natural Disasters and Severe Weather
D. Disruption of Supply Chain Systems
E. Severe Transportation Accidents
F. Major Industrial Accidents
G. Interruption of Communications
H. IT System Losses
I. Loss of Inventory and Stocks
J. R&D Capabilities
K. Resource Shortage
L. Customer Shutdown or Order Cancellation
M. Finance
N. Personnel Losses
O. Sabotage, Strikes, Thefts, and Smuggling
P. Collusion and Embezzlemen
Q. Diseases and Infectious Diseases
R. Violation of Laws and Regulations
S. Information Security
T. Loss of Corporate Image, Reputation, and Brand Value

5. Relevance of Risk Factors

In accordance with Nanya Technology's risk management system, we identify potential risks, threats, and operational impact factors from both internal and external environments across areas such as company operations, technology, customers, finance, reputation, environment, hygiene, and safety, legal issues, and information security. We conduct an analysis to identify the risk factors with the highest correlation. Through quarterly meetings, we regularly review related prevention and improvement measures, enhancing our standard operating procedures. Additionally, we regularly conduct emergency response drills to ensure effective risk control and minimize potential damage.



6. Emergency Response Mechanisms and Measures

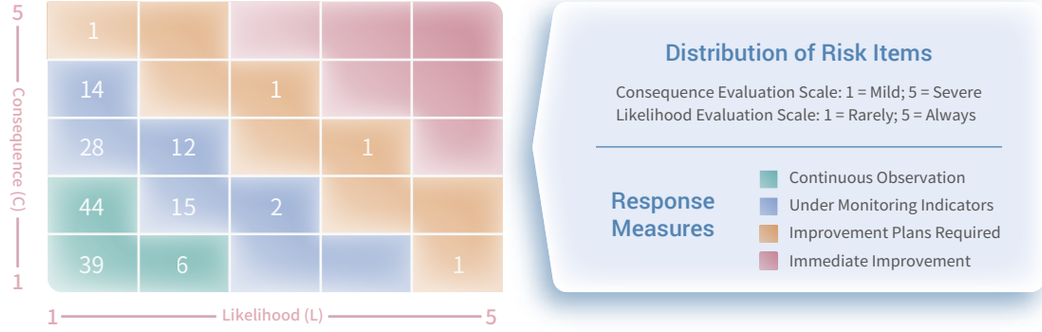
Nanya Technology adheres to the principles, framework, and mindset of ISO 22301, implementing them into our emergency response mechanisms and measures. We also comply with ISO 9001, ISO 14001, ISO 50001, ISO 27001, and ISO 45001, with all certifications successfully completed. To reduce risks and hazards from emergencies, Nanya Technology has established complete operating standards and methods for handling emergent non-conforming incidents. These cover manufacturing, supply chain and storage, information security, human resources, and other areas. This approach allows us to immediately take response measures when emergencies occur, reduce impacts, and quickly recover to ensure normal operations that meet customer demands. For example, Nany Technology has established specific handling steps and improvement measures for raw material shortages, events affecting more than 10% of production (such as earthquakes, typhoons, gas leaks, fires, labor shortages), utility system failures, automation system malfunctions, issues with subcontractor capacity, and significant post-sale product returns from customers.

Additionally, for emergency response to personnel safety incidents such as fires, gas leaks, liquid spills, unusual odors, earthquakes, and radiation leaks, all response measures, reporting procedures, command systems, and handling processes comply with relevant environment, hygiene and safety regulations. Nanya Technology conducts at least one factory-wide emergency evacuation drill and two fire drills each year to ensure the effectiveness of its emergency response measures.

7. Risk Identification and Stress Testing

Risk Identification Results

Each year, Nanya Technology identifies risk items proposed by the Risk Management Steering Center and takes appropriate measures based on risk levels. In 2024, a total of 164 risk items were proposed. The risk profile and distribution of items after identification are shown below. According to the statistics, there were 0 items requiring immediate improvement, 4 items needing improvement plans, 71 items requiring monitoring indicators, and 89 items needing continuous observation.



Risk Response Measures

After risk identification, 1 operational item and 3 information security items were found to require improvement plans. As for the 1 operational risk, system optimization is required in response to regulatory changes to ensure compliance with the regulations. The 3 information security risks include potential cyberattacks or damage to FAB machines, artificial Intelligence (AI)-driven cyberattacks, and Business Email Compromise (BEC). Each risk management team has already developed and is continuously implementing corresponding response measures, along with establishing appropriate handling mechanisms.

Risk Item

In response to regulatory changes, system optimization is required to ensure compliance with the regulations

Factors for Assessment ● Likelihood ● Consequence ● Geographical location

Risk Description

The Air Pollution Control and Emissions Standards for the Semiconductor Industry were tightened on May 4, 2023. Existing processes must ensure that VOCs concentrations ≤14ppm and acidic pollutants ≤0.5ppm for each exhaust pipe. External testing shows some current levels exceed or are approaching these limits.

Mitigation Measures

- Improvement plans have already been evaluated and submitted to the Environmental Protection Department as required. Currently there are no concerns about penalties affecting production.
- To address potential risks of future emissions exceeding regulatory limits, we have planned facility improvements including CDO inorganic acid enhancement for acid exhaust, VOCs enhancement for acid exhaust, and the installation of continuous VOCs monitoring equipment on acid/alkaline exhaust pipes. These improvements are scheduled for completion by December 2025 to meet regulatory standards.

Potential cyberattacks or damage to FAB machines

Factors for Assessment ● Likelihood ● Consequence ● Business relevance

Risk Description

With Industry 4.0 and smart manufacturing advancement, semiconductor fabrication (FAB) machines increasingly rely on network connections for remote monitoring and automated production, making machines potential targets for attacks. Potential risks include:

- Ransomware Attacks: Attackers can infiltrate machine management systems (like SCADA and MES), potentially encrypting critical production data and halting production.
- Remote Equipment Control Breaches: Hackers could exploit network vulnerabilities or weak passwords to control machines, causing abnormal operation or malicious parameter changes that affect product quality and production safety.

Mitigation Measures

To mitigate potential attacks on FAB machines, the Company has established a robust security posture by cataloging assets and network topology, implementing vulnerability management, and continuously building monitoring and response mechanisms across all facilities.

Risk Item

AI-Driven Cyberattacks

Factors for Assessment ● Likelihood ● Consequence ● Business relevance

Risk Description

As AI technology advances, hackers are using AI to automate attacks, increasing precision and scale of attacks with risks including:

- AI-Enhanced Phishing: AI can analyze corporate social networks and historical email content to automatically generate highly convincing fraudulent emails, increasing the likelihood victims will click malicious links or download attachments.
- AI-Driven Penetration Testing and Automated Attacks: Hackers can use AI to automatically scan corporate network vulnerabilities and intelligently adjust attack strategies, improving success rates and reducing company response time.
- Adversarial AI Attacks: Using AI technology to deceive corporate defense mechanisms, such as misleading intrusion detection systems (IDS/IPS) or AI defense models, making malicious behavior difficult to detect.

Mitigation Measures

To counter AI-driven cyberattacks, the Company employs multi-layered defense mechanisms (such as firewalls, intrusion detection, endpoint security), ensures regular system and software updates, and has implemented AI threat detection and incident response to reduce information security risks.

Business Email Compromise (BEC)

Factors for Assessment ● Likelihood ● Consequence ● Business relevance

Risk Description

Business Email Compromise (BEC) attacks typically use social engineering and phishing to infiltrate corporate email accounts, resulting in financial losses or sensitive information leaks. Common risks include:

- Whaling Attack: Attackers impersonate senior executives, requesting finance staff or partners to execute urgent money transfers, causing financial losses.
- Supply Chain Fraud: Hackers infiltrate supplier or partner email systems to send fake invoices or change payment account details, leading companies to make payments to hackers' accounts.
- Credential Leaks and Account Takeovers (ATO): Attackers use leaked account passwords to log into corporate email systems, impersonating internal employees or external partners for fraud or intelligence theft.

Mitigation Measures

- To prevent BEC attacks, Nanya Technology continuously strengthens employee information security education to raise awareness and enhances email protection systems to reduce the impact of malicious emails on the Company.
- Deploying AI technology to detect abnormal email behavior for early detection of BEC attacks.

2024 Major Response Measures Taken by Various Risk Management Team

Risk Category	Major Response Measures
Operational Risk	● Supply Chain: Trump 2.0 US-China trade war, Russia-Ukraine war, Israel-Palestine conflict and other geopolitical risks could cause supply chain disruption. Nanya Technology promptly investigated suppliers and materials in affected regions, identified alternative suppliers for potentially risky items, and increased safety stock levels accordingly. ● Electricity: Nanya Technology conducts annual emergency response drills simulating different power restriction scenarios and continues to track the power development plans and stability measures of the government and Taiwan Power Company (Taipower) to assess risks and respond promptly. Following the lightning strike on August 13, 2024, which caused abnormalities in Taipower's power supply, Nanya Technology actively coordinated with Taipower to install *transmission line lightning arresters* on the Company's 161kV feeder towers. The installation was completed in January 2025.
Information Security Risk	● External Website Information Security Protection: To reduce risks of company website hacking and page tampering, Nanya Technology has implemented stronger access controls, red team assessments, and automated webpage integrity check mechanisms to ensure website security and stability. ● DDoS Attack Prevention: To reduce the risk of website paralysis from DDoS attacks, Nanya Technology has partnered with network providers for traffic cleaning, and strengthened network infrastructure, abnormal detection systems, response mechanisms, and automated defense rules to ensure business continuity.
Financial Risk	DRAM products are primarily sold in USD. Nanya Technology established an offshore subsidiary at the end of 2018 to reduce the impact of exchange rate fluctuations on the parent company's USD position. We will continue to regularly review and manage our USD position through the following methods: ● Converting USD cash to TWD, maintaining minimum USD cash positions; ● Evaluating forward exchange sales to reduce the exchange rate risk of accounts receivable; ● Evaluating increasing USD liabilities to offset accounts receivable exchange rate risk, maintaining reasonable net USD positions to reduce the impact of TWD appreciation/depreciation on profits and losses.

Risk Category	Major Response Measures
Hazard Risk	• Management System Risk Control: Through implementation of Environmental, Safety and Hygiene (ESH) management systems (ISO45001 & ISO14001), the Company continuously identifies potential HSE risks in operations. Low-risk items are monitored through indicators, while medium- and high-risk items are subject to tracking and improvement plans. Incidents are treated as unacceptable risks, requiring related departments to analyze root causes and apply the findings across the organization to facilitate a comprehensive review and prevent recurrence. • Construction Safety Management: Construction projects are high-risk and prone to major occupational accidents. Safety management of Nanya Technology's 5A new FAB expansion project is a key focus of the annual risk management plan. To eliminate or reduce the risk of major occupational accidents during construction, the safety and health department assigns personnel to conduct daily inspections and audits at construction sites, coordinates with related departmental project audits, and strengthens management systems. It also participates in monthly coordination meetings for each expansion site to provide safety management guidance to subcontractors, review identified issues, and require fundamental improvements. • Fire Hazard Detection and Improvement: Following the fire incident at Nan Ya Plastics' Linkou plant on April 7, 2024, the Company conducted a review on fire prevention and firefighting capabilities across existing buildings. While compliant with legal design and regulations, some protection gaps were identified. Automatic firefighting improvements were made to the idle machine storage area on CUB 2F and the SB-2 rooftop solar panel equipment room. Nanya Technology continues to identify areas that require enhanced fire protection measures to reduce fire risks and protect company operations, employee safety, and financial assets.
Legal Risk	• Climate Change Legal Compliance: As climate change regulations are still lacking supplementary laws and implementation rules, Nanya Technology is unable to reasonably assess the future financial impacts. Regarding the carbon fee regulation effective in 2025, emissions exceeding the applicable thresholds will incur a carbon fee, potentially leading to increased operating costs. Nanya Technology has set energy self-resilience as a strategic goal and is further reviewing procurement strategies and carbon reduction targets. The Company is evaluating the transition to low-carbon process equipment to promote low-carbon manufacturing and is planning to enhance energy independence through renewable energy and improved energy efficiency. Current regulatory and policy changes have no significant physical risks to Nanya Technology's business or finances. • Intellectual Property Protection: Nanya Technology has developed IP management strategies, strengthened patent portfolio, and incorporated trade secret protection into new employee training sessions to ensure confidentiality obligations. For information security, the Company has established security management regulations to protect data security and customer privacy rights. We also conduct training programs to enhance employee awareness of protecting Company confidential information and ensuring regulatory compliance, effectively mitigating the risk of information leakage. As of now, no major business risks have been identified. • Antitrust Legal Compliance: Nanya Technology works with international legal experts to regularly collect information on global antitrust regulations and enforcement, and conducts comprehensive antitrust compliance programs for all employees. Currently, only one Brazilian antitrust lawsuit is undergoing settlement, with the terms having no material impact on the Company's operations.

Sensitivity Analysis and Stress Testing

Nanya Technology conducts sensitivity analysis and stress testing every year on critical risk aspects, including financial risks (such as exchange rates) and non-financial risks (such as water resources, power supply, market conditions, operational strategy, construction occupational accidents, production disruptions, legal compliance, and information security).

Our sensitivity analysis and stress testing results are as follows:

Financial Risk	Sensitivity Analysis or Stress Testing
Exchange Rate	• DRAM products are primarily sold in USD. To reduce the impact of exchange rate fluctuations on profits and losses, Nanya Technology established an offshore subsidiary at the end of 2018 to reduce the impact of exchange rates on the parent company's USD position. • Assuming the exchange rate appreciates from 32.78 (end of 2024) to 32.25 (end of 2025) by 0.53, the estimated potential exchange loss would be about NT$140 million. • The exchange loss is a book value loss, not a cash outflow. The currently estimated exchange loss has a minimal impact on Nanya Technology's net worth. We will continue to monitor exchange rate trends and take responsive measures.

Non-Financial Risks	Sensitivity Analysis or Stress Testing
Water Resources	• We reviewed internal and external water supplies and storage systems, and simulated various water restriction scenarios. The Company can draw from backup wells supplying 5,500 CMD, a 43,000-ton reservoir, and 3,600 CMD from the Chang Gung Golf Course well. Under total raw water shutdown, the factory can continue operating normally for 21 days. With the addition of 2,000 CMD from the Taishan Factory's tap water supply, overall supply will be sufficient. • We simulated Phase 1, 2, and 3 water restrictions. None of the scenarios involving raw water supply being "five days on, two days off," "four days on, three days off," "three days on, four days off," and "two days on, five days off" affect production.
Operations	Power Supply: • Power interruptions severely impact the manufacturing in Nanya Technology. Critical production systems and equipment are connected to the on-site DUPS system and emergency generators to avoid effects from sudden power dips or planned power restrictions from Taipower. • After we examine internal and external power supply systems, simulations show that when Taipower reduces supply by 5%, 10%, 15%, or 20% of contracted capacity, our factories can maintain normal production with support from on-site emergency generators and DUPS. However, a complete external power outage would cause production losses. Based on the revenue of NT$34.1 billion in 2024, the impact would be approximately NT$2.8 billion per month in operating losses.

Non-Financial Risks	Sensitivity Analysis or Stress Testing
Market	Average Price and Sales Volume: ● Nanya Technology regularly analyzes the sensitivity of sales volume and selling price to ensure business targets are achievable and to develop response strategies and plans. ● The 2025 analysis shows the following findings: 1. Prices are expected to increase by 1% compared to 2024, with EPS variations projected to range from -7% to +24% on an annual basis 2. Sales volume is expected to increase by 41% compared to 2024, with EPS variations projected to range from +28% to +53% on an annual basis
Operational Strategy	Profit and Loss Forecast Sensitivity: ● When formulating sales and production strategies, profit and loss sensitivity analysis is conducted. This analysis shows the profit and loss impact for each defined sales and production portfolio under target pricing, with variations of 90%, 110%, and 120% of selling price. These insights support the selection of the most advantageous sales and production strategy.
Occupational Accidents During Expansion	● Risk assessment stress testing was conducted for an assumed fatal occupational accident involving a construction subcontractor at the 5A FAB expansion site. ● Assessment Results: 1. If an occupational accident results in the death of one construction subcontractor, it may lead to partial work suspension at the site and compensation costs estimated between NT$4 million and NT$20 million. The impact on construction progress and operations is expected to be limited. 2. In the event of a large-scale labor safety incident at the site, such as the collapse of large-area formwork concrete resulting in multiple casualties, a full suspension of work for approximately 2 months may be required to implement improvements, leading to an estimated production capacity loss of around NT$1.7 billion. 3. Other negative impacts on the Company's operations, including potential harm to corporate image, may arise. ● Risk Control Approaches: 1. To mitigate impacts related to labor inspections, Formosa Plastics Group, victims, and corporate image, risks can be transferred by outsourcing construction management to a general subcontractor designated as the accountable party for labor safety. 2. To address potential impacts from production capacity loss, labor safety management and supervision at construction sites should be reinforced to prevent occupational accidents and minimize associated risks.

Non-Financial Risks	Sensitivity Analysis or Stress Testing
Production Disruption	Environmental Anomalies: ● Risk assessment stress testing for an assumed insufficient water production capacity in the hydrogen fluoride/organic wastewater MBR membrane system in 3rd FAB. ● Assessment Results: 1. If MBR membrane blockage reduces water flow and results in insufficient processing capacity, it may lead to wastewater tank overflow, causing environmental abnormalities or even production shutdowns. 2. If the blockage is severe and requires process reduction/suspension of wastewater discharge, production may face significant disruptions. The replacement of related hardware and restoration could take 2 months, resulting in an estimated production loss of NT$7.08 billion. 3. If environmental anomalies occur and are reported by the media, it may lead to negative impacts, such as damage to corporate image and reduced orders. ● Risk Control Approaches: 1. Strengthening equipment warranty: During the purchase of new MBR membranes, warranty terms and conditions must be included to guarantee processing efficiency and reduce the risk of anomalies. 2. Conducting regular system equipment maintenance checks and controlling the quality and volume of source water. 3. Strengthening liquid level control and source water volume adjustment to reduce the risk of tank overflow. Additionally, the Company must ensure that the special flow direction of backup discharge pipes complies with regulations and that pipeline equipment functions properly.
Legal Compliance	Adherence to US Antitrust Regulations: ● Conducting risk assessment stress testing for potential violations of US antitrust regulations. ● Assessment Results: 1. If the profit from sales of server memory modules to the US region is US$2.55 million, assuming victims determine their damage based on our actual profit. 2. For criminal fines, the Company could be fined up to US$100 million; for civil compensation, damages could be tripled based on actual profits as punitive damages, amounting to approximately US$7.65 million. The total financial impact would be approximately NT$3.5 billion. 3. Other negative impacts with varying degrees of severity, including potential harm to the corporate image and stock price, may arise. ● Risk Control Approaches: 1. For impacts related to investigation cooperation, litigation costs, corporate image and finances: The Company evaluates all available internal evidence to determine whether pursuing a quick settlement would offer a more advantageous negotiating position and ultimately result in more favorable terms. The primary objectives of this evaluation are to strategically seek an early exit from ongoing litigation or to significantly reduce potential liability, all while diligently controlling litigation costs to effectively mitigate associated financial and operational risks. 2. For impacts related to executives and employees violating the law: Legal compliance trainings are provided to employees/high-risk personnel and regular internal audits are conducted to ensure the effective implementation of the compliance program. Directors and supervisors liability insurance will also be secured to transfer associated risks.

Non-Financial Risks	Sensitivity Analysis or Stress Testing
Information Security	Business Email Compromise: ● Assessment Results: 1. If personnel fall victim to BEC fraud and make related payments, single payments could exceed NT$10 million and reach up to NT$100 million, causing significant impact. 2. If personal identification information is stolen, it may lead to identity theft, while confidential information, such as intellectual property rights and trade secrets, may be inadvertently exposed, resulting in potential legal litigation risks. ● Risk Control Approaches: 1. Working with legal and information security teams to establish clear BEC prevention policies, continuously monitoring the latest cybersecurity trends, and adjusting protection strategies as needed. 2. Strengthening BEC protection education and training for high-risk unit managers and employees, improving employees' ability to identify suspicious emails, and conducting regular simulated BEC attack drills to test employee responses and the effectiveness of existing protective measures. 3. These measures effectively mitigate the risks of BEC attacks, ensuring the protection of corporate financial assets and trade secrets, as well as maintaining our reputation.

8. Emerging Risks

Nanya Technology constantly monitors trends in the economic environment, identifies long-term risks and opportunities, and adjusts business strategies to achieve sustainable operational goals and long-term performance. Various risk management teams and managers at all levels collect relevant information from home and abroad to assess potential risk items for the Company's long-term operations. Through questionnaires or ratings conducted during executive meetings, emerging risk topics with the highest potential impact are identified. These discussions help review impact mitigation strategies and develop response plans, serving as crucial references for future business strategies.

Emerging Risk Assessment Process

In 2024, emerging risk events were collected from various department heads, and four major risks were identified by executives. Nanya Technology has developed response strategies and continues to refine them to mitigate related impacts.

Emerging Risk I

Hackers using AI technology may increase cybersecurity risks, impacting corporate operations

Technology

Risk Description

- With the popularity of AI technology, hackers' attacks are faster and more intelligent, increasing the possibility of hacker attacks on Nanya Technology.
- Hackers may use AI technology to target company systems and supply chains, launching automated attacks precisely through the internet. If not discovered and addressed early, it will lead to serious hacking incidents.
- Risks such as system service interruptions and trade secret leaks caused by hacker attacks and intrusions will impact the Company's operations and competitiveness.

Impact

- If information security defense mechanisms cannot promptly respond to AI automated attacks, defenses may fail, allowing hackers to invade the company network, obtain sensitive data, and implement encryption ransomware or cause system paralysis, resulting in operational losses.
- If hackers use AI-generated social engineering attacks, it may increase the risk of employees being deceived, thereby invading the company network and affecting operations.
- If hackers use AI tools to automatically analyze supply chain security and infiltrate through weaker links, it may disrupt supply chain operations.

Mitigation Measures

- Combination of AI information security technology to enhance detection and defense capabilities against hackers' AI automated attacks, and to ensure the effectiveness of security protection mechanisms against such emerging attacks.
- Ongoing implementation of vulnerability patching procedures for information security protection systems to ensure timely updates and avoid exploitation by hackers.
- Enhancing employee information security education, deepening the ability to identify AI-generated fraud methods, and deploying advanced mail filtering technology to reduce the impact of social engineering on businesses.
- Boosting supply chain security to ensure partners have appropriate information security measures and avoid being used as an attack springboard.
- Using red team assessments to simulate hacker attack methods, verifying the integrity and effectiveness of information security protection systems, and assessing the Company's response and handling capabilities for security incidents.

Emerging Risk II

Chinese memory manufacturers' significant expansion and Chinese government subsidy policies impact Nanya Technology's business development

Economic

Risk Description

- To break through high-tech chip technology bans imposed by the US and European countries on China, the Chinese government is eager to accelerate the improvement of semiconductor enterprise technology and independent manufacturing capabilities. It supports local semiconductor manufacturers to improve their technical level and provides policy subsidies, which has a significant impact on market competition.
- According to reports, China's DRAM giant ChangXin Memory Technologies (CXMT) may receive direct or indirect subsidies from the Chinese government, making its costs competitive. Its sales have increased significantly in recent years, with capacity expected to reach 300K pcs by the end of 2025, which may impact our development in Mainland China.
- CXMT began mass production of DDR5 in December 2024. Since its products overlap with ours, the sales strategy for expanding the Chinese market will be more challenging.

Impact

- The Chinese government's subsidies and incentive policies reduce cost pressure for CXMT, intensifying competition and affecting Nanya Technology's sales share and profit margins in the Chinese market.
- Subsidy measures from China's National Big Fund* are equivalent to national intervention in business operations, creating unfair competition in terms of customers, finance, taxes, and human resources. (*Big Fund: China Integrated Circuit Industry Investment Fund)
- CXMT's expansion increases the supply of DDR4 and DDR5, directly affecting memory price trends and impacting our profitability.
- Chinese memory manufacturers are investing significant resources to accelerate technology advancements, threatening the competitiveness of our products.

Mitigation Measures

- Adopting differentiation strategies in the Chinese market, such as product differentiation and application market differentiation, to create advantages.
- Consolidating market demand that CXMT cannot supply (such as LPDDR3) and actively developing customized products.
- Focusing on securing export market demands from Chinese customers.
- Actively seeking non-Chinese market sales capabilities, increasing sales channels in European, Indian, and Southeast Asian markets to reduce dependence on the Chinese market and avoid regional risks.
- Negotiating long-term supply contracts with key customers to maintain stable sales channels.
- Continuing to develop new technologies and new products to enhance our technological and cost competitiveness, thereby strengthening customer confidence in Nanya Technology.

Emerging Risk III

Semiconductor industry's competition for talent and the impact of low birth rates may lead to a shortage of key talent in the future

Societal

Risk Description

- Due to factors such as geopolitical influences and AI-stimulated demand, the semiconductor industry has become a highly valued critical industry worldwide in recent years. Taiwan and major countries around the world are committed to expanding fabs, leading to intense global talent competition. Along with Taiwan's booming technology industry, post-pandemic service industry prosperity, and intensifying low birth rates, the supply of talent cannot meet demand, impacting the overall industry's competitiveness.

Impact

- Semiconductor-related technical talent is scarce and difficult to cultivate. Insufficient recruitment or loss of existing talent will seriously affect the Company's product and process technology research, development, and improvement, thereby impacting the Company's medium- and long-term competitiveness.
- Nanya Technology's new fab is under construction, and a large number of recruitments are expected within five years. If staffing is insufficient, it will impact on the mass production schedule of our new fab, thereby limiting operational growth.

Mitigation Measures

- Establishing a key talent pool and implement various key talent development and retention measures.
- Expanding the scope of industry-academia collaboration to include the high school level and establish long-term internship cooperation platforms with esteemed local universities to build a long-term and stable source of talent.
- Keeping track of talent trends across industry, government, academia, and research; supporting and advocating relevant talent development initiatives while enhancing corporate image and strengthening employer branding to attract talent.
- Encouraging female and foreign talent to join the semiconductor industry, increasing promotion and recruitment ratios.
- Adjusting recruitment methods in alignment with the mass production schedule of new fabs, organizing medium- to large-scale, intensive recruitment activities either independently or through outsourcing.

Emerging Risk IV

The expansion of new fabs may pose risks to biodiversity and disrupt ecosystem balance

Environmental

Risk Description

- Since June 2022, Nanya Technology has begun construction to expand new fabs. Although the expansion area is the reconstruction of an old site, not new land development, the construction process may still impact surrounding biodiversity and ecosystems. Emissions from operational activities will also cause negative impacts such as climate change and ecosystem imbalance, including water resource shortage, extreme weather disasters, and more.

Impact

- Nanya Technology is located in a foothill area. During new fab construction, noise or dust may affect local animals and plants, causing biodiversity imbalance.
- Wastewater and waste generated during construction, if discharged or disposed of directly in surrounding waters, will impact the basin ecosystem.
- Ecosystem imbalance causing water shortage may affect water resource supplies for operations.
- A damaged ecosystem leads to a poor working environment and thus a higher turnover rate, which increases operational costs. It may also cause negative perceptions among community residents, creating reputation and trust risks.

Mitigation Measures

- Constantly concerning about the ecological status in the operational area, Nanya Technology commissions external environmental ecological monitoring annually, with quarterly monitoring surveys. During construction periods, this changes to monthly monitoring. In addition to air quality and wastewater monitoring, it also includes surveys of terrestrial plants, mammals, birds, reptiles, amphibians, and butterflies.
- Publishing the Biodiversity and No Deforestation Policy and introduced the Locate, Evaluate, Assess, Prepare (LEAP) methodology from the Task Force on Nature-Related Financial Disclosures (TNFD) to establish Nanya Technology's natural dependence and impact, risk and opportunity identification process, and constructing relevant response measures and disaster warning mechanisms. The TCFD Report and TNFD Report are published and disclosed to stakeholders, with ongoing communication conducted with external stakeholders through regular meeting platforms.
- Assessing nature and climate-related risks and opportunities, implementing wastewater classification treatment in the production process with multiple recycling and reuse to reduce the impact of water resource shortages, and establishing water resource response mechanisms and management indicators.
- Prohibiting the discharge of wastewater and waste generated during construction period into natural basins. Monthly water quality monitoring surveys are also conducted to ensure that local water quality is not impacted by construction and operations.

9. Building a Comprehensive Risk Culture to Strengthen Risk Awareness and Business Resilience

To build a comprehensive risk management culture, Nanya Technology uses the Sustainable Development Committee under the Board of Directors to review risk management policies, strategies, and management guidelines. The Committee oversees Nanya Technology's promotion of risk management matters and implementation plans. Based on the scope, organization, responsibilities, and risk management procedures defined in the Risk Management Regulations, the Company comprehensively implements various risk management operations. In 2024, the Committee convened 2 meetings to review risk management implementation and operational matters. The Risk Management Steering Center is responsible for building risk awareness within the management level, as well as reviewing risk management implementation performance and emerging risks each year. Nanya Technology also includes risk management results as a performance evaluation item for the management level (president, assistant vice presidents and above). Through goal management of senior executives, risk management practices are promoted to comprehensively strengthen the Company's risk awareness.

Innovation Proposal Rewards and Product Risk Management

Nanya Technology offers a variety of reward systems to encourage employees to submit innovative proposals that identify and improve potential risks. Proposals are evaluated based on expected benefits, creativity, application scope, completeness, and quality contribution, with monetary rewards given accordingly. Additionally, in accordance with the New Product Development and Verification Process, Nanya Technology integrates risk considerations into the design and development stages of new products. We use Failure Mode and Effects Analysis (FMEA) techniques to identify all possible potential risks and develop mitigation measures, ensuring that risks are minimized before new products enter mass production.

Year	2021	2022	2023	2024
Number of Employee-Submitted Improvement Proposals and Their Benefits				
Number of Proposals	207	212	193	163
Proposal (Case-Closing) Bonus (in NT$ Thousand)	412	507	422	549
Proposal Benefits (in NT$ Thousand)	882,517	756,744	755,784	366,233
Number of Proposals by Risk Category				
Process and Equipment Risks	61	68	60	34
Production Capacity and Quality Risks	85	41	37	35
ESH Risks	26	16	3	8
Other Risks	35	87	93	86
Total	207	212	193	163

Unit: NT$ Thousand

To encourage employees to report issues promptly, Nanya Technology has established 24-hour reporting hotlines, information security hotlines, whistleblowing hotlines, and reporting mailboxes, facilitating the swift identification and management of risks. The Company also internalizes risk management culture through promotional efforts such as TV walls, posters, and computer desktops, making it an integral part of every employee's daily work.

Utilize Evaluations and Financial Rewards to Promote Risk Management

Nanya Technology includes risk management awareness in quarterly and year-end performance evaluations. This serves as a critical foundation for performance scores, promotions, various bonuses, and stock options, ensuring the effective implementation of risk management measures. Incentives are tied to key company risks; for example, to mitigate hazard risks, a zero workplace injury bonus system encourages managers and employees to adopt preventive measures and avoid accidents. When annual goals are met, people receive rewards.

Regular Risk Training to Raise Awareness

Nanya Technology not only arranges all board members to annually participate in corporate governance and regulatory compliance courses from government-approved institutions, but also provides specialized training on risk management frameworks and practical operations. This ensures that board members possess the professional competencies required to effectively oversee the company's risk management activities. The Company also develops risk management training materials, updated annually based on promotional status and results. Employees are required to review these materials and participate in training through the Company's internal computer system.

In 2024, Nanya Technology completed risk management training for 100% of employees, totaling 1,832 hours. This helps employees understand how risk management works and incorporate risk awareness into their daily work.

Risk Culture Promotional Activities

To strengthen risk awareness, Nanya Technology holds various ad-hoc risk management activities as needed. For example, in 2024, Nanya Technology launched the Information Security Month Initiative, featuring activities such as Online Quizzes with Prizes, Information Security Golden Melody Award - Zero Trust Song Contest, Information Security Seminars, Mandatory Reading of Information Security Guidelines, and Email URL Identification Training. These efforts aim to build consensus on information security protection and foster a culture where everyone contributes to prevention and continuous improvement. Additionally, to enhance the understanding of risk management practices among various risk management teams and business management departments, Nanya Technology held a Risk Management Workshop in September 2024. External consultants provided guidance and practical exercises to enhance awareness of diverse risks, strengthen response measures, and support the timely implementation of mitigation measures.

8.3 Information Security

To protect shareholders' and customers' best interests, Nanya Technology actively implements information security-related procedures and protection systems. Over the past 7 years, we have invested over NT$1 billion in information security. An information Security Committee is also established and personally supervised by the President to optimize our information security management and ensure adherence to relevant legal requirements continuously. Working alongside all employees and supply chain partners, we collectively ensure the confidentiality, integrity and availability of our information assets. Our goal is not only to safeguard the rights of our customers, shareholders, employees and suppliers, but also to fulfill our corporate social responsibility.

Information Security Policy

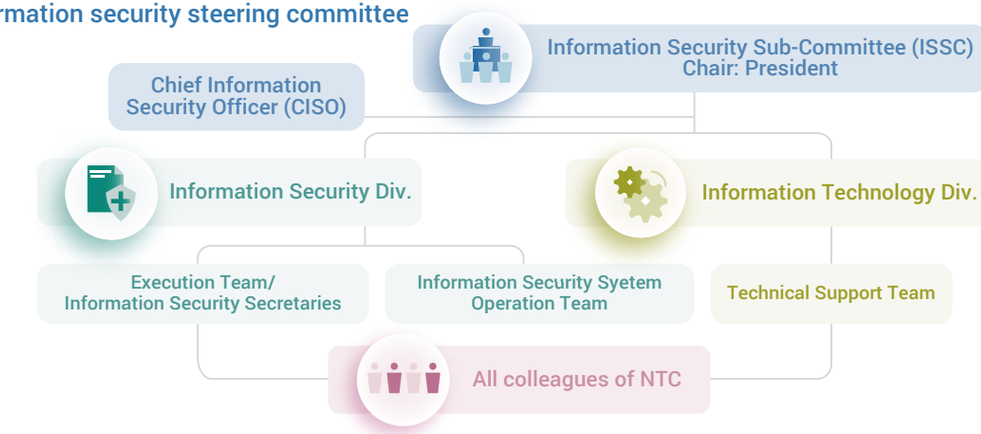
With decades of experience in the DRAM memory domain, Nanya Technology fully understands the challenges in DRAM process and product development, advanced process development, manufacturing know-how, and the importance of protecting intellectual property rights. We focus on strengthening information security measures and employee awareness to prevent sensitive technical data leaks. These efforts help preserve our R&D capabilities and core competitive advantage, thereby protecting the long-term interests of the Company and ensuring the working rights of our employees.

In 2022, Nanya Technology once again passed the triennial ISO 27001 information security certification, expanding its verification scope to cover 100% of all facilities. The certification remained valid in 2024, demonstrating our ongoing commitment to an information security management system that aligns with international standards.

To further enhance information security management, Nanya Technology established a cross-departmental Information Security Committee with the President as the convener. Several Level 1 supervisors serve as committee members, with one appointed as the Chief Information Security Officer (Executive Secretary). The committee includes Senior Division Head Yen-Chang Huang as the Chief Information Security Officer, along with representatives from the Quality Reliability Assurance Division, Legal & IP Division, Human Resources Division, and Automated Information Division. The Information Security Committee meets weekly to plan, approve, and oversee information security policies, objectives, and related regulations. It reports quarterly to the Board of Directors on the effectiveness of the information security management system and identifies opportunities for further enhancement. At the same time, four executive directors (President Pei-Ing Lee, Executive Vice President Lin-Chin Su, Vice President Joseph Wu, and Vice President Rex Chua) actively engage in the Company's quarterly information security meetings and the annual information security management review meeting. This helps make sure that our security management is working well and effectively.

Nanya Technology adheres to the Cyber Security Management Act requirements at the highest "A" level (equivalent to government agencies). We hold various cybersecurity certifications, including EC-Council Certified Chief Information Security Officer (CCISO), Certified Information Systems Security Professional (CISSP), EC-Council Certified Security Analyst (ECSA), EC-Council Certified Ethical Hacker (CEH), EC-Council CompTIA Security+, EC-Council Certified Network Defender (CND), EC-Council Certified Penetration Testing Engineer (CPENT), EC-Council Certified Application Security Engineer (CASE), and ISO/IEC 27001:2013 Information Security Management System (ISMS) Lead Auditor, enhancing the professional capabilities and efficiency of our information security team.

Information security steering committee



Milestones of Nanya Technology's Improvement Measures for Information Security Management

2017	• To deal with the risk of competitors recruiting our employees, which led to improper access to company secrets and sensitive business information, Nanya Technology set up an Information Security Division responsible for planning, implementing, auditing, and improving our information security management.
2019	• Nanya Technology obtained ISO27001 information security management system international standard certificate for the first time. • In response to the frequent cybersecurity attacks at home and abroad, and the emergence of new attack methods, Nanya Technology continued to develop external hacker protection strategies and defense in depth solutions.
2022	• Once again, Nanya Technology passed the triennial ISO27001 information security management system standard certification, with the scope of verification expanded to include the entire facility. • An OT (Facility) information security protection system has been established, incorporating vulnerability management and a monitoring and response mechanism. • Nanya Technology conducted ISMS information security management audits for major downstream subcontractors to continuously improve the effectiveness of supply chain information security.
2023	• Nanya Technology classified and graded suppliers, when conducting risk management and audit improvements for critical high-risk suppliers.
2024	• (Facility/FAB) OT information Security Protection: Nanya Technology has enhanced the visibility of industrial control equipment to monitor the normal connection behavior of facilities and machine equipment and mitigate the risk of exposure to unauthorized external equipment. • The information security automated joint defense and response system was launched to monitor more than 380,000 activities throughout the day, automatically blocking suspicious IP sources to improve threat detection and incident response capabilities. • Nanya Technology improved information security management for its supply chain by selecting 137 suppliers in 2024 for SAQ and third-party risk assessment, completing audits and improvements for critical high-risk suppliers. • Nanya Technology followed the NIST standard cybersecurity framework template and used third-party self-assessment information security risk scoring tools to analyze and evaluate multi-faceted compliance to ensure effective information security management.

1. Key Practices and Implementation Results of Information Security Management

Nanya Technology implemented information security policies to ensure the confidentiality, integrity, and availability of information. This protects the rights of our customers, shareholders, employees, and suppliers. The detailed implementation results in 2024 are explained below:

01 Strengthening Information Security and Building Defense in Depth

- Nanya Technology protects sensitive data through encryption, endpoint protection, and network gateways. We control network access, manage document outputs, and secure emails. Additionally, we employ metal detectors to check for restricted items related to information security, preventing external attacks and internal information leaks.
- Strengthening Endpoint Security: Installing antivirus software, updating official security patches, controlling USB access, and setting up backup mechanisms to enhance system security and reduce vulnerability risks.
- Protecting against External Threats: Establishing information security protection systems, isolating internet access, and implementing secure file mechanisms to prevent computer viruses or malicious programs from disrupting information system services or stealing confidential data, including through social engineering attacks.
- (Facility/FAB) OT information Security Protection: Nanya Technology has enhanced the visibility of industrial control equipment to monitor the normal connection behavior of facilities and machine equipment and mitigate the risk of exposure to unauthorized external equipment.
- The information security automated joint defense and response system was launched to monitor more than 380,000 activities annually, automatically blocking suspicious IP sources to improve threat detection and incident response capabilities.

02 Building Physical Security Protection

- Nanya Technology established the Confidential Information Management Procedure and installed metal detectors at all office and facility entrances to screen all items brought in or out. Confidential information must not be disclosed without authorization. An evaluation system is also in place to monitor the effectiveness of these measures.
- Setting up door access controls, system login identity verification, password management, access authorization, and regular vulnerability scanning audits.

03 Quality Management and Legal Compliance

- In 2022, Nanya Technology once again passed the triennial ISO 27001 information security certification, expanding the scope to cover 100% of all facilities. In 2024, we passed the certification of the third-party audit unit Taiwan Testing Technology Co., Ltd. (SGS) to maintain the validity of the certificate, demonstrating our ongoing commitment to an information security management system that aligns with international standards. ISO 27001
- Every year, Nanya Technology reviews its information security protection measures and policies, monitors security issues, and formulates response plans to ensure their adequacy and effectiveness. The implementation results are reported during ISO management review meetings.
- Nanya Technology places high importance on information security and personal data protection to safeguard customer rights and fulfill its responsibility for safeguarding personal data. Additionally, the Company isolates and controls access to personal data and employs encryption to prevent unauthorized data leaks.
- Nanya Technology followed the NIST standard cybersecurity framework template and used third-party self-assessment information security risk scoring tools to analyze and evaluate multi-faceted compliance to ensure effective information security management.

04 Security Awareness Training

- Nanya Technology conducts social engineering drills using well-known phishing email testing tools. Quarterly social engineering drills simulate realistic phishing emails with set goals, and additional training is provided to employees who click on links or open attachments. An evaluation system ensures all employees take exercises seriously, enhancing information security protection awareness. This year, we conducted 8 drills, involving over 29,000 participants locally and 1,331 from overseas subsidiaries.
- We conduct regular information security training for all employees and new hires annually to strengthen information security awareness.
- Cultivation of Professional Talent: Recruiting and nurturing IT personnel to develop both professional and cross-domain consolidated skills, supporting them in obtaining international certifications to enhance their abilities and expand their expertise.

05 Business Continuity

- Due to the constant occurrence of cybersecurity incidents, we have established Information Security Incident Report and Management Regulations. We conduct ad-hoc drills annually to practice our incident response for escalating and managing information security events.
- In accordance with the Cybersecurity Management Guidelines for TWSE/TPEx Listed Companies, we have not only defined levels of information security incident and set up internal and external reporting channels and processes, but also establish response procedures for intelligence of threat which affects stakeholders so as to prevent operational disruptions.
- Nanya Technology conducts risk assessment and identification based on the severity of impact on key business processes, using this analysis to determine the frequency of disaster recovery drills.
- Availability goals are defined for office, research and design, as well as technical development information systems. Our annual target allows no more than 1 service interruption, lasting less than 24 hours. In 2024, the Company had no system service interruptions.

06 Supply Chain Security Protection

- Nanya Technology extends its security protection to the supply chain by ensuring that all equipment undergoes security checks before use. Suppliers and their personnel are required to sign information security agreements to prevent potential attacks via supply chain relationships.
- In 2024, Nanya Technology conducted checks on its main downstream subcontractors for ISMS information security management. When potential issues were identified, the Company took appropriate measures to address and prevent them, ensuring the security of the supply chain aligns with our information security requirements.
- In 2024, Nanya Technology used Self-Assessment Questionnaires (SAQ) and Security Scorecards to classify its suppliers. The Company focused its risk management efforts and audits on critical high-risk suppliers.

07 Investigating Information Security Incidents and Hacking Methods

- Nanya Technology actively engages in information sharing with the Taiwan Computer Emergency Response Team/Coordination Center (TWCERT/CC) to promptly understand hacking techniques and implement early response measures.
- Nanya Technology commissions third-party organizations to conduct annual red team exercises, testing the Company's information security by identifying system vulnerabilities and weaknesses, ensuring they are addressed and mitigated as early as possible.
- Nanya Technology participated in the 2024 enterprise information security drill organized by TWCERT/CC to enhance its ability to respond to information security incidents and further improve its overall information security protection.

2. Business Continuity Plan (BCP)

Information Security Incident Response Drills: to validate the timeliness of our information security incident report and response procedures, we conduct ad-hoc drills annually for incident response of various scenarios such as computer compromises and DDoS attacks on our official website.

Business Continuity Operations for Information System: to address the differences in information system structures across departments, Nanya Technology conducts risk assessments and identifies potential risks based on the severity of each system's impact on key operational processes. The systems are classified into three severity degrees (Degree 1 to 3), with Degree 1 being the most critical. These classifications serve as the basis for determining the frequency of disaster recovery drills. The degrees are defined as follows:

Relationship Between Severity Degree Classification and Recovery Drill Frequency

Degree 1	Degree 2	Degree 3
If this system stops working, primary functions cannot provide service.	If this system stops working, secondary functions cannot provide service.	If this system stops working, it does not affect services, or alternative measures can be in place to keep operations working.
Recovery Drill Schedule **Annually**	Recovery Drill Schedule **Biennially**	Recovery Drill Schedule **Not required**

Recovery drill schedules are aligned with severity degrees (annually, biennially, or not required). Each department is responsible for registering the severity levels of the systems they operate and maintain in the "Information System Severity Degree Classification" documentation list. All Degree 1 systems have multiple backup mechanisms located in different rooms across different buildings. Important production data is encrypted for offsite backup and tested according to the information system disaster recovery plan to ensure normal operation. In 2024, 12 systems needed drills, and all of the 12 systems completed drills, achieving a 100% completion rate. When major anomalies occur, each information system management unit follows the response procedures defined in the Information System Response Measures Plan to notify the appropriate response teams to take action.

3. Information Security Awareness Training and Implementation Results

The Information Security Division assigns dedicated personnel, with team members from each department serving as security secretaries. Their tasks include implementing information security awareness training, developing management regulations, and conducting risk assessments of information assets.

Nanya Technology invests substantial resources to enhance information security awareness and build a shared understanding among all employees through training programs. This includes monthly meetings for information security secretaries, quarterly security meetings for Level 1 and above senior supervisors to review performance evaluation outcomes, quarterly social engineering drills, annual Information Security Month initiatives, and mandatory annual online reading of the Confidential Information Management Procedure to deepen employees' understanding and strengthen the culture of confidential information management. The 2024 training courses and hours are detailed on the table below:

Training Type	Information Security Awareness Training Courses	Participants	Hours
Designated Compulsory Readings for All Employees	Confidential Information Management Procedure	All employees	1,827
	Understanding BEC (I)	All employees	1,822
	How to Prevent BEC (II)	All employees	1,832
	URL Identification Training	All employees	1,799
Information Security Training for New Recruits	Good Information Security Management (I)	New hires (within 1 week)	665
	Good Information Security Management (II)	New hires (within 6 months)	516
Social Engineering Training	Social Engineering Drills	All employees (excluding TA)	2,528
	Social Engineering Training	Employees clicking on links during drills	52
Information Security Lectures (External Speakers)	Information Security Moat: Protecting Your Digital World	Information Security Secretaries and the Information Security Division	78
	Protecting the Gateway to the Digital World: Understanding ISO 27001	Department supervisors and the Information Security Division	79
	The Functionality and Benefits of Entra ID Cloud Identity Protection	Information Security Secretaries and the Information Security Division	27
	Special Lecture on Trade Secrets	Department supervisors, the Information Security Division, and supply chain vendors	130
	Zero Trust Themed Lecture at the Information Security Seminar	Department supervisors, the Information Security Division, and supply chain vendors	112
Internal Auditor Training	ISO 27001 Internal Auditor Training	Information Security Secretaries	118
Information Security Month Events	Information Security Management Quiz	All employees	1,822
Total Annual Information Security Awareness Training Hours			13,406

4. Information Security Goal Achievement

Nanya Technology recognizes the ongoing threats and risks to information security and has implemented appropriate protective measures. In 2024, the Company passed third-party audits with no significant deficiencies and reported no major security incidents such as customer information leaks and regulatory fines, as outlined below.

Item	Statistics
Number of information security violations or cybersecurity incidents	0 cases
Number of data leakage incidents	0 cases
Number of information security violations involving customers' personal data	0 cases
Number of customers and employees affected by data leakage	0 times
Amount of fines imposed due to information security or cybersecurity incidents	NT$0

5. Supply Chain Information Security

To promote supply chain information security, Nanya Technology evaluates significant Tier 1 suppliers, equipment vendors, subcontractors, and system integrators (140 companies in 2024) based on factors such as significance, risk level, annual procurement value, and sustainable development. The Company utilizes third-party information security risk assessments (requiring a minimum score of 80 or a B grade) and our internal security evaluations (requiring a score of 85 or above) to assess these selected companies. Those failing to meet the standards are classified as high-risk significant suppliers. Nanya Technology conducts on-site audits, provides guidance for continuous improvement, and requires such suppliers to sign information security clauses in procurement contracts and a Commitment to Comply with Information Security Policy to ensure information security.

In 2024, Nanya Technology expanded evaluations to 140 suppliers, a 164% increase compared to the previous year. Through individual information security coaching, training sessions, Security Score Card requirements, and on-site audits, we continue to help supplier partners improve their information security management. In addition, the Company is progressively requiring suppliers to obtain international certifications, such as ISO 27001, with 33% of suppliers currently certified. In 2024, to enhance supplier awareness of information security, Nanya Technology invited suppliers to participate in its Information Security Month event—Zero Trust Seminar: Never Trust, Always Verify. Through knowledge sharing and discussions with industry leaders and experts, the seminar explored how zero trust architecture can strengthen supply chain security and safeguard shared business data and assets against modern threats. A total of 37 participants from 17 suppliers attended the event.

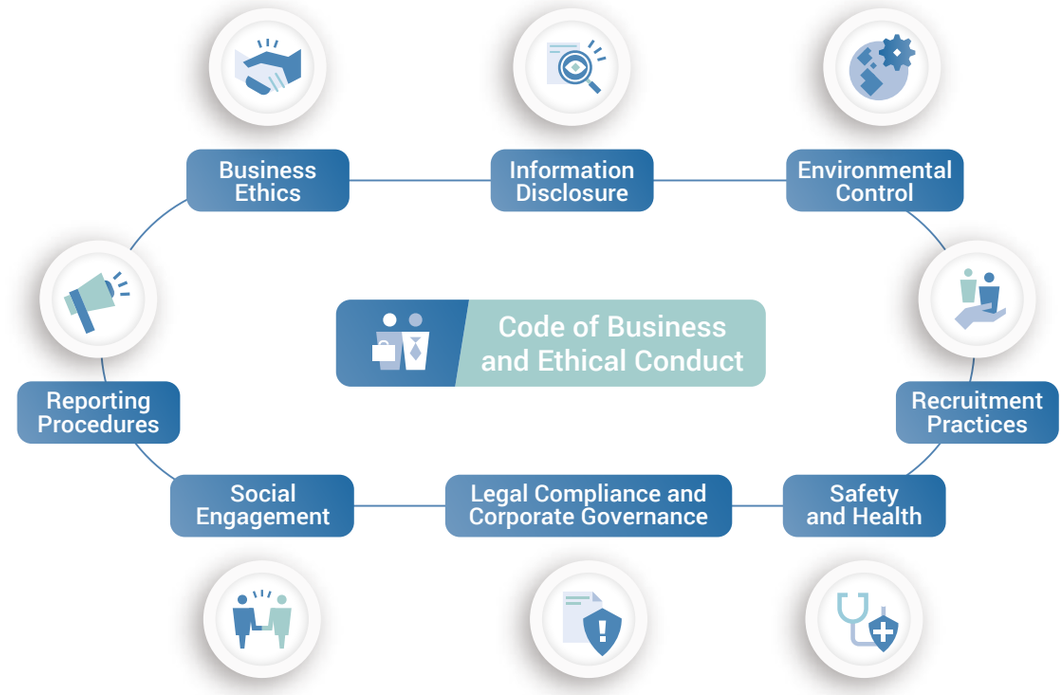
8.4 Ethical Management

Upholding the corporate culture and spirit of diligence and simplicity, Nanya Technology operates under ethical, honest, fair, transparent, and responsible business principles to reinforce legal compliance. The Company has established the Codes of Ethics for Directors and Managers for senior executives, as well as the Ethical Corporate Management Principles, Code of Business and Ethical Conduct, and Antitrust and Competition Law Compliance Manual for all employees. Additionally, the Company has launched a digital transaction platform for suppliers and implemented a robust auditing system to enforce ethical management and prevent illegal activities. Nanya Technology's Code of Business and Ethical Conduct stipulates that no donations other than charitable activities (such as political contributions) are permitted to maintain political neutrality. At the same time, the Company also encourages employees to actively fulfill their civic responsibilities as citizens. In 2024, there were no incidents of regulatory violations related to ethical management.

1. Code of Ethical Conduct

Following the Responsible Business Alliance (RBA) Code of Conduct, Nanya Technology established the Code of Business and Ethical Conduct and Labor & Ethics Policy as guidelines for business behavior. The Company also undergoes regular RBA VAP verification and achieved Silver recognition in 2024. The Code of Business and Ethical Conduct applies to all employees of Nanya Technology, including managers, as well as employees, customers, suppliers, and stakeholders of its subsidiaries and joint ventures. The Code encompasses areas such as business ethics, information disclosure, environmental control, recruitment practices, safety and health, legal compliance, corporate governance, social engagement, and channels for seeking guidance or reporting concerns. Nanya Technology is also committed to upholding human rights through established human rights policies and due diligence processes (see "Chapter 4: Employee Human Rights Protection" for details) to ensure that no human rights violations occur. Both the Labor and Ethics Policy and the Code of Business and Ethical Conduct are published on internal and external websites, allowing employees and external parties to access them at any time.

To strengthen integrity and ethical awareness, all employees of Nanya Technology and its subsidiaries must fully comply with the code of conduct, achieving a 100% coverage rate. In 2024, Nanya Technology continued to conduct the "RBA Labor and Ethics Code of Conduct Training" and the "Code of Business and Ethical Conduct Training" to all employees, achieving a 100% training coverage rate. All new hires also received digital courses on the "RBA Labor and Ethics Code of Conduct Training" as part of their onboarding.



To continuously enhance the working environment, Nanya Technology sets annual labor ethics goals and provides related training programs. Aligned with its management objectives of Zero Corruption, Zero Sexual Harassment, and Zero Workplace Violation, the Company conducted seven key training programs in 2024: "Labor and Ethics Code of Conduct Training," "Anti-Corruption Awareness Training," "Code of Business and Ethical Conduct Training," "Senior Executives Ethical Management Training," "Insider Trading Prevention Training," "Unsafe Workplace Behavior and Prevention Training," and "Antitrust Regulation Awareness." All programs achieved a 100% completion rate.

Ethical Management and Labor Ethics Training Achievements

	2021	2022	2023	2024
"RBA Labor and Ethics Code of Conduct Training" Completion Rate Note 1	100%	100%	100%	100%
"Code of Business and Ethical Conduct Training" Completion Rate Note 2	100%	100%	100%	100%
"Anti-Corruption Awareness Training" Completion Rate Note 3	100%	100%	100%	100%
"Senior Executives Ethical Management Training" Completion Rate Note 4	100%	100%	100%	100%
"Insider Trading Prevention Training" Completion Rate Note 5	100%	100%	100%	100%
"Unsafe Workplace Behavior and Prevention Training" Completion Rate Note 6	100%	100%	100%	100%
"Antitrust Regulation Awareness" Completion Rate Note 7	100%	100%	100%	100%

Note 1: A total of 3,634 individuals completed the "RBA Labor and Ethics Code of Conduct Training" in 2024. (Organized in November 2024)

Note 2: A total of 3,634 individuals completed the "Code of Business and Ethical Conduct Training" in 2024, covering whistleblowing policies and whistleblowing mechanisms. (Organized in November 2024)

Note 3: A total of 3,634 individuals completed the "Anti-Corruption Awareness Training" in 2024. (Organized in November 2024)

Note 4: The "Senior Executives Ethical Management Training" was incorporated into the "Code of Business and Ethical Conduct Training," with a total of 10 individuals completed the training in 2024.

Note 5: A total of 3,634 individuals completed the "Insider Trading Prevention Training" in 2024. (Organized in November 2024)

Note 6: The "Unsafe Workplace Behavior and Prevention Training" includes both in-person and online courses. In 2024, 1 in-person training course was conducted for department heads, taskforce leaders, and chief engineers/managers, with a total of 44 participants. Additionally, online training courses were provided for all employees, reaching 3,645 participants. The training was organized in October 2024.

Note 7: A total of 3,617 individuals completed the "Antitrust Regulation Awareness" in 2024. (organized in July 2024)

Note 8: The training participants listed above include all employees who received training in 2024, while new hires completed the courses during their orientation.

2. Antitrust

To ensure employees understand and comply with the antitrust regulation and reduce the risks of violations, Nanya Technology established the Antitrust and Competition Law Compliance Manual and the Antitrust and Competition Compliance Procedures, requiring employees and managers of all levels to strictly adhere to relevant regulations and timely report compliance status to the Board of Directors. The Company also conducts regular training for relevant personnel and requires them to sign the Compliance Manual. In 2024, no violations were reported.

Note: There is 1 antitrust case dating back to 2010 where the Brazilian Ministry of Justice alleged Nanya Technology violated antitrust regulations. This case is still in litigation. For details, please refer to Nanya Technology's 2024 Annual Report, "VI. Risk Analysis, Section (12) Litigation or Non-Litigation Events." The Company has retained legal counsel to handle this case, taking appropriate actions to safeguard its rights and interests.

3. Anti-Corruption

All employees of Nanya Technology are required to comply with the relevant management policies outlined in the Company's Code of Business and Ethical Conduct, Human Resources Management Regulations, and Work Rules. Any employee found guilty of corruption, embezzlement, or accepting bribes or kickbacks will be dismissed without exception. Depending on the circumstances, their direct supervisors may also be subject to disciplinary actions. The Code of Business and Ethical Conduct specifically prohibits employees from offering (or accepting) bribes or engaging in insider trading or other unethical behaviors that damage the Company's reputation. Those involved in serious or corrupt violations, such as using their positions to accept bribes, will be immediately dismissed. If these actions cause serious damage to the Company's interests, legal responsibility will also be pursued.

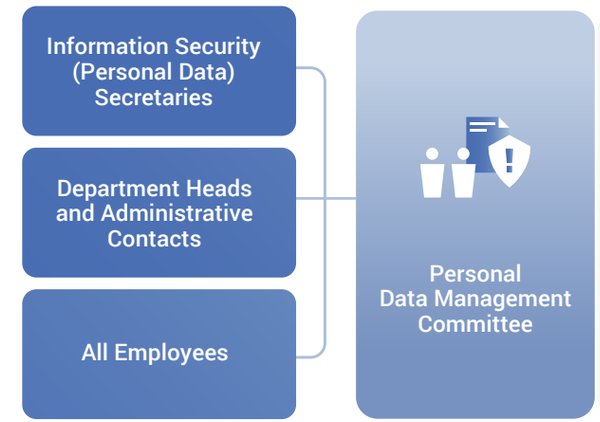
To prevent various types of misconduct, employees engaged in sales, procurement, contracting, supervision, budgeting, or other roles involving supplier interaction are strictly prohibited from accepting meals, entertainment, gifts, monetary items, or other benefits from suppliers. Regular job rotation has been implemented for these positions. Anti-corruption training materials have been developed for all colleagues, and in 2024, the "Anti-Corruption Awareness Training" coverage rate reached the goal of 100%, with a total of 1,817 person-hours of training. All employees are expected to follow ethical standards in both work and life, demonstrating the corporate culture of *diligence and simplicity*. In 2024, there was 1 corruption case. Except for the aforementioned case which is still in the judicial process, there were no other corruption-related cases that were sentenced in 2024, so the amount of the fine was NT$0. For details, please refer to "Chapter 4: Number of Grievance and Reporting Cases Received in the Past Years, by Channel."

4. Personal Data Protection

To ensure compliance with applicable personal data protection laws and regulations by employees, suppliers, customers and external parties, Nanya Technology has established the Personal Data Management Rules. These rules clearly define the organizational structure and responsibilities for personal data protection, specify regulations for the collection, processing, and use of personal data, and outline procedures for handling data subjects' rights. All departments are required to adhere to these rules when collecting or processing personal data. Departments commissioning personal data collection or processing to others, other departments, or other companies, are responsible for ensuring that the actions taken by the commissioned parties comply with these enforcement rules and relevant laws and regulations. Unless consent is obtained from the data subject or specifically required by other laws and regulations, Nanya Technology will never disclose personal data to third parties or use it for purposes beyond the original collection purpose. To manage personal data processing risks, Nanya Technology conducts an annual inventory and assessment of personal data items to ensure compliance with current policies. Improvement measures are implemented based on risk levels. For employee and customer personal data, access controls are set with strictly limited purposes. In 2024, no high-risk items were identified.

Since May 2018, the European Union's General Data Protection Regulation (GDPR) has been officially enforced. As Nanya Technology operates subsidiaries in Europe, the regulation imposes significant requirements on the management measures of personal data belonging to European employees, customers and suppliers. Nanya Technology has taken various response measures to comply with GDPR and has published these measures in the Personal Data Protection Notice on the Company's official website. We have implemented related systems throughout all subsidiaries to increase employee awareness of personal data protection and reduce the risk of violations. In 2024, a total of 3,634 employees completed the "Personal Data Protection Training," achieving a 100% completion rate with no violation incidents. The Company conducts internal personal data audits every year to ensure thorough implementation of personal data management. Nanya Technology has published its Privacy and Cookies Policy on the official website. Within the authorized scope and for specified purposes, the Company adopts secure and reasonable methods to collect, process, and use personal data. We also ensure that customers can exercise their rights as stipulated under the Personal Data Protection Act. Due to our strict and effective implementation of personal data protection, in 2024, there were no violations and no secondary use of data beyond authorized purposes.

Structure of the Personal Data Management Committee



Responsibilities of the Personal Data Management Committee

- Evaluation and review of the legality and appropriateness of personal data protection and management mechanisms
- Regular testing, assessment, and measurement to ensure the effectiveness of technical and organizational functions for processing personal data
- Providing necessary resources for establishing personal data management mechanisms

Number of Personal Data Regulation Violations and Associated Fines

	2021	2022	2023	2024
Number of Personal Data Complaints	0	0	0	0
Number of Personal Data Violation Fines	0	0	0	0
Fine (in NT$)	0	0	0	0
Number of Complaints from External Parties	0	0	0	0
Number of Complaints from Competent Authorities	0	0	0	0

5. Internal Control

Internal Control System

Nanya Technology has established an effective internal control system in accordance with the Regulations Governing Establishment of Internal Control Systems by Public Companies. This system takes into account the overall operational activities of the Company and its subsidiaries, while adhering to relevant industry regulations. We continuously review the system to adapt to changes in internal and external environments, ensuring its ongoing effectiveness in both design and implementation.

The internal control system operates on an ongoing basis, continuously monitoring various operational and management activities. When deviations from company policies, operating procedures, established objectives, or expected standards are identified, they are reported to the appropriate management levels through feedback mechanisms. Corrective actions are then implemented as needed to ensure that operations remain aligned with the Company's intended direction. The internal control mechanism also cross-checks operations to prevent fraud.

Internal Audit

Nanya Technology has established an Auditors Office that reports directly to the Board of Directors. The Company employs 3 dedicated auditors who participate annually in audit courses offered by professional training institutions, in accordance with regulatory requirements. This training continuously enhances their expertise and capabilities. Through this independent and professional internal audit structure, the Company implements internal control principles across all levels of the organization.

Internal auditors not only prepare audit reports on deficiencies and anomalies discovered in the internal control system during inspections, but also track these issues to ensure relevant departments implement appropriate improvement measures promptly. Additionally, these audit reports are submitted to independent directors for review by the end of the month following the completion of the audit. Internal auditing is not solely the responsibility of the independent audit department. Each department within the Company must also conduct self-inspections of specific audit items at required intervals. The independent audit department then performs follow-up inspections based on independent inspection results to ensure the internal control system is effectively implemented across all departments.

Statistics of Internal Audit Items

	2021	2022	2023	2024
Number of Audit Items	42	42	42	42
Number of Non-Conforming Items Detected	2	3	3	2 Note
Non-Conforming Item Improvement Rate	100%	100	100%	100%

Note: There were 2 items, 1 in the production category and 1 in the financial category. Both have been improved.

8.5 Quality Management

Nanya Technology's quality management system is customer-oriented and built around six aspects: new technology development, new product development, supplier management, process control, subcon management, and customer service—all aligned with the Company's technical development strategy. Throughout each stage, we apply effective tools such as reliability verification, problem analysis and resolution, 8D approach, experimental design, statistical testing, Failure Mode and Effects Analysis (FMEA), the 7 QC tools, SPC/Cpk process control, mistake-proofing, and internal audits to implement corrective actions and adjustments. We place equal emphasis on internal process quality improvement and external customer satisfaction. For both internal and external quality matters, the PDCA cycle is applied across all quality performance indicators. Through continuous improvement, we ensure the effectiveness of quality monitoring and control measures while achieving our quality goals and ensuring product safety. There were no product recalls during the five-year period from 2020-2024.

Quality Management Aspect

New Technology Development	New Product Development	Supplier Management	Process Control	Subcon Management	Customer Service
Project management	Project management	Supplier assessment	IPQC	Subcon evaluation	Customer requirements
Item review	Item review	Supplier audit	SPC/Cpk	Subcon audit	Complaints and returns
Phase review	Phase review	IQC	FMEA	Non-conforming handling	Delivery control
Quality confirmation	Design review	e-COA/SPC	Control plan	Change control	Technical service
PFMEA	Design verification	Non-conforming handling	APC/R2R	Regular meetings	Customer satisfaction
Control plan	Quality confirmation	Change control	Calibration/MSA	Audit guidance	Customer change notification
SPC/Cpk	DFMEA	Regular meetings	Change control	HSF control	
MSA	Reliability verification	Audit guidance	Non-conforming handling	Subcon assessment	
Reliability verification	Sample verification for customer approval	HSF control	Shipping quality control	Raw material control	
Mass production review	Mass production review	Supplier assessment		Test program control	
HSF confirmation	HSF confirmation				

QC 7 Tools, Problem Analysis and Solving, 8D, Design of Experiments, Statistical Testing
FMEA, SPC/Cpk, Fool-proof Design, AI , Internal Audit, Continuous Improvement

Product quality control process

Nanya Technology is committed to providing high-quality products and has established a comprehensive quality control process that covers supplier management, process quality control, and shipment quality control to ensure product quality and traceability. The various controls are described below.

Supplier management: Establish a qualified supplier list system, conduct supplier evaluation and review, and regularly audit and evaluate the performance of qualified suppliers to ensure they meet quality requirements.

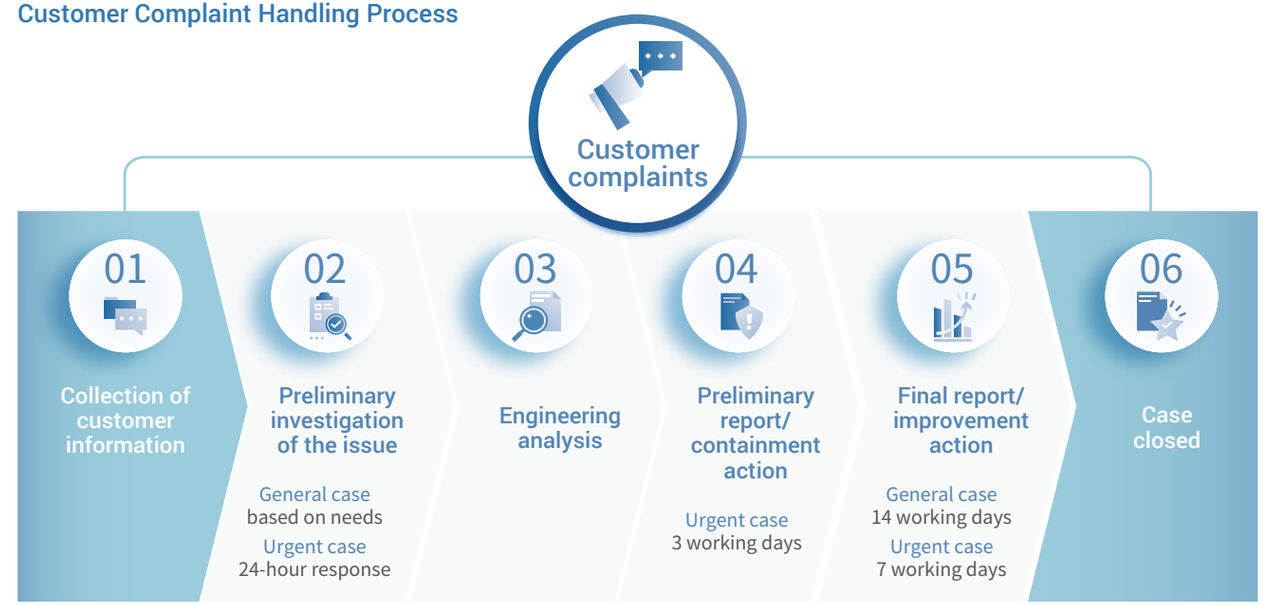
Process quality control: We use fully automated production operations and statistical process control technology to monitor process variation, detect and eliminate potential quality problems early, maintain process stability, monitor production yield, regularly analyze the causes of defects, and take improvement measures to continuously improve product yield. All products must undergo 100% functional and performance testing to confirm that the products meet specifications and customer requirements.

Shipping quality control: Through the production information management system, product packaging, labeling, quantity and shipping conditions are checked to ensure that the shipped products are consistent with the order content. The system will record the product's production batch number, test records and other information to achieve product traceability, and conduct a final sampling inspection before shipment to ensure that the product's appearance and quality meet the standards.

Customer Complaint Procedure

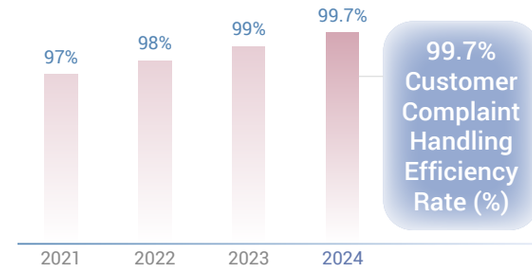
Nanya Technology is committed to improving product quality and responding swiftly to customer quality issues to meet expectations. To speed up problem analysis, If customers or end users have any quality issues, they can contact us through Nanya Technology's customer service website, Nanya Technology will then contact the customer to gather relevant information, reasons for the complaint, and specific requirements. If necessary, a preliminary investigation of the issue will be conducted. If the issue is found to be related to our products or requires further analysis, we will create a case in the complaint system and arrange return shipping for inspection. Upon receiving the complaint product, we will analyze it, track progress based on urgency, consolidate complaint analysis report within the specific timeframe, and provide regular updates to the customer until the case is resolved. Through collaboration between Field Application Engineering, Quality Assurance, Product Engineering, and Process Departments, and utilizing the complaint management system for process oversight, Nanya Technology has consistently responded to over 90% of customer complaints within the target timeframes over the years.

Customer Complaint Handling Process



Note: If the case requires other analysis to verify the root cause, we update the progress of analysis according to the analysis plan until the case is closed.

Achieving Rate of Customer Complaint Cases



In 2024, 99.7% of cases were completed within target timeframes. Nanya Technology continues to maintain close communication with customers to quickly understand usage methods and failure conditions, enabling faster analysis and problem resolution. Cases that missed the target timeframes were those requiring more complex analysis, including customer platform analysis, signal measurement, parameter adjustment, and test program development, which require more time. Throughout the analysis process, regular progress updates are provided, and analysis plans are also discussed with customers.

International Certification of Quality Management System

Having passed third-party quality audits and certification by the LRQA Group Limited Taiwan Branch, Nanya Technology maintains ISO 9001 and IATF 16949 international quality management system certifications. These standards form the basic structure of our quality management system, serving as guiding principles and the basis for all department procedures.

Internal Audits of Quality Management System

Nanya Technology assesses the implementation of its quality management system through annual internal audits, with the Quality Reliability Assurance Division Head acting as the convener and the representative of the quality management system. The Quality Reliability Assurance Division conducts audits across all relevant departments annually based on the quality management system plans. These audits cover the entire quality management system, including quality system audits, process audits, and product audits. Furthermore, the Quality Reliability Assurance Division encourages each department to conduct self audits and cross-audits. The Quality Reliability Assurance Division is responsible for developing audit plans. To enhance the efficiency of internal audits, a quality audit taskforce has been formed, consisting of trained and qualified staff members who act as auditors, conducting internal audits in an objective and impartial manner. Regarding audit implementation and records, during audits, if the audit taskforce identifies any issues, the lead audit department issues an Electronic Corrective Action Request addressing the deficiencies findings. The department responsible for the deficiency must acknowledge the request and implement corrective actions. The taskforce tracks the progress of these deficiencies and verifies the effectiveness of the corrective measures. The management of the audited area is responsible for ensuring that all necessary improvements and corrective measures are completed within the specified timeframe. The Quality Reliability Assurance Division reports internal audit results to Top management in quality monthly meetings and semi-annually quality system management review meetings. They require corrective measures for any issues identified. No major findings were identified in the internal audit in 2024.

Strengthening Quality Awareness

Nanya Technology promotes a quality culture based on Upholding Quality and Creating Value. This quality management philosophy is put into practice by fostering an environment that encourages technical innovation, continuous improvement, and teamwork among employees. The Company aims to enhance employees' ability to meet business goals, adhere to quality policies, and contribute to its sustainable operations. To help employees understand and enhance effectiveness, Nanya Technology implements annual training and development plans that include core courses, professional skills training, quality training courses, electronic announcements, quality posters, recognition for outstanding teams, Improvement proposal system, quality competitions, technical paper competitions, and other promotional activities. These initiatives help cultivate a strong sense of quality awareness, responsibility, and cultural literacy, driving overall quality enhancement across the organization. The 2024 quality training courses and hours are detailed on the table below:

Promoting Continuous Improvement Activities

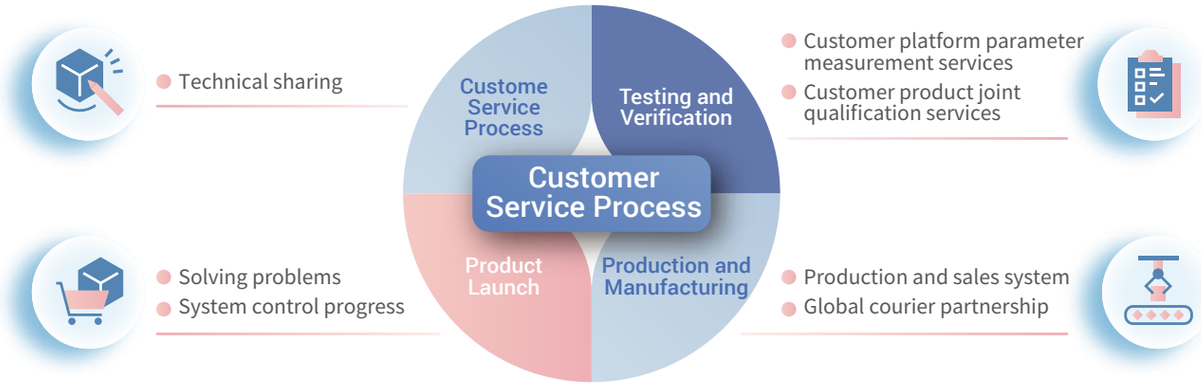
Item	Description
Establishment	Nanya Technology established the Quality Policy that builds core quality values: We strive for continuous improvement, working in a practical way, with a spirit based on exceeding our customers' requirements in *quality, delivery and service*. The policy and goals are published on the Company homepage and promoted to all employees via the TDS employee training system.
Innovation	Nanya Technology organizes Outstanding Team events to promote employee engagement in quality innovation, strengthen teamwork, and enhance continuous improvement capabilities, setting examples for a successful teamwork model.
Sharing	Nanya Technology has built a knowledge management platform called "Knowledge Alliance" to support company-wide quality management, professional development, and the sharing of quality-related experiences.
Rewards	Nanya Technology has established the Rewards for Improvement Proposals and Outstanding Team Selection programs to encourage continuous improvement initiatives and promote improvement competitions. We recognize and reward innovative ideas from employees, inspiring them to consider improvement opportunities and submit proposals beneficial to operational performance.
Improvement	Nanya Technology holds monthly quality competitions, using quantified indicators to evaluate quality management performance, including nonconformance prevention, production line yield, defect quantity, equipment nonconformance, and appearance defect on wafer, motivating colleagues to focus on quality management and continuous improvement.
Audit	Through internal quality audits, customer audits, and third-party audits, Nanya Technology continuously drives quality improvements and incentive programs, maintaining third-party audit certifications for its quality management system each year.

Quality Management System Training

Training Type	Quality Training Course	Participants	Hours
Designated Compulsory Readings for All Employees	Quality_HSF and Responsible Mineral Sourcing Policies and Goals	All employees	1,183
	Green Product Training	All employees	1,792
	Responsible Mining Investigation Report	All employees	1,792
Quality Training for New Employee	New Employee (I): Quality Concepts and Quality Management System, Introduction of Knowledge Management and System Overview	New Employee (within 1 month)	1685
	New Employee (II): NTC Product Introduction, Process & Equipment Overview, DRAM Operation Principles, SPC, Quality Costs, Problem Analysis and Solution Methods, Document Control, Change Management Rules, Procurement Management, EDA System Introduction	New Employee (within 6 months)	7456
Semiconductor Manufacturing Process	New Product Development and Verification Process Introduction	R&D/Design/Process/Product Engineering/Marketing and Quality Assurance Staff	102
	Parameter Tool Overview, Defect Inspection Tool Overview, Stack Process Integration, Basic Record (Advanced Course), MOS Component Physics	R&D/Design/Process/Product Engineering/Marketing and Quality Assurance Staff	1018
Product Technology	Physical Failure Analysis and Various Electron Microscope Principles and Applications	R&D/Design/Process/Product Engineering/Marketing and Failure Analysis Staff	446
	Introduction to Packaging Process	R&D/Design/Process/Product Engineering/Marketing and Quality Assurance Staff	98
	Electrical and Chemical Analysis	Process/Product Engineering/Testing and Quality Assurance Staff	110
	Process Development Training: Process and Equipment Introduction	R&D/Process Staff	1261
Testing Technology	Basic Testing Concepts	R&D/Design/Process/Product Engineering/Testing and Quality Assurance Staff	144
	Product Back-End Production Process	R&D/Design/Process/Product Engineering/Testing and Quality Assurance Staff	92
	Introduction to Post-Packaging Testing Process	R&D/Design/Process/Product Engineering/Testing and Quality Assurance Staff	69
Quality Management	Internal Auditor Training: Quality Management System, Hazardous Substance Free Management System	Quality Audit Staff	138
	Introduction to Automotive Product Development and Verification Proces	R&D/Design/Process/Product Engineering/Testing/Marketing and Quality Assurance Staff	34
	Procedures for Introducing Sub-Plan & PCRB Review of New Products	R&D/Design/Process and Quality Assurance Staff	110
	Supplier/Subcon Quality Management	Materials/Process and Quality Assurance Staff	108
	Process and Management for Product/Process Change Notification	R&D/Design/Process/Product Engineering/Testing/Marketing and Quality Assurance Staff	112
	Process Non-Conforming Handling Regulations	R&D/Design/Process/Testing and Quality Assurance Staff	122
	Introduction to Customer Complaint and Analysis Process	Sales/Marketing/Product Engineering and Customer Service Staff	106
	Introduction to Calibration Management System	Equipment and Quality Assurance Staff	566
	Failure Mode and Effects Analysis (FMEA)	R&D/Design/Process/Equipment and Quality Assurance Staff	148
	Introduction to Automotive Product APQP/PPAP Process	R&D/Design/Process/Product Engineering/Testing/Marketing and Quality Assurance Staff	102
	Design of Experimental Methods (Basic)	R&D/Design/Process and Quality Assurance Staff	198
	Quality Reliability Verification: Product Reliability Introduction, Dielectric Layer Process Reliability, Component Process Reliability, Metal Layer Process Reliability	R&D/Design/Process and Quality Assurance Staff	648
	Production Manufacturing Division: Quality Training, Company Product, Introduction to Production Indicators and Process Overview, Production Line Management and Operation Regulations, Computer Application Operation	Production Unit Staff	403
Total Annual Quality-Related Training Hours			20,043

8.6 Customer Relationship Management

Nanya Technology is committed to providing the best customer service, recognizing that appropriate and timely customer service is the key to maintaining customer relationships. Strong customer relationships help build customer loyalty and strengthen trust. Our vision is to become the Best DRAM Partner for Smart World, adopting a service-oriented approach. By closely collaborating with controller chip makers and customers, we strengthen product research, development, and manufacturing to meet diverse needs. We aim to offer comprehensive products and system solutions, delivering superior and more reliable services to our customers.



1. Product Design and Test Verification Phase

To improve the efficiency and frequency of customer service and build closer customer relationships, the Field Application Engineering Division supports the technical needs of customers across Taiwan, China, Southeast Asia, Europe, the Americas, Japan, and Korea. Nanya Technology conducts ad-hoc technical sharing sessions and offers DRAM professional courses tailored to customer requirements. In 2024, Nanya Technology conducted 96 sessions to provide technical support, assist customer engineers in resolving design and testing challenges, and enhance their understanding of DRAM usage and applications.

Additionally, Nanya Technology supports customers in understanding the characteristics of their product platforms by providing efficient, intensive, and high-quality platform parameter measurement services. This significantly accelerates new product development progress and verification cycles, reduces investment risks, and enables end products to enter target markets in a timely manner. Nanya Technology also provides joint qualification services, supporting early-stage product development and verification to detect and resolve compatibility issues before mass production. In 2024, Nanya Technology completed a total of 1,032 measurement service cases and 27 joint qualification service cases.

2. Production and Sales Phase

Nanya Technology produces products that meet customer demands through strict quality control. Sales maintain ongoing communication with customers and provide weekly demand forecasts for headquarters. After consolidating global sales feedback, headquarters uses this information to generate production plans through the production and sales system, continuously adjusting based on weekly updates to effectively meet customer demands. Furthermore, Nanya Technology collaborates with several major international express companies, selecting the most suitable express provider based on customer location and delivery efficiency to ensure product delivery aligns with customer requirements.

3. After-sales service Phase

For customer quality issues, Nanya Technology solves product issues through the customer complaint handling process in order to meet customer expectations.

4. Customer Confidential Information Protection

Regarding customer privacy, Nanya Technology has established the Personal Data Management Rules as its standards for collecting, processing, and using personal data. Unless consent is obtained from the data subject or specifically required by other laws and regulations, Nanya Technology will never disclose customers' personal data to third parties or use it for purposes beyond the original collection purpose.

Nanya Technology has established Confidential Information Management Procedure, which define confidentiality levels that all employees are required to review. Metal detectors are installed at offices and facility entrances and exits, and restricted items related to information security are not allowed to be brought in or out. All items must undergo inspection through metal detectors, and company confidential information cannot be disclosed without proper authorization, ensuring the protection of customer rights and interests.

5. Customer Satisfaction

Nanya Technology actively understands customer requirements for product quality, delivery, and service through multiple communication channels, including customer satisfaction surveys, business and technical evaluation meetings, and customer service platforms. This enables us to continuously improve products and services while strengthening customer relationships.

In terms of customer satisfaction, Nanya Technology conducts annual surveys of both direct trading customers and end customers through neutral third-party investigation companies and internal methods. These surveys, which utilize online platforms or interviews, aim to gather a fair and objective understanding of customer demands. The survey covers topics such as products, delivery, quality, technical services, communication, commercial, and competitor ranking comparisons.

Nanya Technology has established a comprehensive Customer Satisfaction Handling Standard Procedure and a Customer Satisfaction Committee. Utilizing the Plan-Do-Check-Act (PDCA) management cycle, the Company works towards the shared goal of improving customer satisfaction. The Committee is composed of cross-departmental units, with managers from marketing, sales, operations management, field application engineering, and quality assurance departments participating. Main tasks include selecting investigation targets, sending questionnaires, collecting questionnaires, analyzing data, regularly reviewing customer opinions, coordinating and proposing appropriate improvement plans, and reporting customer satisfaction results in senior management meetings. Finally, they provide customers with continuous improvement solutions, forming a complete and effective cross-functional service team. Through services, they build customer relationship management based on mutual prosperity and work to continuously enhance customer satisfaction.

Besides customer satisfaction surveys, customers regularly conduct business and technical evaluation meetings with Nanya Technology's service team, maintaining close communication to enhance service quality. To improve customer satisfaction, Nanya Technology has established a review platform that prioritizes addressing and improving customer demands. Customers can also access the customer service platform via Nanya Technology's corporate website Contact Us to submit suggestions and requests, continuously strengthening customer relationships. We will continue to strengthen internal coordination across departments to respond promptly to customers' urgent or unexpected needs, consistently improve product quality, enhance timely and effective communication of quality issues, maintain good communication with customers, and strive to meet all customer requirements.

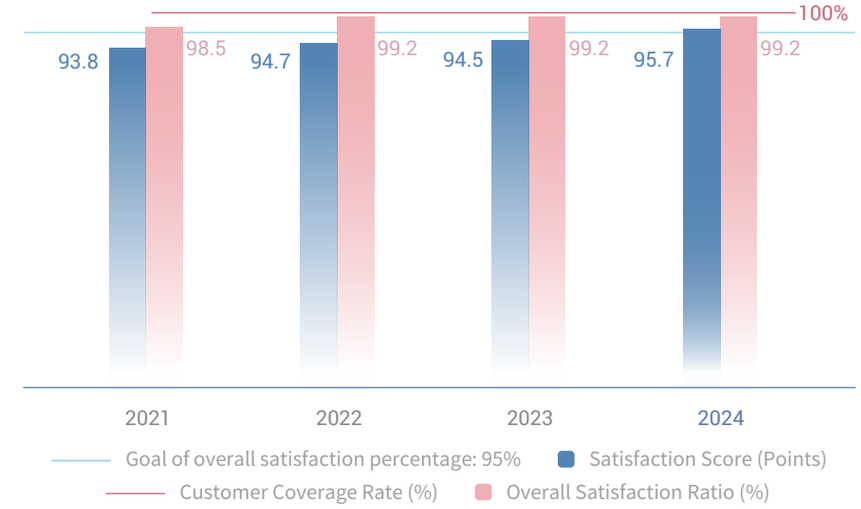
Contact Us

The overall average customer satisfaction score for 2024 was 95.7 points, which exceeded the goal of 91 points. Each year, Nanya Technology reviews customer satisfaction survey results and conducts benchmark learning to establish reasonable targets. The proposed goal is submitted by the Quality Reliability Assurance Division and approved by the President. For 2025, the target has been set at a score of 91 or higher.

Analysis shows that customers gave high ratings of 97 points or above in three key areas: delivery, technical service, and communication. These results reflect Nanya Technology's efforts to accelerate customer new product verification and share technical insights during design, testing, and verification phases. In addition, Nanya Technology has expedited new product development in response to market demand, supply, and application needs, enhanced communication with customers, actively addressed improvement issues, enforced strict quality control, and continuously improved by incorporating and valuing customer feedback.

Nanya Technology's overall performance has been recognized by customers over the years. With scores above 80 points considered satisfactory, 99.2% of customers were satisfied with our overall performance in 2024. This marks the seventh consecutive year exceeding the customer satisfaction goal of 95% or higher. The customer satisfaction percentage goal for 2025 is set at 95% or higher.

Customer Satisfaction Results



9 Appendix

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9.1 About this Report

Report Overview

This is the 15th *Sustainability Report* published by Nanya Technology, covering the period from January 1, 2024, to December 31, 2024. This report provides information on corporate governance, environmentally sustainable development, employee care, and social good. The scope of this report covers Nanya Technology Corporation and its subsidiaries. Environmental and labor safety performance data does not include the data of the design house in Hsinchu, Taiwan as well as overseas design houses, sales offices, and subsidiaries. As these locations are not involved in manufacturing activities (please refer to the table below), their resource usage and consumption is minimal compared to Nanya Technology's 12-inch fab in New Taipei City. All financial data presented in this report comes from financial statements attested by Certified Public Accountants.

Any changes from the previous report are noted within the relevant chapters.

Publication Date

Nanya Technology publishes *Sustainability Report* annually

Current Edition: August 2025
Previous Edition: June 2024
Next Edition: August 2026

Data Disclosure Timeframe

From January 1, 2024 to December 31, 2024 (same as the financial reporting timeframe)

Data Scope

Nanya Technology operations system

Including Nanya Technology Corporation and its subsidiaries

Guidelines and Standards Referenced

GRI Standards 2021

Management System Verification

- Quality Management ISO 9001, IATF 16949: LRQA
- Environmental Management ISO 14001: LRQA
- Information Security Management ISO 27001: SGS
- Energy Management ISO 50001: LRQA
- Occupational Safety and Health ISO 45001/ TOSHMS: LRQA
- Responsible Business Alliance RBA VAP: SGS

Sustainability Report Assurance

The external assurance of this report was conducted by BSI, with the approval of senior management across the Group's subsidiaries.

Assurance level: AA1000 AS V3 Type II High Assurance Level

Data Quality Management

- Financial data: KPMG
- Organizational greenhouse gas (GHG) inventory ISO 14064-1 and GHG Protocol: SGS
- Sustainability Report AA1000 AS V3 Type II High Assurance Level: BSI

Contact Information

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Report Management Process

1 Review annual results
2 Confirm writing direction
3 Collect data
4 Organize and create report
5 Attest through third-party
6 Confirm with the Sustainable Development Committee
7 Submit for approval by the Board of Directors
8 Publish report in the Corporate Sustainability ESG section of the company's website

Relationship	Company Name	Main Business or Production Activities
Parent Company	Nanya Technology Corporation (NTC)	Development, design, manufacturing, and sales of semiconductor products
Subsidiary	NTC-USA	Sales of semiconductor products
Subsidiary	NTC-Delaware	Design of semiconductor products
Subsidiary	NTC-Hong Kong	Sales of semiconductor products
Subsidiary	NTC-Japan	Sales of semiconductor products
Subsidiary	Nanya Technology International, Ltd.	Sales of semiconductor products
Second-Tier Subsidiary	NTC-Shenzhen	Sales of semiconductor products
Second-Tier Subsidiary	NTC-Europe	General investment business

9.2 Nanya Technology's Sustainability Performance

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Company That Honors Its Commitments					
Operating Revenue (in NT$100 million)	Business Strategy and Performance	201-1	569.5	298.9	341.3
Net Income (Loss) (in NT$100 million)	Business Strategy and Performance	201-1	146.2	(74.4)	(50.8)
Income Tax Expense (Benefit) (in NT$100 million)	Business Strategy and Performance	201-1	22.6	(32.7)	(14.7)
Cash Dividends (in NT$100 million)	Business Strategy and Performance	201-1	66.0	-	-
Research and Development Expense (in NT$100 million)	Innovation	201-1	78.4	75.8	76.9
Capital Expenditure (in NT$100 million)	Business Strategy and Performance	201-1	207.1	132.4	161.4
Earnings (Loss) Per Share (in NT$)	Business Strategy and Performance	201-1	4.72	(2.4)	(1.64)
Independent Director Ratio (%)	Integrity and Transparency	2-9	33%	33%	33%
Board Meeting Attendance Rate (%)	Integrity and Transparency	2-9	95.8%	98.3%	100%
"RBA Labor and Ethics Code Training" Completion Rate (%)	Integrity and Transparency	205-2	100%	100%	100%
"Code of Business and Ethical Conduct Training"Completion Rate (%)	Integrity and Transparency	205-2	100%	100%	100%
"Anti-Corruption Training" Completion Rate (%)	Integrity and Transparency	205-2	100%	100%	100%
Internal Audit Anomaly Improvement Rate (%)	Integrity and Transparency	205-2	100%	33%	100%
Number of Complaints and Reports	Integrity and Transparency	205-3	5	3	7

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
Your Best Memory Partner for Professional Innovation					
Annual R&D expenditure as a percentage of revenue (%)	Innovation	*	13.8%	25.3%	22.5%
R&D staff as a percentage of employees (%)	Innovation	*	27.1%	28.9%	29.7%
Total number of patents approved worldwide	Innovation	*	5,913	6,866	7,784
Value of improvement proposals (in NT$100 million)	Innovation	*	7.57	7.56	3.66
Customer complaint handling efficiency rate (%)	Integrity and Transparency	*	98%	99%	99.7%
Customer satisfaction (score)	Integrity and Transparency	*	94.7	94.5	95.7
Customer satisfaction survey coverage rate (%)	Integrity and Transparency	*	100%	100%	100%
A Promoter of Shared Values					
Completion rate of Sustainable Management Self-Evaluation Questionnaire by Tier 1 suppliers for risk self-assessment annually (%)	Responsible Procurement	308-1	100%	100%	100%
Percentage of key suppliers' code of conduct audited by a third party certified by the Responsible Business Alliance every three years (%)	Responsible Procurement	308-1	100%	100%	100%
Total number of high-risk significant suppliers audited under the Supplier Health Examination and Improvement Project annually	Responsible Procurement	308-1	100%	100%	100%
Percentage of suppliers using compliant minerals based on required due diligence for conflict-free metals and responsible minerals (%)	Responsible Procurement	308-1	100%	100%	100%
Completion rate of safety and health guidance by high-risk significant suppliers (%)	Responsible Procurement	308-1	100%	100%	100%

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Promoter of Shared Values					
Percentage increase in local raw material procurement (%)	Responsible Procurement	204-1	30%	31%	31%
Percentage of key suppliers (including significant suppliers) signing the supplier (contractor) code of conduct (%)	Responsible Procurement	414-1	100%	100%	100%
Signing rate for new suppliers (%)	Responsible Procurement	414-1	100%	100%	100%
Signing rate for significant suppliers (%)	Responsible Procurement	414-1	100%	100%	100%
Number of key suppliers (Tier 1)	Responsible Procurement	2-6	282	273	295
Number of Tier 1 raw material suppliers	Responsible Procurement	2-6	80	79	85
Percentage of Tier 1 significant suppliers of raw material (%)	Responsible Procurement	2-6	100%	100%	100%
Percentage of procurement amount from Tier 1 significant suppliers of raw material (%)	Responsible Procurement	2-6	100%	100%	100%
Percentage of Tier 1 significant suppliers assessed with high sustainability risk (%)	Responsible Procurement	308-2	5%	5%	5%
Percentage of Tier 2 significant suppliers assessed with high sustainability risk (%)	Responsible Procurement	308-2	5%	5%	5%
Number of high-risk sustainability audited suppliers	Responsible Procurement	308-1	20	18	20
Average score of high-risk sustainability audits	Responsible Procurement	308-1	90	90	93
Number of non-conformity items in high-risk sustainability audits	Responsible Procurement	308-1	74	57	61
Completion rate for high-risk sustainability audit improvements (%)	Responsible Procurement	308-1	100%	100%	100%

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Producer of Green Technology					
Raw material improvement: Extend usage cycle (items)	Green	302-5	3	2	0
Raw material improvement: New process formula development (items)	Green	302-5	10	18	11
Raw material improvement: Process usage reduction (items)	Green	302-5	11	15	9
Greenhouse gas (GHG) emissions (tCO_2e, metric ton of CO_2 equivalent) (including Scope 1 and Scope 2 under market-based method)	Green	305-1 305-2	440,954	430,324	409,138
• Scope 1 (tCO_2e)	Green	305-1	59,788	56,654	39,063
• Scope 2 (tCO_2e) (market-based method)	Green	305-2	381,166	373,670	370,075
• Scope 2 (tCO_2e) (location-based method)	Green	305-2	385,177	385,700	386,774
• Scope 3 (tCO_2e)	Green	305-3	940,525	816,878	817,588
Fluorinated GHG emissions (tCO_2e)	Green	305-1	45,248	36,967	20,779
GHG emissions per unit product area (Scope 1+2) ($kgCO_2e$/wafer area (cm^2))	Green	305-1	0.75	0.90	0.88
GHG emissions per unit production (Scope 1+2) ($kgCO_2e$/kpcs)	Green	305-1	405	430	416
GHG emissions per unit revenue (Scope 1+2) ($kgCO_2e$/NT$ million)	Green	305-1	7,743	14,396	11,988
PFC reduction performance (tCO_2e)	Green	305-1	631,790	519,478	537,572
PFC emissions per unit wafer production (kg/t)	Green	305-1	447	453	261
PFC emissions per unit revenue ($kgCO_2e$/NT$ million)	Green	305-1	794	1,237	609
Energy use (MWh) (including electricity, natural gas and steam)	Green	302-1	831,862	857,068	895,301
• Energy use (MWh) (non-renewable energy)	Green	302-1	823,982	832,578	860,071
• Energy use (MWh) (renewable energy)	Green	302-1	7,880	24,490	35,230

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Producer of Green Technology					
Energy cost (NT$10 thousand)	Green	302-1	193,587	240,424	297,180
Energy cost per unit production (NT$10 thousand/kpcs)	Green	302-1	0.178	0.24	0.302
Energy cost per unit revenue (NT$10 thousand/NT$ million)	Green	302-1	3.4	8.0	8.7
Non-renewable electricity usage (MWh)	Green	302-1	736,419	741,952	860,071
Renewable energy electricity consumption (MWh)	Green	302-1	7,880	24,490	35,230
Electricity usage per unit revenue (MWh/NT$ million)	Green	302-1	13.1	28.7	26.2
Electricity usage per unit production (MWh/kpcs)	Green	302-1	0.68	0.77	0.81
Natural gas usage (m^3)	Green	302-1	4,780,740	5,228,039	5,630,508
Natural gas usage per unit production (m^3/kpcs)	Green	302-1	4.4	5.2	5.7
Natural gas usage per unit revenue (m^3/NT$ million)	Green	302-1	83.9	174.9	165.0
Total electricity savings from energy conservation measures since 2017 (MWh/year)	Green	302-4	63,228	68,565	74,078
Number of production interruption days due to climate disasters	Green	201-2	0	0	0
Nitrogen oxide emissions (t)	Green	305-7	10.50	11.21	11.21
Sulfur oxide emissions (t)	Green	305-7	1.66	1.66	1.66
Volatile organic compound emissions (t)	Green	305-7	17.31	14.24	12.72
Reduction in air pollutant emissions per unit product (%) (based on 2017)	Green	305-5	-38.8%	-45.3%	-50.3%

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Producer of Green Technology					
Volatile organic compounds (VOCs) emission reduction rate (%)	Green	305-5	≧ 90%	≧ 90%	≧ 90%
Number of air pollution control equipment anomalies	Green	*	0	0	0
Number of facilities certified with ISO 14001	*	403-1	1	1	1
Percentage of facilities certified with ISO 14001 (%)	*	403-1	100%	100%	100%
Water usage (kt)	Green	303-5	3,388	3,385	3,955
Water usage per unit production (t/kpcs)	Green	303-5	3.11	3.38	4.02
Water usage per unit revenue (t/NT$ million)	Green	303-5	59.5	113.2	115.9
Volume of recycled water (kt)	Green	303-5	5,700	5,832	5,590
Ultra-pure water usage (kt)	Green	303-5	3,578	3,398	3,484
Ultra-pure water usage per unit production (t/kpcs)	Green	303-5	3.29	3.40	3.54
Ultra-pure water usage per unit revenue (t/NT$ million)	Green	303-5	62.8	113.7	102.1
Diesel usage (L)	Green	302-1	30,500	20,000	20,000
VOCs emissions per unit wafer area (kg/m^2)	Green	302-1	0.29	0.30	0.27
VOCs emissions per unit production (g/kpcs)	Green	302-1	15.9	14.2	12.9
VOCs emissions per unit revenue (g/NT$ million)	Green	302-1	304	476	373
Wastewater discharge (kt)	Green	303-4	2,695	2,446	2,864

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
A Producer of Green Technology					
Wastewater discharge per unit production (t/kpcs)	Green	303-4	2.48	2.44	2.91
Wastewater discharge per unit revenue (t/NT$ million)	Green	303-4	47.3	81.8	83.9
Environmental accounting expenditure (NT$ thousand)	Green	*	1,221,153	865,674	1,147,943
Total waste (t)	Green	306-3	23,981	22,403	22,732
General waste (t)	Green	306-3	6,383	5,881	6,060
Hazardous waste (t)	Green	306-3	17,598	16,522	16,671
Waste recycling rate (%)	Green	306-4	92.1%	98.8%	98.6%
Waste output per unit production (kg/kpcs)	Green	306-3	22.0	22.4	23.1
Waste output per unit revenue (kg/NT$ million)	Green	306-3	431.7	749.5	666.0
Professional Talent					
Number of employees	Talent	2-7	3,685	3,647	3,693
Number of male employees	Talent	2-7	2,670	2,634	2,671
Number of female employees	Talent	2-7	1,015	1,013	1,022
Number of employee nationalities	Talent	2-7	16	16	14
Number of employees hired with disabilities	Talent	406-1	36	40	42
Percentage of employees hired with disabilities (%)	Talent	406-1	1.01%	1.13%	1.17%

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
Professional Talent					
Total number of employees attending trainings	Talent	404-1	163,746	177,731	203,451
Total number of employee training sessions	Talent	404-1	3,091	3,089	3,476
Total employee training person-hours	Talent	404-1	157,720	134,279	160,886
Average training hours per employee	Talent	404-1	42.8	36.8	43.6
Total cost of employee training (NT$)	Talent	404-1	9,604,391	21,616,083	26,824,445
Average training cost per employee (NT$)	Talent	404-1	2,606	5,927	7,264
Return on human capital (%)	Talent	*	10.1%	4.8%	5.5%
Return on investment for personnel training (%)	Talent	404-1	796%	209%	217%
Percentage of female employees (%)	Talent	2-7	27.54%	27.78%	27.67%
Percentage of female employees in entry-level management (%)	Talent	405-1	93.14%	93.14%	93.07%
Percentage of female employees in senior and mid-level management (%)	Talent	405-1	11.49%	12.02%	12.55%
Percentage of female managers in production and revenue-related departments (%)	Talent	405-1	32.04%	38.49%	38.19%
Percentage of female employees in STEM-related positions (%)	Talent	405-1	16.34%	16.43%	16.44%
Absence rate	Talent	405-1	0.22%	0.32%	0.55%
Turnover rate (%)	Talent	401-1	9.05%	4.81%	6.35%
Turnover rate for new employees within 1 year (%)	Talent	401-1	14.99%	7.77%	11.16%
Voluntary turnover rate (%)	Talent	401-1	8.80%	4.58%	6.21%

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
Professional Talent					
Number of employees with labor union membership	Talent	407-1	86 people	88 people	88 people
Percentage of employees with labor union membership (%)	Talent	407-1	2.40%	2.49%	2.45%
Female/male average total salary ratio for management level (%)	Talent	405-2	95.68%	95.02%	94.58%
Female/male average compensation ratio for management level (%)	Talent	405-2	95.28%	95.30%	94.57%
Female/male average total salary ratio for non-management level (%)	Talent	405-2	108.42%	106.99%	105.84%
Female/male average compensation ratio for non-management level (%)	Talent	405-2	111.43%	109.28%	108.91%
Percentage of job vacancies filled by employee internal transfers (%)	Talent	*	85.90%	65.80%	61.41%
Return-to-work rate after parental leave (%)	Talent	401-3	82.35%	71.43%	81.48
Retention rate after parental leave (%)	Talent	401-3	80.00%	100.00%	90.00%
Percentage of employees with average recognition score above 7 (10-point scale)	Talent	401-3	76.2%	75.3%	73.0%
Safety - Disabling injury frequency rate	Talent	403-9	0	0.41	0.41
Safety - Disabling injury severity rate	Talent	403-9	0	18	6.2
Frequency-severity indicator	Talent	403-9	0	0.09	-
Number of work injuries/deaths - number of employees	Talent	403-9	0	3	3
Number of work injuries/deaths - number of contractors	Talent	403-9	0	1	1
RBA VAP score	Talent	205-2	193.6 (2020)	200.0 (2022)	193.8 (2024)
Number of occupational disease cases caused by chemical exposure	Talent	403-10	0	0	0

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

Key Indicators	Indicators Corresponding to the Chapters in the Sustainability Report	GRI Standard No.	2022	2023	2024
An Active Contributor to Society					
Percentage of investments in public welfare by type: Charity and public good (%)	Common Good	*	5.44%	7.46%	6%
Percentage of investments in public welfare by type: Community investment (%)	Common Good	*	9.97%	30.20%	40%
Percentage of investments in public welfare by type: Commercial advocacies (%)	Common Good	*	84.59%	62.33%	54%
Percentage of resources invested in public welfare: Cash donations (%)	Common Good	*	83.54%	68.02%	87.28%
Percentage of resources invested in public welfare: In-kind donations (%)	Common Good	*	7.72%	12.48%	1.47%
Percentage of resources invested in public welfare: Volunteer engagement (%)	Common Good	*	0.50%	12.63%	8.83%
Percentage of resources invested in public welfare: Management expenses (%)	Common Good	*	8.24%	6.87%	2.43%

*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items

9.3 GRI Standards Content Index

Usage Statement

Nanya Technology Corporation has followed GRI Standards 2021 to report content covering the period from January 1, 2024, to December 31, 2024.

GRI 1 Version

GRI 1: Foundation 2021

Applicable GRI Sector Standards

N/A

Information Disclosed		Corresponding Chapter	Page	Note
General Disclosures				
GRI 2: General Disclosures 2021				
2-1	Organization details	About Nanya Technology	10	
2-2	Entities included in the Sustainability Report	About This Report	193	
2-3	Reporting period, frequency and contact person	About This Report	193	
2-4	Information restatement	About This Report	-	
2-5	External assurance/verification	Appendix-Assurance Statement	222	
2-6	Organization activities, value chain and other business relationships	About Nanya Technology Sustainable Supply Chain Management · Nanya Technology's supply chain is divided into *Production Materials* and *Non-Production Materials*, with the former being the primary supply chain. In 2024, there were 441 Suppliers, mainly located in Asia (66.2%), the Americas (23.4%), Europe (7.7%), and Oceania (2.7%).Compared to 2023, the number of Suppliers increased by 50, while the regional distribution percentages remained largely unchanged.	10 130	
2-7	Employee information	Talent Development · Employee diversity: In 2024, Nanya Technology and its overseas subsidiaries had 3,693 formal employees, including 85 interns. 3,589 employees were based in Taiwan, representing 97.18% of the total workforce, while 104 employees were located at overseas subsidiaries, accounting for 2.82%.	68	
2-8	Other worker information	Talent Development	68	
2-9	Governance structure and composition	Corporate Governance	163	
2-10	Nomination and selection of highest governance body	Corporate Governance	164	
2-11	Chair of the highest governance body	Corporate Governance	164	
2-12	Role of the highest governance body in overseeing impact management	Sustainable Governance and Organization, Corporate Governance, Responsible Procurement	16; 163; 134	
2-13	Person responsible for impact management	Sustainable Governance and Organization, Corporate Governance	16; 163	
2-14	Role of the highest governance body in sustainability reporting	Sustainable Governance and Organization	16	
2-15	Conflicts of interest	Corporate Governance	164	

Information Disclosed		Corresponding Chapter	Page	Note
General Disclosures				
GRI 2: General Disclosures 2021				
2-16	Communication of key material events	Sustainable Governance and Organization, Corporate Governance	24; 163	
2-17	Collective knowledge of the highest governance body	Corporate Governance	164	
2-18	Performance assessment of the highest governance body	Corporate Governance	164	
2-19	Remuneration policy	Corporate Governance	165	
2-20	Process for determining remuneration	Corporate Governance	165	
2-21	Annual total remuneration ratio	Senior executive remuneration	165	
2-22	Statement on sustainable development strategies	A Message from the President	4	
2-23	Policy commitments	Ethical Management, Responsible Procurement	182; 127	
2-24	Incorporation into policy commitments	Ethical Management, Responsible Procurement	182; 127	
2-25	Procedures for remediation of negative impacts	Innovation-3-1 R&D and Innovation Talent-4-1 Human Rights Integrity and Transparency-8-4 Ethical Management	41; 55; 182	
2-26	Mechanisms for seeking advice and raising concerns	Ethical Management	182	
2-27	Compliance with laws and regulations	No major regulatory violations (fines exceeding US$10,000) occurred in 2024. Audit scope: Headquarters 2023: Number of cases 1; Total fines (in NT$) 100,000 2024: Number of cases 0; Total fines (in NT$) 0	-	
2-28	Association memberships	About Nanya Technology	10	
2-29	Stakeholder communication approach	Stakeholder communication approach Materiality Analysis	18-31	
2-30	Collective bargaining agreements	Safe Workplace · Nanya Technology does not have collective bargaining agreements to disclose.	-	N/A

Information Disclosed		Corresponding Chapter	Page	Note
Material Topics				
GRI 3: Material Topics in 2021				
3-1	Procedures for deciding on material topics	Materiality Analysis	18-21	
3-2	List of material topics	Materiality Analysis	22	
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29	
Material Topic: Ethical Management				
GRI 205 Anti-Corruptiona				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 182-185	
205-1	Operating locations assessed for corruption risk	Each year, Nanya Technology conducts assessments on its Taiwan and overseas operating locations, following internal ethical management regulations and audit mechanisms. No corruption risks were identified in 2024.	-	
205-2	Communication and training on anti-corruption policies and procedures	Ethical Management · Regular internal education, training and promotion, along with sufficient reporting channels and protective measures, foster a culture of workplace ethics and legal compliance. · Ethics education training and antitrust education training, both achieving a 100% completion rate.	182	
205-3	Confirmed corruption incidents and actions taken	Ethical Management, Human Right · 1 anti-corruption case occurred in 2024	62; 182	
GRI 206 Anti-Competitive Practices				
206-1	Legal actions for anti-competitive practices	No related incidents occurred in 2024	183	
Material Topic: R&D and Innovation				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 41-46	
-*	*Note: No corresponding GRI standards, as these are custom-defined material topics and voluntary disclosure items	R&D and Innovation · R&D expenses represented 22.5% of revenue, with R&D staff accounted for 29.7% of employees. · By 2024, Nanya Technology developed 134 AI applications with annual benefits reaching NT$400 million.	41	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Customer Service				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 190-192	
GRI 418 Customer Privacy				
418-1	Verified complaints regarding customer privacy violations or customer data loss	Customer Service, Ethical Management · Nanya Technology established the Confidential Information Management Procedure, with related documents authorized and distributed by the Document Control Center. No customer privacy violations occurred in 2024.	184; 190	
Material Topic: Supply Chain Sustainable Management				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 127-143	
GRI 204 Procurement Practices				
204-1	Proportion of procurement expenditure from local supply chains	Sustainable Supply Chain Management · Local raw materials accounted for 31% of the procurement amount in 2024.	130	
GRI 308 Supply Chain Environmental Assessment				
308-1	Screening new supply chains against environmental criteria	Sustainable Supply Chain Management · 100% of new suppliers signed the Supplier Code of Conduct (including business ethics, human rights, environment, safety and health) and underwent risk assessments.	133	
308-2	Negative environmental impacts in the supply chain and actions taken	Sustainable Supply Chain Management · Suppliers are required to comply with environmental standards outlined in the Supplier Code of Conduct, with 100% auditing and improvement requirements for high-risk suppliers.	135	
GRI 414 Supply Chain Social Assessment				
414-1	Screening new supply chains against social criteria	Sustainable Supply Chain Management · 100% of new suppliers signed the Supplier Code of Conduct (including business ethics, human rights, environment, safety and health) and underwent risk assessments.	135	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Risk Management				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 167-176	
-	-	Risk Management · Nanya Technology has established a Sustainable Development Committee under the Board of Directors to oversee risk management operations, environmental protection, social responsibility, corporate governance and other actions to help Nanya Technology achieve sustainable operation goals. Per the Sustainable Development Committee Charter, the committee requires at least 3 members, with more than half being independent directors. Currently, the committee consists of 4 independent directors and 3 directors, all 7 possessing expertise in crisis handling and risk management across various areas.	166	
Material Topic: Climate Change				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 97-102	
GRI 305 Emissions				
305-1	Direct (Scope 1) GHG emissions	GHG Inventory · Scope 1 emissions were 55,120 tCO_2e in 2024.	101	
305-2	Energy indirect (Scope 2) GHG emissions	GHG Inventory · Scope 2 emissions (market-based) were 385,409 tCO_2e in 2024.	101	
305-3	Other indirect (Scope 3) GHG emissions	GHG Inventory · Scope 3 emissions was 817,588 tCO_2e in 2024.	101	
305-4	GHG emissions intensity	GHG Inventory · 416 $kgCO_2e$/kpcs, 11,988 $kgCO_2e$/NT$ million in revenue	101	
305-5	Reduction in GHG emissions	Reduction in GHG · To reduce PFCs emissions, Nanya Technology established Local Scrubber acceptance criteria for PFC reduction rates: CF_4 gas treatment efficiency must exceed 90%, reduction rates of C_3F_8, C_4F_6, C_4F_8, CHF_3, CH_2F_2 and SF_6 must exceed 95%, and NF_3 reduction must exceed 99%.	102	
305-6	Emissions of ozone-depleting substance	Nanya Technology does not use ozone-depleting substances	-	
305-7	Nitrogen oxides, sulfur oxides, and other material gas emissions	Air Pollution Prevention · Major air pollutants include acid, alkaline, and organic waste gases. Acid and alkaline waste gases are treated in acid/alkaline scrubbing towers; organic waste gas combustion achieves a 99% treatment efficiency; reduction rate of volatile organic gas emissions remains above 90%. · In 2024, Nanya Technology reported Ox emissions of 12.65 metric tons and SOx emissions of 2.12 metric tons.	119	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Green Products				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 51-52	
GRI 302 Energy				
302-1	Energy consumption within the organization	Energy Management · The company's primary energy sources are purchased electricity (89.5% of total energy use), natural gas (6.6%) and steam (3.9%). · In 2024, purchased renewable energy (electricity) accounted for 3.94% of Nanya Technology's total electricity consumption.	103	
302-2	Energy consumption outside the organization	-	-	Information not available
302-3	Energy intensity	Energy Management · In 2024, electricity consumption per unit of production was 0.81 MWh/NT$ million, a 5.19% increase from 2023. Natural gas consumption per unit of production was 5.7 m^3/NT$ million, a 9.61% increase from 2023.	103	
302-4	Reduction in energy consumption	Energy Management · In 2024, 27 energy conservation management projects were completed, with total energy conservation benefits reaching 5,513 MWh.	105	
302-5	Reduction in energy requirements of products and services	Innovation-Green Products · Nanya Technology actively develops energy-efficient products to help customers lower energy requirements when using electronic products, thereby reducing GHG emissions. In 2024, all mainstream process products sold saved over 617.17 million kWh compared to previous-generation products, equivalent to approximately 2,222 trillion joules and a reduction of 304,884 tCO_2e GHG emissions.	50	
GRI 305 Emissions				
305-6	Emissions of ozone-depleting substance	Nanya Technology does not use ozone-depleting substances	-	
305-7	Nitrogen oxides, sulfur oxides, and other material gas emissions	Air Pollution Prevention · Major air pollutants include acid, alkaline, and organic waste gases. Acid and alkaline waste gases are treated in acid/alkaline scrubbing towers; organic waste gas combustion achieves a 99% treatment efficiency; reduction rate of volatile organic gas emissions remains above 90%. · In 2024, Nanya Technology reported Ox emissions of 12.65 metric tons and SOx emissions of 2.12 metric tons.	119	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Energy Management				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 103-106	
GRI 302 Energy				
302-1	Energy consumption within the organization	Energy Management · The company's primary energy sources are purchased electricity (89.5% of total energy use), natural gas (6.6%) and steam (3.9%). · In 2024, purchased renewable energy (electricity) accounted for 3.94% of Nanya Technology's total electricity consumption.	103	
302-3	Energy intensity	Energy Management · In 2024, electricity consumption per unit of production was 0.81 MWh/NT$ million, a 5.19% increase from 2023. Natural gas consumption per unit of production was 5.7 m^3/NT$ million, a 9.61% increase from 2023.	103	
302-4	Reduction in energy consumption	Energy Management · In 2024, 27 energy conservation management projects were completed, with total energy conservation benefits reaching 5,513 MWh.	105	
302-5	Reduction in energy requirements of products and services	Innovation-Green Products · INanya Technology actively develops energy-efficient products to help customers lower energy requirements when using electronic products, thereby reducing GHG emissions. In 2024, all mainstream process products sold saved over 617.17 million kWh compared to previous-generation products, equivalent to approximately 2,222 trillion joules and a reduction of 304,884 tCO_2e GHG emissions.	50	
Material Topic: Water Management				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 106-115	
GRI 303 Water (2018)				
303-1	Interactions and impacts associated with shared water resources	Water Resource Management · Nanya Technology mainly sources its water from Shimen Reservoir, drawing it through the Taoyuan Canal for production use following treatment. The water is drawn independently using a gravity-fed system, which operates by gravity flow, ensuring no impact on the water resource ecology or other usage.	110	
303-2	Management of impacts associated with water discharge	Water Resource Management · All wastewater at Nanya Technology is categorized and discharged to appropriate sewage facilities for treatment. To ensure discharge water quality meets certain standards, Nanya Technology has conducted real-time online monitoring of effluent quality in collaboration with the Environmental Protection Department. Additionally, regular quarterly outsourced offline sampling and analysis testing are commissioned to further strengthen wastewater quality control.	120	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Water Management				
GRI 303 Water (2018)				
303-3	Water withdrawal	Water Resource Management · In 2024, total water withdrawal was 3,955 million liters, primarily sourced from Taoyuan Canal (approximately 91.5%, or 3,619 million liters), followed by well water (approximately 7.9%, or 314 million liters), and tap water (approximately 0.6%, or 22 million liters). Rainwater has been recycled and reused over the years, but it was temporarily suspended in 2024 due to equipment changes for the expansion of new facilities.	107	
303-4	Water discharge	Water Resource Management · Total water discharge in 2024 was 2,864 million liters, representing a 17.1% increase compared to 2023.	107	
303-5	Water consumption	Water Resource Management · Total water consumption in 2024 was 1,091 million liters	107	
Material Topic: Waste Management				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 117-118	
GRI 306 Waste (2020)				
306-1	Waste generation and associated material impacts	Waste Management · Including raw materials and related materials which contain hazardous substances, the use of large amounts of acid and alkaline chemicals, and extensive use of production monitor wafers.	121	
306-2	Management of material impacts associated with waste	Recycling · Establishment of a hazardous substance free management system to ensure that wafers, IC packaging, and DIMM module products comply with international regulations and customer-specific requirements for hazardous substance management. · In-plant chemical recycling, such as converting copper sulfate waste liquid directly into copper cakes. · Outsourced recycling and regeneration of waste acid solutions, such as sulfuric and phosphoric acids.	123	
306-3	Waste generation	Water Resource Management · Total waste in 2024 was 22,732 metric tons, including 6,060 tons of general waste and 16,671 metric tons of hazardous waste.	123	
306-4	Waste disposal and transfer	Water Resource Management · In 2024, the amount of waste disposed of and transferred was 17,915 metric tons, accounting for 78.8% of total waste generated, of which 6 metric tons were prepared for reuse, 0 metric tons were recycled for use, and 3,713 metric tons were process through other recycling operations.	124	
306-5	Direct disposal of waste	Water Resource Management · In 2024, the total direct disposal of waste amounted to 4,816 metric tons, of which 4,504 metric tons were recycled after treatment (accounting for 19.81% of total waste), 285 metric tons were incinerated (accounting for 1.25% of total waste), 21 metric tons were either landfilled after solidification or directly landfilled (accounting for 0.09% of total waste), and 6 metric tons (accounting for 0.03% of total waste) were disposed of through other methods, including physical treatment for recycling, purification for reuse, etc.)	122	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Employee Development				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 68-70	
GRI 404 Training and Education				
404-1	Average annual training hours per employee	Talent Empowerment · In 2024, Nanya Technology conducted over 160,800 hours of training and learning development activities, averaging 43.6 hours of training per employee.	81	
404-2	Programs for enhancing employee skills and providing transition assistance	Talent Empowerment · Although Nanya Technology does not provide assistance programs for employees ending their careers due to retirement or employment termination, the Company adheres to its people-oriented approach and has established a robust training development system to continuously enhance employee skills and competitiveness. Nanya Technology encourages employees to pursue further education and has a total of 745 employees enrolled in on-the-job degrees.	78	
404-3	Percentage of employees receiving regular performance and career development reviews	Talent Empowerment · In 2024, 100% of employees received multi-dimensional performance appraisals (180-degree appraisal and 360-degree appraisal).	84	
Material Topic: Occupational Health and Safety				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 92-94	
GRI 403 Occupational Safety and Health (2018)				
403-1	Occupational safety and health management system	Occupational Health and Safety · Nanya Technology has obtained ISO 45001 management system certification and established an *EHS Management Manual* to protect all workers, including both employees and non-employees. The Company conducts monthly occupational safety and health committee meetings—exceeding regulatory frequency requirements—with 41.7% of committee members representing labors. These members jointly review various safety and health initiatives and the implementation performance of related projects.	92	
403-2	Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety · Established Incident Investigation Procedures Manual that mandates Root Cause Analysis for occupational accidents, near misses, and incidents affecting physical and mental health. These procedures include identification of direct, indirect, and underlying causes, along with the proposition of corrective and preventive measures prior to case closure. · In 2024, no major or severe occupational accidents occurred among employees, but 3 accidents resulted in employee disability. Accident investigations and analyses were conducted, along with 21 near misses requiring further analysis.	94	
403-3	Occupational health services	Occupational Health and Safety · Nanya Technology conducts regular annual workplace environment monitoring, implements a chemical classification management system and exposure assessments, carries out general and special health hazard checkups, develops health management plans, and provides on-site services for ergonomic prevention, maternal health protection, support for excessive work burdens, and related needs.	92	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Occupational Health and Safety				
GRI 403 Occupational Safety and Health (2018)				
403-4	Worker participation, consultation, and communication on occupational safety and health	Occupational Health and Safety · Collecting worker proposals or suggestions through opinion boxes, department meeting feedback, safety walking and talking (SWAT) sessions, and Safety & Environment Event Tracking System (SETS) to create an atmosphere of full participation.	92	
403-5	Worker training on occupational safety and health	Occupational Health and Safety · Nanya Technology protects workers' health and safety by controlling the pathways through which hazards may spread and workers' exposure to those risks. As a result, various safe work procedures were developed, and safety and health training was provided. In 2024, a total of 54,058 training hours were completed by 3,372 participants, including 21,825 hours for 726 employees requiring licenses or special hazardous operation supervision as mandated by law. Additionally, to enhance hands-on training and emergency response, 58 emergency drills were conducted.	92	
403-6	Promotion of worker health	Occupational Health and Safety · Nanya Technology provides physician consultations or guidance, and organizes lectures on dietary health education as well as health promotion activities, including smoking cessation and weight loss programs.	89	
403-7	Prevention and mitigation of occupational safety and health impacts directly associated with business relationships	Occupational Health and Safety · Nanya Technology continuously develops management plans for clean room working environments and medium-high risks, dividing them into explanations and improvement plans of general working environment risks and clean room related risks.	83	
403-8	Workers covered by an occupational safety and health management system	Occupational Health and Safety · Nanya Technology is committed to providing employees with a safe, healthy, and high-quality workplace while also maintaining the safety of contractors. The Company has established an EHS Management Manual to prevent occupational hazards and ensure a safe, healthy, and high-quality work environment for all workers. This manual empowers Nanya Technology's workforce with hazard prediction capabilities during business activities to prevent occupational accidents and achieve zero injuries and zero occupational diseases.	92	
403-9	Occupational Injury	Occupational Health and Safety · In 2024, 3 occupational accident cases occurred among employees, all involving physical injuries (falls, pinch injuries).	94	
403-10	Occupational diseases	Occupational Health and Safety · No reported cases of occupational disease in 2024.	94	
Material Topic: Talent Retention and Employee Care				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 65-91	
GRI 202 Market Presence (Material Topic)				
202-1	Ratio of entry-level wages by gender relative to the local minimum wage	Talent Retention · In 2024, the average salary of Nanya Technology's full-time, non-managerial employees was NT$1,379,000, representing a 13% decrease compared to 2023. The median salary of full-time, non-managerial employees was NT$1,111,000.	74	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Talent Retention and Employee Care				
GRI 401 Employment				
401-1	New hires and employee turnover	Employee Diversity · There were 260 new hires in 2024, resulting in a new employee rate of approximately 7%. · The total turnover rate in 2024 was 6.35%, with voluntary turnover accounting for 6.21%.	70	
401-2	Benefits provided to full-time employees that are not applicable to temporary or part-time employees	Talent Retention · Starting from July 2023, Nanya Technology made adjustments to the entry-level salary for new employees without experience, along with routine annual salary adjustments for all managerial officers and employees. There were also structural salary adjustments made for special departments and professional personnel, allowing employees to work in a happy and safe environment. · Nanya Technology provides employee health checkups more frequently than what is legally required.	71	
401-3	Parental leave	Employee care · In 2024, 339 employees were eligible for parental leave, with 43 employees actually applying. The return-to-work rate was 81.48%, and the retention rate was 90%.	91	
Material Topic: Social Engagement				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 148-160	
GRI 413 Local Communities (Material Topic)				
413-1	Operational activities with local community engagement, impact assessments, and development programs	Social Engagement · Enhancing community communication, such as helping to improve road facilities, which benefits 16,671 people in surrounding neighborhoods. · Enhancing neighborhood disaster prevention capacity (5,100 fire extinguishers replaced and refilled)	157	
Material Topic: Human Rights				
GRI 3: Material Topics in 2021				
3-3	Management of material topics	Materiality Analysis / Strategy and Performance of Material Topics	27-29 57-63	

Information Disclosed		Corresponding Chapter	Page	Note
Material Topic: Human Rights				
GRI 406 Non-Discrimination (Material Topic)				
406-1	Discrimination incidents and corrective actions taken	Employee Human Rights Protection · All employees signed Labor and Ethic Policy and completed mandatory training courses including "2024 Policy and Code of Conduct Training," "2024 Unsafe Workplace Behavior and Prevention Training," and "2024 Personal Data Protection Training." These training courses had a 100% completion rate, with a total of 14,547 training hours provided. · Establishment of long-term human rights goals for 2030. · No discrimination incidents occurred in 2024.	55 62	
GRI 409 Forced or Compulsory Labor (Material Topic)				
409-1	Operational locations and supply chains with material risks of forced or compulsory labor	Employee Human Rights Protection · Ensuring the absence of forced labor through RBA internal audits. Sustainable Supply Chain Management · Requiring suppliers to comply with RBA through the Supplier Code of Conduct, issuing SAQs to investigate supplier human rights risks, and conducting audits and mandating improvements for high-risk suppliers.	55 135	
GRI 200: Economic Series				
GRI 201 Economic Indicator				
201-1	Direct economic value generated and distributed	Products and Operating Performance, Talent Attraction and Retention, Appendix-Nanya Technology's, CSR Performance	11; 71; 201	
201-3	Define benefit plan obligations and other retirement plans	Talent Retention, Corporate Governance	72; 165	
GRI 203 Indirect Economic Impacts				
203-1	Development and impact of infrastructure investments and support services	Social Impact	-	
203-2	Material indirect economic impacts	· Talent cultivation: 1,536 people received design thinking education, while the Youth for Causes: Student-Athlete Scholarship supported 5 national team members and 3 sports talents. · Community harmony: We sponsored a total of NT$6.8 million for neighborhood public affairs promotion. · Humanistic care: We organized two charity sales and one small farmers' market, with colleagues purchasing approximately NT$360,000 worth of goods; sponsored NT$3 million to support domestic films, troupes, and other activities, fostering the development of the domestic cultural industry.	-	

Information Disclosed		Corresponding Chapter	Page	Note
GRI 300: Environmental Series				
GRI 301 Materials				
301-3	Recycle products and packaging materials	Green Product Development	47-52	
GRI 400: Social Series				
GRI 402 Labor/Management Relations				
402-1	Minimum notice periods for operational changes	Employee Diversity · Under the Formosa Plastics Group's human resources integration mechanism, job transfers are prioritized over layoffs. Job reassignments and layoffs are all conducted according to the Labor Standards Act and relevant regulations, with proper advance notice or notification provided. Managers will also ensure thorough communication with the affected individuals.	71	
GRI 405 Employee Diversity and Equal Opportunity				
405-1	Diversity of governance bodies and employees	Corporate Governance · The Board of Directors consists of 12 members with diverse professional backgrounds, including 4 independent directors and 1 female director. Board members possess diverse backgrounds, including professional experience from various industries. Employee Diversity · In 2024, Nanya Technology and its overseas subsidiaries had 3,693 formal employees, including 85 interns. There were 14 different nationalities represented, along with employees with disabilities, fully demonstrating workplace diversity.	164; 65	
405-2	Ratio of women's basic salary and remuneration to men's	Talent Retention · The female-to-male total salary and remuneration ratio for managerial roles is 94.57%, while for non-managerial roles, it is 108.91%.	74	
GRI 415 Public Policy				
415-1	Political donations	Ethical Management · Nanya Technology's Code of Business and Ethical Conduct stipulates that no donations other than charitable activities (such as political contributions) are permitted to maintain political neutrality.	182	
GRI 417 Marketing and Labeling				
417-2	Incidents of non-compliance related to product and service information and labeling	No related incidents occurred in 2024	-	
417-3	Incidents of non-compliance related to marketing promotions	No related incidents occurred in 2024	-	

9.4 SASB Content Index

Topic	Code	Properties	Accounting Metric	Reference Chapter	Page
GHG	TC-SC-110a.1	◆	1. Scope 1 emissions 2. PFCs emissions	GHG Inventory	100
	TC-SC-110a.2	◆	Description of long-term and short-term strategies or plans to manage Scope 1 emissions, along with the performance analysis of related targets		102
Process Energy Management	TC-SC-130a.1	◆	1. Total energy consumption 2. Percentage of grid electricity used 3. Percentage of renewable energy	Energy Management	103-104
Water Management	TC-SC-140a.1	◆	1. Total water withdrawal and percentage from high water pressure regions 2. Total water consumption and percentage from high water pressure regions	Water Resource Management	107
Waste Management	TC-SC-150a.1	◆	Amount of hazardous waste generated in specific processes and the percentage that is recycled	Outsourced Recycling Services	122
Employee Health and Safety	TC-SC-320a.1	◆	Description of efforts to assess, monitor, and reduce employee exposure to human health hazards	Occupational Health and Safety	213
	TC-SC-320a.2	◆	Total financial losses resulting from legal proceedings associated with employee health and safety violations		-
Recruiting and Managing Global and Technical Workforce	TC-SC-330a.1	◆	1. Percentage of employees who are foreign nationals 2. Percentage of overseas workforce	Employee Diversity	65
Product Lifecycle Management	TC-SC-410a.1	◆	Products and services are focused on wafer manufacturing, not end products, so no relevant content applies		
Materials Procurement	TC-SC-440a.1	◆	Description of the risk management approach for handling critical materials	Conflict Minerals Management	147-150
Intellectual Property Protection and Competitive Behavior	TC-SC-520a.1	◆	Total financial losses resulting from legal proceedings associated with anti-competitive practice regulations	Ethical Management	183

Topic	Code	Measurement Unit & Indicator Content	Reference Chapter	Page
Activity Indicator	TC-SC-000.A	◆ Total production volume from owned facilities and service contracts	Products and Operational Performance	13
	TC-SC-000.B	◆ Percentage of production volume from owned facilities		13

◆ Quantitative ◆ Description

9.5 UN Global Compact Content Index

Principle	Report Content or Description	Page
Human Rights		
Businesses should support and respect the protection of internationally proclaimed human rights	Nanya Technology supports and respects internationally proclaimed human rights, follows global human rights standards, and has established dedicated human rights policies. For more details, please refer to the section "Talent: Human Rights - Employee Human Rights Protection" in this report.	55
Businesses should make sure that they are not complicit in human rights abuses	Nanya Technology has established the Supplier Code of Conduct which includes guidelines for suppliers/contractors, aligns with the Responsible Business Alliance (RBA) Code of Conduct, and encompasses regulations and requirements related to conflict minerals. Nanya Technology also provides comprehensive training to suppliers. For more details, please refer to the sections "Responsible Procurement: Sustainable Supply Chain Management Process and Responsible Minerals Procurement Management" in this report.	55 135
Labor Standards		
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Nanya Technology supports the freedom of association and effectively recognizes the right to collective bargaining. This practice is explicitly outlined in its Human Rights Policy and Code of Business and Ethical Conduct. For more details, please refer to the section "Talent: Employee Human Rights Protection" in this report.	55
Businesses should eliminate all forms of forced and compulsory labor	Nanya Technology prohibits all forms of forced and compulsory labor. This practice is explicitly outlined in its Human Rights Policy, Code of Business and Ethical Conduct, and Labor and Ethics Policy. For more details, please refer to the section "Talent: Human Rights - Employee Human Rights Protection" in this report.	55
Businesses should abolish child labor effectively	Nanya Technology strictly prohibits child labor. This practice is explicitly outlined in its Human Rights Policy, Code of Business and Ethical Conduct, and Labor and Ethics Policy. For more details, please refer to the section "Talent: Human Rights - Employee Human Rights Protection" in this report.	55
Businesses should eliminate discrimination in respect of employment and occupation	Nanya Technology eliminates discrimination in employment and occupation. This practice is explicitly outlined in its Human Rights Policy, Code of Business and Ethical Conduct, Labor and Ethics Policy, and Prohibiting Workplace Violation Statement. Nanya Technology has also established various complaint and reporting channels. For more details, please refer to the sections "Talent: Human Rights - Employee Human Rights Protection and Employee Protection and Communication" in this report.	55 60-62
Environment		
Businesses should support a precautionary approach to environmental challenges	Nanya Technology introduced TCFD in 2018, publicly signed TCFD in 2021, and has published TCFD reports following the Climate Change-Related Financial Disclosure Framework for 2 consecutive years since 2022. In recognition of the dependencies and risk impacts on nature environments throughout the value chain, Nanya Technology became a TNFD Early Adopter in 2023. The Company has actively established a comprehensive LEAP operation mechanism to assess natural and climate-related dependencies and risks across its operations, upstream supply chains, and downstream customers, while developing strategies and actions to reduce risk impacts. For more details, please refer to the section "Green: Nature and Climate Management" in this report.	97-102

Principle	Report Content or Description	Page
Environment		
Businesses should undertake initiatives to promote greater environmental responsibility	Adopting an approach for Life Cycle Thinking and Design for Environment, Nanya Technology reflects on environmental impacts at all stages starting from new product development, including procurement, manufacturing, transportation, product use, and disposal/recycling. The company continues to help customers develop products with low energy consumption design. For more details, please refer to the section "Innovation: Green Product Development" in this report.	50-54
Businesses should encourage the development and diffusion of environmentally friendly technologies	Nanya Technology actively manages all environmental impacts from its operations by applying standards that exceed regulatory requirements in areas such as energy, resources, emissions, and waste to avoid or reduce impact risks. Nanya Technology also sets targets to review sustainability performance results and collaborates with suppliers on energy conservation and carbon reduction projects to reduce negative environmental impacts across the value chain. For more details, please refer to the sections "Green" and "Responsible Procurement: Enhancing Supply Chain Sustainability" in this report.	101 134
Anti-Corruption		
Businesses should work against corruption in all forms, including extortion and bribery	All Nanya Technology employees must comply with its Code of Business and Ethical Conduct and complete the "Anti-Corruption Training." For more details,please refer to the section "Integrity and Transparency: Anti-Corruption" in this report.	183

9.6 ISSB Standards Content Index

No.	Indicator	Type of Indicator	Unit	Performance	Corresponding Chapter
I	Total energy consumption, percentage of purchased electricity, and renewable energy usage rate	Quantitative	Gigajoules (GJ), percentage (%)	1. Total energy consumption: $3.223*10^9$ MJ 2. Purchased electricity percentage: 89.5% 3. Renewable energy usage rate*: 3.94%	Green/Energy Resource Management/ Energy Management
II	Total water withdrawal and consumption	Quantitative	Thousand cubic meters (km^3)	1. Total water withdrawal: 3,955 m^3 2. Total water consumption: 1,091 m^3	Green/Energy Resource Management/ Water Management
III	Weight of hazardous waste generated and percentage recycled	Quantitative	Metric Ton (t), Percentage (%)	1. Weight of hazardous waste: 16,671 t 2. Percentage of hazardous waste recycled: 99.8%	Green/Environmental Pollution Prevention/Waste Management
IV	Description of occupational accident types, number, and percentage	Quantitative	Percentage (%), quantity	1. Occupational accidents: 3 cases, all involving physical injuries (falls, pinch injuries). 2. Employee disabling injury frequency (number of disabling injuries/million work hours): 0.41 3. Disabling injury severity rate (lost workdays/million work hours): 5	Talent/Happy and Safe Workplace/ Occupational Health and Safety

Note: Renewable energy usage rate = the ratio of renewable energy/total energy

No.	Indicator	Type of Indicator	Unit	Performance	Corresponding Chapter
V	Product lifecycle management disclosure, including the weight and recycling percentage of discarded products and electronic waste	Quantitative	Metric Ton (t), Percentage (%)	Products and services are focused on wafer manufacturing, not end products, so no relevant content applies	N/A
VI	Description of risk management practices related to the use of critical materials	Qualitative	-	Nanya Technology has established comprehensive risk management measures for critical materials, which is outlined in this report	Responsible Procurement/ Sustainable Supply Chain Management/Sustainable Supply Chain Risk Management Process
VII	Total financial losses resulting from legal proceedings associated with anti-competitive practices	Quantitative	Reporting currency	0	Integrity and Transparency/Ethical Management/Antitrust
VIII	Quantity of Main Products by Category	Quantitative	Varies by product type	Standard products: 962,014 kpcs Low-power products: 92,466 kpcs	Business Strategy and Performance/ Company Annual Production and Sales Market

9.7 Climate-Related Information for Listed Companies

Risks and opportunities arising from climate change and the Company's response measures

Item	Corresponding Chapter
1. Description of the Board of Directors' and management's oversight and governance of climate-related risks and opportunities.	Chapter 5 Green - Climate Change Management Chapter 8 Integrity and Transparency *TNFD and TCFD Report*
2. Description of how identified climate risks and opportunities impact business, strategy and finance over the short, medium, and long term.	Chapter 5 Green - Climate Change Management *TNFD and TCFD Report*
3. Description of financial impacts of extreme climate events and transition actions.	Chapter 5 Green - Climate Change Management *TNFD and TCFD Report*
4. Description of how climate risk identification, assessment and management processes are integrated into the overall risk management system.	Chapter 5 Green - Climate Change Management Chapter 8 Integrity and Transparency
5. If scenario analysis is used to assess resilience against climate change risks, an explanation of the scenarios, parameters, assumptions, analytical factors and major financial impacts should be provided.	Chapter 5 Green - Climate Change Management Chapter 8 Integrity and Transparency - Risk Management
6. If there is a transition plan to manage climate-related risks, an explanation of the plan's content, along with the indicators and targets used to identify and manage both physical and transition risks should be provided.	Chapter 5 Green - Climate Change Management
7. If internal carbon pricing is used as a planning tool, an explanation of the pricing basis should be provided.	*TNFD and TCFD Report*
8. If climate-related targets are set, an explanation of the activities covered, GHG emission scopes, planning timeline, and annual progress, etc. should be provided. Additionally, if carbon offsets or T-RECs are used to achieve these targets, an explanation of the source and quantity of offset carbon reduction credits or quantity of T-RECs should be provided.	Chapter 5 Green - Energy Resource Management
9. GHG inventory and assurance status, reduction goals, strategies and specific action plans	Please refer to the following table

GHG Inventory and Assurance Status

Item	2023	2024
Data Coverage/Assurance Scope	Nanya Technology Corporation Fab 3	Nanya Technology Corporation Fab 3
Direct GHG Emissions (Scope 1)	56,654 tCO_2e	39,063 tCO_2e
Energy Indirect GHG Emissions (Scope 2)	373,670 tCO_2e	370,075 tCO_2e
Direct and Energy Indirect GHG Emissions (Scope 1+2)	430,324 tCO_2e	409,138 tCO_2e
GHG Emissions Intensity	14.4 tCO_2e/NT$ million	12.0 tCO_2e/NT$ million
Assurance Institution	SGS Taiwan Limited	SGS Taiwan Limited
Assurance Standards	ISO 14064-3:2019	Guidelines for Greenhouse Gas Emissions Inventory by the Ministry of Environment (2024 Edition), Regulations Governing Registration and Verification of Greenhouse Gas Emissions Inventory by the Ministry of Environment (September 14, 2023), Guidelines for Verification of Greenhouse Gases by the Ministry of Environment (June 2024)
Assurance Opinions	The verification of Nanya Technology's Fab 3 was conducted by SGS in accordance with its verification criteria. The results concluded that the GHG claims made by Fab 3 comply with current regulations set by component authority, do not exceed the materiality threshold, and meet the reasonable level of assurance required by the authority.	The verification of Nanya Technology's Fab 3 was conducted by SGS in accordance with its verification criteria. The results concluded that the GHG claims made by Fab 3 comply with current regulations set by component authority, do not exceed the materiality threshold, and meet the reasonable level of assurance required by the authority.

GHG Reduction Goals, Strategies and Specific Action Plans

Nanya Technology plans to disclose its GHG emissions reduction baseline year and corresponding data, reduction goals, strategies, specific action plans, and progress toward achieving these goals within the scope of its consolidated financial statements in 2025. For information on the current parent company's GHG emissions reduction goals, strategies and action plans (including all manufacturing sites), please refer to Chapter 5 Green - Climate Change Management.

9.8 Assurance Statement

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By Royal Charter

INDEPENDENT ASSURANCE OPINION STATEMENT

Nanya Technology 2024 Sustainability Report

The British Standards Institution is independent to Nanya Technology Corporation (hereafter referred to as Nanya Technology in this statement) and has no financial interest in the operation of Nanya Technology other than for the assessment and verification of the sustainability statements contained in this report.
This independent assurance opinion statement has been prepared for the stakeholders of Nanya Technology only for the purposes of assuring its statements relating to its sustainability report, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.
This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by Nanya Technology. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.
Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to Nanya Technology only.

Scope

The scope of engagement agreed upon with Nanya Technology includes the followings:

1. The assurance scope is consistent with the description of Nanya Technology 2024 Sustainability Report.
2. The evaluation of the nature and extent of the Nanya Technology's adherence to AA1000 AccountAbility Principles (2018) and the reliability of specified sustainability performance information in this report as conducted in accordance with type 2 of AA1000AS v3 sustainability assurance engagement.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the Nanya Technology 2024 Sustainability Report provides a fair view of the Nanya Technology sustainability programmes and performances during 2024. The sustainability report subject to assurance is materially correct without voluntary omissions based upon testing within the limitations of the scope of the assurance, the information and data provided by the Nanya Technology and the sample taken. We believe that the performance information of Environment, Social and Governance (ESG) are correctly represented. The sustainability performance information disclosed in the report demonstrate Nanya Technology's efforts recognized by its stakeholders.
Our work was carried out by a team of sustainability report assurors in accordance with the AA1000AS v3. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that Nanya Technology's description of their approach to AA1000AS v3 and their self-declaration in accordance with GRI Standards were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a top level review of issues raised by external parties that could be relevant to Nanya Technology's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on Nanya Technology's approach to stakeholder engagement. Moreover, we had sampled 2 external stakeholders to conduct interview.
- interview with 50 staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of materiality assessment process.
- review of key organizational developments.
- review of the extent and maturity of the relevant accounting systems for financial and non-financial reports.
- review of the findings of internal audits.
- the verification of performance data and claims made in the report through meeting with managers responsible for gathering data.
- review of the processes for gathering and ensuring the accuracy of data, followed data trails to initial aggregated source and checked sample data to greater depth during site visits.
- the consolidated financial data are based on audited financial data, we checked that this data was consistently reproduced.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness, and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness, and Impact of AA1000AP (2018) and sustainability performance information as well as GRI Standards is set out below:

Inclusivity

In this report, it reflects that Nanya Technology has continually sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for the information of Environment, Social and Governance (ESG) in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the Nanya Technology's inclusivity issues and has demonstrated sustainable conduct supported by top management and implemented in all levels among organization.

Materiality

The Nanya Technology publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of Nanya Technology and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the Nanya Technology's management and performance. In our professional opinion the report covers the Nanya Technology's materiality assessment process and material issues.

Responsiveness

Nanya Technology has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for the Nanya Technology is developed and continually provides the opportunity to further enhance Nanya Technology's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the Nanya Technology's responsiveness issues.

Impact

Nanya Technology has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. Nanya Technology has established processes to monitor, measure, evaluate, and manage impacts that lead to more effective decision-making and results-based management within an organization. In our professional opinion the report covers the Nanya Technology's impact issues.

Performance information

Based on our work described in this statement and with no conflict of interest with the Nanya Technology in relation to providing the assurance of ESG performance information, which has been assured, specified sustainability performance information such as GRI Standards disclosures disclosed in this report, Nanya Technology and BSI have agreed upon to include in the scope. In our view, the data and information contained within Nanya Technology 2024 Sustainability Report are reliable.

GRI Sustainability Reporting Standards (GRI Standards)

Nanya Technology provided us with their self-declaration of in accordance with GRI Standards 2021 (For each material topic covered in the applicable GRI Sector Standard and relevant GRI Topic Standard, including the disclosures of applicable economic, environmental, and social information, comply with all reporting requirements for disclosures). Based on our review, we confirm that sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported, or omitted. In our professional opinion the self-declaration covers the Nanya Technology's sustainability topics.

Assurance level

The high level assurance provided is in accordance with AA1000AS v3 in our review, as defined by the scope and methodology described in this statement.

Responsibility

This sustainability report is the responsibility of the Nanya Technology's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064, and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Peter Pu, Managing Director BSI Taiwan

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Statement No: SRA-TW-803151

2025-05-19

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