



TSMC 2025 Sustainability Report



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Crystalline Light, Sustainability in Sight

Across the wafers, luminous lights swirl and flow.

Layers meet and converge,
Baring innovation's radiant glow.

Through technology, ideas come alive.

In harmony, all life may thrive.

With partners in hand, our value takes flight.

Diverse in strength, united in heart.
In every ray, the future comes to light.

Letter from the ESG Steering Committee Chairperson

The rapid acceleration of artificial intelligence and high-performance computing has ushered the global technology sector into an era of unprecedented computational demand. Electricity powers tokens, and tokens generate intelligence, bringing boundless opportunities as well as pressing challenges for low-carbon transition. To deliver on our environmental commitments, the role of responsible corporate citizenship is more vital than ever.

As the world's leading semiconductor foundry, we embrace our responsibility to provide customers with cutting-edge technology and needed capacity. The next-generation, sustainable products we manufacture continue to lead the industry in density and energy efficiency, empowering our customers to unleash their innovation. According to Industrial Technology Research Institute (ITRI), the energy-saving benefits enabled by TSMC-powered ICT products across six smart applications will save more than 180 billion kWh of electricity globally and reduce nearly 89 million metric tons of carbon emissions in 2025. By 2030, for every kilowatt-hour (kWh) of electricity TSMC consumes to manufacture semiconductors, we will save nearly seven kWh.

Over the past year, the International Court of Justice (ICJ) issued a landmark advisory opinion, firmly establishing nations' legal obligations to address climate change. This marks the first time in history that climate responsibility has officially risen to the level of a legal obligation, underscoring that the climate crisis is an urgent and existential threat to humanity.

While our manufacturing footprint requires careful management, the environmental value of our technology extends far beyond our cleanrooms. TSMC takes its responsibilities seriously. As part of our commitment to global environmental sustainability, we aligned our net-zero roadmap with the Science Based Targets initiative (SBTi) absolute emission targets this year. In parallel, we are dedicated to fostering an inclusive and innovative workplace to meet these challenges. We are also allocating more of our earnings toward sustainability, investing in long-term ESG initiatives, and collaborating with our stakeholders to drive collective social progress.

Sustainability cannot be a passive goal. It requires the same structural discipline, rigorous accountability, and execution focus that we apply to our technology development. For TSMC, sustainability is the cornerstone of our operational resilience, competitiveness, and long-term value. Every step we take toward this sustainable vision relies on the TSMC team aligning toward a common goal. Driven by technology, expertise, and passion, we are working together to make a meaningful, positive impact on the world.



C.C. Wei

Chairman and Chief Executive Officer/
ESG Steering Committee Chairperson



Letter from the ESG Committee Chairperson

According to the latest [Global Risks Report 2026](#)  from the World Economic Forum, the world is entering an "Age of Competition," marked by declining stability in cooperation mechanisms. Rising competition is adding to global turbulence, leading to future risks including extreme climate events, biodiversity loss, and ecosystem collapse. TSMC aligns with the Forward Faster Initiative of the UN Global Compact (UNGC) and its focus on climate action and water resilience. The Company acts on its [three sustainability commitments](#)  of Net Zero, Water Positive, and No Net Loss (NNL) of Nature and Biodiversity, and collaborates with stakeholders to address these shared global challenges.

In response to the global consensus on transition to environmental sustainability, TSMC joined the Science Based Targets initiative (SBTi) in 2025. The Company adopted [innovative emissions reduction solutions](#)  throughout each step of its manufacturing process, expanded [Scope 3 emissions management](#) , and allocated NT\$ 160 million to a [carbon reduction subsidy program](#)  supporting the supply chain's net-zero roadmap. To conserve water resources, TSMC also continued to improve water efficiency and pioneered Taiwan's first cross-regional [reclaimed water exchange model](#)  among industrial users. The Company launched the [Verde River Restoration Project at TSMC Arizona](#) , taking significant action in water conservation, water recycling, and watershed restoration. Guided by a vision of industry growth in harmony with nature, TSMC demonstrated its commitment through the [Nature and Biodiversity NNL Action Blueprint](#) . The Company also continued projects such as the [Plant-A-Tree Program](#)  and the [Eco Plus! Ecological Harmony Program](#) , investing in [ecological talent development](#)  and [environmental education](#)  while helping communities act as hubs that connect conservation networks.

Putting people first and building an inclusive environment that respects human rights, safety, and health is our mission. In 2025, based on the results of the Workplace Human Rights Climate Survey, TSMC launched [improvement actions at the company and organizational levels](#) , embedding human rights management into daily operations. The Company also held its first Global Inclusive Workplace Month to strengthen employee engagement and a sense of belonging. At the same time, TSMC advanced human rights management in the supply chain by establishing the [Supplier Human Rights Management Tracking Platform](#)  and issuing the statement on [Construction Site Safety at TSMC](#)  to protect the health and well-being of supplier and contractor partners. For customers, TSMC is committed to safeguarding customer data and product security, aiming to serve as a trusted service provider. For communities, the Company focuses on environmental rights by establishing a research program on Perfluoroalkyl Substance (PFAS) alternatives and an initiative to reduce N-methylpyrrolidone (NMP) use. Through these sustainability commitments, TSMC fulfills its responsibility for human rights in the communities where it operates.

Employees are key drivers of corporate sustainability. To build an ESG culture across the Company, TSMC plans to integrate ESG indicators into employee performance and compensation systems in 2026, establishing accountability and incentive mechanisms. Beyond its own operations, the Company works closely with the [TSMC Education and Culture Foundation](#)  and the [TSMC Charity Foundation](#)  to make advances in five major areas: Educational Innovation, Community Inclusion, Art and Culture Literacy, Ecological Sustainability, and Health Protection. In 2025, the Company partnered with more than 900 organizations on 235 projects, creating shared value for society.

Sustainability is a long-term commitment. Looking ahead, TSMC plans to collaborate with partners across sectors, continuing to turn each commitment into concrete actions that drive positive change and create long-term value for society.




Lora Ho

Senior Vice President and ESG Committee Chairperson

About TSMC

Amid the rise of artificial intelligence (AI) and high-performance computing (HPC), TSMC continues to expand its R&D portfolio to meet diverse customer needs with leading-edge process technologies. Beyond pursuing excellence in its core business, TSMC operates responsibly, guided by its trinity of strengths: Technology Leadership, Manufacturing Excellence, and Customer Trust. Working with stakeholders including employees, shareholders/investors, customers, suppliers/contractors, government agencies/industry associations, and communities, TSMC makes advances across the economic, environmental, and social dimensions to create positive impact.

TSMC operates four 12-inch wafer Gigafab[®] facilities, four 8-inch wafer fabs, and one 6-inch wafer fab in Taiwan, as well as overseas facilities including TSMC (China), TSMC (Nanjing), TSMC Washington, LLC, TSMC Arizona, and JASM (Japan). The Company has also established subsidiaries or offices in the United States, Europe, Canada, Japan, and South Korea. In 2025, the Company began construction of its third fab at TSMC Arizona and its second fab at JASM, while continuing work on a specialty process fab in Dresden, Germany. These facilities aim to provide customers with timely technical and business support and reinforce TSMC's leadership in global integrated circuit manufacturing services.

Headquarters
Hsinchu Science Park

Founded in
1987

Number of Employees
90,557

15 Million Wafers

Shipments reached an equivalent of 15 million 12-inch wafers

534 Customers

Provided with 305 process technologies for their product needs

\$1.7178 Trillion

Net Income (NT\$)

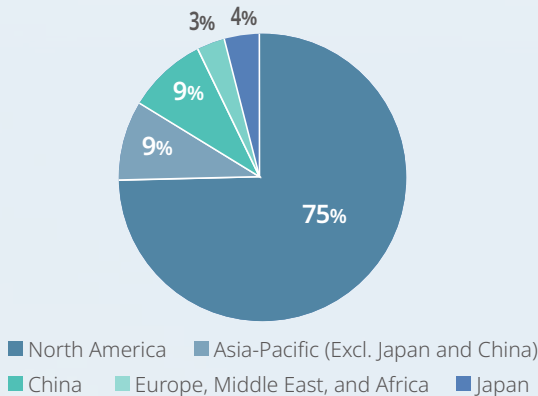
74%

74% of revenue generated from advanced processes of 7nm and below, up 5 percentage points from 2024

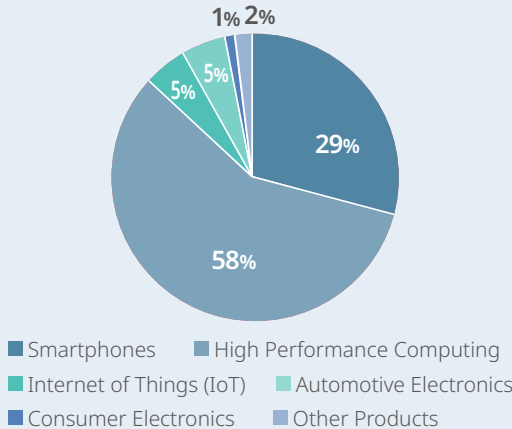
\$7.92 Billion

R&D expenses (US\$)

Revenue Share by Customer Headquarters Location

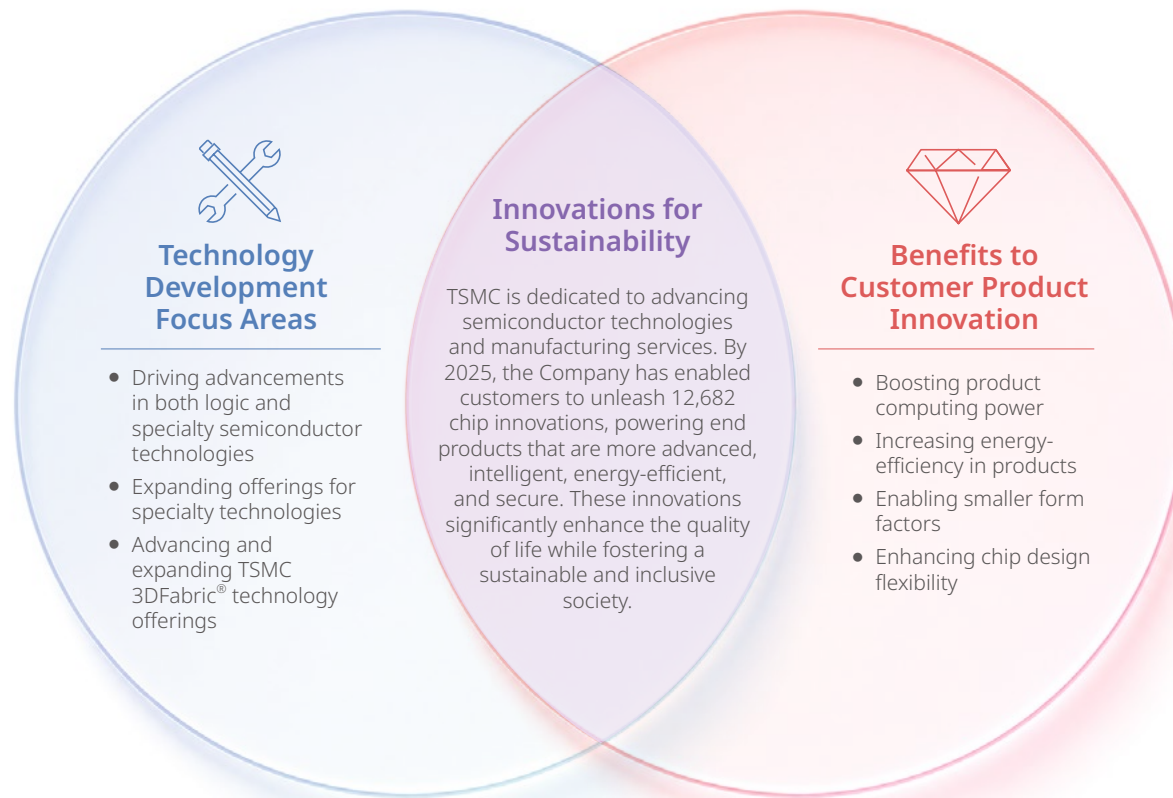


Revenue Share by Product Platform



Innovation Value

Semiconductors are the bedrock of technological advancement, playing a crucial role in driving innovation across communication, data analysis, environmental sustainability, healthcare, smart living, autonomous transportation, and entertainment. As artificial intelligence (AI) applications continue to evolve, they are transforming human life and work environments toward greater intelligence. TSMC supports this transformation by offering customers a comprehensive and competitive range of logic process technologies, specialty technologies, intellectual properties (IPs), and stacking, packaging, and testing technologies. These offerings are delivered through five major technology platforms: High Performance Computing (HPC), Smartphones, Internet of Things (IoT), Automotive, and Digital Consumer Electronics (DCE). Through continuous technological innovation and breakthroughs, TSMC not only enhances chip computing performance and energy efficiency but also contributes to global energy savings. For every 1 kilowatt-hour of electricity consumed in production, TSMC enables a global saving of 6.8 kilowatt-hour. By collaborating with customers to develop innovative products, TSMC helps drive economic growth, protect the environment, and promote social progress.



HPC accelerates the development of AI technology by enabling fast, precise, and energy-efficient training and inference of complex predictive models on data center CPUs, GPUs, ASICs, and networking. Beyond empowering early warning systems that mitigate extreme climate disasters, HPC-enabled AI promotes medical innovations, optimizes renewable energy systems, enhances biodiversity monitoring, and strengthens sustainable governance through data-driven decision-making. These advancements contribute to energy efficiency, improving public health preparedness and enabling more sustainable manufacturing practices.



Modern smartphones are increasingly equipped with powerful neural processing units (NPUs) and advanced sensors, allowing them to handle complex AI-driven tasks on-device, such as chatbots, translation, gesture recognition, image recognition, augmented reality (AR), and context awareness with advanced analytics. Looking ahead, smartphones will feature agentic AI capable of autonomously completing workflows without human intervention. This evolution will reduce response times and deliver user experiences that are more secure, seamless, and personalized.



Intelligent IoT holds transformative potential for industries, productivity, digital healthcare, and education. For example, energy-efficient, low-cost microcontroller chips make robotics accessible to learners worldwide, contributing to advancements in Science, Technology, Engineering, and Math (STEM) education. These innovations cultivate the creative minds needed for a sustainable and equitable future. (Chip photo courtesy of Raspberry Pi)



The automotive industry is evolving through greener electric vehicles (EVs), safer AI-powered advanced driver-assistance systems (ADAS), and autonomous driving (AD). AI-assisted digital cockpits are becoming more interactive and power-efficient, enhancing human-machine interaction and providing real-time feedback, delivering smarter, more eco-friendly driving experiences, all while making roads safer.



AI-integrated DCE have profoundly reshaped our daily lives by revolutionizing the human-machine interface and delivering superior user experiences. For example, many smart digital TVs (DTVs) now feature intuitive voice recognition technology, and AI-powered picture quality (PQ) optimization. Additionally, advanced process technology in set-top boxes (STBs) reduces power consumption, helping them achieve higher ENERGY STAR®  standards.

Five Technology Platforms



High Performance Computing (HPC)

Enables 5G, artificial intelligence (AI), cloud, and data centers to deliver faster, smarter, and more efficient services across various sectors

- Central Processing Unit (CPU)
- Graphics Processor Unit (GPU)
- Field Programmable Gate Array (FPGA)
- Server CPU
- Artificial Intelligence/Machine Learning
- (AI/ML) Accelerator
- Network Processing Unit (NPU)
- High-speed Networking Chip, etc.



Smartphones

Enhances productivity and streamlines daily tasks to improve communication effectiveness

- Application Processor (AP)
- Baseband
- RF Transceiver
- Wireless Local Area Network (WLAN)
- CMOS Image Sensor (CIS)
- Near Field Communication (NFC)
- Bluetooth
- Global Positioning System (GPS)
- Ultra-wideband (UWB)
- Power Management IC, etc.



Internet of Things (IoT)

Enables pervasive connectivity through Artificial Intelligence of Things (AIoT) innovations for a smarter, greener future

- Application Processor (AP)
- Microcontroller Unit (MCU)
- Baseband
- RF Transceiver
- Wireless Local Area Network (WLAN)
- Sensors: CMOS Image Sensor (CIS), LiDAR, Ultrasonic Sensor
- Near Field Communication (NFC)
- Bluetooth
- Embedded Non-volatile Memory (eNVM)
- Radio Frequency Identification (RFID)
- Ultra-wideband (UWB), etc.



Automotive

Makes vehicles, including hybrid and electric cars, safer, smarter, and greener

- Application Processor (AP)
- Microcontroller Unit (MCU)
- Baseband
- RF Transceiver
- Wireless Local Area Network (WLAN)
- CMOS Image Sensor (CIS)
- Near Field Communication (NFC)
- Radar
- Ultra-wideband (UWB)
- Ethernet Switch
- Power Management IC, etc.

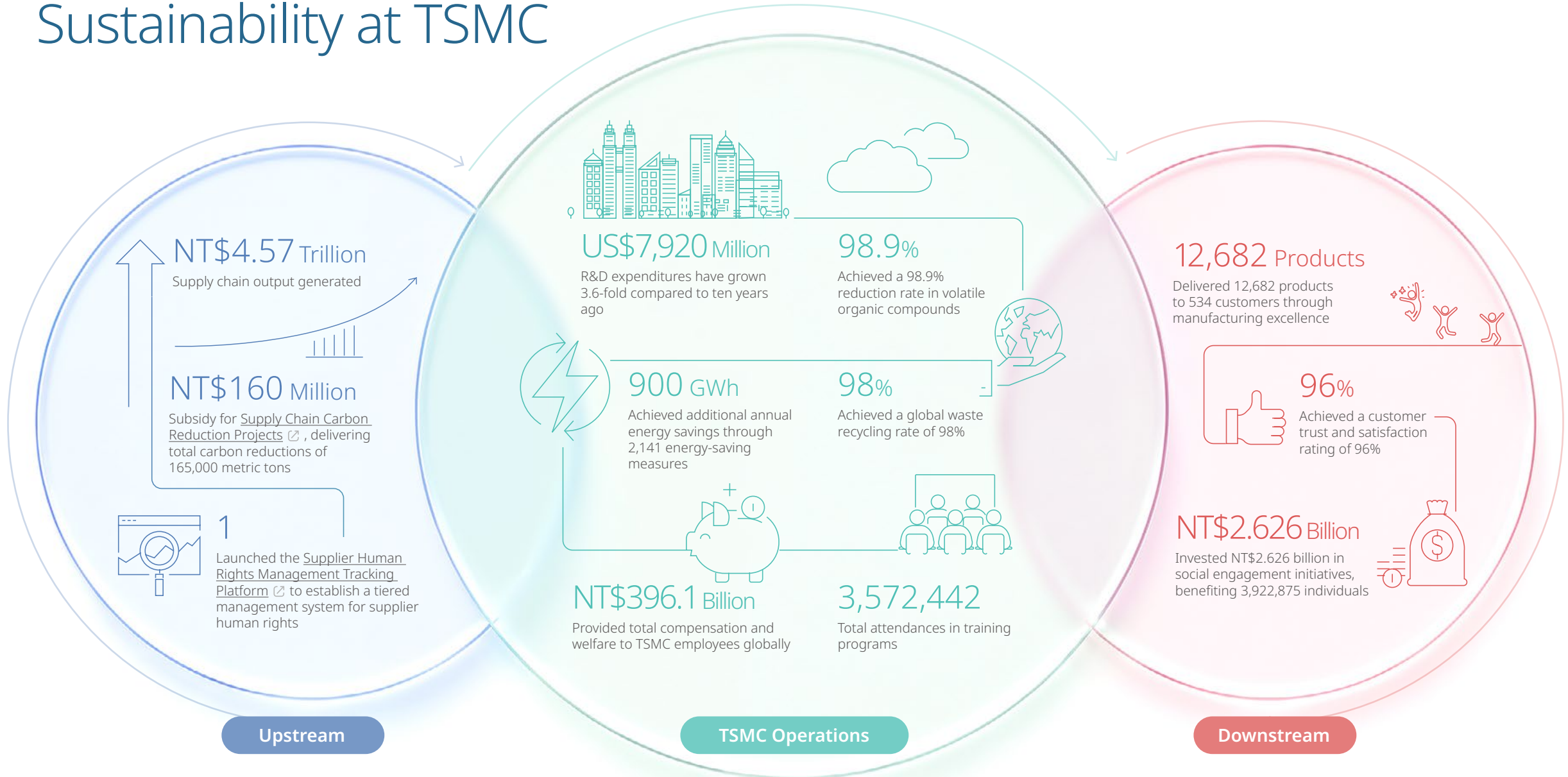


Digital Consumer Electronics (DCE)

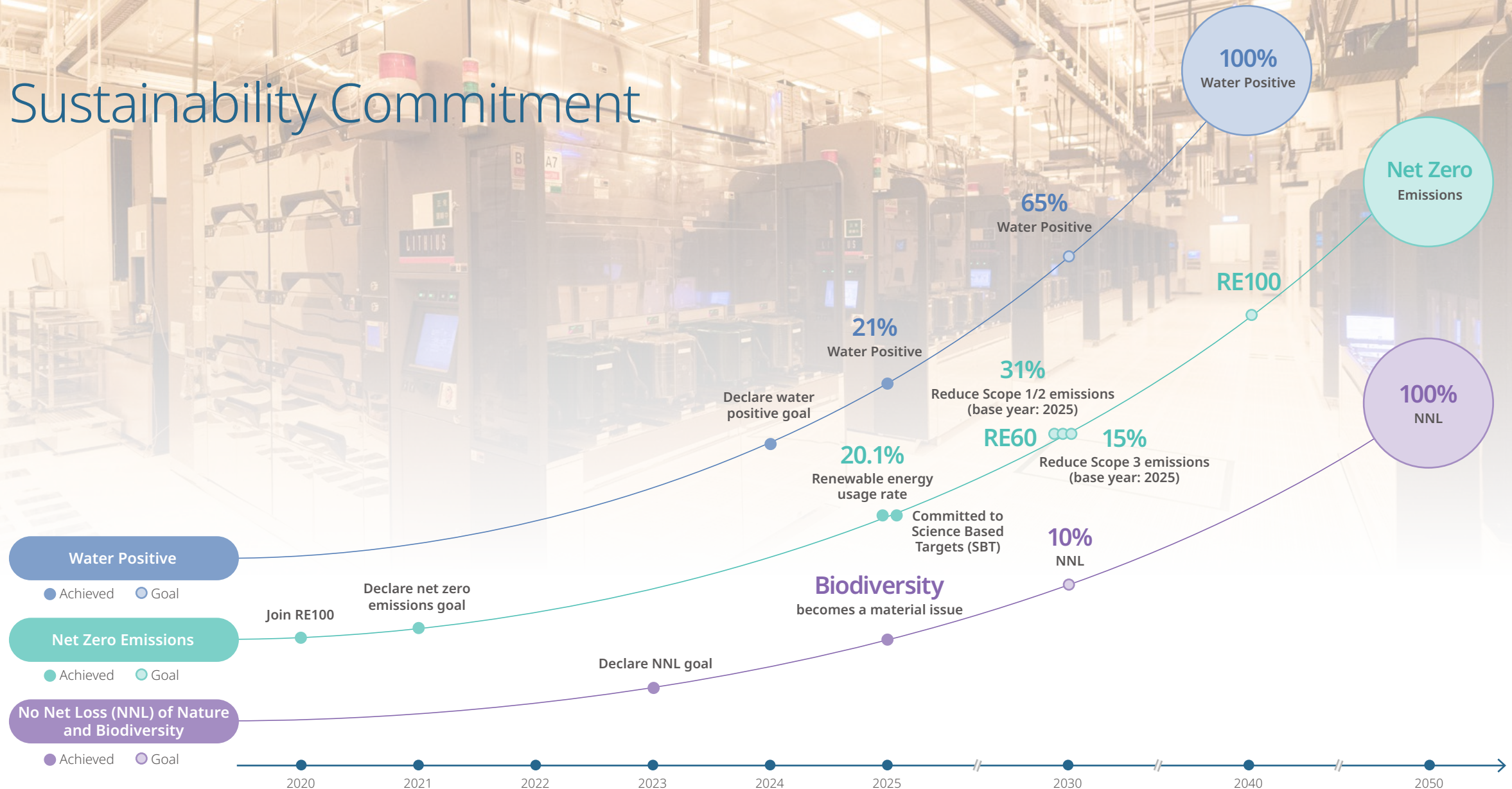
Enables AI-powered TVs and set-top boxes (STBs) with immersive, high-quality audio/video experiences

- Application Processor (AP)
- Microcontroller Unit (MCU)
- Wireless Local Area Network (WLAN)
- Bluetooth
- Power Management IC
- Timing Controller (T-CON), etc.

Sustainability at TSMC



Sustainability Commitment



New in 2025

Net Zero Emissions

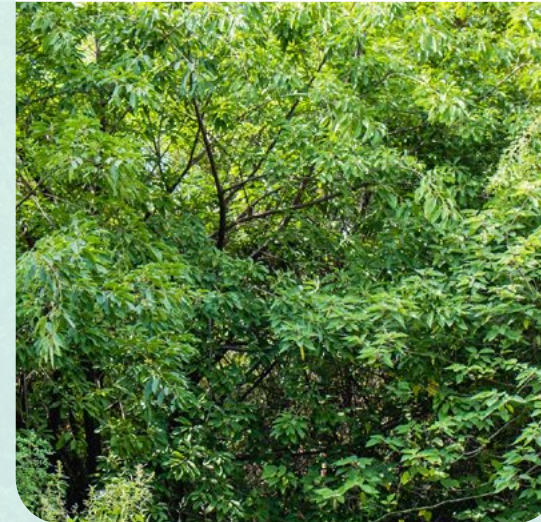


Policies and Statements

[Climate Change Statement](#) , [Environmental Policy](#)

- ✔ Committed to Science Based Targets (SBT).
- ✔ Invested in research and development of alternative technologies for fluorinated GHG, implementing low-carbon manufacturing.
- ✔ Launched the "EUV Dynamic Energy Saving Program " to achieve a win-win outcome of production capacity and energy savings.
- ✔ The Taichung Zero-Waste Manufacturing Center has established the semiconductor industry's first carbon-capture facility and completed its trial operation.
- ✔ Established Taiwan's first offshore wind power utilization model, promoting green-energy transition.
- ✔ Pioneered the Taiwan semiconductor industry's "Blue-Ammonia Adoption Project " to reduce Scope 3 emissions.

For more details, please refer to the "[Sustainable Supply Chain](#) ", "[Climate and Energy](#) ", "[Circular Resources](#) ", sections and "[Climate and Nature Report](#) "



No Net Loss



Policies and Statements

[Biodiversity Statement](#)

- ✔ The "Afforestation and Reforestation Carbon Sink Project Activity " reduction methodology has been approved by the Ministry of Environment, pioneering the nation's first coastal afforestation carbon sink initiative.
- ✔ Established a rehabilitation site for [squalidus banarescui](#) , an endangered fish species, achieving a milestone as the first Taiwanese company to rehabilitate a threatened species on facility grounds.
- ✔ Launched the inaugural "TSMC Biodiversity Scholarship and Proposal Grant " alongside an [international forum](#) to cultivate ecological talent.
- ✔ Established the "TSMC Environmental Education Website" to enhance the impact of environmental education.

For more details, please refer to the "[Biodiversity](#) " section and "[Climate and Nature Report](#) "

Water Positive

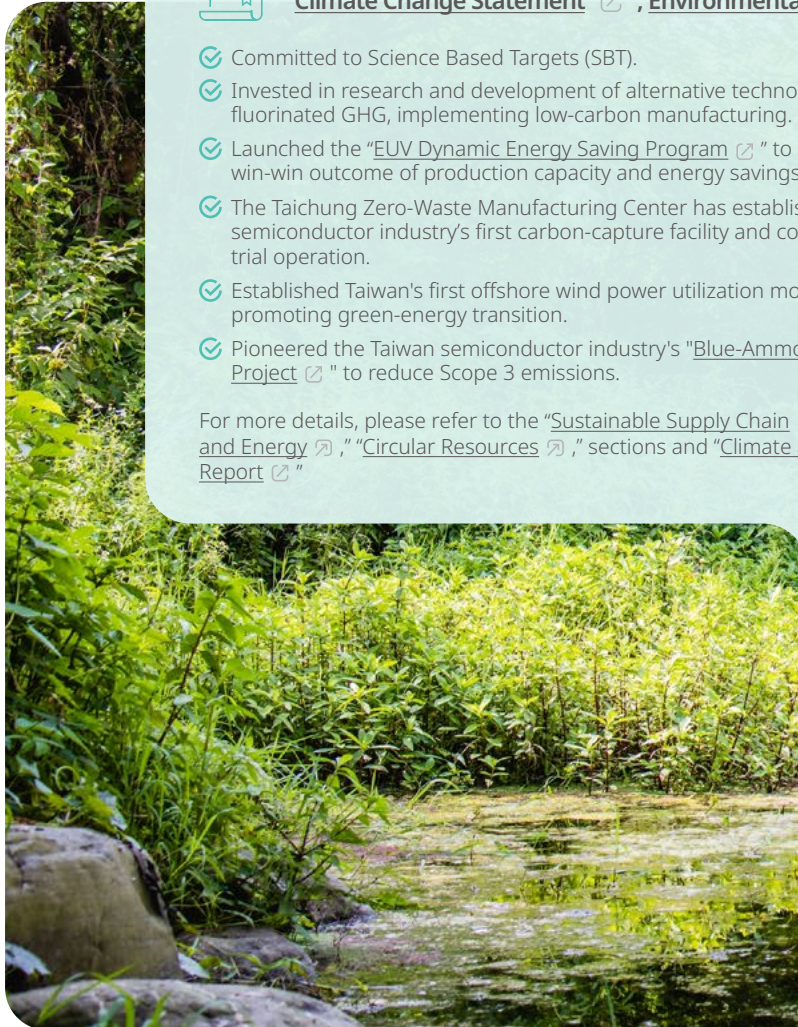


Policies and Statements

[Water Statement](#)

- ✔ Pioneered Taiwan's first cross-regional reclaimed water exchange model and launched water supply operations.
- ✔ Signed a new contract for the daily purchase of 136,000 cubic meters of desalinated seawater, strengthening water supply resilience.
- ✔ Promoted research on brackish water from tidal river sections and atmospheric water harvesting technologies to develop emerging water sources.
- ✔ Commenced construction of the TSMC Arizona reclaimed water facility, incorporating near-zero liquid discharge technology to set a new industry benchmark.
- ✔ Launched the TSMC Arizona Verde River restoration project to improve regional water-use efficiency.

For more details, please refer to the "[Water Stewardship](#) " section and "[Climate and Nature Report](#) "



Awards, Recognitions, and Ratings



Dow Jones Best-in-Class Indices (DJBI)

- Dow Jones Best-in-Class Indices for the 25th consecutive year



MSCI Selection Index

- MSCI ACWI Selection Index component
- MSCI Emerging Markets Selection Index



ISS STOXX

- "Prime" Rated by ISS STOXX Corporate Rating



FTSE4Good Index

- FTSE4Good Emerging Index component
- FTSE4Good All-World Index component
- FTSE4Good TIP Taiwan ESG Index component



World Benchmarking Alliance (WBA)

- SDG2000 – The 2,000 Most Influential Companies



UL Solutions

- Platinum Rating for UL 2799 Waste Recycling Standard – TSMC's Taiwan Fabs, TSMC China, TSMC Nanjing



Alliance for Water Stewardship, AWS

- "Platinum" Class Certification – Fab 5, Fab 6, Fab 12A, Fab 12B, Fab 14P5, Fab 14P6, Fab 14P7, Fab 15A, Fab 15B, AP3



CDP

- Water Security A- Ratings
- Climate Change B Ratings
- Supply Chain Management A Ratings

Corporate Knights & As You Sow

- 2025 Carbon Clean 200™ List

Forbes

- 2025 World's Best Employers

FORTUNE

- 2025 World's Most Admired Companies

Extel 2025 All-Asia Executive Team

- Most Honored Company (Technology/Semiconductors) - 1st Place (buy-side and sell-side) – All-Asia
- Best ESG Program (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia

Morningstar

- The Best Sustainable Companies to Own in 2026

Sustainalytics

- Company ESG Risk Ratings: Low ESG Risk – Semiconductor Industry

Taiwan Stock Exchange

- Top 5% in Corporate Governance Evaluation of Listed Companies

Taiwan Institute for Sustainable Energy

- The Most Prestigious Sustainability Award – Top Ten Domestic Corporates
- The Most Prestigious Sustainability Award – Top One Hundred Domestic Corporates
- Best Sustainability Report Award
- Cyclical Economy Leadership Award
- Information Security Leadership Award
- Sustainable Supply Chain Leadership Award
- Water Management Leadership Award
- Climate Leadership Award

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A Responsible Purchaser	70
A Practitioner of Green Power	90
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ESG Implementation Framework

In alignment with the United Nations Sustainable Development Goals, TSMC has adopted its [ESG Policy](#) as the highest guiding principle for sustainable operations. Through two governance platforms — the ESG Steering Committee and the ESG Committee — under the Board of Directors and the Nominating, Corporate Governance and Sustainability Committee, the Company advances its ESG agenda, centered on “Senior Management Support, Mid-level Management Participation, Organizational Culture, and ESG Organizations.” Guided by this framework, TSMC has defined five ESG directions: “Drive Green Manufacturing, Build a Responsible Supply Chain, Create a Healthy and Inclusive Workplace, Develop Talent, and Care for the

Underprivileged,” to promote sustainable development.

Within this framework, TSMC builds on its five sustainability roles and leverages its core expertise in dedicated semiconductor foundry services to provide a wide range of capabilities. The Company collaborates with stakeholders, including employees, shareholders/investors, customers, suppliers/contractors, government/industry associations, and communities, and applies both financial materiality and impact materiality perspectives to improve operational and financial performance while generating net positive impacts for society and creating shared sustainable value.



Note 1: The Chairman personally engages in and drives ESG efforts, inviting senior executives to lead various functional organizations in proposing sustainability projects based on TSMC's core competencies, expanding positive impact.

Note 2: Middle management is the backbone of TSMC's pursuit of sustainability, cooperating across organizations and departments in the face of complex sustainability issues to bring about real change.

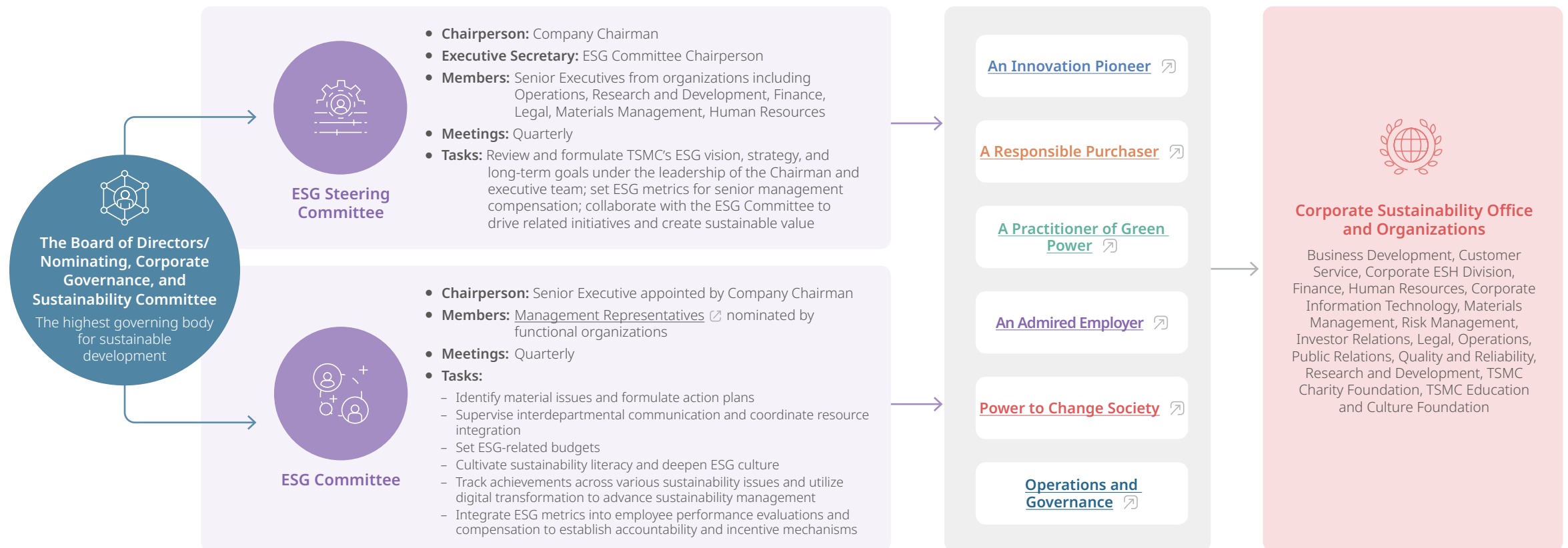
Note 3: TSMC fosters an organizational culture that doesn't make promises lightly, and devotes itself wholeheartedly once a commitment is made. It sets medium- to long-term goals for sustainability issues, strives for improvement, reviews progress regularly, and endeavors to achieve the best outcomes.

Note 4: TSMC holds quarterly ESG Steering Committee and ESG Committee meetings to set long-term strategies, coordinate interdepartmental resources, and oversee project implementation and performance. The Corporate Sustainability Office collaborates with representatives from functional organizations, focusing on “information disclosure, culture cultivation, and integrated alignment” to ensure continued momentum in sustainable development.

ESG Management Platform

Guided by the vision and mission of its [ESG Policy](#), TSMC oversees sustainability through a layered governance structure: the Board of Directors and its Nominating, Corporate Governance and Sustainability Committee provide strategic oversight, while the ESG Steering Committee and ESG Committee function as operational management platforms. Chaired by the Chairman, with the ESG Committee Chairperson serving as Executive Secretary, the ESG Steering Committee reviews ESG issues related to operations with the management team each quarter to define mid- to long-term strategies and targets. Adhering to the ESG Steering Committee's resolutions, the ESG Committee coordinates cross-functional resources and directs the CSO and cross-organizational management representatives to identify [material issues](#) relevant to both stakeholder concerns and the Company's operations. It also establishes task forces that draw on TSMC's competitive strengths and core capabilities to develop strategies, targets, and action plans.

The ESG Committee reports implementation progress and future work plans to the Board of Directors and the Nominating, Corporate Governance and Sustainability Committee each quarter and incorporates feedback to strengthen execution. In 2025, the ESG Committee oversaw over 100 sustainability projects. Through the [ESG AWARD](#), TSMC has also built a sustainability culture, integrated global sustainability trends into daily operations, and comprehensively execute its ESG strategy.





Dr. Y.J. Mii
Executive Vice President and Co-Chief Operating Officer

By fostering an inclusive environment that cultivates innovative talent and encourages employees to push boundaries, TSMC collaborates to develop world-leading semiconductor technologies, fulfills its environmental commitments, and works toward a better future.



Y.P. Chyn
Executive Vice President and Co-Chief Operating Officer

TSMC leads industry transformation through green manufacturing by applying innovative technologies and smart management while working with partners to build a green ecosystem, advance net-zero goals, strengthen industry influence, and contribute to a sustainable future.



Sylvia Fang
Senior Vice President, Legal and General Counsel/Corporate Governance Officer

Sound corporate governance, ethical business conduct, regulatory compliance, and robust intellectual property management and protection form the foundation of TSMC's sustainable growth.



Dr. Michael Wu
Senior Vice President, Research & Development/Technology Development

Accelerating R&D innovation is not just pushing the limits of silicon, but it unlocks the transformative power of digital excellence. TSMC is committed to building an innovative, and inclusive R&D environment that brings out the best in its employees as the Company works together toward a sustainable future.



Dr. Kevin Zhang
Senior Vice President, Business Development and Global Sales, and Deputy Co-COO

As semiconductor technology and AI reshape the global landscape, TSMC works closely with customers to build forward-looking partnerships, push technological boundaries, drive sustainable innovation, and advance a future where intelligence and green energy make progress together.



Ray Chuang
Vice President, Operations/Fab Operations I

TSMC adopts advanced AI and smart manufacturing to strengthen global supply chain resilience and meet customer expectations. At the same time, the Company fulfills its corporate citizenship responsibilities by accelerating technological innovation, developing talent, and investing in environmental stewardship to contribute to a better world.



Dr. L.C. Lu
TSMC Senior Fellow and Vice President, Research & Development/Design & Technology Platform

TSMC's Open Innovation Platform® is dedicated to bringing together design, advanced process, and packaging technologies through collaboration with our ecosystem partners. Together we unleash customer innovation and accelerate the path from concept to volume production.

Note: Listed in the order of the sustainability role chapters for which each group is responsible.



Dr. Cliff Hou

**Senior Vice President and Deputy Co-
COO/Chief Information Security Officer**

To realize our sustainability vision, TSMC works with contractors to strengthen fab and construction safety, integrates supply chain resources to accelerate net-zero transition, enhances industry resilience, and creates shared green prosperity.



P.H. Chen

Vice President, Human Resources

Our employees' diverse perspectives and innovation drive TSMC's sustainable development. The Company fosters an inclusive environment built on respect, empathy, belonging, and psychological safety, enabling employees to speak openly, realize their potential, and innovate in ways that support the Company's continued growth.



Dr. Arthur Chuang

Vice President, Operations/Facility

TSMC embeds environmental stewardship and sustainability into every aspect of facility operations through action.



Dr. F.C. Tseng

**Chairman, TSMC Education and Culture
Foundation**

The TSMC Education and Culture Foundation invests resources in three key areas — Cultivating the Younger Generation, Promoting Educational Collaboration, and Promoting Arts and Culture. By connecting technology with humanities and the arts, we help young people explore their potential and create positive social impact.



Sophie Chang

Chairperson, TSMC Charity Foundation

TSMC is grateful to its volunteers for dedicating their time beyond work and using their professional expertise to continue bringing their passion to communities across Taiwan.



Wendell Huang

**Senior Vice President, Finance and Chief
Financial Officer/Spokesperson**

TSMC is focused on strengthening its fundamental competitive advantages. To reflect our value and maximize shareholder returns, we invest in capacity in a disciplined fashion to fuel customer growth, while also addressing stakeholder expectations via robust corporate governance.

Note: Listed in the order of the sustainability role chapters for which each group is responsible.



Key ESG Issues Reported to the Board

2025 Achievements

- Reviewed and updated carbon reduction and energy-saving targets with supply chain partners, using 2025 as the base year, in response to net-zero emission goals and SBT commitments, to boost green manufacturing performance
- Identified sustainability and climate risks and opportunities in alignment with IFRS Sustainability Disclosure Standards, assessed their financial impact, and set management indicators and targets
- Incorporated global Water Positive initiatives into the sustainability management strategy by developing diversified water resources and promoting restoration programs to support environmental sustainability
- Strengthened human rights governance by updating policies and standards and establishing a [Supplier Human Rights Management Tracking Platform](#) to enhance value chain oversight
- Issued the "Construction Site Safety at TSMC " statement and collaborated with construction partners to build an accountability culture and ensure a safe working environment
- Developed semiconductor talent, advanced frontier technology R&D, and strengthened global industry-academia collaboration and STEM education
- Published the inaugural [Responsible Supply Chain Report](#) and [Global Inclusive Workplace Progress](#) , while updating the [Climate and Nature Report](#) , [UN SDGs Action Report](#) , [Sustainability Impact Valuation Report](#) , and [Human Rights Progress Report](#) , to advance sustainability management

Work Objectives for the Following Year

- Submit the SBT plan and drive carbon reduction actions within operational boundaries and across the value chain to achieve sustainability targets
- Plan and execute carbon reduction pathways for key emission categories in the supply chain, tracking progress regularly to drive green transformation
- Strengthen the human rights due diligence tracking and management mechanism, and launch the second company-wide workplace human rights survey to strengthen human rights protection
- Expand education-to-employment collaboration programs across all education levels to develop semiconductor and STEM talent
- Strengthen biodiversity conservation and develop talent in this field through impact mitigation, restoration initiatives, and education programs
- Work with cross-sector partners to advance "educational innovation, community inclusion, art and cultural literacy, ecological sustainability, and health protection," expanding the Company's social impact



ESG Steering Committee

2025 Achievements

- Put sustainable development into practice, continuously aligning with global sustainability standards, management trends, and corporate best practices
- Reviewed progress on action plans for the 2050 net-zero emissions target, resolved to follow the Science Based Targets initiative (SBTi) to set more ambitious carbon reduction targets, and comprehensively expanded energy-saving and carbon reduction strategies
- Expanded the supply chain carbon reduction subsidy program and released the inaugural [Responsible Supply Chain Report](#) , systematically disclosing management policies, actions, and achievements, guiding the supply chain in practicing responsible operations
- Followed TSMC's [Water Statement](#) to fulfill the Company's Water Positive sustainability goal, and continuously developed diverse water resources to reduce the environmental impact of operations
- In alignment with SDG 15 (Life on Land), collaborated with external stakeholders through the "Eco Plus! Ecological Harmony Program" to expand investment in biodiversity protection research and solutions
- Drove momentum in the Company's culture of sustainability innovation by supporting the 6th ESG AWARD, which attracted over 5,800 sustainability proposals from employees and organizations, representing a nearly 34.9% growth from the previous year
- Established and supervised corporate sustainability-related budgets and financial controls, coordinating ESG resource requirements, allocation, and implementation planning



ESG Committee

2025 Achievements

- Maintained net-zero Scope 1 and Scope 2 emissions at overseas operations and developed fluorinated greenhouse gas abatement solutions by adopting process gas substitution technologies to enhance environmental performance
- Expanded the use of emerging water sources, including reclaimed water and desalinated seawater, and commissioned the semiconductor industry's first carbon capture facility at the Taichung Zero Waste Manufacturing Center, delivering on green innovation
- In support of its supplier mutual prosperity program, achieved [recycled electronic-grade isopropanol reuse in manufacturing processes](#) , and [adopted blue ammonia](#) to accelerate low-carbon transition
- Launched an improvement action plan following the company-wide Workplace Human Rights Climate Survey and continued to support the formation of employee resource groups to advance the development of a diverse workforce
- Established a cross-organizational construction site safety enhancement committee, and adopted [immersive simulation training](#) and a recognition program for high-performing work crews to strengthen construction site safety culture
- Designated biodiversity as a material issue, launched an [endangered species rehabilitation site within facility grounds](#) , and [pioneered Taiwan's first coastal afforestation carbon offset model](#) , setting a new benchmark for environmental conservation
- The TSMC Education and Culture Foundation and the TSMC Charity Foundation continued to respond to societal needs and drive positive social impact

Materiality Analysis and Stakeholder Engagement

TSMC aligns with global sustainability trends by using materiality analysis as a key guide for its sustainability efforts. In addition to following the GRI 3: Material Topics 2021 under the GRI Universal Standards 2021 and the European Sustainability Reporting Standards (ESRS) issued under the Corporate Sustainability Reporting Directive (CSRD) by the World Economic Forum (WEF) and the European Financial Reporting Advisory Group, TSMC also incorporates material information analysis result of the IFRS Sustainability Disclosure Standards S1 and S2 and continues to refine its Dynamic & Double Materiality (TDDM) methodology. Through identification of Impacts, Risks, and Opportunities (IRO), TSMC applies both inside-out and outside-

in perspectives to address double materiality — covering both impact materiality and financial materiality. This approach systematically prioritizes sustainability issues and defines the materiality matrix. For further details, please refer to the [TSMC Materiality Analysis Report](#) .

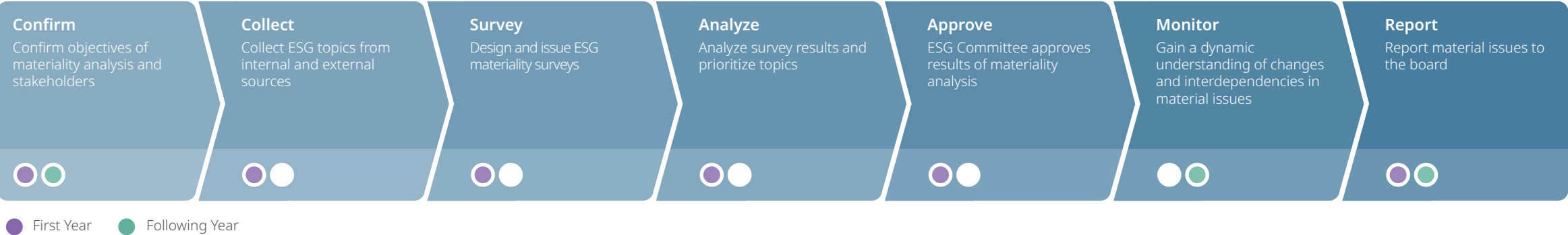
Through the TDDM methodology, TSMC performs material issue assessments and analysis each year based on varying survey objectives to form a comprehensive survey cycle. In the first year, TSMC collects, surveys, and analyzes issues to identify material sustainability issues. In the following year, the Company reviews changes in trends and interdependencies among material issues to ensure action plans effectively address

evolving needs and capture their impacts. In 2025, 1,468 internal and external stakeholders and 366 managers and employees involved in sustainability participated in the materiality survey. TSMC evaluated stakeholder concerns, impact on organizations, and impact on sustainability, and results from IFRS Sustainability Disclosure Standards S1 and S2 to identify 15 material issues, which were confirmed by the ESG Committee and reported to the Board of Directors. For each material issue, TSMC has established long-term goals for 2030 and actively tracks performance. Additionally, the Company incorporates material issues into its enterprise risk management process to identify risk factors,

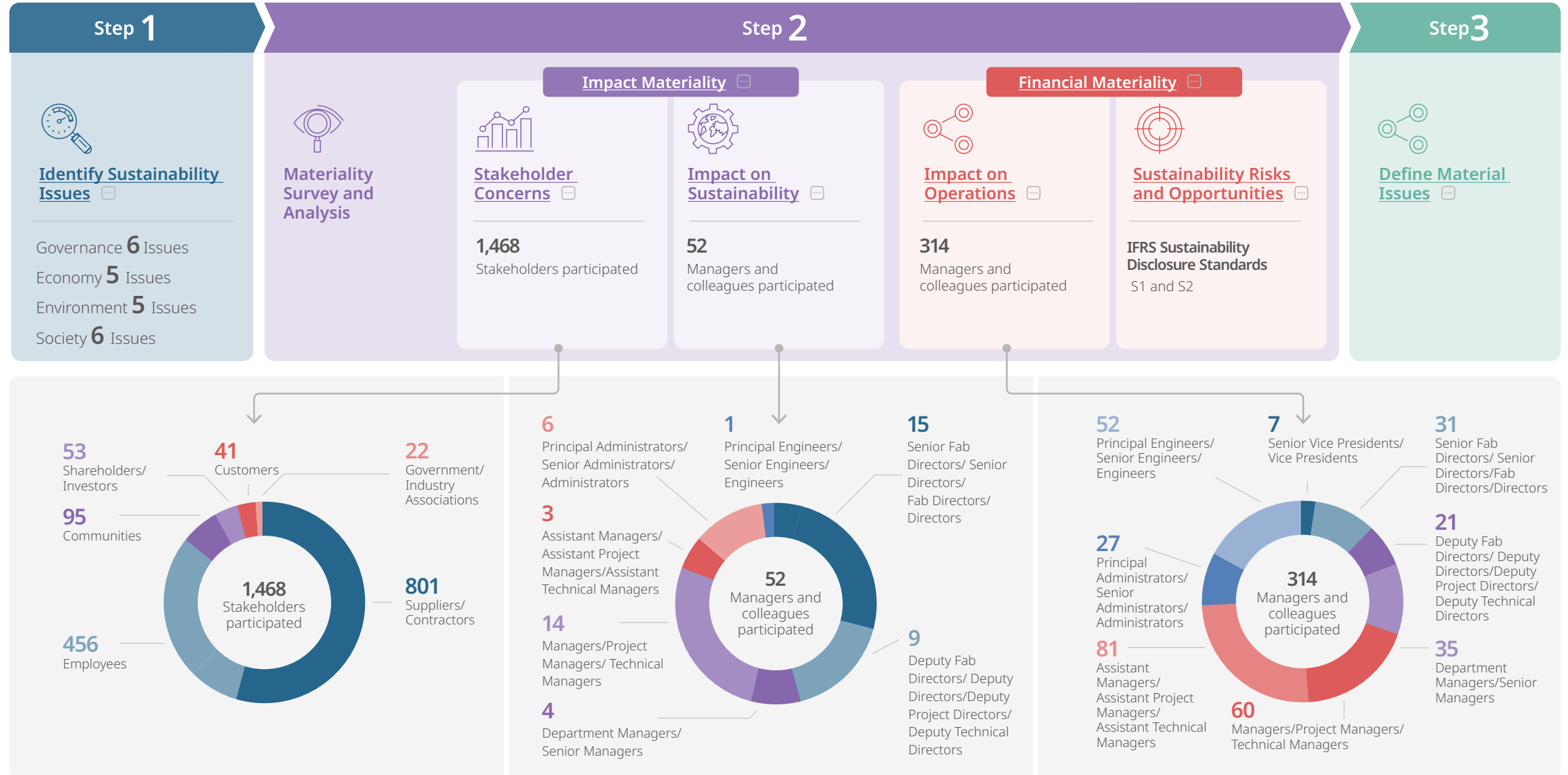
trends, severity, and likelihood — enabling the development of an ESG strategic roadmap from the perspective of both risk and opportunity, while providing deeper insight into the Company's sustainability impact.

TSMC's TDDM methodology, along with its 2025 materiality analysis process and results, has been verified by an independent third party, DNV Business Assurance Co. Ltd. Based on the analysis, biodiversity was added as a material issue. “Climate and Energy” ranks first among material issues, followed by “Sustainable Supply Chain,” “Innovation Management,” and “Circular Resources,” which tie for second. “Water Stewardship” and “Product Quality” are tied for third.

TSMC Materiality Analysis Process

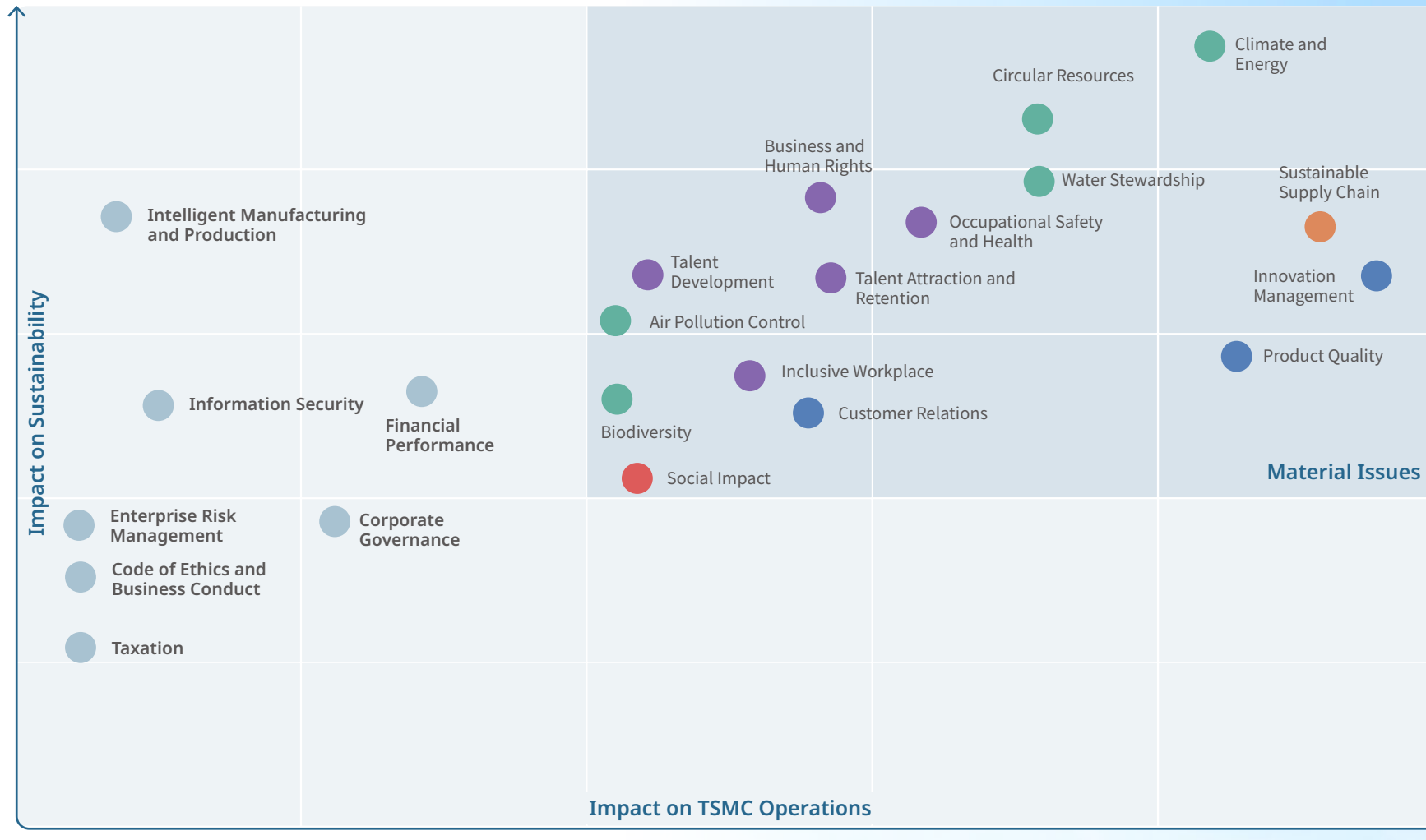


Process for Determining Material Issues





TSMC Materiality Matrix



● An Innovation Pioneer ● A Responsible Purchaser ● A Practitioner of Green Power ● An Admired Employer ● Power to Change Society ● Sustainability Issues



Material Issues and Value Chain

Sustainability Roles	Material Issues ^{Note1}	GRI-specific Topics	SASB Standards	Upstream ^{Note2}	TSMC Operation ^{Note3}		Downstream ^{Note4}
				Procurement Stage	Wafer Fabrication	Packaging/ Testing	Customer Use
An Innovation Pioneer	Innovation Management	Indirect Economic Impact and Energy	TC-SC-410a.2		✓	✓	✓
	Product Quality	Customer Health and Safety	TC-SC-410a.1	✓	✓	✓	✓
	Customer Relations	Customer Privacy			✓	✓	✓
A Responsible Purchaser	Sustainable Supply Chain	Procurement Practices, Supplier Environmental Assessment, Supplier Social Assessment	TC-SC-440a.1	✓			
A Practitioner of Green Power	Climate and Energy	Energy, Emissions, Economic Performance	TC-SC-110a.1, TC-SC-110a.2, TC-SC-130a.1	✓	✓	✓	✓
	Water Stewardship	Water and Effluents	TC-SC-140a.1	✓	✓	✓	
	Circular Resources	Emissions			✓	✓	
	Air Pollution Control	Waste	TC-SC-150a.1	✓	✓	✓	
	Biodiversity	Biodiversity		✓	✓	✓	
An Admired Employer	Inclusive Workplace	Diversity and Equal Opportunity			✓	✓	
	Talent Attraction and Retention	Economic Performance, Market Presence, Labor/Management Relations, Diversity and Equal Opportunity	TC-SC-330a.1		✓	✓	
	Talent Development	Training and Education			✓	✓	
	Occupational Safety and Health	Occupational Safety and Health	TC-SC-320a.1, TC-SC-320a.2	✓	✓	✓	
Power to Change Society	Social Impact	Economic Performance, Indirect Economic Impact			✓	✓	

Note 1: Given the multifaceted nature of the "Business and Human Rights" issue and its significance to corporate sustainability, please refer to the [TSMC Human Rights Progress Report](#) for details on its value chain impact.

Note 2: Upstream boundaries are raw materials, equipment, and related services purchased by TSMC

Note 3: TSMC Operations boundaries are wafer fabrication and packaging/testing services offered by TSMC

Note 4: Downstream boundaries are customer products manufactured by TSMC

Note 5: "V" signifies the issue has real impact on this stage or that the issue is a spotlight issue

Compensation and ESG Indicators

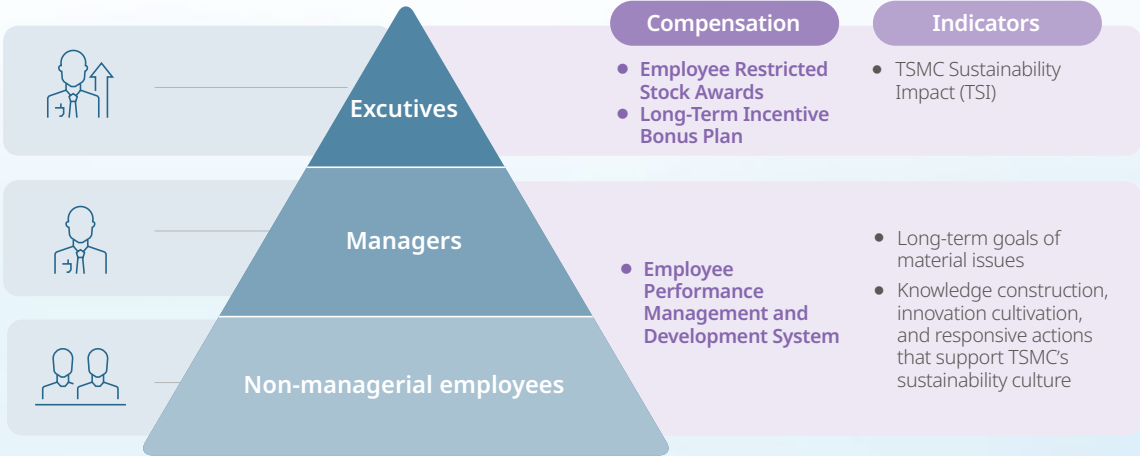
TSMC follows its [ESG implementation framework](#) to advance its sustainability roadmap, guided by four principles: Senior Management Support, Mid-level Management Participation, Organizational Culture, and ESG Organizations. The Company sets short-, mid-, and long-term goals for material issues, drives execution, and reviews progress on a regular basis. The Corporate Sustainability Office works with representatives from each function to build a [sustainability culture](#) and embed an impact mindset centered on "Creating New Value, Taking Responsibility, Reconciling Tensions & Dilemmas." To integrate sustainability goals and culture into daily operations and decision-making, TSMC links ESG indicators to performance management and compensation for senior executives, managers, and non-managerial employees, establishing a top-down accountability and incentive structure.

At the senior executive level, TSMC provides Employee Restricted Stock Awards to executives, with a maximum of 110% of their eligible shares each year. 100% of the calculation is based on the company's relative performance to

Total Shareholder Return (TSR). The Compensation and People Development Committee evaluates the annual ESG achievement of the TSMC Sustainability Impact Indicator and adjusts the eligible shares within a range of ± 10%. Effective in 2025, TSMC adopted an annual Long-Term Incentive bonus plan, tied to a set of performance metrics. These metrics include individual annual performance, company financial indicators (Revenue Growth Rate, Gross Margin, Return on Equity), company Total Shareholder Return performance relative to a peer group, and company ESG achievements. In 2025, TSMC further aligned these indicators with its five ESG directions and expanded the TSI to nine indicators, including eight tied to material issues and one defined by the Company. Four new indicators — Water Positive, Supplier Human Rights Management, Internal Talent Pipeline Readiness, and Risk Management — were added to strengthen operational resilience, amplify the synergy of sustainability impacts, and address stakeholder expectations.

For managers and non-managerial employees, TSMC encourages incorporating long-term goals of material issues into performance evaluation references, while combining knowledge construction, innovation cultivation, and responsive action indicators that support the Company's sustainability culture. This approach deepens employee understanding of and engagement with sustainability issues, drives company-wide ESG practices in daily work, and strengthens TSMC's long-term competitiveness and sustainability value.

TSMC Compensation and ESG Metrics Framework



Material Issues and Executive Compensation Sustainability Impact Indicators

ESG Directions	Weight	Material Issues	Sustainability Impact Indicators	2030 Goals	2025 Targets and Achievements ^{Note1}	
Drive Green Manufacturing	40%	Water Stewardship 	Global Water Positive achievement rate	65%	21% Target: 17%	↑
		Climate and Energy 	Percentage of renewable energy used at all TSMC operation sites	60%	20.1% Target: 20%	✓
Build a Responsible Supply Chain	20%	Sustainable Supply Chain 	Percentage reduction in suppliers' carbon emissions (Base year: 2025)	15%	- ^{Note2}	
			Human right rating (score) on SAQ for tier 1 suppliers	Grade B (Score 85)	Grade C (Score 78) Target: Grade C (Score 78)	✓
Create a Healthy and Inclusive Workplace	10%	Occupational Safety and Health 	Incident rate per 1,000 employees	<0.2	0.18 Target: <0.2	↑
		Inclusive Workplace 	Women in management	≥ 18%	15 % Target: ≥ 15.2 %	—
Develop Talent	10%	Talent Development 	Completion rate of the talent pipeline within two years for fab directors/ directors	60%	50.7 % Target: 50 %	↑
Care for the Underprivileged	10%	Social Impact 	Cumulative hours of volunteer service	600,000 hours	246,559 hours Target: 240,000 hours	↑
Other Issue	10%	Enterprise Risk Management ^{+Nots 3} 	Percentage of employees that participated in the survey indicate a risk-aware culture in TSMC ^{Note 4}	>80%	94% Target: >80%	↑

Note 1: Please refer to each chapter for progress and information.

Note 2: In response to TSMC's commitment to join SBTi with 2025 as the base year, the base year of this goal has been updated to 2025.

Note 3: Not a material issue, but considered an important self-defined issue by TSMC.

Note 4: Analysis conducted every two years based on the results of the Risk-Aware Culture Survey.

↑ Exceeded

✓ Achieved

— Missed Target



Shareholders/
Investors

639

Institutional investors

435

Conferences and meetings



TSMC is a key enabler of the technologies that power modern life and innovation. We value TSMC's consistent commitment to sustainability and its willingness to work with its suppliers and the broader value chain – with clear expectations, collaboration and capability-building to drive shared improvements on carbon emissions and resource efficiency.

Edward Whitten
Impact Director
Baillie Gifford & Co.

Concerned with the investment value of TSMC, including market prospects, competitive environment, growth strategy, capacity planning, profitability, and sustainability performance

Concern issues

- Innovation management
- Climate and energy
- Enterprise Risk management
- Financial performance
- Business and human rights

Communication Channels

- General shareholders' meeting /annually
- Annual Reports, Sustainability Reports, [Theme Reports](#) , and Form 20-F with the U.S. Securities and Exchange Commission /annually
- Earnings conference /quarterly
- Domestic and overseas broker conferences /as needed
- Face-to-face meetings, video conference calls, telephone conference calls and Investor Relations mailbox /as needed
- Major announcements on the Market Observation Post System, and corporate press releases on the Company's website /as needed



2025 TSMC Annual General Meeting

Focus Areas

Responses from TSMC

The sustainability of AI-related demand, and TSMC's capacity planning strategy

Roadmap to Net Zero emissions and renewable energy use

TSMC's global manufacturing footprint strategy and progress

Long-term profitability

Human rights risks and the impacts to TSMC's business

- Articulated TSMC's long-term outlook for AI-related demand, and disciplined capacity planning framework in investor conferences
- Communicated commitment to the Science Based Target Initiative and renewable energy development timeline based on the [Sustainability Report](#) and [Climate and Nature Report](#)
- Communicated the latest status of capacity expansion projects and disciplined capital management strategies in investor conferences
- Despite cost challenges, TSMC believes it can achieve its long-term financial targets of: (1) gross margin of 56% and higher across the cycle; and (2) ROE of high-twenties percent across the cycle (both targets were raised in January 2026)
- Published the [Human Rights Progress Report](#) to communicate initiatives to mitigate human rights impacts across its operations.



Customers

104

Quarterly assessment meetings

1,446

Management-level customer meetings



We have been very satisfied with TSMC over the past year in terms of delivery and quality, and are very pleased with their support for development collaboration with us. TSMC has always been a high performer, so I appreciate that they have continued to perform well over the past year.

Sony Semiconductor Solutions Corporation

Concerned with TSMC’s technological development and production planning, including capacity requirements, product quality, and robust customer data protection mechanisms, to support customers in achieving product success and gaining a competitive edge in the market

Concern issues

- Innovation management
- Product quality
- Customer relations
- Enterprise Risk management

Communication Channels

- Customer satisfaction survey /annually
- Business and technology assessment /quarterly
- Customer meetings /as needed
- Customer visits/audits /as needed



TSMC expands its global footprint, partnering with customers to seize market opportunities.

Focus Areas

Responses from TSMC

Technology development schedules and plans	• Offered 1,062 process technologies and 191 advanced packaging technologies in line with TSMC’s technology roadmap
Product quality	• Continued perfecting production technologies and product quality. Reduced engineering defects per one million 12-inch wafers to 24% of 2019 level
Capacity planning and production information	• Upgraded the customer self-service wafer order system, TSMC-Online™, to facilitate access to comprehensive technical and production information
Risk management and business resilience	• Underwent 21 customer audits on business continuity management, achieving an average score of 95



Suppliers/ Contractors

193

Supplier audit and
communication meetings

499

Suppliers participated in the Supply
Chain ESH Training Forum



Construction site safety is more than just a regulatory requirement; it's a commitment to the lives of our partners. Through risk identification, education and training, and accountability discipline, we ensure that safety, quality, and progress are all upheld, working together with TSMC to safeguard a secure and mutually beneficial construction environment.

Cliff Lin
Chairman

Fu Tsu Construction Co., Ltd.

Green manufacturing is a core element of sustainable business operations, and advancing energy saving and carbon reduction is our responsibility. We actively promote equipment upgrades and hardware modernization, continuously reduce process energy consumption, and build a resilient low-carbon supply chain.

Tsai, Yu-Min
General Manager

ARES GREEN TECHNOLOGY CORPORATION

Concerned with TSMC's development of new process technologies, quality enhancement, supply chain resilience, climate change response, environmental protection, occupational safety and health, human rights management, business ethics and code of conduct, sustainable raw material, and information security standards and development, with the aim of deepening mutual collaboration to achieve a sustainable supply chain

Concern issues

- Climate and Energy
- Product Quality
- Sustainable Supply Chain
- Occupational Health and Safety
- Ethics and Regulatory Compliance
- Business and Human Rights

Communication Channels

- Supply chain environment, safety and health training /annually
- Supplier Self-Assessment Questionnaire (SAQ) /annually
- Supplier human rights enhancement workshop and forum /annually
- Supplier Code of Conduct and Sustainability Standards promotion /annually
- Sustainable Supply Chain Environment, Safety and Health Forum, Supply Chain ESH Technical Forum /annually
- Carbon reduction follow-up meeting with major emission suppliers /every two months, semiannually
- Construction Site Safety Sharing Session /quarterly
- Supplier meetings /as needed
- On-site support and audit /as needed
- Supply Chain Employee Grievance Channel /as needed
- Supply Online 360 Global Responsible Supply Chain Platform /as needed

Focus Areas

Expect to strengthen carbon reduction capabilities and promote industrial low-carbon transformation

Expect to enhance sustainable risk control and improve raw material quality

Expect to strengthen sustainable development resilience and grow together with TSMC

Expect to strengthen environmental, safety, and health (ESH) management mechanisms and capabilities

Expect comprehensive understanding of business ethics and regulatory compliance, building a foundation for sustainable management

Responses from TSMC

- Conducted [carbon emission management and CDP guidance courses](#) , partnering with 135 suppliers to participate in the CDP Supplier Carbon Disclosure Project; collaborated with key emission source suppliers to propose carbon reduction plans, having already achieved 690,000 metric tons of reduction
- Increased the total subsidy for the "[Supply Chain Carbon Reduction Subsidy Program](#) " to NT\$160 million; worked with suppliers to introduce blue ammonia and recycled electronic-grade isopropyl alcohol, promoting green innovation
- 100% of tier 1 suppliers completed the sustainable management self-assessment questionnaire; 70 key suppliers underwent sustainable risk audits by third-party organizations, with 43 re-audits completed
- Conducted weekly construction site audits at TSMC's new fabs to monitor supplier and contractor risks
- Guided ten suppliers in enhancing their [production processes and quality](#)
- Promoted sustainable [raw material](#) development and metal recycling programs, completing the inventory of metal raw materials in the fabs and setting recycling rate targets
- The "[TSMC Supplier Sustainability Academy](#) " has progressively launched 7 major curricula, comprising 116 courses, with 4.8 million user accesses
- Established the "Supplier Human Rights Management Tracking Platform" for the first time to improve communication and tiered management of supplier human rights performance, and planned to issue the "[Supply Chain Migrant Worker Management Policy](#) " to protect the human rights of migrant and foreign workers employed by suppliers
- Hosted the "Sustainable Supply Chain ESH Forum," "Supply Chain ESH Technology Forum," and [various courses](#) to enable sustainable operations
- Awarded and recognized outstanding ESH suppliers; in 2025, Linde Taiwan Technology Co., Ltd. received the "Supplier ESH Model Award," and Hong Jing Precision Co., Ltd. received the "Supplier ESH Improvement Award"
- Revised the "Supplier Code of Conduct," "Supplier Sustainability Standards," and "Supplier Code of Conduct Compliance and Business Ethics Statement," and mandated that 100% of Tier 1 suppliers sign these updated documents



TSMC collaborates with suppliers to explore carbon reduction opportunities



Government/ Industry Associations

55

Government Agencies

176

Associations



TSMC continues to demonstrate strong green leadership by mobilizing its global supply chain to collectively achieve outstanding sustainability outcomes. Through its strategic vision and operational excellence, TSMC exemplifies the foresight of a world-class enterprise and sets a benchmark for the technology industry in integrating low-carbon transformation with corporate social responsibility.

Terry Tsao

Global Chief Marketing Officer and
President of Taiwan
SEMI

Concerned with industry development, talent cultivation and management, renewable energy, biodiversity, water stewardship, circular resources, and regulatory trends and responses.

Concern issues

- Innovation Management
- Climate and Energy
- Water Stewardship
- Biodiversity
- Talent Development
- Corporate Governance/
Regulatory Compliance

Communication Channels

- Industry association communication platform /monthly
- Official correspondence, documents, emails and visits /as needed
- Offer industry experience and advice, and keynote speech /as needed
- Conferences (e.g., briefings, public hearings, symposia, seminars, meetups, phone conference) /as needed



TSMC joins forces with industry, government, academia, and research to advance ecological conservation and nurture talent.

Focus Areas

Responses from TSMC

Industry development / trade
secret protection

- Participated in the SEMI Taiwan forum and shared TSMC's new process technologies, industry development trends, and green manufacturing experience
- Collaborated with the industry to hold the first [Trade Secret Intelligent Management Expo](#) by partnering with ten companies that have adopted and implemented trade secret management systems to enhance intelligent management through public sharing

Renewable energy / carbon
reduction commitment

- Adopted offshore wind power supply, the first time offshore wind power was supplied to a private enterprise in Taiwan
- Responded to the Taiwan Semiconductor Industry Association's independent carbon reduction commitment, and joined 22 member companies to declare independent energy saving and carbon reduction targets for the high-tech industry by 2030

Water management / biodiversity

- Expanded the use of diversified water resources; began construction of the TSMC Arizona reclaimed water plant and Hsinchu Science Park reclaimed water plant, and continued to invest in other [Water Positive measures](#) to enhance water resilience
- Created a conservation base for the endangered squalidus banarescui gudgeon through the "[Eco Plus! Ecological Harmony Program](#)," setting a precedent for Taiwanese companies

Domestic and International
Diverse Talent Management and
Development

- Launched the first "[TSMC Biodiversity Scholarship and Proposal Grant](#)" and hosted the inaugural "[TSMC International Biodiversity Forum and Award Ceremony](#)," bringing together cross-disciplinary experts from home and abroad
- Promoted domestic and international [industry-academia cooperation programs](#) to cultivate top semiconductor talent
- Dialogues with representatives from industry, government, academia, and research institutions from various countries regarding TSMC's business model, industry development trends, and talent management experience

Corporate Governance and
Regulatory Compliance

- Participated in the latest export control regulation briefing meetings and networking events, and conducted practical industry exchanges to understand Taiwan's current export control situation and international trends
- Participated in Responsible Minerals Initiative (RMI) meetings to understand the latest trends in responsible mineral sourcing and compliance-related information

Response, Recommendations,
and Promotion for Environmental
Regulations

- Represented the Taiwan Semiconductor Industry Association to negotiate with the Ministry of Environment on sub-laws related to the "Climate Change Response Act." At the same time, tracked the regulation of per- and polyfluoroalkyl substances (PFASs) under the "Toxic and Concerned Chemical Substances Control Act," as well as issues such as the identification of non-waste resources for circular economy, to enhance regulatory response resilience



Communities

909

Social engagement partners

235

Social engagement programs



Long-term support from the TSMC Education and Culture Foundation has allowed us to pursue our dreams step by step, gradually transforming our roles and identities from those being accompanied to becoming companions ourselves. This, to us, is the most precious meaning of transformative education and life.

Hsu Chen-Hsun

Offtrack Exhibition Team / 7th Udreamer Team
Lighting the Torch in the Name of Basketball

If the Talent Empowering Program can continue to deepen its roots, it will generate an even greater impact. We look forward to expanding the scope of our cooperation in the future, establishing a stable mechanism to provide more vocational students with opportunities for professional skill enhancement and future development.

Lee Shih-Ching
Principal

HsinChu Kuang-Fu High School

- Concerned with the TSMC Education and Culture Foundation's social impact, providing diverse educational platforms and rich arts and cultural resources, and cultivating outstanding young talent
- Concerned with the TSMC Charity Foundation's establishment of support systems for remote areas, combining industry, government, academia, and volunteer services to promote educational empowerment, elderly care, and environmental conservation

Concern issues

- Social Impact

Communication Channels

- Volunteer cadre meetings /quarterly
- Volunteer activities and services /15 volunteer activities a week
- Project collaboration and visits /as needed
- Sponsorship of charity projects and educational projects /as needed
- "Sending Love" charity platform /as needed
- TSMC Education and Culture Foundation and TSMC Charity Foundation websites /as needed
- Sustainability website, ESG Newsletter, ESG mailbox and social media (Facebook and LinkedIn) /as needed
- Irregular Business Conduct Reporting System /as needed



TSMC volunteers lead schoolchildren to explore the mysteries of wind power through science experiments.

Focus Areas

Build a platform for youth self-discovery and development, provide diverse educational resources to empower teachers and students in remote areas, and deepen literary and artistic cultivation

Inspire students' diverse learning interests and assist with career exploration, refine the 'triangle care model' to enhance elder care, and elevate local and environmental education while promoting efficient resource utilization

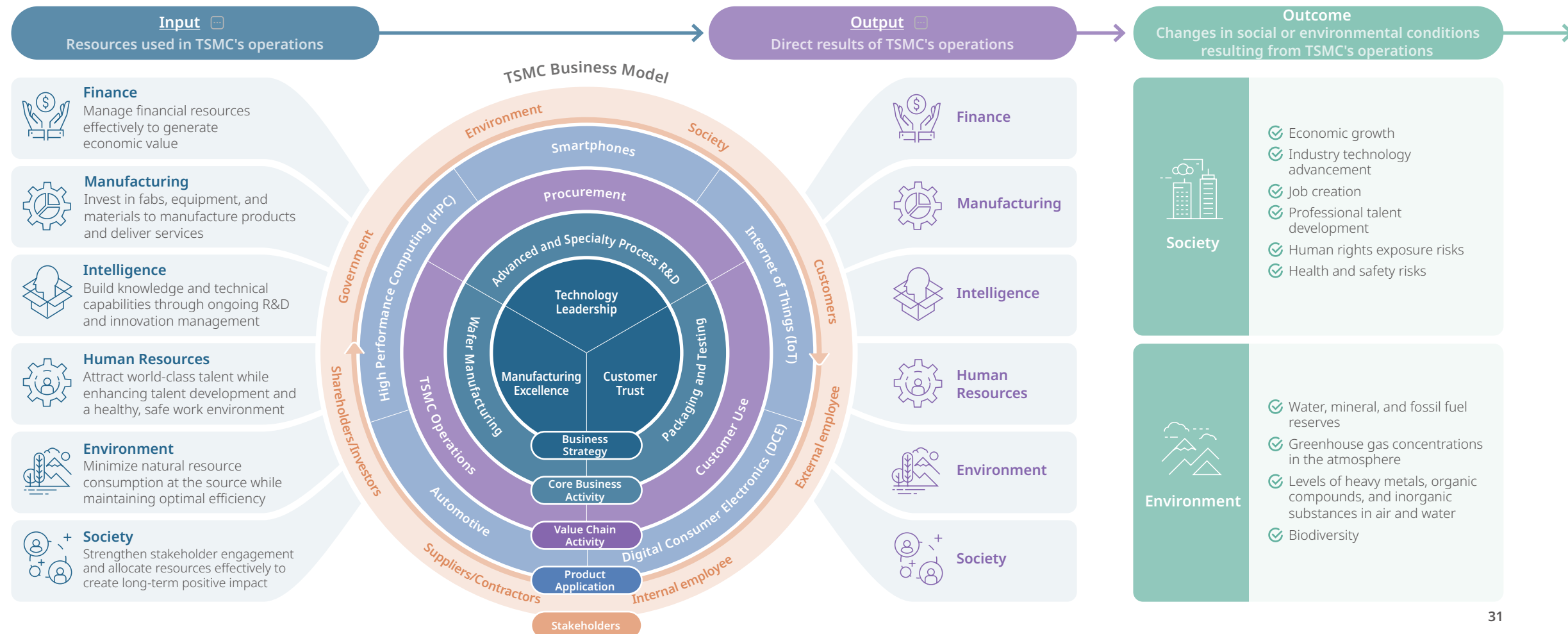
Responses from TSMC

- In 2025, the TSMC Education and Culture Foundation invested NT\$179.67 million, focusing on three main strategies: Cultivating the Young Generation, Promoting Educational Collaboration, and Promoting Arts and Culture. Through the TSMC Udreamer Project, the Foundation has empowered 3,864 young individuals to embark on their dream journeys over the past decade. In a concerted effort to foster talent, it further promoted the TSMC Journey of Female Scientists program, expanding semiconductor courses and university day camps to cultivate female talent in the semiconductor industry. Concurrently, the Foundation helped establish the "AI Literacy Education Alliance" to popularize technology education. Beyond these initiatives, it sponsored an [international masterpiece exhibition](#) , inviting 611 teachers and students from remote areas to attend, and organized the 22nd Hsinchu Art Festival, which featured 106 events fostering artistic and cultural enrichment. In addition, its support for the Berlin Philharmonic Orchestra's first "Side-by-Side Rehearsal" program in Taiwan created an intimate learning experience that bridges generations of musicians.
- In 2025, the TSMC Charity Foundation invested NT\$538.42 million, collaborating with industry, government, academia, and 23,053 TSMC volunteers to focus on three main strategies: Empowering Education, Caring for the Elderly, and Protecting the Environment. The Foundation drove AI education, fostering talent across all stages of education. It expanded the "triangle care model" for elderly care overseas, establishing care networks across medical institutions. Through its Green Energy Program, it supported the stable operation of organizations with resource needs and assisted 360 remote schools in improving energy efficiency. For the first time, it launched a one-day local volunteer activity to enhance the impact of environmental education. Furthermore, the iCharity platform raised NT\$81.04 million in employee donations. In response to disasters, the Foundation activated a post-disaster response mechanism, partnering with local governments to provide substantial support and hope to impacted areas

Sustainability Impact

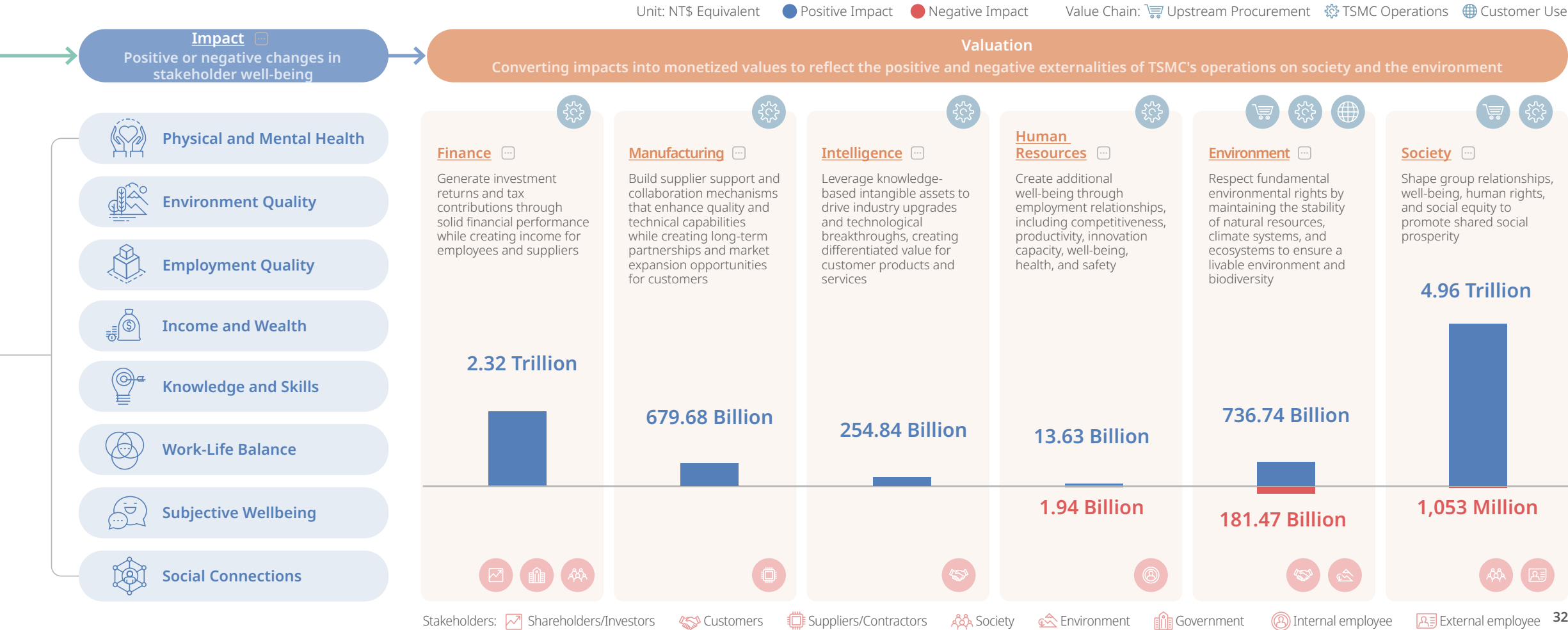
As global sustainability standards evolve, the European Sustainability Reporting Standards (ESRS) and the United Nations Environment Programme (UNEP) have respectively introduced the concepts of “double materiality” and “inclusive wealth” . These reflect a broader definition of corporate value that extends beyond financial performance to the management of multiple capitals, including natural, social, human, and economic capital. TSMC applies impact-based thinking to identify, measure, and assess the social and environmental externalities of its operations, and adopts an impact accounting methodology to develop an Integrated Profit & Loss model covering six capitals — financial, manufacturing, intellectual, human, natural, and social. This model translates TSMC's stakeholder impacts into measurable terms, bridging capital markets and corporate sustainability performance while deepening investor understanding of ESG information.

TSMC Value Creation Model



Guided by its core business model of “Technology Leadership, Manufacturing Excellence, and Customer Trust,” TSMC engages closely with stakeholders across the value chain through the inputs and outputs of the six capitals, generating actual and potential positive and negative impacts on their well-being. Following the OECD framework of Measuring Business Impacts on People’s Well-being and Sustainability, TSMC organizes the impacts of its value chain activities into eight dimensions of well-being: Physical and Mental Health, Environmental Quality, Employment Quality, Income and Wealth, Knowledge and Skills, Work-Life Balance, Subjective Well-being, and Social Connections. Using internationally recognized [impact valuation methodologies](#) , TSMC converts both positive impacts, such as talent development and energy savings, and negative impacts, such as greenhouse gas emissions and supply chain human rights risks, into easily understandable monetized information. The Company incorporates these insights into corporate strategy and decision-making to advance a sustainable development model that promotes both social progress and human well-being.

“Delivering Impact Beyond Responsibility” reflects TSMC’s commitment to creating long-term sustainable value. While continuing to develop its core business, TSMC focuses on three strategic pillars — Empowering Tech for Good, Refining Green Manufacturing, and Fostering Human-Centric Prosperity — to support customer success through technological innovation and drive global economic growth. The Company optimizes resource use and circular efficiency, leading supply chain partners toward a green transformation for shared ecosystem sustainability. It also builds competitive compensation and talent development mechanisms while strengthening workplace inclusion and human rights protection. TSMC strengthens its impact management practices, leveraging technological progress to enhance stakeholder well-being, and extends its impact from fab operations to the environment and local communities to realize its vision of a sustainable society. For more details, please refer to the [TSMC Sustainability Impact Valuation Report](#) .



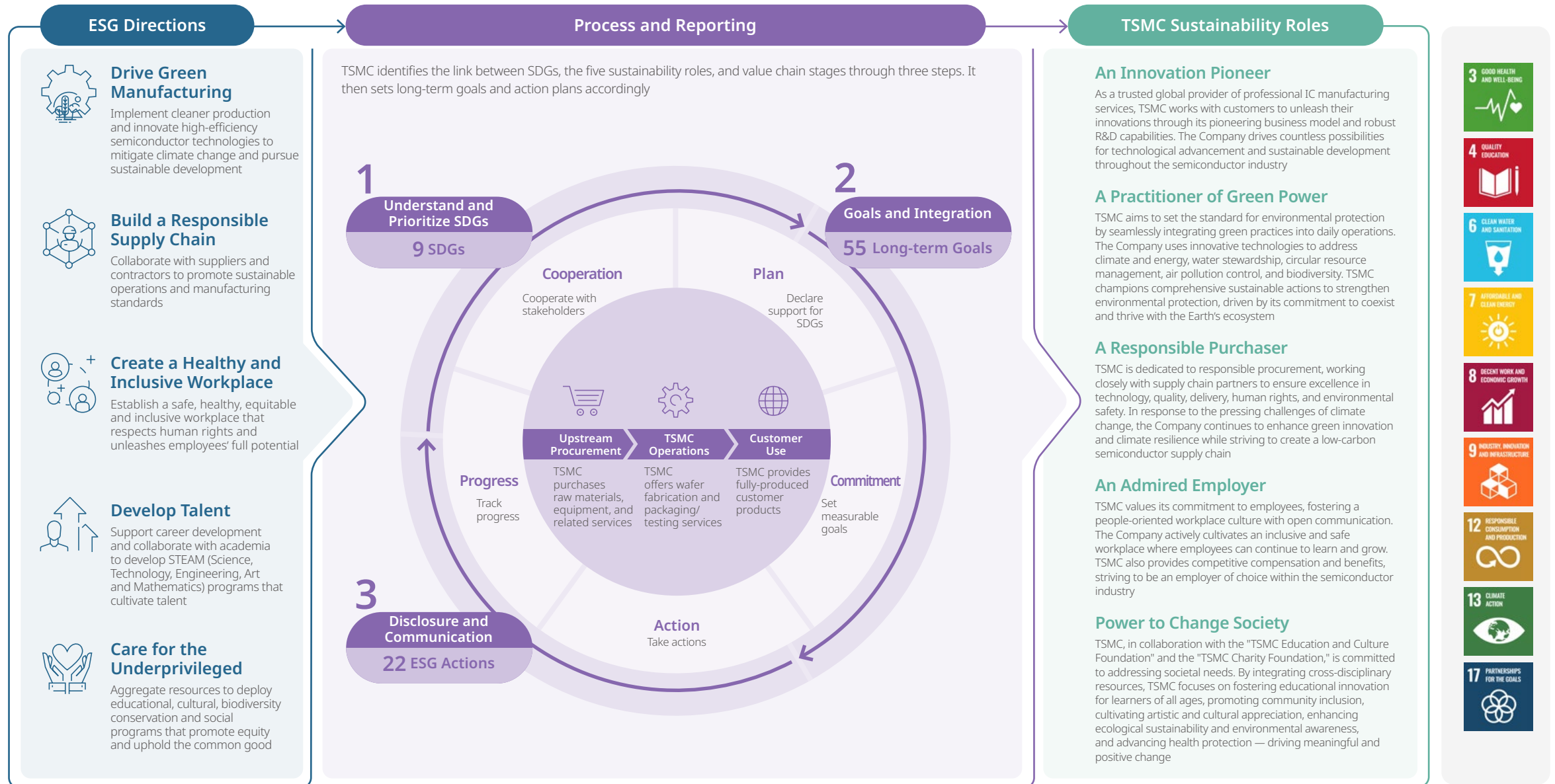
Carry Out the UN Sustainable Development Goals

As global challenges from slowing economic growth and geopolitical complexity to climate change grow, the United Nations World Economic Situation and Prospects 2026 report indicates that only 18% of targets of the Sustainable Development Goals (SDGs) are on track to meet the 2030 milestones, highlighting the need for stronger public-private collaboration to close the gap.

As a responsible corporate citizen, since 2019 TSMC has aligned its business growth with sustainable development based on five ESG directions. The Company identified nine SDGs closely tied to its operations: SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). The Company reviews the alignment between its long-term sustainability goals and the SDGs each year and takes concrete actions to support progress. In 2025, to deepen its

commitment to and impact on the SDGs, TSMC also referenced the Forward Faster Initiative, launched by the UN Global Compact (UNGC), focusing on climate action and water resilience and their alignment with long-term sustainability goals, while integrating sustainability into daily operations.

In 2025, TSMC worked with stakeholders including employees, shareholders/investors, customers, suppliers/contractors, government agencies/industry associations, and communities to advance 22 sustainability initiatives in support of 55 long-term targets. Following the disclosure framework defined by the Global Reporting Initiative (GRI) and Support the Goals, TSMC reported its SDG progress across five dimensions: Plans, Commitments, Actions, Progress, and Suppliers. The Company also drew on the collective intelligence framework developed by the United Nations Development Programme (UNDP) Accelerator Labs, mapping its SDG initiatives against five gaps — data, doing, diversity, distance, and decision-making — to clarify its impact. For details, see the TSMC [UN SDGs Action Report](#) .





An Innovation Pioneer

As a trusted global provider of professional IC manufacturing services, TSMC works with customers to unleash their innovations through its pioneering business model and robust R&D capabilities. The Company drives countless possibilities for technological advancement and sustainable development throughout the semiconductor industry.

Innovation Management

Product Quality

Customer Relations

>9,700 / 150,000

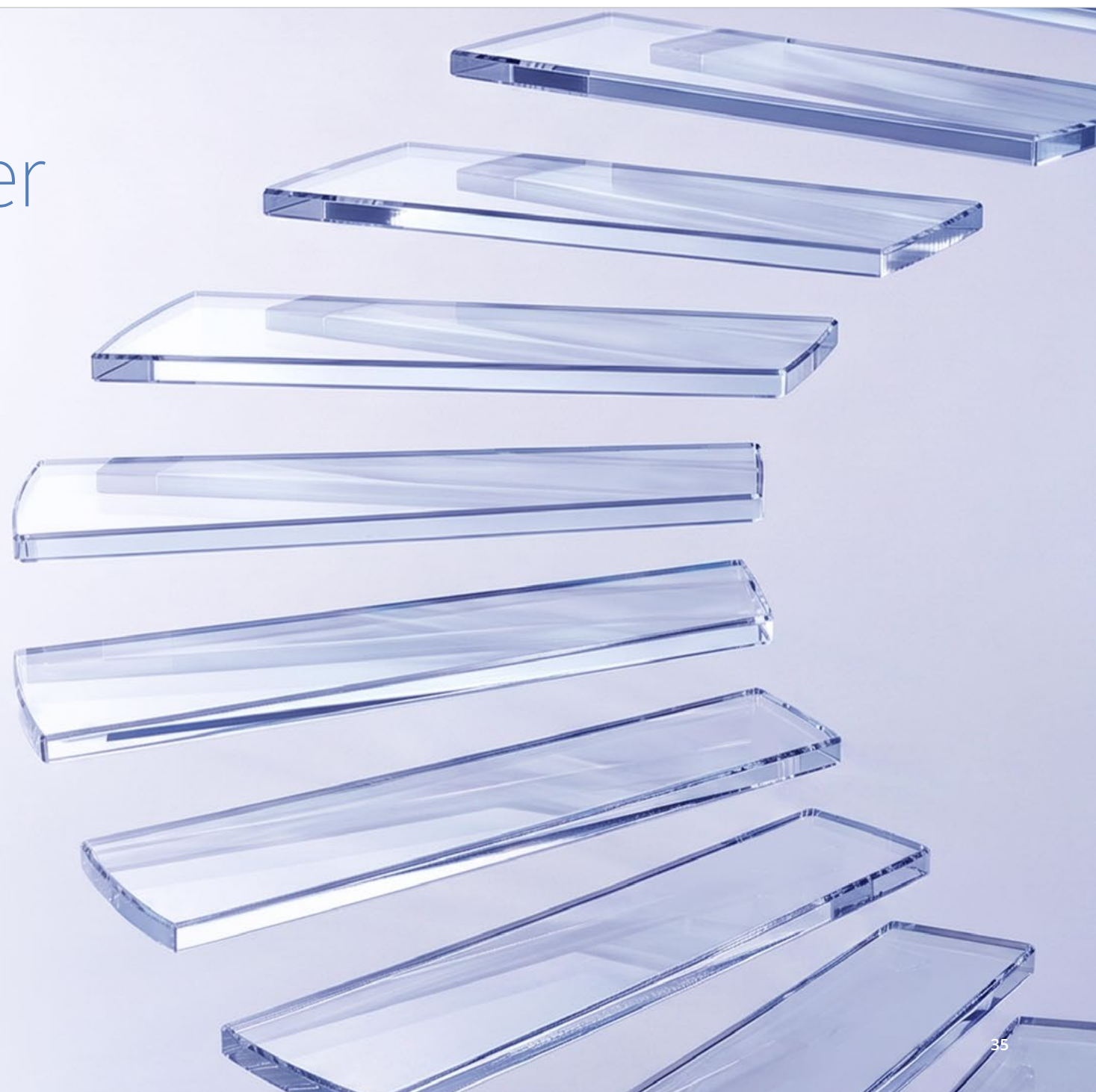
Global patent applications / Trade secrets registered

316

Innovative testing methods developed for quality and reliability to enhance product, technology, and manufacturing quality

1,062 / 191

Process and advanced packaging technologies provided to customers





Innovation Management



Strategies	2030 Goals	2026 Targets	2025 Achievements
Maintain Technology Leadership Continuously investing in advanced technology development to maintain TSMC's technology leadership in the semiconductor industry	TSMC continues to maintain its technology leadership by investing $\geq 6\%$ of annual revenue in R&D expenses	A16 process technology enters risk production phase TSMC continues to maintain its technology leadership by investing $\geq 6\%$ of annual revenue in R&D expenses	Achieved volume production for 2 nm process technology Target: N2 process technology enters volume production TSMC invested 6.5% Note1 of annual revenue into R&D expenses Target: 7~9%
Protect Intellectual Property Patent Protection: Strengthen patent management with a dual focus on quality and quantity. Proactively apply for patents on next-generation process technologies, expand the patent protection network, and establish a global patent strategy to safeguard TSMC's technology leadership Trade Secret Protection: Strengthen business operations and foster intellectual property innovation by recording, consolidating, and utilizing trade secrets with competitive corporate advantages through trade secret registration and management	Over 100,000 Global Patent Grants Over 1,000,000 Trade Secret Registrations	Exceeds 9,500 Global Patent Applications Exceeds 100,000 Trade Secret Registrations Exceeds 550 Green Trade Secret Registrations	Submitted 9,722 Global Patent Applications Target: > 9,500 Registered 154,596 Trade Secrets Target: > 60,000 Shared TSMC's Trade Secret Registration Mechanism with 48 Companies Target: 8 Assisted Six Companies in Successfully Building a Trade Secret Registration and Management System Target: 6 Registered 608 Green Trade Secret Registrations Target: >500
Enhance Industry-Academia Collaboration Link academic institutions in Taiwan and overseas by investing resources in campus programs, establishing a long-term interaction mechanism, and cultivating the next-generation semiconductor talent	Cultivate over 35,000 undergraduate and graduate students globally through campus programs that deepen industry-academia collaboration between 2021 and 2030 ^{Note2} Organize STEM workshops for female high school students, engaging over 3,000 participants	Cultivate over 25,000 undergraduate and graduate students globally through campus programs that deepen industry-academia collaboration between 2021 and 2026 Organize STEM workshops for female high school students, engaging over 2,700 participants	Cultivated over 23,000 undergraduate and graduate students globally through campus programs that deepen industry-academia collaboration between 2021 and 2025 Target: Over 21,000 participants Organized STEM workshops for female high school students, engaging over 4,000 participants Target: Over 2,500 participants

Applicable to all TSMC fabs around the world Applicable to TSMC fabs in Taiwan and other specific fabs Only applicable to TSMC fabs in Taiwan Applicable to TSMC overseas fabs Exceeded Achieved Missed Target

Note 1: Since 2016, TSMC's revenue and R&D spending have reached new highs each year. In 2025, R&D spending amounted to US\$7,920 million, representing a 3.6-fold increase compared to a decade earlier. However, the R&D-to-revenue ratio remained below 7~9%, as revenue grew faster than R&D spending. For historical revenue and R&D data, refer to the section titled "Maintain Technology Leadership."

Note 2: Industry-academia collaboration includes academic programs, internships, and cooperative education projects.

Since its founding in 1987, TSMC has transformed the semiconductor industry as a dedicated semiconductor foundry, lowering barriers to entry and driving the global growth of fabless IC design. With innovation as a core value, TSMC fosters a culture of creative thinking through technology forums, proposal competitions, and case studies, motivating employees to strengthen its three core competencies: technology leadership, manufacturing excellence, and customer trust.

To achieve net-zero goals, TSMC integrates environmental stewardship into source innovation by evaluating greenhouse gas reduction solutions during R&D. In 2025, TSMC collaborated with suppliers and equipment manufacturers to develop emission-reduction solutions for carbon tetrafluoride (CF₄) and nitrogen trifluoride (NF₃). The Company also assessed process gas substitution challenges — including safety, chemical handling, and reliability — while promoting gas alternatives and improving tail gas treatment efficiency.

In 2025, TSMC's 2nm technology progressed from baseline optimization to yield improvement, while A16 and A14 development advanced, significantly enhancing performance, power, density, and cost. TSMC also explored sub-A14 technologies and invested in mature node R&D. To respond to rapid industry evolution, TSMC engaged in cross-disciplinary collaborations with customers, suppliers, academia, and governments, driving product development, talent cultivation, and green innovation.

Innovation Management Framework

Accumulate Internal Innovation Energy

Enable Innovation

Innovate through Cross-Sector Collaboration

• Annual Idea Forums

- Operations
- R&D
- Quality and Reliability
- Corporate Planning
- Finance

• Total Quality Excellence Conference (TQE)

• ESG AWARD

• Technology Board Conference

• Corporate Research Seminar

• Technology Leadership

• Intellectual Property Protection

- [Comprehensive Patent Management Mechanism](#)
- [Trade Secret](#)

• Intelligent Precision Manufacturing

• Innovation Cases

- [Yield Breakthrough in 3DIC Advanced Packaging Technology Driving a New Era of AI](#)
- [Scope 3 as the Key to Decarbonization: Driving Green Transformation Across the Supply Chain](#)
- [Developed a Smart Standby Energy-Saving Mechanism, Saving 85 million kWh](#)
- [Innovative Application of Reclaimed Water Cuts Chemical Usage by 20%](#)
- [Extending Resource Circulation Globally and Upgrading Recycling Technologies at Overseas Fabs](#)
- [Enhancing Safety Awareness Through Immersive Simulation Training](#)

• Open Innovation Platform®(OIP)

• Collaboration with World-Class R&D Institutes

• Elementary and Junior High Schools: Inspiring Curiosity and Early Exploration of STEM

- [TSMC for Education](#)
- [TSMC Science Voyage](#)
- [AI Programming Education for Young Learners](#)

• High Schools and Vocational Schools: Skill Development and Practical Applications

- [TSMC High School Semiconductor Mini Courses](#)
- [TSMC Girls in STEM Program for High School](#)
- [Operations Equipment Star Program](#)
- [TSMC Cup - Scinarrator- Scientific Presentation Contest](#)
- [Sponsorship of Wu Chien-Shiung, Wu](#)
- [Ta-You, and Marie Curie Science Camps](#)

• Universities and Graduate Institutes: Technological Research and Professional Development

- [Semiconductor Research Corporation](#)
- [University Research Center](#)
- [Industry-Academia Joint Development Project](#)
- [Faculty Engagement Program](#)
- [Semiconductor Research and Talent Incubation Fund](#)
- [National Academy for Key Fields of Research](#)
- [Semiconductor Programs and Courses](#)
- [Semiconductor Courses](#)
- [Semiconductor Talent Training Program](#)
- [University Shuttle Program](#)
- [FinFET Academic Design Foster Package](#)
- [Corporate Management Talent Development Program](#)
- [Campus Information Cultivation Project](#)
- [Ph.D. Scholarships](#)



Technology Leadership

In the fast-evolving semiconductor industry, TSMC continues to lead innovation by developing advanced process and packaging technologies that precisely address customer needs. In 2025, the Company sustained its R&D investment, advancing applications of its volume-production nodes, including 7nm, 5nm, and 3nm technologies, while accelerating the development of 2nm and beyond. TSMC organizes

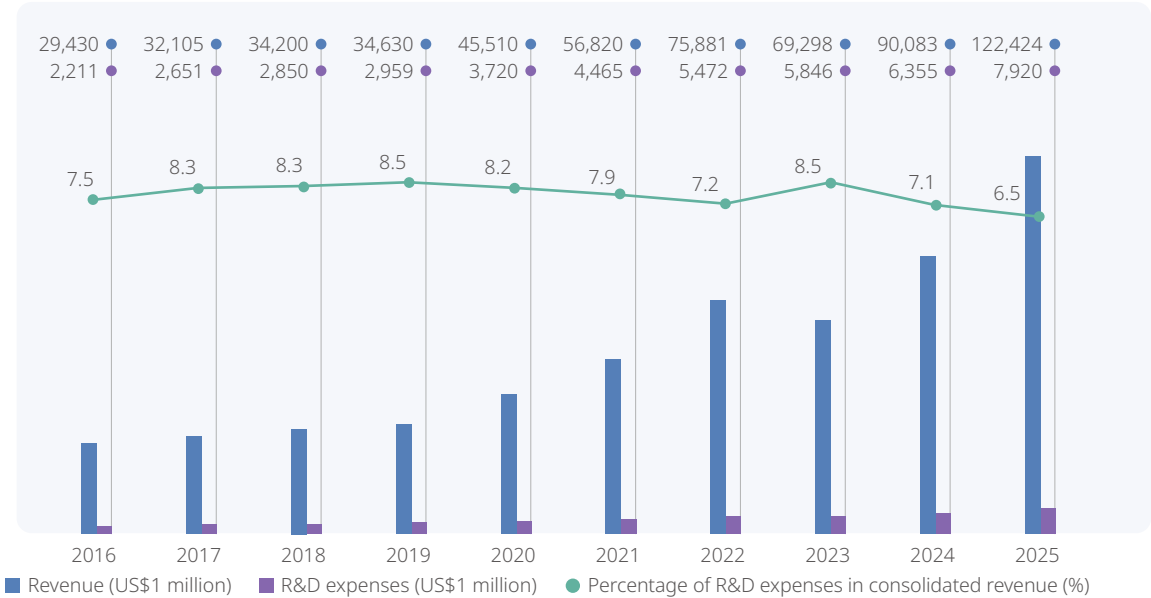
its R&D efforts into central R&D and fab R&D. Central R&D focuses on next-generation logic, system-on-chip (SoC), derivative products, and packaging/system-in-package (SiP) technologies, as well as 3D wafer-level system integration solutions, including TSMC-SoIC®, CoWoS®, TSMC-SoW™, and TSMC COUPE™. Fab R&D, on the other hand, focuses on improving yield, stability, and production efficiency of existing processes to meet

customer demands for high-performance, low-power products.

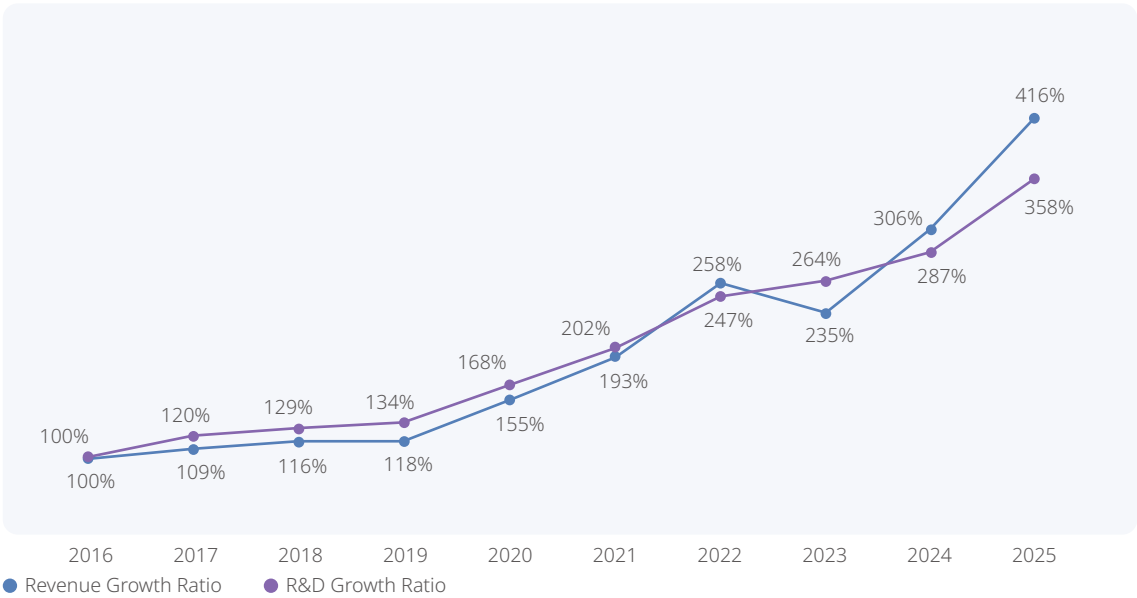
TSMC further strengthens strategic alliances with leading global research institutions, including the Semiconductor Research Corporation (SRC) in the United States and Interuniversity Microelectronics Centre (IMEC) in Belgium. The Company also expands industry-

academia collaboration with top universities in Taiwan and abroad to cultivate talent and accelerate innovation in semiconductor technology. In 2025, TSMC continues to provide leading technologies and innovative services to meet the increasingly diverse needs of its customers. Please refer to the annual report, "Section 5.1 Business Activities."

Maintain Technology Leadership



R&D and Revenue Growth Ratio over the Years



Technology Leadership and Innovation in 2025

Every aspect of human life has been profoundly transformed by innovations in semiconductor technology. Applications such as HPC and 5G mobile communication are not only key to driving the development of AI but also improve the quality of human life. Furthermore, semiconductor technology plays a crucial role in enhancing the energy efficiency of end products. TSMC's industry-leading advanced logic technologies continues to improve logic density and performance, accelerating progress toward a low-carbon, sustainable future for both technology and society in the AI era.

	Applications	Innovations	Customer Successes
A14 technology	 	Next-generation, cutting-edge logic technology that delivers full-node performance, power, and area (PPA) improvements through advanced dimensional scaling	Led the industry to deliver the most advanced products
TSMC A16™ technology		Features nanosheet transistor structure with innovative backside power rail solution	Led the industry to deliver the most advanced process technology
2nm (N2) technology	 	First-generation nanosheet transistor technology with full-node strides in performance and power consumption and has successfully entered volume production	Led the industry to deliver the most advanced products
3nm Fin Field-Effect Transistor (FinFET) technology family	  	N3E technology entered its third year of volume production; N3P technology entered its second year of volume production; N3X technology, tailored for HPC applications, entered volume production	Led the industry to deliver the most advanced products
4nm FinFET technology family	 	N4P technology entered its third year of volume production; N4X technology, TSMC's first HPC-focused technology, demonstrates the ultimate performance and maximum clock frequencies and entered its second year of volume production	Introduced products with industry-leading performance and energy efficiency
6nm Ultra-Low Power (ULP) N6e® technology service	  	Entered its second year of volume production	Led the industry to deliver the most advanced products
3nm FinFET Automotive (N3A) technology		Led the industry with 3nm logic technology and N3A V1.0 PDK was released in 2025	Enabled customers to develop the industry's most advanced driver-assistance systems (ADAS)/autonomous driving (AD) system-on-chip (SoC)
80nm High Voltage (HV) technology for micro-OLED-on-silicon display backplane in augmented reality (AR)/virtual reality (VR) devices	  	Offers extremely high density with over 3,000 pixels per inch (PPI) to enhance vision quality for near-eye applications; entered its fifth year of volume production	Led the industry to deliver the most advanced products
Silicon Photonics and Compact Universal Photonics Engine (TSMC-COUPÉ™) technologies		Can be co-packaged with HPC chips to provide low-power and high-speed data transmission in AI data centers	Led the industry to deliver the most advanced products
TSMC-SoIC® Chip-on-Wafer (CoW) 3D vertical integration solution and CoWoS® advanced packaging solution		Led the industry to integrate 3D Si stacking (SoIC) and CoWoS® into a single, compact new system chip with improved performance significantly; 3nm SoIC stacking technology successfully entered volume production	Led the industry to deliver products with better performance and energy efficiency
Chip on Wafer on Substrate with Local Silicon Interconnect (LSI), CoWoS®-L solution		Features LSI with higher routing density and embedded deep trench capacitor to facilitate the expansion of HPC products to larger sizes; entered its second year of volume production	Led the industry to deliver advanced products
TSMC-SoW™ solution		Enables wafer-level heterogeneous integration for next-generation AI data center computing chips with better power efficiency, higher bandwidth, and greater chip density; the first-generation (logic integration only) technology entered its second year of volume production	Led the industry to deliver advanced products

Advancing Technology to Provide Customers with a Dependable Roadmap for Innovation

At TSMC, innovation is a core value, solidifying its position as a global leader in semiconductor technology. TSMC continues to invest in semiconductor technology development to unleash customers' innovation, advancing the economy and civilization, and driving technological and societal progress. As a trusted semiconductor foundry service provider, TSMC is dedicated to maintaining technology leadership by continuously introducing new-generation process technologies with higher chip density and lower

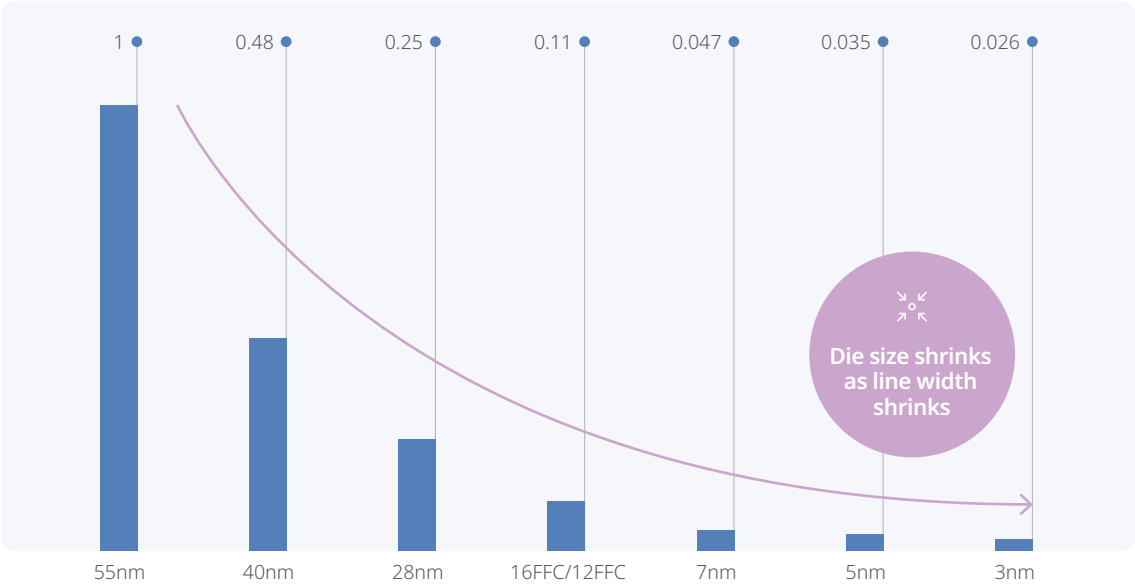
power consumption, and providing diverse and comprehensive specialty technologies, as well as advanced 3D chip stacking and packaging services to enable a wide spectrum of chip innovations. In 2025, TSMC provided 305 process technologies, enabling 534 customers to achieve 12,682 product innovations. Through its Technology Symposiums in 2025, TSMC actively promoted industry innovation and strengthened ecosystem collaboration, offering customers a comprehensive suite of interconnected technologies to drive product innovation and continually advance the AI future. TSMC expanded its "Automotive Forum" from Europe to Japan, where it hosted an "Automotive Panel." Sixteen industry experts

from both regions shared insights into the latest technological advancements and achievements in automotive technology.

In addition, TSMC's "Innovate with TSMC!" event, specifically designed to support startup customers, has entered its third year. In 2025, its venue expanded from North America to Europe for the first time, with a total of 37 startup customers, 55 venture capitalists, and five Open Innovation Platform® (OIP) partners from North America and Europe participated. Through two key initiatives, "Customer Pitch" and "Innovation Zone," startup customers showcased their product innovation and development visions to potential partners,

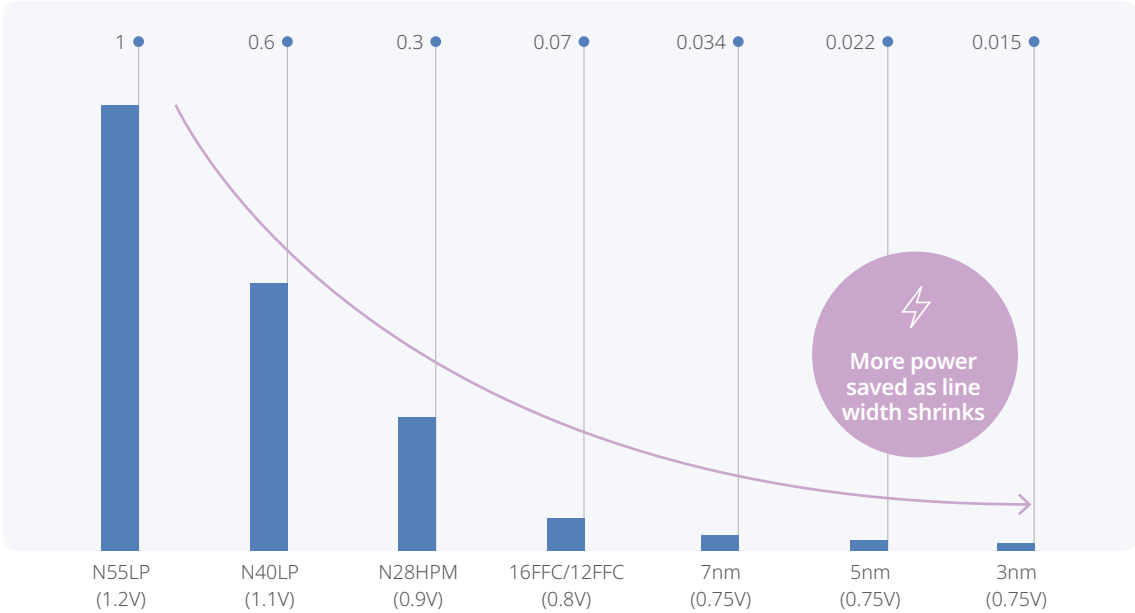
highlighting a diverse range of end products. These included energy-efficient HPC processors, inference-focused cloud and edge AI chips, integrated voltage regulators (IVR) designed for AI processors, Micro LED optical transmission and display technology, compact power modules with integrated inductors, MEMS-based active air-cooling solutions, ADAS and sensing solutions for smart vehicles, and edge computing applications in AIoT. Through real-time interaction, these events facilitate technical exchange and jointly enhance resource integration, fueling the world with limitless innovation.

Chip Die Size Cross-Technology Comparison



Note: The ratio of logic chip, SRAM, IO (input/output) ratio, which impacts die size and power consumption, has been re-aligned.

Chip Total Power Consumption Cross-Technology Comparison



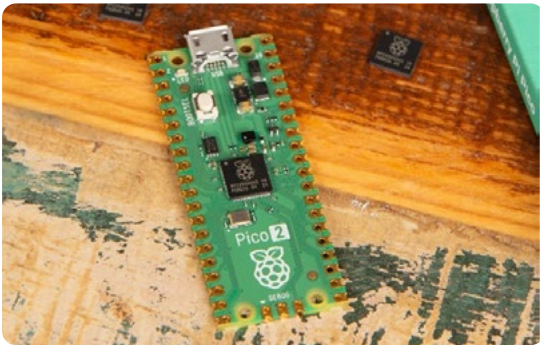
Note: The ratio of logic chip, SRAM, IO (input/output) ratio, which impacts die size and power consumption, has been re-aligned.

Empowering Customer Innovation for Embedded Applications

TSMC enables its customers to deliver transformative solutions, driven by its vision of pervasive technology. Its partnership with Raspberry Pi used TSMC's industry-leading 40nm Low Power (N40LP) technology to help Raspberry Pi deliver its RP2350 microcontroller chip. The RP2350, a landmark chip, features a heterogeneous multi-architecture processor with dual Arm Cortex-M33 and dual RISC-V Hazard3 cores running at up to 150 MHz. Available as the heart of the Raspberry Pi Pico 2 board at just \$5, this breakthrough underscores TSMC's and Raspberry Pi's shared commitment to democratizing cutting-edge semiconductor technology for engineers, students, and innovators worldwide.

Powered by TSMC's leading process technology, the RP2350 sets new benchmarks in performance and security for microcontrollers in its price category. With double the on-chip storage of its predecessor, the RP2040, and enhanced support for more external storage, the RP2350 is designed for a new generation of sophisticated embedded applications. Its patented Programmable I/O (PIO) system offers exceptional versatility and precision in component communication. In addition, Raspberry Pi adopts a "security through transparency" approach, setting itself apart from competitors who rely on "security through obscurity." Public hacking challenges, accompanied by substantial cash prizes, have helped uncover and address security vulnerabilities before the RP2350's widespread deployment in secure applications, further supporting customer innovation in the security domain.

The collaboration between TSMC and Raspberry Pi empowers the global Raspberry Pi community of 14 million users and beyond, enabling access to advanced semiconductor technology. Through the RP2350, TSMC's technology supports the creation of a new class of products — from precision industrial automation and robotics, to low-power wearable health monitors, environmental sensors, and smart home devices that are simultaneously more capable, more secure, and more energy efficient. The partnership between Raspberry Pi and TSMC has proven immensely powerful in placing the world's most advanced semiconductor technology within the reach of businesses at every scale and engineers worldwide, helping to deliver a sustainable and secure future and making innovation readily accessible.



The RP2350 microcontroller chip accelerates the popularization of technology and makes innovation a reality (Photo courtesy of Raspberry Pi)

Intellectual Property Protection

In line with its business objectives and corporate governance principles, TSMC has established four core intellectual property (IP) management policies and objectives. By adopting a dual-track strategy that leverages both patents and trade secrets, the Company protects technological inventions and confidential business information, strengthening its three core competitive advantages: technology leadership, manufacturing excellence, and customer trust.

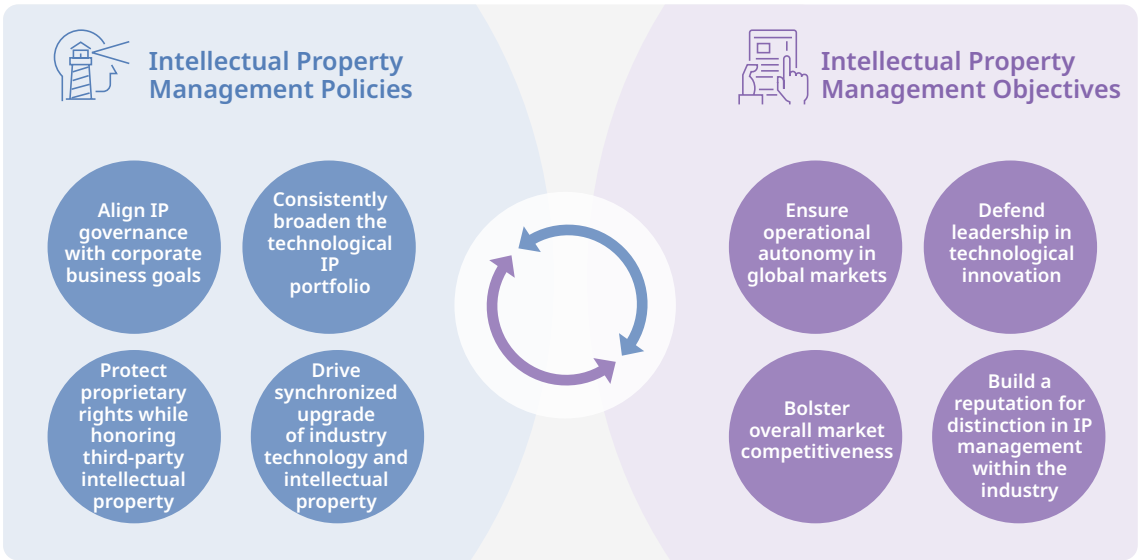
To sustain its technology leadership, TSMC's IP and R&D teams work closely to define IP output targets based on the Company's forward-looking R&D roadmap, encompassing short-, mid-, and long-term technology. The Company proactively secure core patents across multiple generations of process technologies — including 2nm, A16, and A14 —

building a comprehensive global patent portfolio to strengthen its position as a technology leadership.

Regarding manufacturing excellence, TSMC prioritizes rigorous trade secret management to safeguard proprietary know-how in production processes, yield optimization, and intelligent manufacturing. The Company also files patents for key production technologies to enhance competitiveness through high-value manufacturing services.

To ensure customer trust, TSMC protects both its own and its customers' confidential information. It continues to expand and strengthen its global patent portfolio, securing a leading position in international rankings. By deploying flexible IP strategies and leveraging robust litigation capabilities, TSMC safeguards its global operational freedom and further deepens partnerships with its customers.

Intellectual Property Management Policies and Objectives

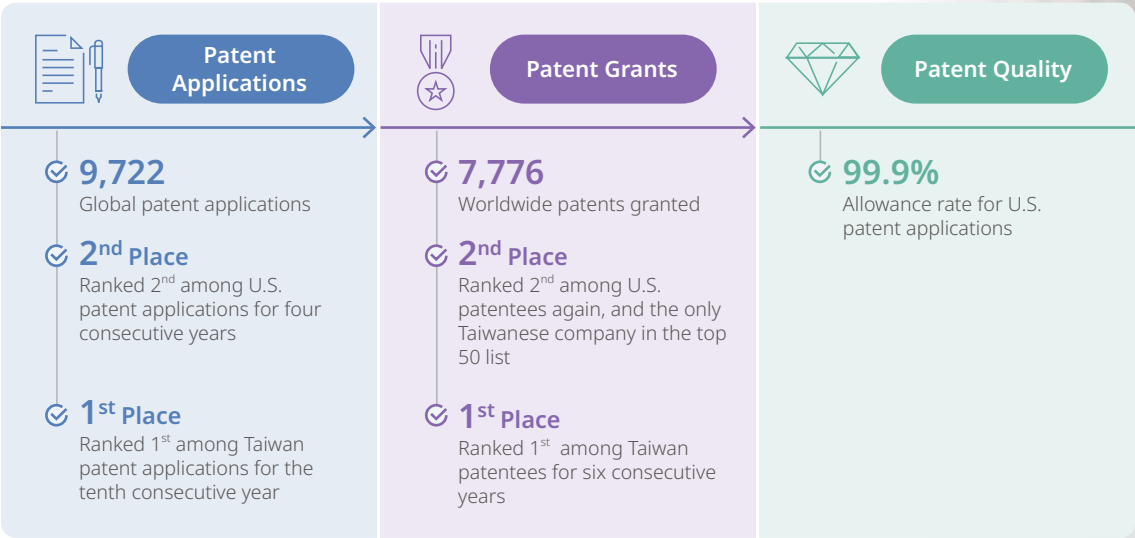


Comprehensive Patent Management System

TSMC has established a comprehensive patent management system, leveraging innovation strategies, robust governance, and diversified risk controls to develop short-, mid-, and long-term technology patent roadmaps. The Company uses patent mapping to monitor and analyze competitive intelligence and hosts forward-looking invention forums to identify core technology innovations. In 2025, TSMC generated 568 strategically valuable inventions in emerging key technologies. By focusing on key technology indicators, TSMC expands patent families and implements tiered management practices for patent filing and maintenance. The Company also drives patent acquisition and expansion through goal-oriented strategies, regularly reviewing and building a large-scale, high-quality global patent portfolio. This approach enhances utilization of intellectual property assets and secures long-term competitive advantages.

To further encourage patent innovation, TSMC has introduced a diverse range of incentive programs, including patent incentive bonuses and annual patent awards. The “Prolific Inventor Award” recognizes employees who have been granted more than 100 U.S. patents during their tenure; as of 2025, 273 employees have received this honor. The “New Inventor Award” recognizes employees who receive their first granted U.S. patent, with 383 recipients in 2025. In addition, TSMC organizes annual patent promotion activities. The 2025 “Annual Patent Campaign” attracted 2,509 invention submissions, marking an increase of approximately 1,400 submissions compared to the previous year. The Company held 55 on-site training sessions to strengthen employees’ patent proposal capabilities and the “Patent Knowledge Quiz,” which engaged over 1,224 employees to enhance their understanding of intellectual property law.

2025 Patent Achievements with Equal Emphasis on Quality and Quantity



Taiwan LOT (License-on-Transfer) Industry Alliance

The patent system was created to protect inventors’ rights, encourage technological innovation, and advance industrial progress. However, the global semiconductor industry has long been challenged by patent litigation by non-practicing entities (NPEs). These entities neither manufacture products nor conduct R&D or provide goods or services. Instead, their business model relies on acquiring patents and demanding substantial licensing fees from companies, often leveraging the threat of litigation.

These approach creates operational pressures and legal burdens, ultimately hindering industry innovation.

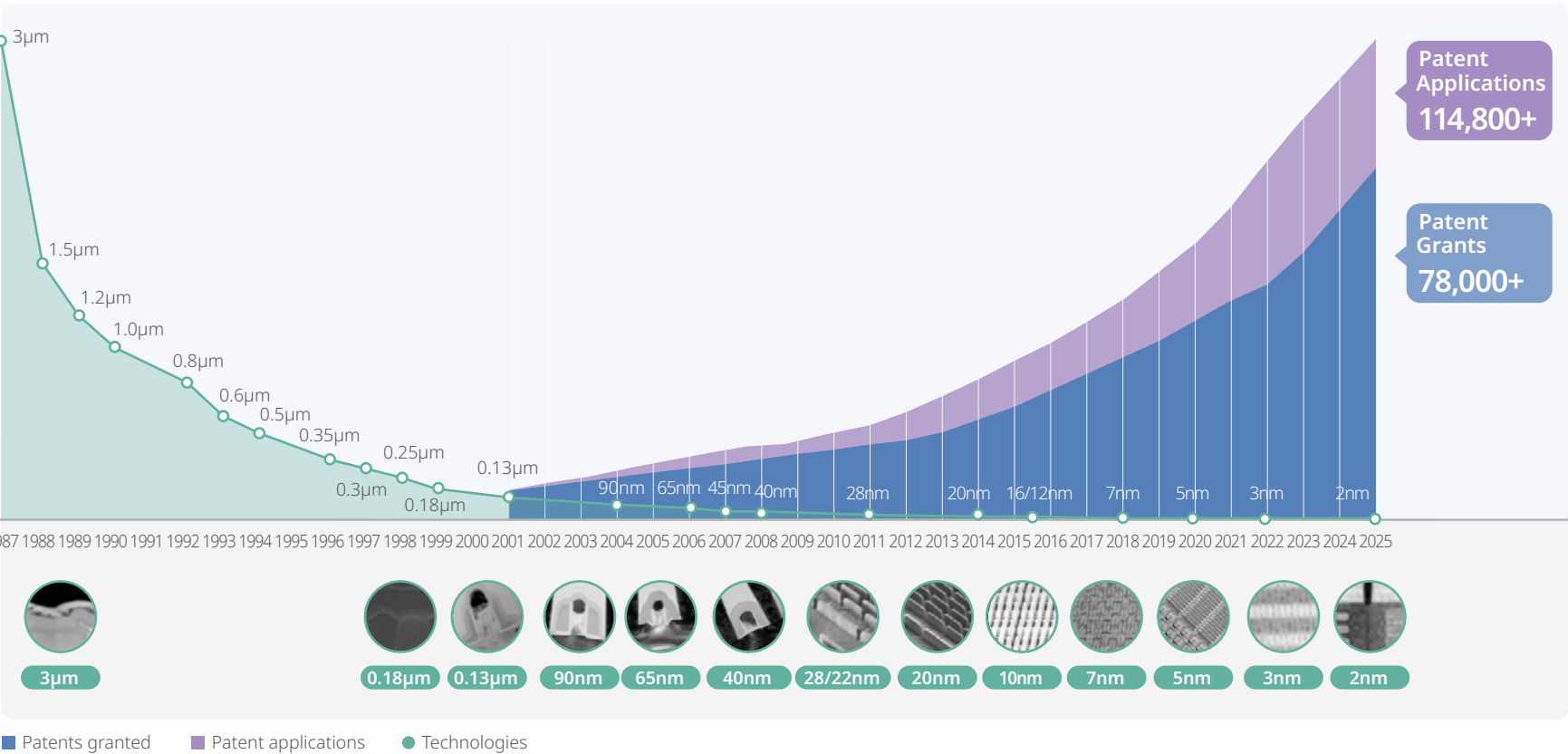
To address NPE risks, TSMC has signed patent cross-licensing or License-on-Transfer (LOT) agreements with multiple semiconductor companies, covering more than 318,000 patent assets. Under these agreements, if any party transfers a patent to an NPE, the other parties automatically obtain a license

to that patent, forming an effective defensive mechanism. The mechanism is triggered only when a patent is transferred to an NPE, preserving patent value while reducing litigation risk and involving no disclosure of technology or trade secrets, supporting collaboration and protecting supply chain interests. In addition, TSMC proactively establishes litigation defense alliances with suppliers and customers, successfully mitigating multiple NPE-related threats targeting the supply chain. The Company also

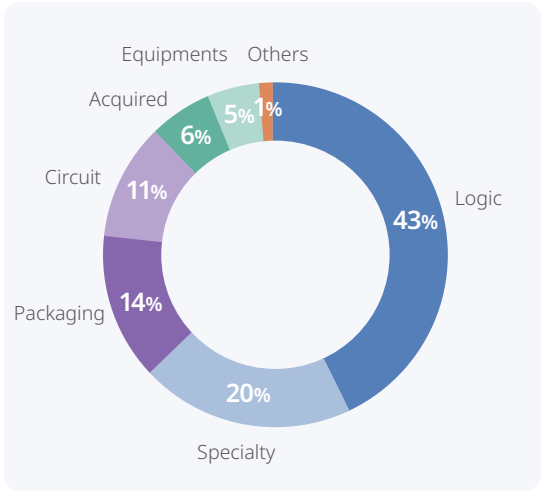
engages in international organizations to advocate for judicial reforms aimed at addressing NPE challenges.

In 2025, leveraging its extensive patent assets and LOT expertise, TSMC supported the Taiwan Industrial Technology Research Institute (ITRI) in establishing the “LOT Industry Alliance.” The Alliance focuses on Taiwan’s position in the global technology value chain and has gained support from nearly 20 technology companies with combined annual revenue exceeding NT\$4.4 trillion, pooling more than 150,000 active patents to build an industry-wide defense network. Members receive real-time NPE litigation defense support and access patent intelligence and risk alerts through the platform, strengthening supply chain resilience and creating opportunities for diversified patent utilization.

Forward-Looking R&D Technology Patent Portfolio Deployment



TSMC U.S. Patent Applications by Technology Category



Trade Secret

Trade secrets refer to technical or commercial innovations that contribute to a company's competitive advantage and require confidentiality. Guided by four core IP visions — IP Strategy, Competitive Advantage, Innovative Culture, and Sustainable Operations — TSMC continued in 2025 to protect its intellectual assets and enhance competitiveness through internal measures such as technology information integration, AI-assisted tools, and incentive programs, as well as external channels including seminars, alumni networks, and knowledge-sharing platforms.

Trade Secret Awards to Promote Innovation

Since the launch of its trade secret registration

program in 2013, TSMC has registered a total of 629,215 trade secrets, demonstrating its innovation momentum and potential. To recognize outstanding inventions, TSMC presented 568 Golden Trade Secret Awards to 2,315 inventors in 2025, bringing cumulative totals to 3,815 awards presented to 9,073 employees.

In terms of talent development, TSMC in 2025 expanded its Innovation Talent Scouting Online-Merge-Offline Service (ITS OMO) program — originally introduced in 2023 — to include advanced back-end packaging facilities, in addition to the front-end-of-line fabrication facilities. This initiative continues to strengthen the Company's innovative

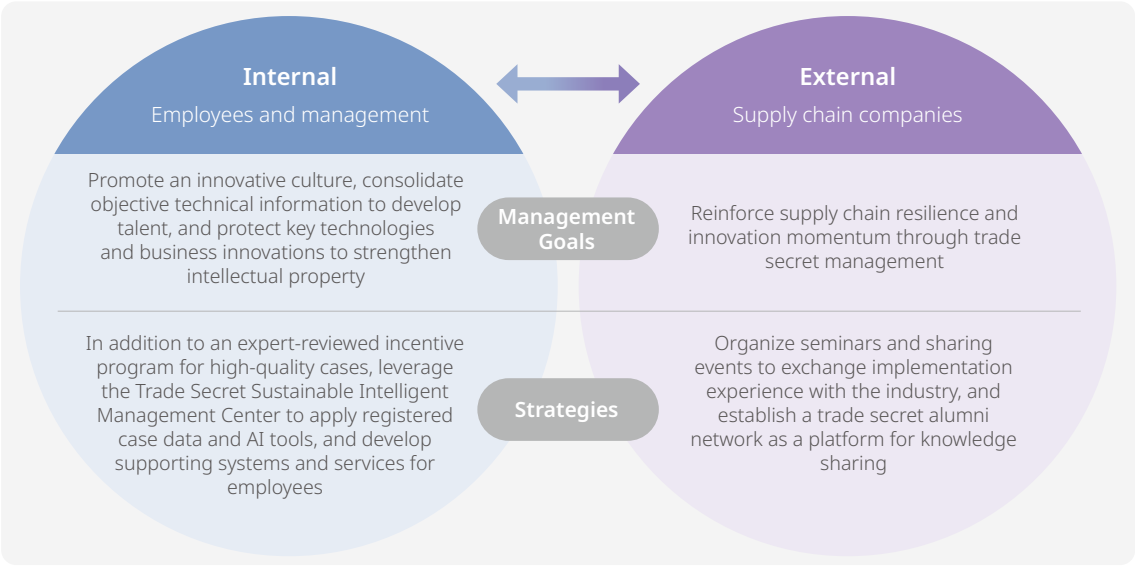
culture and competitive advantage through a systematic approach. As part of the effort, the Company presented six mentors with the "Gold Mentor Award" and three contributors with the "Best Partner Award," recognizing their significant contributions to nurturing innovation talent and enhancing the quality of trade secret registrations.

Green Trade Secrets Deepen Synergy Between Operations and the Environment

As one of TSMC's five ESG strategic pillars, "green manufacturing" reflects the Company's commitment to integrating green innovation into its operations.

To further this commitment, TSMC established the Green Trade Secret Registration Section, encouraging employees to submit innovative inventions with unique contributions in sustainability efforts, such as climate and energy, water stewardship, resource circularity, and air pollution control. In 2025, the annual registrations reached 608, bringing the cumulative total to 2,480. To honor exceptional achievements in green innovation, TSMC introduced the Green Trade Secret Awards, presenting 11 awards to 34 employees in 2025.

Trade Secret Management Goals and Measures

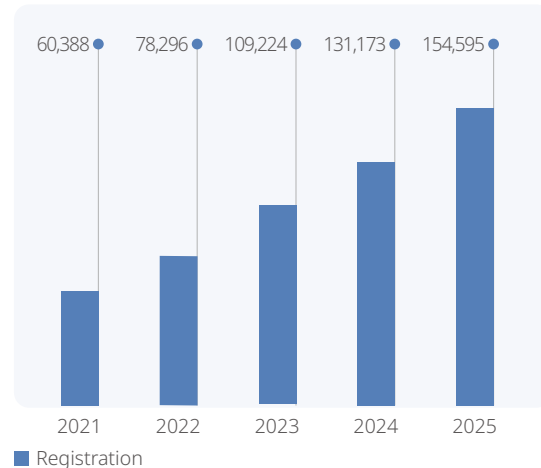


The 2025 Trade Secret Intelligent Management Expo: Promoting Cross-Industry Collaboration

Partnering with Industry to Launch the Inaugural Trade Secret Intelligent Management Expo

To foster industry prosperity and enhance trade secret management standards, TSMC joined forces with the Allied Association for Science Park Industries to co-hosted the inaugural “Trade Secret Intelligent Management Expo” in 2025. This initiative underscores TSMC’s active engagement in public affairs and its commitment to driving positive industry development. The Expo brought together 10 member companies from the Trade Secret Registration System Alumni Association, featuring exhibition booths and seminars focused on four themes — trade secret registration systems, incentives for high-quality trade secrets, green trade secret management, and a sustainable innovation culture — sharing practical approaches and success stories in intelligent management. The event attracted nearly 300 participants, including professionals from science park companies and trade secret management experts, highlighting the growing importance of trade secrets in strengthening industrial competitiveness.

Trade Secret Annual Registrations



Intelligent Precision Manufacturing

TSMC considers intelligent precision manufacturing a core driver of operational excellence and environmental sustainability. In 2025, TSMC focused on three key pillars: Intelligent Quality Management and Process Control, Intelligent Scheduling and Equipment Performance Maximization, and Integrated Global Manufacturing and Operational Efficiency Optimization. By leveraging AI technologies, TSMC enhanced the capacity of advanced process and advanced packaging facilities in Taiwan and overseas, establishing an innovative manufacturing model characterized by high-efficiency and low-environmental-impact manufacturing.

On “Intelligent Quality Management and Process Control,” TSMC deepened its application of AI technologies by integrating high-performance computing and big data analytics with semiconductor manufacturing expertise. The Company accurately detects subtle variations in advanced processes, conducts in-depth analysis of engineering data, and rapidly identifies key factors affecting process performance, enabling real-time optimization and adjustments. TSMC also adopted a new tool qualification platform that shortens equipment onboarding cycles through automated qualification steps, ensuring fast and stable production line operation.

For “Intelligent Scheduling and Equipment Performance Maximization,” TSMC adopted an intelligent tool diagnostic platform across all new global fabs, enabling real-time equipment monitoring and predictive diagnostics. The Company also strengthened the computing capacity of its dispatching and scheduling systems, expanding scheduling scope to maximize tool productivity and meet global

customer demand. To address potential natural disaster risks, TSMC established an automated material handling system equipped with seismic mitigation and recovery capabilities, ensuring operational continuity and rapid recovery from unexpected disruptions — demonstrating exceptional resilience.

On “Integrated Global Manufacturing and Operational Efficiency Optimization,” TSMC adopted a low-code platform to streamline application development processes and improve operational efficiency across its global fabs. Leveraging advanced data visualization and analytics, it monitors the effectiveness of process digitalization and production metrics at its global manufacturing sites. TSMC has also actively promoted cyber-physical integration and robotics applications to further safeguard production stability and employee safety.

Intelligent Scheduling and Equipment Performance Maximization

Precise resource allocation and optimization of equipment parameters ensure production tasks are assigned to the most suitable equipment.



Integrated Global Manufacturing and Operational Efficiency Optimization

Highly standardized and automated operational facilities integrate global manufacturing sites into a unified intelligent production platform.



Intelligent Quality Management and Process Control

Precisely track the status of each product throughout the manufacturing process and monitor minor variations in process parameters in real time.





Case Study

Automatic Material Handling System Strengthens Operational Resilience and Employee Safety

Taiwan is located along the Pacific Ring of Fire, where frequent earthquakes pose significant challenges to the continuous operation of TSMC's precision manufacturing equipment. To ensure uninterrupted operations, protect employee safety, and fulfill commitments to customers, TSMC proactively developed an "Automatic Material Handling System." The system reduces the heavy reliance on manual labor during post-earthquake recovery efforts and considerably enhances employee safety. In recognition of its impact, the system was honored with the 2025 TSMC ESG Award for Outstanding Contribution, demonstrating TSMC's leadership in applying innovative technologies to address natural disaster risks.

During the development process, TSMC's project team worked with suppliers to establish universal standards for automated material handling in semiconductor manufacturing through the integration of hardware and software. This efforts laid a solid foundation for the broader adoption of seismic mitigation technologies. The system was launched in 2025 and received patent recognition. Looking ahead, TSMC plans to progressively deploy this system across all its global manufacturing sites by 2026. Also, TSMC aims to extend its implementation to supply chain partners, further strengthening seismic resilience and disaster recovery capabilities across the semiconductor industry.

Benefits of the Automatic Material Handling System



Enhanced equipment hardware protection

- ✓ **Safety enhancement**
Strengthen equipment and production line stability, aiming for zero workplace safety incidents
- ✓ **Optimized workforce operations**
Reduce the need for manual retrieval and transport at height, improving workplace safety



Automated anomaly detection and recovery processes

- ✓ **Improved recovery efficiency**
Shorten post-earthquake production recovery time through automated processes, ensuring production continuity
- ✓ **Wafer quality maintenance**
Maintain product quality and ensure stable supply



Automatic Material Handling System

Open Innovation Platform® (OIP)

With continuous innovations in artificial intelligence (AI), smartphones, cloud computing, autonomous driving, and many other applications, the market demand for high-performance, energy-efficient products and solutions continues to escalate along. To drive continuous innovations within the semiconductor industry, TSMC established the Open Innovation Platform® (OIP) in 2008. Since then, TSMC has launched IP Alliance, Design Center Alliance, Value Chain Alliance, EDA Alliance, Cloud Alliance, and 3DFabric® Alliance. These initiatives have transformed OIP into a central hub where ecosystem talents and advanced technologies converge.

As the design requirements for both 2D and 3D integrated circuits (ICs) become increasingly complex, TSMC has collaborated with OIP ecosystem partners to integrate AI solutions. These efforts unleash the innovation potentials of advanced logic and packaging technologies, delivering higher performance, improved power efficiency, greater design flexibility and productivity. By injecting strong momentum into technology innovation, TSMC is propelling the rapid evolution of AI.

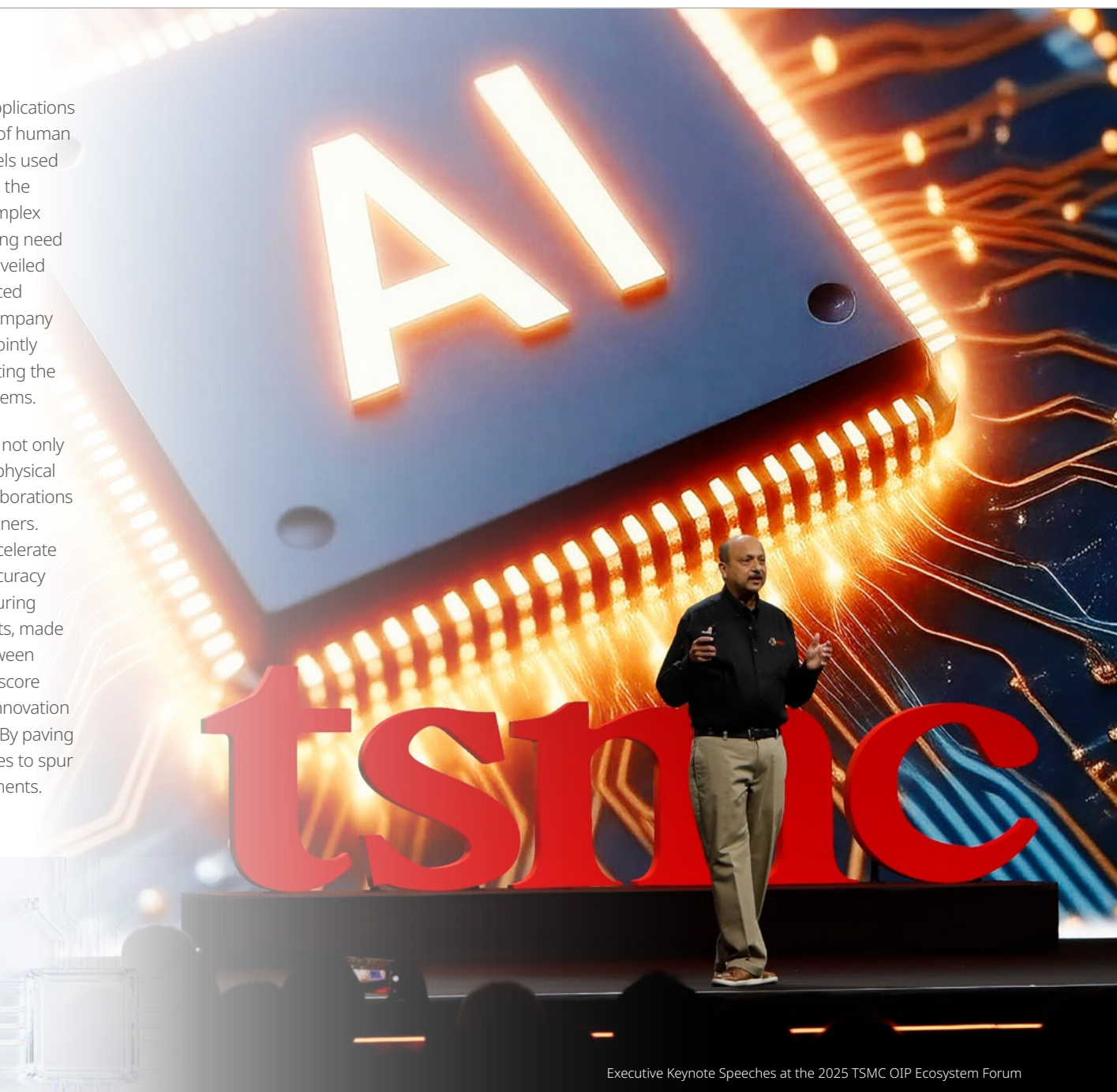
In 2025, TSMC hosted its OIP Ecosystem Forum under the theme of "Proliferating AI Advancements." The

forum addressed the rapidly expanding AI applications that are profoundly shaping various aspects of human life. With the continuous evolution of AI models used in training, inference, and agentic AI systems, the demand for power to handle increasingly complex computations has surged. To meet the growing need for energy-efficient AI computation, TSMC unveiled a series of innovative achievements in advanced logic and 3D packaging technologies. The Company also showcased AI-infused design solutions jointly developed with OIP partners, further supporting the development of more energy-efficient AI systems.

Riding on the wave of AI technology, TSMC is not only witnessing its gradual transformation of the physical world but also actively integrating it into collaborations with EDA (Electronic Design Automation) partners. This integration enables AI-driven tools to accelerate chip design, shorten cycle times, enhance accuracy in design verification, and improve manufacturing yield and productivity. These accomplishments, made possible through the close collaboration between TSMC and its OIP ecosystem partners, underscore TSMC's unwavering commitment to driving innovation in advanced silicon and packaging solutions. By paving the way for customer success, TSMC continues to spur future generations of technological developments.

2025 AI-Driven EDA: Accelerating Chip Design and Manufacturing Cases

- ☑ Reinforced learning applied in EDA tools can optimize digital designs by broadening the search space
- ☑ The integration of TSMC's Application Interface Program (API) and AI algorithms in EDA tool improve analog design power efficiency and layout density
- ☑ With the EDA features that adopt Large Language Model (LLM) techniques can accelerate automatic place and route (APR) analysis that leads to runtime savings and the tuning of parameters to achieve target power performance
- ☑ EDA's AI-infused tool features, while complying with the design rules, can not only maximize the density during the automatic insertion of embedded Deep Trench Capacitors (eDTC), but also optimize design analysis and search space in automatic substrate routing that result in productivity improvement



TSMC's Six OIP Alliances

Throughout seamless collaboration and ecosystem solutions, TSMC's OIP effectively integrates design, advanced process technologies, and packaging innovations. This enables customers to unlock new levels of innovation while ensuring first tape-out success, reducing product design cycle time, and accelerating time-to-market, time-to-volume, and time-to-revenue. By doing so, TSMC enables customers to deliver high performance, energy-efficient products to the market more efficiently.

2025 Six OIP Alliances Major Achievements



EDA Alliance

Provides the certification of Electronic Design Automation (EDA) tools required at various IC design stages and ensures readiness of design flows to address the latest requirements of customer design and process technologies



IP Alliance

Offers silicon-proven IP portfolios that fulfill TSMC's quality requirements and meet a wide variety of design needs in the semiconductor industry



Cloud Alliance

Provides OIP Virtual Design Environment (VDE) and Cloud-based solutions tailored for different design stages, enabling customers to fully utilize high-performance computing resources available in the Cloud and accelerate product design cycles



Design Center Alliance

Offers design services ranging from system-level front-end design to back-end physical implementation and verification, assisting customers in adopting TSMC technologies for their designs



Value Chain Alliance

Integrates design enablement building blocks and provides specific services across the IC value chain, including IP development, front-end and back-end designs, wafer manufacturing, assembly, and testing, to support customer innovation



TSMC 3DFabric Alliance

Comprises a full spectrum of 3D IC design solutions and services, including memory modules, substrate technology, testing, manufacturing, and packaging, to help customers achieve silicon and system-level innovations using TSMC's 3D silicon stacking and advanced packaging services



Collaborated with four partners to equip EDA tools with AI capabilities, covering digital, analog, physical verification, and electrical signoff that enhance design productivity and quality of products



The automated insertion flow of eDTC achieves better power density; the enablement of 3D IC ElectroStatic Discharge (ESD) solution; the support of robust stacking designs and substrate CTE (Coefficient of Thermal Expansion) simulation tools together with TSMC technology files



Delivered AI/ML-assisted optical solutions in TSMC-COUPETM, addressing high speed multi-wavelength design needs



Cumulatively released over 3,900 PDK (Process Design Kit), 58,000 technology files, and 77 design reference flows



Enabled IP partners to develop IPs in advanced nodes and variants, such as N2P and compact platforms of N3C and N4C, strengthening TSMC's IP portfolio and supporting customer tape-outs



Added one new IP Alliance member with expertise in specialty Input/Output (I/O) and ESD solutions



Accumulated around 93,000 items in broad range of IP portfolio to support customer design needs



Enabled IP partners to continue the development of more advanced UCIE and HBM solutions using TSMC 3DFabric® technologies



Deployed cloud-based EDA tool parallelism validation, which demonstrates enhanced compute efficiency and scalability for advanced design technologies across the OIP ecosystem



Enabled an AI-assisted design solution with cloud-based Graphical Processing Unit (GPU) to accelerate TSMC-COUPETM optical design. This significantly enhances design performance, drastically reduces simulation runtime and achieves the required accuracy



Launched TSMC Cloud Chamber on AWS, solidifying the support of multi-cloud capability and deepening OIP partner collaboration relationship as well as the full coverage of implementation across all key public cloud platforms



Enable DCA partners to deliver design services for the N2 and TSMC A16™ technology nodes, reducing design barriers for customer adoption of TSMC's cutting-edge technologies and accelerating time to success



There is a total of eight VCA partners supporting the flexible Application Specific Integrated Circuit (ASIC) service model, spanning from design-in, tape-out to mass production with all TSMC silicon process technologies, extending from specialty to advanced nodes



Supports 3D IC designs by turnkey services with TSMC advanced packaging service of 3DFabric® together with System on Chip (SoC) dies in advanced process nodes



Collaborated with four key EDA partners to develop AI-powered tool features to improve productivity for 3D IC designs



Partnered with four key IP partners to support 3D IC chiplet development with compliance to industry standards for 3D IC designs



Joined forces with three substrate partners and two EDA partners to improve substrate layout productivity with automatic routing features



Teamed up with a key Testing partner and an EDA partner that successfully validated multi-die stack test using UCIE test vehicle by Design-For-Test (DFT) methodology and testing hardware equipment setup

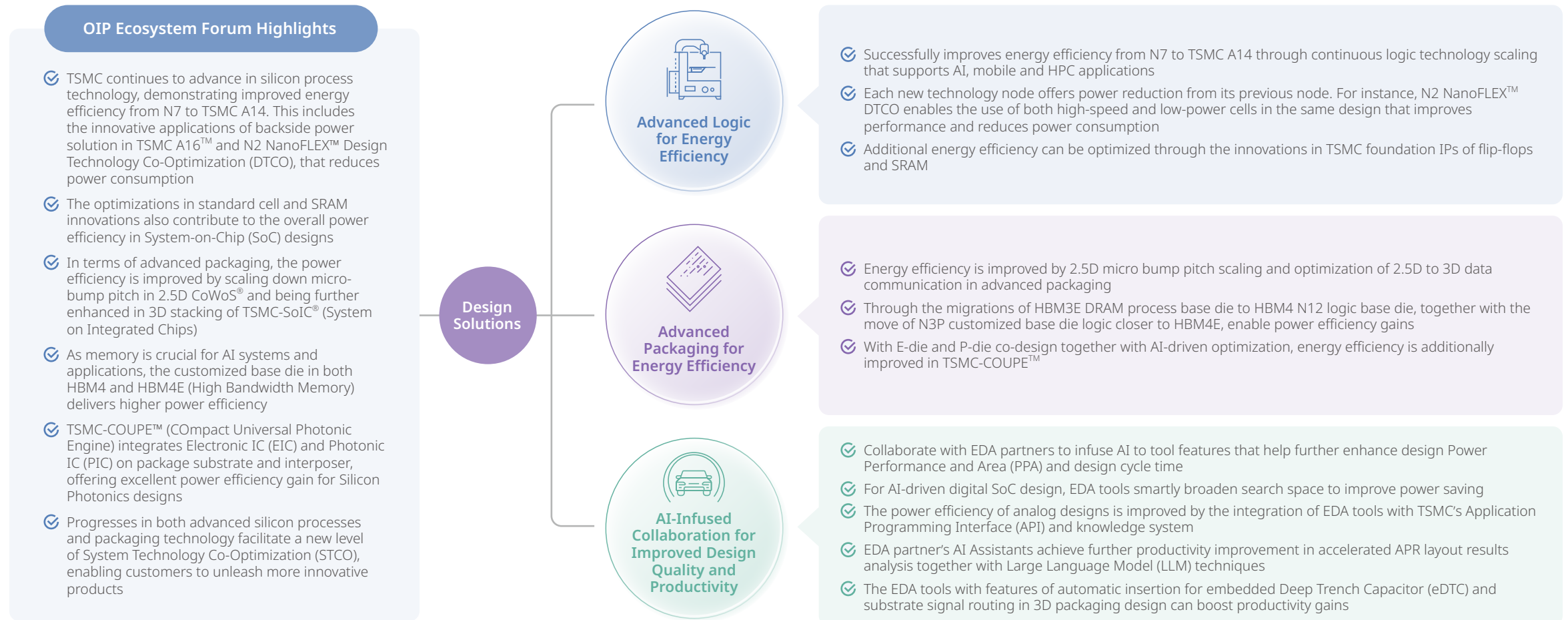


Contributed 3Dblox syntax and format to IEEE , which formed P3537 Workgroup , invited industry companies and research institutes to participate for making continuous enhancements to meet 3D IC design requirements and improve 3D packaging services

Comprehensive Ecosystem Design Solutions

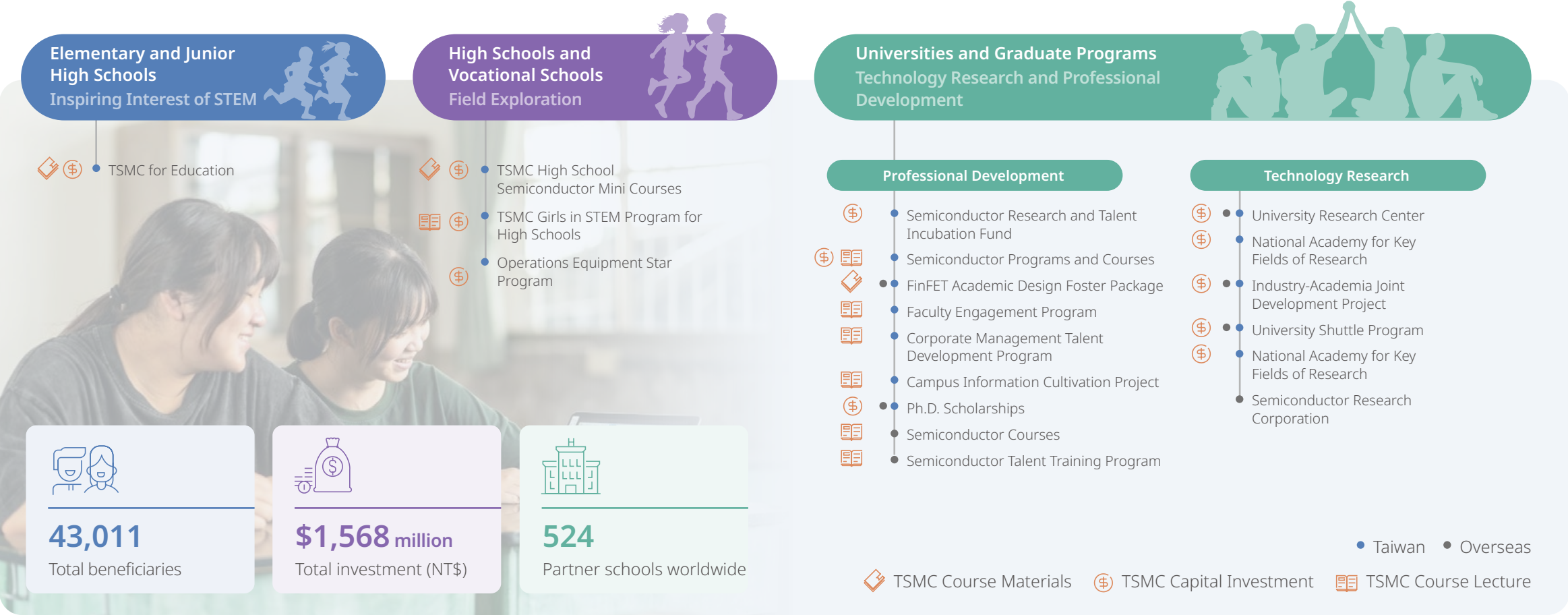
At the 2025 TSMC OIP Ecosystem Forum, TSMC, together with its OIP alliance partners and customers, unveiled a series of innovative design solutions. These collaborative solutions address key design applications in AI/High Performance Computing (HPC), Mobile, Automotive, Internet of Things (IoT), and Radio Frequency (RF) technologies. By incorporating DTCO and AI-driven solutions for both 2D and 3D IC designs, they leverage advanced silicon and packaging technologies to drive performance and energy-efficiency. To recognize the exceptional contributions of its OIP ecosystem partners, TSMC granted awards across several categories, celebrating the collaborative spirit and achievements within the ecosystem.

2025 Highlights and Solutions of the OIP Ecosystem Forum



Enhance Industry-Academia Collaboration

Taiwan maintains a core competitive advantage in the global semiconductor supply chain through its well-developed industry ecosystem and strong wafer manufacturing capabilities. As the international landscape shifts rapidly and process technologies continue to evolve, demand for professionals with forward-looking vision and hands-on expertise continues to grow. In line with the “Develop Talent” pillar of its five ESG directions, TSMC collaborates with academic and research institutions worldwide in driving industry–academia programs across four dimensions: STEM education outreach, field exploration, professional development, and technology research, to cultivate semiconductor talent and support next-generation R&D. Beyond its deep engagement with Taiwan’s education system through connections with faculty and students at 315 elementary schools, secondary schools, vocational schools, and universities, TSMC extends its reach globally in support of its worldwide expansion strategy by partnering with 209 overseas universities on technology research and talent development programs to cultivate a pool of globally-minded professionals for the industry.



Elementary and Junior High Schools: Inspiring Interest of STEM

TSMC for Education

Grounded in its belief in nurturing talent from an early stage, TSMC partnered with the Junyi Academy Foundation in 2024 to launch the three-year “TSMC for Education” project. Aligned with the competency-based learning framework of Taiwan’s Curriculum Guidelines of 12-year Basic Education, the Company developed the “My Semiconductor Adventure” online interactive learning platform, offering six animated foundational courses that progressively guide junior high school students through the basic principles, functions, and applications of semiconductors. In 2025, six advanced courses were added under the theme “Semiconductor Manufacturing — How are Good Chips Made?” To date, the platform has recorded more than 105,000 user visits throughout all administrative regions in Taiwan, including outlying islands, achieving a course satisfaction rating of 4.66 out of 5 and a completion rate of 92%, and ranking as the most popular program on the Junyi platform for two consecutive years.



This learning content not only aligns with the junior high school curriculum but will also benefit me throughout my life. Knowledge of semiconductor technology and artificial intelligence will support my future growth.

Grade 7 Student, Kaohsiung City, Taiwan

High Schools and Vocational Schools: Field Exploration

TSMC High School Semiconductor Mini Courses

In line with the blended learning trends of the digital age, TSMC launched both in-person and online courses — “SEMI: Semiconductor in Our Life” and the “Semiconductor Cloud Academy” — to deepen high school students’ understanding of semiconductors. In 2025, “SEMI: Semiconductor in Our Life” added three new partner schools, bringing the cumulative total to 20, with 1,060 students completing the course that year. The “Semiconductor Cloud Academy,” covering topics from foundational science to an introduction to the semiconductor supply chain, attracted more than 4,000 high school students from Taiwan and abroad. In the same year, TSMC partnered with the Taiwan Semiconductor Research Institute, part of the National Institutes of Applied Research to host a one-day camp for more than 500 students. Through photolithography and etching experiments, along with cleanroom visits, participants integrated online learning with hands-on experience, deepening their understanding of and interest in semiconductors.

TSMC Girls in STEM Program for High School

To develop female scientific talent, the TSMC Education and Culture Foundation has partnered with the National Museum of Natural Science since 2020 on “Journeys of Female Scientists,” encouraging female students to explore science and build technological competency. In 2025, the

program drew over 1,000 female students to a range of STEM outreach experiences. TSMC also held the “Lean in and Achieve a Better Version of Yourself” career forum, inviting female graduates to share workplace experiences and technology insights, helping over 3,000 students build their career vision. Participating teachers agreed that the forum, grounded in real alumna experiences, effectively motivated students to pursue STEM fields. In addition, the Company continued deepening collaboration with 18 all-girls high schools nationwide, providing support through the “Girls’ High School Student Scholarship” program to encourage female students to enter STEM and bring greater diversity to technology innovation.

Operations Equipment Star Program

The stable operation of the semiconductor supply chain depends on skilled technical professionals.

TSMC actively promotes its talent sustainability strategy through the “Operations Equipment Star Program,” launched in 2023, centering on the equipment and facilities engineering disciplines critical to semiconductor manufacturing to develop entry-level technical specialists with hands-on skills. Through partnerships with Taiwan’s National Hualien Industrial Vocational Senior High School, National Lotung Industrial Vocational High School, and National Pingtung Industrial Vocational High School, TSMC provides campus outreach, corporate internships, and scholarships to encourage students to build practical skills and develop a passion for the semiconductor industry. The program has trained 212 participants in 2025, bringing the cumulative total to 539, expanding Taiwan’s semiconductor talent pool and advancing sustainable development.



Lecture Held for Students at Lan Yang Girls' Senior High School

Undergraduate and Graduate Programs : Technology Research and Professional Development

Semiconductor Research Corporation

The Semiconductor Research Corporation (SRC) is a U.S. nonprofit semiconductor research organization that brings together industry, government, and academia. As a core partner of SRC, TSMC participates in SRC-led research programs, collaborating with 56 leading universities and 24 semiconductor company and organization members worldwide on forward-looking research in next-generation semiconductor materials, devices, processes, packaging, and energy-efficient AI chip edge computing, working together to tackle key challenges in the semiconductor field. As a critical platform for developing globally-minded and cross-disciplinary talent, SRC encompasses 260 research projects led by 240 professors, through which TSMC accelerates knowledge innovation and cultivates future talent for the global semiconductor industry.

University Research Center

TSMC deepened its academic collaborations by founding joint R&D centers with National Taiwan University, National Yang Ming Chiao Tung University, National Tsing Hua University, and National Cheng Kung University in Taiwan. In 2025, the Company invested NT\$137 million to fund breakthrough research in semiconductor materials, devices, processes, and chip design, while helping academic partners apply for government matching funds to drive forward-looking research. That year,

70 professors and 772 students participated in 53 research projects, with cumulative U.S. patent applications reaching 263 since 2013, reflecting technological innovation and R&D output. In June 2025, TSMC expanded its global footprint by establishing a joint laboratory with the University of Tokyo. The Company also participated in research programs involving 401 professors across 12 research centers at eight leading universities in the United States. This collaborative effort aims to integrate academic and industrial expertise, foster innovation and drive the advancement of semiconductor technology.

Industry-Academia Joint Development Project

Since 2019, TSMC has expanded its academic collaborations. In 2025, the Company formed strategic partnerships with 11 domestic and 34 overseas universities to drive industry-academia programs covering advanced semiconductor circuit design, advanced devices and process technology, manufacturing technology, AI and information technology, equipment, advanced packaging, green processes, specialty technologies, and silicon photonics. Through 2025, the Company has collaborated with 482 professors on 792 projects, resulting in 47 cumulative U.S. patent applications.

To tackle the challenges of semiconductor scaling

and heterogeneous integration, TSMC's Quality and Reliability, Advanced Packaging Technology and Services, and R&D organizations, together with Fab 20 and ESMC, collaborated in 2025 with four professors and five students from National Cheng Kung University, Harvard University, and Technische Universität Dresden on five applied research cases. The work centered on fracture mechanics in packaging, addressing interfacial delamination and material failure in process development and reliability testing. The team also developed stress sensing technologies to reduce the risk of fracture and defects. The resulting solutions have been successfully applied in production, contributing to the development of advanced packaging technologies while cultivating the next generation of talent.

Faculty Engagement Program

To foster academia-industry linkages and expand collaborative research, TSMC held the inaugural "Faculty Engagement Program — Semiconductor Advanced Manufacturing and AI Applications Workshop" at its Taichung Newcomer Training Center in 2025. The program invited 62 professors from 18 universities nationwide, covering advanced process technologies, advanced packaging technologies, and case studies, and include dialogue sessions between TSMC managers and professors to jointly explore technology application scenarios and innovative solutions. The workshop further encouraged professors to propose new industry-academia collaboration projects, reinforcing the foundation for academia-industry partnerships.



Semiconductor Advanced Manufacturing and AI Applications Workshop

Semiconductor Research and Talent Incubation Fund

As global semiconductor technology advances rapidly and competition for talent intensifies, TSMC remains deeply committed to Taiwan and regards talent incubation as a core investment. In 2025, the Company invested NT\$470 million in National Taiwan University, National Yang Ming Chiao Tung University, National Tsing Hua University, and National Cheng Kung University, supporting the recruitment of top faculty, teaching and research development, upgrades of teaching spaces and equipment, establishment of advanced laboratory facilities, and promotion of semiconductor STEM education, thus comprehensively upgrading semiconductor education and research environment in Taiwan.

National Academy for Key Fields of Research

In alignment with the Ministry of Education's "Innovation Act for Industry-Academia Collaboration and Talent Cultivation in National Key Fields," TSMC has collaborated since 2022 with National Taiwan University, National Tsing Hua University, National Yang Ming Chiao Tung University, National Cheng Kung University, National Sun Yat-sen University, National Chung Hsing University, and National Taiwan University of Science and Technology to establish semiconductor and other key technology research institutes. In 2025, the Company invested over NT\$100 million to support 63 professors in 33 forward-looking research projects and cultivate 349 students.

Semiconductor Programs and Courses

TSMC collaborates with 19 universities in Taiwan to offer 43 academic programs covering five key areas of specialization: devices/integration, process/modules, equipment engineering, intelligent manufacturing, and advanced circuit design. These programs have attracted over 19,200 student enrollments in total. TSMC managers also serve as industry lecturers, teaching four courses: "Semiconductor Processes: Equipment and Technologies," "Semiconductor Intelligent Manufacturing," "Special Topics in Advanced Processes," and "Semiconductor General Lecture Series," integrating practical industry knowledge into academic instruction. In addition, the Company provides access to internal training resources and invites program students to its Newcomer Training Center for integrated theoretical and hands-on professional training. As of 2025, over 8,200 students have received completion certificates. These programs develop students with both academic foundations and cross-disciplinary capabilities, effectively narrowing the gap between academia and industry needs and accelerating their learning curve upon entering the workforce.

Semiconductor Courses

To strengthen university students' motivation to study semiconductors, TSMC launched an eight-week lecture series in partnership with Japan's Kyushu University in 2024, delivered by managers and above from JASM, TSMC Japan Design

Technology, Inc., and TSMC Japan 3DIC R&D Center, Inc. The curriculum covers semiconductor devices, processes, manufacturing, design, and packaging fundamentals, as well as industry applications and future challenges, providing students in the Kyushu region with a learning experience that bridges theory and application. In 2025, the program extended to 16 universities, including Tohoku University, with a total of 189 participants completing the courses.

Semiconductor Talent Training Program

To deal with the global semiconductor talent shortage, TSMC launched the "Semiconductor Talent Training Program" in 2025 in partnership with the Free State of Saxony in Germany and Technische Universität Dresden. The program

provides six months of hands-on training in Taiwan to build German students' technical skills and cross-cultural collaboration capabilities. The 55 exchange students, assigned according to their academic backgrounds, first completed four months of semiconductor coursework at National Taiwan University, National Yang Ming Chiao Tung University, or National Taiwan University of Science and Technology, followed by training at TSMC's Newcomer Training Center, where they gained in-depth knowledge of process fundamentals, process control, tool principles, and device fundamentals. They then proceeded to Fab 15A, where, under engineer guidance, they applied theory in practice through group discussions and case studies, gaining a comprehensive semiconductor industry learning experience.



Semiconductor Talent Training Program Students Receive Specialized Training at Fab 15A

FinFET Academic Design Foster Package

To narrow the gap between semiconductor design education and industry practice, TSMC developed the N16 Academic Design Foster Package (ADFP) and, in collaboration with OIP partners, research institutions, and overseas universities, upgraded very-large-scale integration (VLSI) design education from traditional process technologies to advanced FinFET processes. ADFP serves not only as a teaching tool but also complements TSMC’s N16 and N7 wafer shuttle programs, together forming a globally integrated platform for FinFET design talent development that bridges education and research. In addition, TSMC applies ADFP to the “University IC Design Contest,” enabling students to design with industry-grade technologies and gain early exposure to industry trends. Since its launch in 2022, ADFP has been adopted by 196 universities worldwide as of 2025, with more than 500 professors granted free licenses and over 11,000 students benefiting from its use.

Corporate Management Talent Development Program

Sustainable business growth and innovation stem from diverse and specialized talent. Since 2024, TSMC has partnered with the colleges of management at National Taiwan University and National Yang Ming Chiao Tung University to offer the “Corporate Management Talent Development Program,” focusing on key management topics in the semiconductor industry. Co-taught by TSMC managers and university professors, the program integrates theoretical knowledge with real-world

scenarios to develop students’ analytical judgment and innovative problem-solving capabilities. Through 2025, 191 students have participated, helping to build a pool of professional and diverse management talent for the industry.

Campus Information Cultivation Project

TSMC is also dedicated to cultivating IT talent. Since 2022, the Company has been offering the graduate-level course “Cloud Native Development and Best Practice” at National Yang Ming Chiao Tung University and National Taiwan University. This course highlights the applications of cloud-native technologies in smart manufacturing, digital transformation, and automated processes. It has attracted top-tier students from computer science, information engineering, and information management. By 2025, six sessions of the course have been conducted successfully training a cumulative total of 701 students.

Ph.D. Scholarships

TSMC, in collaboration with Taiwan’s National Taiwan University, National Yang Ming Chiao Tung University, National Tsing Hua University, and National Cheng Kung University, has established scholarship programs through its joint R&D centers to attract students to participate in research projects. Recognizing doctoral talent as critical to industry innovation, TSMC has provided the “Ph.D. Scholarship” since 2020, supporting outstanding students pursuing doctoral degrees in semiconductor-related fields and advancing breakthroughs in Taiwan’s cutting-

edge semiconductor technologies. In 2025, 57 new scholars were awarded, bringing the cumulative total number of supported doctoral students to 211. The Joint Research Centers also host the “Elite Camp,” where experts and students share experiences, and interactive group sessions help participants explore academic and career development opportunities. In 2025, the camp attracted 79 students, with satisfaction rates exceeding 90%.

University Shuttle Program

TSMC promotes the “University Shuttle Program,” which supports 23 leading universities worldwide through 92 collaborative projects, helping translate original ideas into silicon chips. In 2025, participating universities published 81 research papers in cutting-edge fields including artificial intelligence, high-speed wireline communications, advanced electronic devices, electrical engineering, optical communications, millimeter-wave systems,

hardware security, biomedical circuits and systems, and compute-in-memory. Among these, 24 papers appeared in top-tier academic publications including the International Solid-State Circuits Conference and the IEEE Journal of Solid-State Circuits, spurring innovation and making tangible contributions to the semiconductor field.



We sincerely thank TSMC for enabling our faculty and students to bring circuit innovations into practice, resulting in outstanding published papers and patents, and injecting strong talent and innovation momentum into Taiwan’s semiconductor industry.

Philex Ming-Yan Fan

Assistant Professor, Department of Electrical Engineering, National Cheng Kung University



TSMC Actively Cultivates Global Talent to Drive Industry Growth

Product Quality

Strategies	2030 Goals	2026 Targets	2025 Achievements
Enhance Quality Culture Promote CIT programs to strengthen the internal quality culture	 Achieve the annual target for the total number of CIT projects ^{Note 1}	Achieve the completion of 2,588 CIT projects	Completed 3,108 CIT projects Target: 2,530 projects 
	 Involve outstanding projects in TCIA	Involve at least six outstanding projects in TCIA	Eight outstanding projects in TCIA Target: Six projects 
Improve Quality Capability Develop innovative testing methods to enhance product, technology and production quality Require major raw material suppliers ^{Note 2} to obtain ISO 9001 certification to ensure the implementation of a well-structured quality management system	 Develop a cumulative total of 3,000 innovative testing methods for quality and reliability	Develop 305 innovative testing methods for quality and reliability	Developed 316 innovative testing methods for quality and reliability Target: 305 
	 100% of major raw material suppliers obtain ISO 9001 certification	100% of major raw material suppliers obtain ISO 9001 certification	100% of major raw material suppliers obtained ISO 9001 certification Target: 100% 

 Applicable to all TSMC fabs around the world

 Applicable to TSMC fabs in Taiwan and other specific fabs

 Only applicable to TSMC fabs in Taiwan

 Applicable to TSMC overseas fabs

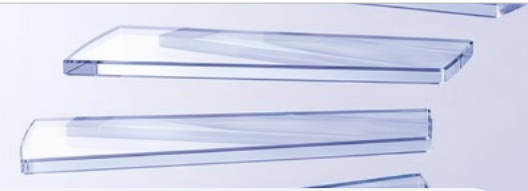
 Exceeded

 Achieved

 Missed Target

Note 1: The annual target for CIT projects is set at 10% of the total number of indirect labor (IDL) personnel in volume production g fabs.

Note 2: Major raw material suppliers are defined based on a comprehensive set of indicators: 1) accounting for 85% of purchasing expenses; 2) being a single-source supplier; 3) maintaining ongoing quarterly trading orders applied to critical processes.



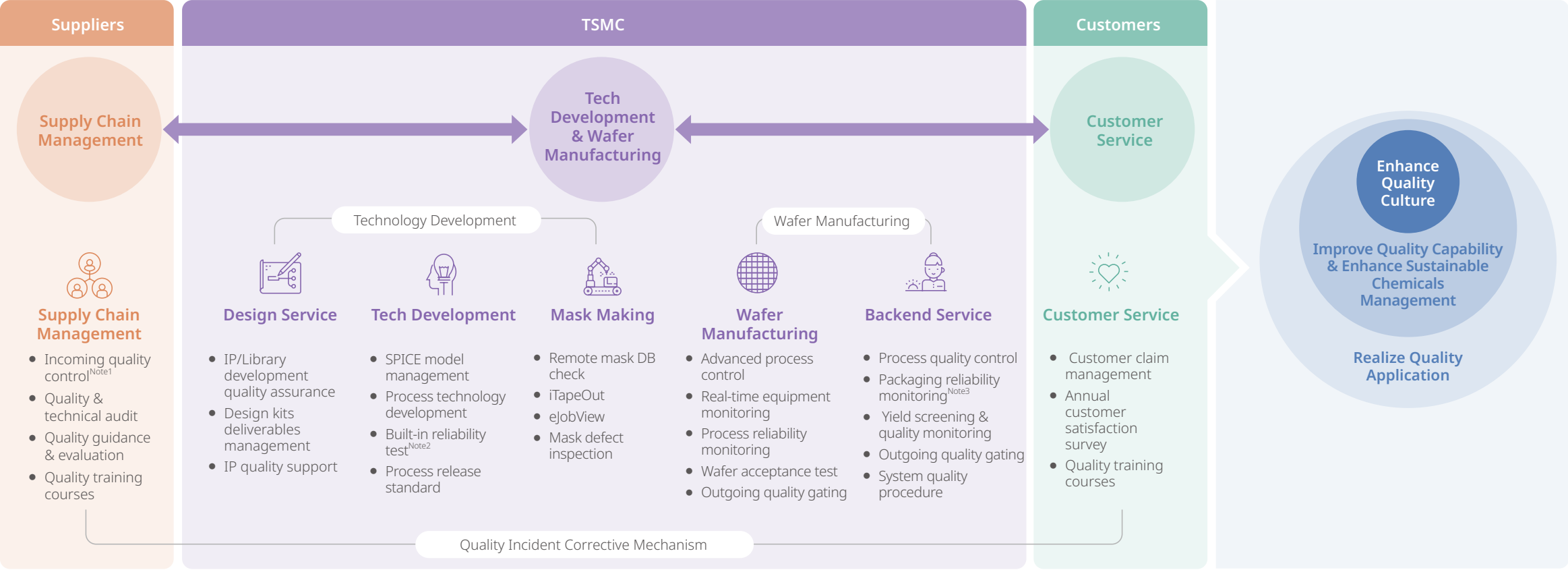
Strategies	2030 Goals	2026 Targets	2025 Achievements
Enhance Sustainable Chemicals Management Develop hazardous substance analysis capabilities in chemical laboratories to ensure occupational health and safety (OHS) Strengthen the management of hazardous substances to improve green manufacturing	Develop the capability to analyze 100% of CMR substances in materials with potential risks, and assist suppliers of such materials in developing the same capability	Achieve 100% detection and analysis capability for CMR substances in materials with potential risks, and assist suppliers in developing their own CMR substance detection capabilities	Achieve 100% detection and analysis capability for CMR substances in materials with potential risks, and assisted suppliers in developing their own CMR substance detection capabilities Target: 100% ✓
	Replace 100% of NMP (N-Methyl-2-Pyrrolidone) used in etching processes (using 2016 as the baseline year)	Achieve 100% replacement of NMP in the Company's etching processes	99% replacement completed in the etching process Target: 100% — Note 3
	Eliminate the use of PFASs (perfluoroalkyl and polyfluoroalkyl substances) that containing more than four perfluorinated carbons in all processes	Continue the replacement of PFASs containing more than four perfluorinated carbons - Complete substitution testing for the remaining PFASs in one thin-film process with eight perfluorinated carbons NEW - Complete substitution testing for the remaining PFASs in two photoresists containing six perfluorinated carbons NEW	Replaced 100% of photoresists containing PFHxA related substances in VisEra Target: 100% ✓
Realize Quality Application Complete quality and reliability certification for advanced process technologies, specialty process technologies, and wafer-level packaging technologies during the design and development stage, based on the Company's technology roadmap, to ensure quality and safety without concerns	Complete quality and reliability certification for advanced process technologies, specialty process technologies, and wafer-level packaging technologies during the design and development stage, based on the Company's technology roadmap	Complete quality and reliability certification for advanced process technologies, specialty process technologies, and wafer-level packaging technologies per the R&D targets	Completed reliability qualification for N2 technology, N16 FinFET high-voltage display driver IC (DDIC) process, and CoWoS® advanced packaging solution with a 5.5 × reticle-size interposer ✓
	Zero cases of product recalls by customers due to safety concerns	Zero cases of product recalls by customers due to safety concerns	Zero cases of product recalls by customers due to safety concerns ✓

TSMC is dedicated to delivering outstanding semiconductor manufacturing services to its global customers. To elevate quality standards across all operational aspects, TSMC has established a comprehensive quality management system based on four key pillars: supply chain management, technology development, wafer manufacturing, and customer service. By integrating advanced digital technologies, TSMC drives automation in lab tools and analysis, enabling automatic defect detection and classification, intelligent SPC and metrology advancements. These continuous improvements to process control ensure device characteristics, process yield, and product reliability, fulfilling its commitment to delivering high-quality products and services.

To ensure the effectiveness of its quality management system, TSMC has established an internal quality audit team, nurtured talent certified as ISO 9001 internal auditors, and conducted annual audits across fabs. In 2025, third-party audits further confirmed the system's compliance with ISO 9001 or IATF 16949 standards. In supply chain management, TSMC has focused on guiding suppliers to enhance their quality and

sustainability practices. In 2025, TSMC collaborated with suppliers to develop and implement technologies such as [recycled electronic-grade isopropanol](#) , [waste-reducing filter cleaning methods](#) , and [material value extension management](#) program., These initiatives have helped consolidate raw material quality and strengthening sustainability risk control.

TSMC Quality Management System



Note 1: Through end-to-end improvements spanning from raw material suppliers to fab utility systems, TSMC addresses contamination issues and improves filtration efficiency to strengthen raw material quality.

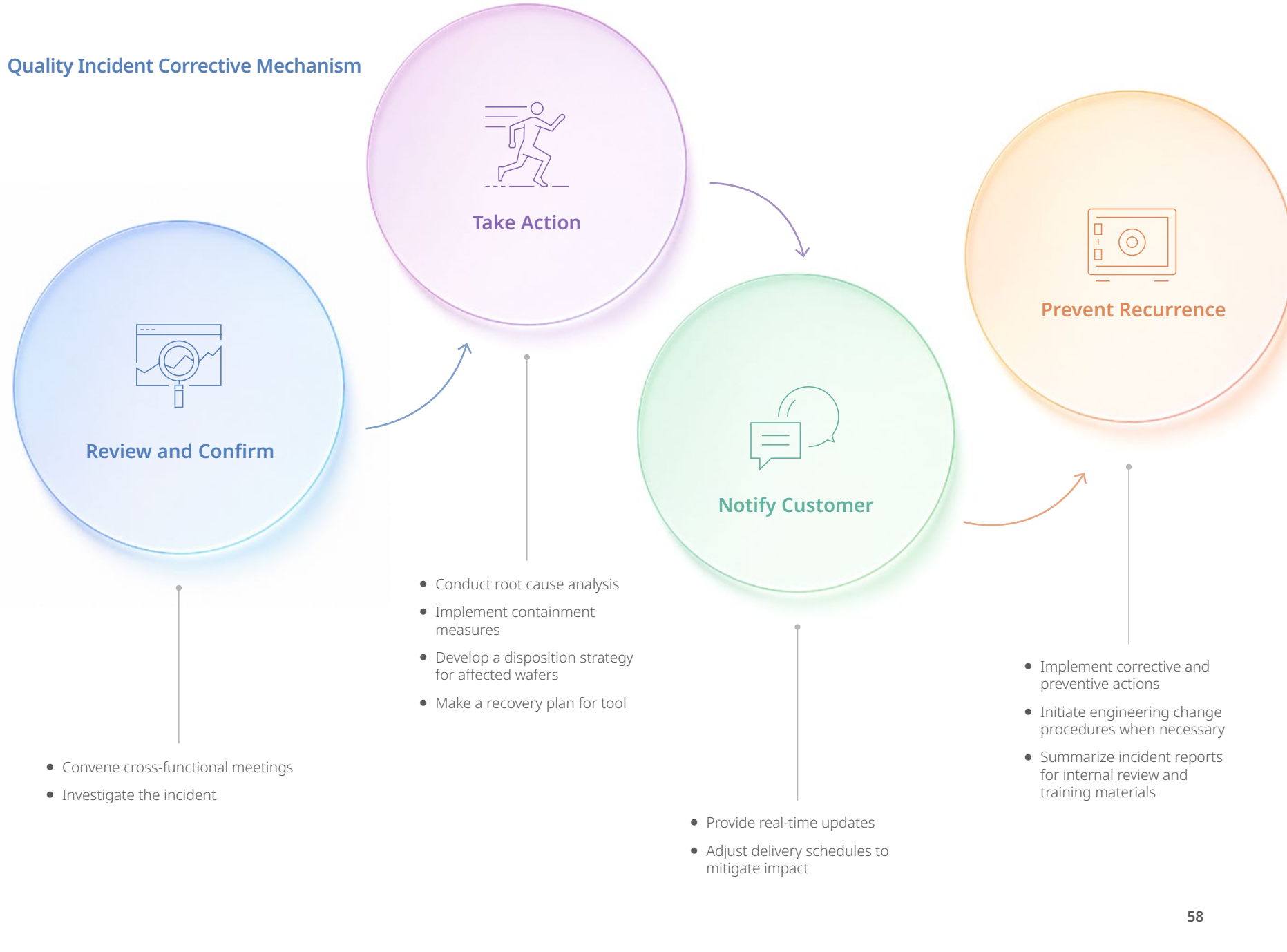
Note 2: By building an automated comparison system and designing new test vehicles, TSMC improves the quality of reliability testing and increases the capacity of test equipment.

Note 3: By replacing materials and optimizing process parameters, TSMC improves the qualification yield of advanced packaging, ensuring that customer products transition to volume production on schedule.

TSMC cultivates strong customer relationships through diverse communication channels. To proactively prevent potential quality issues or abnormalities, TSMC employs advanced quality tools like SPC and FMEA to rigorously monitor production line operations, ensuring customer satisfaction and fostering trust. In the event of a quality incident, the dedicated Quality and Reliability Organization promptly convenes cross-functional meetings, bringing together key personnel from operational and customer service teams. The organization deploys a robust four-stage corrective mechanism: Review and Confirm, Take Action, Notify Customer, and Prevent Recurrence. This comprehensive approach guarantees that all outgoing products consistently meet stringent quality standards, steadfastly upholding TSMC's commitments to its customers.

TSMC strictly adheres to regulations. In accordance with the Securities and Exchange Act, TSMC will proactively disclose relevant information should a quality incident significantly impact shareholder interests or stock prices. As of 2025, TSMC reported zero significant quality incidents and zero product recalls by customers due to safety concerns. These results demonstrate TSMC's robust quality management standards and operational capabilities.

Quality Incident Corrective Mechanism



Enhance Quality Culture

Rooted in a culture of quality, TSMC sets the annual target for CIT projects at 10% of the total number of indirect labor (IDL) personnel in volume production fabs. To embed quality mindset into daily operations, the Company adopts an eight-core approach: Define, Lead, Communicate, Encourage, Select, Integrate, Coach, and Drive. TSMC operates a Suggestion Award Program to recognize employees’ continuous improvement initiatives and fosters innovation through CIT to address complex quality challenges. The Company also organizes annual CIT Competitions at each site and a company-wide Total Quality Excellence (TQE) Conference to foster cross-functional collaboration

and learning. These efforts aim to deepen employees' understanding of quality responsibilities and enhance their professional skills. The topics covered include quality enhancement, productivity enhancement, cost and production supporting, flow and efficiency enhancement, STOP & FIX, tool quality risk prevention, environmental, safety and health (ESH), and outstanding proposals from direct labor (DL). In 2025, employees submitted 3,108 CIT projects, exceeding the annual target of 2,530 projects. This achievement reflects the workforce's strong commitment to driving quality innovation, further strengthening the Company's competitiveness.



In alignment with its commitment to fostering mutual growth across the supply chain, TSMC introduced the Supplier Quality Category to its internal TQE Conference to encourage raw material suppliers to pursue improvement projects and enhance their processes. TSMC also collaborated with suppliers in the TCIA to drive innovation through cross-industry exchange. In 2025, the Company achieved remarkable recognition, earning five Gold Awards, three Silver Awards, and four Best Improvement and Innovation Awards. TSMC's suppliers were honored at the TCIA, receiving three Gold Awards, two Silver Awards, five Bronze Awards, and two Best Improvement and Innovation Awards. The list of award recipients is publicly available on the [TSMC website](#).

2025 TSMC Gold Award-Winning Cases at TCIA

★

Major Breakthrough in Gallium Nitride Technology

✓

Yield increased by **15.9%**

✓

Developed a new interfacial layer material, reducing dislocation density by **77%**

★

Automotive Product Quality Reaches New High

✓

Wafer stress reduced **46%**

✓

Estimated improvement benefit of approximately **NT\$420 million**

★

Major Breakthrough in CoWoS® Interposer Capacity

✓

Lithography process capacity increased by **5.5x**

✓

Estimated improvement benefit of approximately **NT\$3.1 billion**

★

Significant Advancement in Thin-Film Process Capacity

✓

Capacity increased by **12.5%**

✓

Estimated improvement benefit of approximately **NT\$430 million**

★

Chip Speed Reaches New High

✓

Chip speed improved by **8.7%**

✓

Order volume increased by **45%**

★

Also received the Best Improvement and Innovation Award.

Promotion Structure of Continuous Improvement Activities

↑

Cross-Industry

TCIA

A nationwide competition organized by the Corporate Synergy Development Center. It serves as a platform for cross-industry exchange of best practices and improvement cases, setting a benchmark for excellence in continuous improvement.

Company-Wide

TQE Conference

The conference has been held annually for 33 consecutive years, making it TSMC's longest-running competition. Winning cases from the conference may be selected to represent TSMC at the national TCIA competition.

Fabs

CIT Competition

The CIT Competition is hosted by TSMC fabs to select outstanding projects. Winning projects from these site-level competitions may represent their fabs at the company-wide TQE Conference.

Individual

Suggestion Award

The Suggestion Award Program encourages employees to submit improvement proposals on a variety of topics, motivating them to identify and implement continuous improvement opportunities within their workflows.



TSMC has held the TQE Conference for 33 consecutive years, fostering cross-organizational collaboration and the sharing of innovative improvement methodologies.

Improve Quality Capability

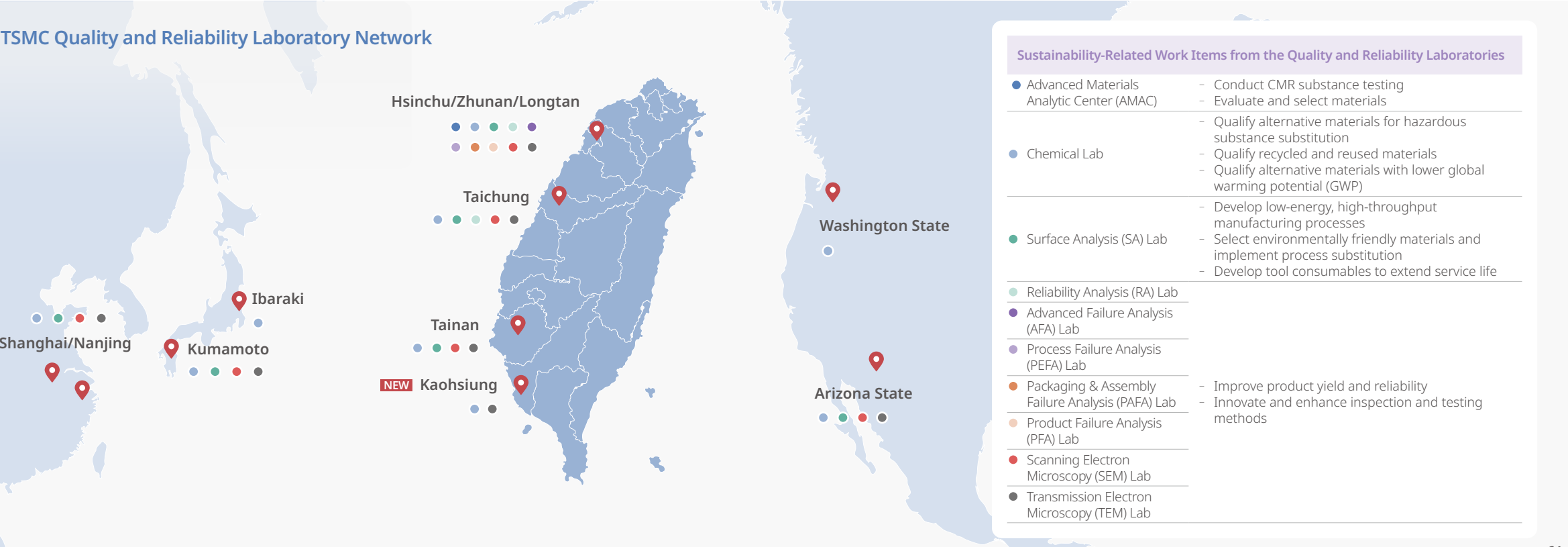
TSMC continues to strengthen its competitive edge in technology leadership by advancing and developing quality testing technologies. In 2025, the Company introduced 316 innovative testing methods to ensure that device characteristics, process yield, and product reliability meet customer requirements. By optimizing the design of test circuits embedded in chips , TSMC rapidly identifies potential risks in chips and processes, shortens failure analysis time at the laboratory stage, while applying the technology to

manufacturing process, so that the production lines can perform detection and failure analysis and improve analysis efficiency by more than 70% on average. In addition, for advanced packaging technologies, the Company integrates mechanical property analysis with electromigration assessment and uses simulation-based methods to identify key joints with different properties, achieving high electromigration resistance and strong reliability while overcoming key bottlenecks in technology development.

In supply chain quality management, TSMC conducts raw material quality inspections at critical control points on production lines and requires suppliers to adoptSPC methods to strengthen process management and stabilize upstream raw material quality. Additionally, all major raw material suppliers must obtain ISO 9001 quality management system certification and comply with internationally recognized standards for process change managements, evaluations, and quality audits. In 2025, TSMC carried out 145 on-

site coaching sessions for major raw material suppliers and suppliers providing materials for advanced processes. Experts from TSMC's quality systems, facilities, and smart manufacturing visited supplier facilities to deliver hands-on SPC training for both management and operational personnel, while supporting the establishment of real-time monitoring systems, and providing guidance and experience on production line automation and digital transformation to enhance overall supply chain quality management capabilities.

TSMC Quality and Reliability Laboratory Network





Enhance Sustainable Chemical Management

TSMC upholds its commitment to environmental sustainability and employee safety and health and follows its Environmental Policy, Safety and Health Policy, and [Hazardous Substance Free \(HSF\) Policy](#) . The Company establishes a sustainable chemical management framework covering the full product life cycle and systematically manages chemical risks across all stages, including R&D, raw material procurement, manufacturing, and shipment. All newly introduced chemicals or changes in chemical usage are subject to a rigorous review process conducted by experts from the Corporate ESH Division, the Fab Industrial Safety and Environment Protection Department, and functional units responsible for pollution prevention and waste management. Requesting units must

demonstrate compliance with domestic and international regulations across all operations, including storage, transportation, use, and disposal, and chemicals may only be used after meeting both customer and TSMC’s environmental, safety, and health requirements.

To advance green chemical management, TSMC has obtained IECQ QC 080000 Hazardous Substance Process Management certification since 2006. The Company applies a Plan–Do–Check–Act (PDCA) cycle to drive continuous improvement and manage raw materials and process chemicals, ensuring compliance with the latest regulatory requirements and customer expectations. Additionally, TSMC integrates hazardous

substance controls into both processes and final products and follows the principle of “avoid if possible, minimize if feasible.” The Company implements a green procurement process and classifies hazardous substances into three categories: Banned or Restricted Substances, Controlled Substances, and Reportable Substances to step up overall control.

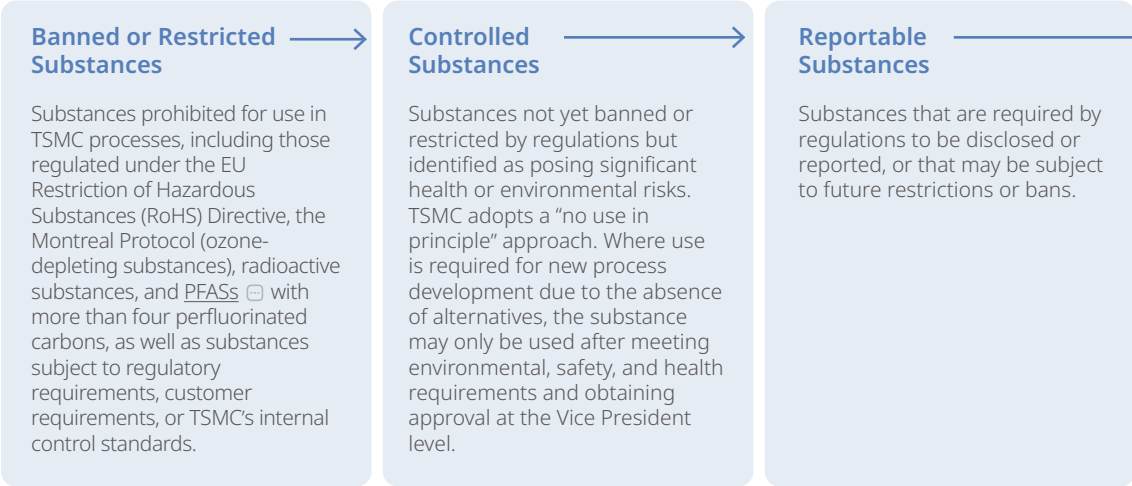
To track materials with potential risks, TSMC’s Advanced Materials Analytic Center has established a database for CMR substances by applying three spectrometry technologies — inductively coupled plasma–optical emission spectroscopy (ICP-OES), gas chromatography–mass spectrometry (GC-MS), and liquid chromatography–mass spectrometry (LC-MS) — to screen regulated chemical substances, with coverage expanding annually in line with process development. In 2025, the Company completed screening of 17 materials covering 273 items, achieving 100% analysis coverage of materials of concern. TSMC also shared high-risk chemical alternative solutions and safety management experience with VisEra Technologies Co., supporting its testing of six materials with potential risks. The Company further extended this approach to the supply chain by requiring suppliers to comply with the [Supplier Sustainability Standards](#) , ensuring that suppliers handling materials with potential risks are able to detect CMR substances in materials.

For hazardous substances used in existing processes, TSMC goes beyond regulatory requirements in

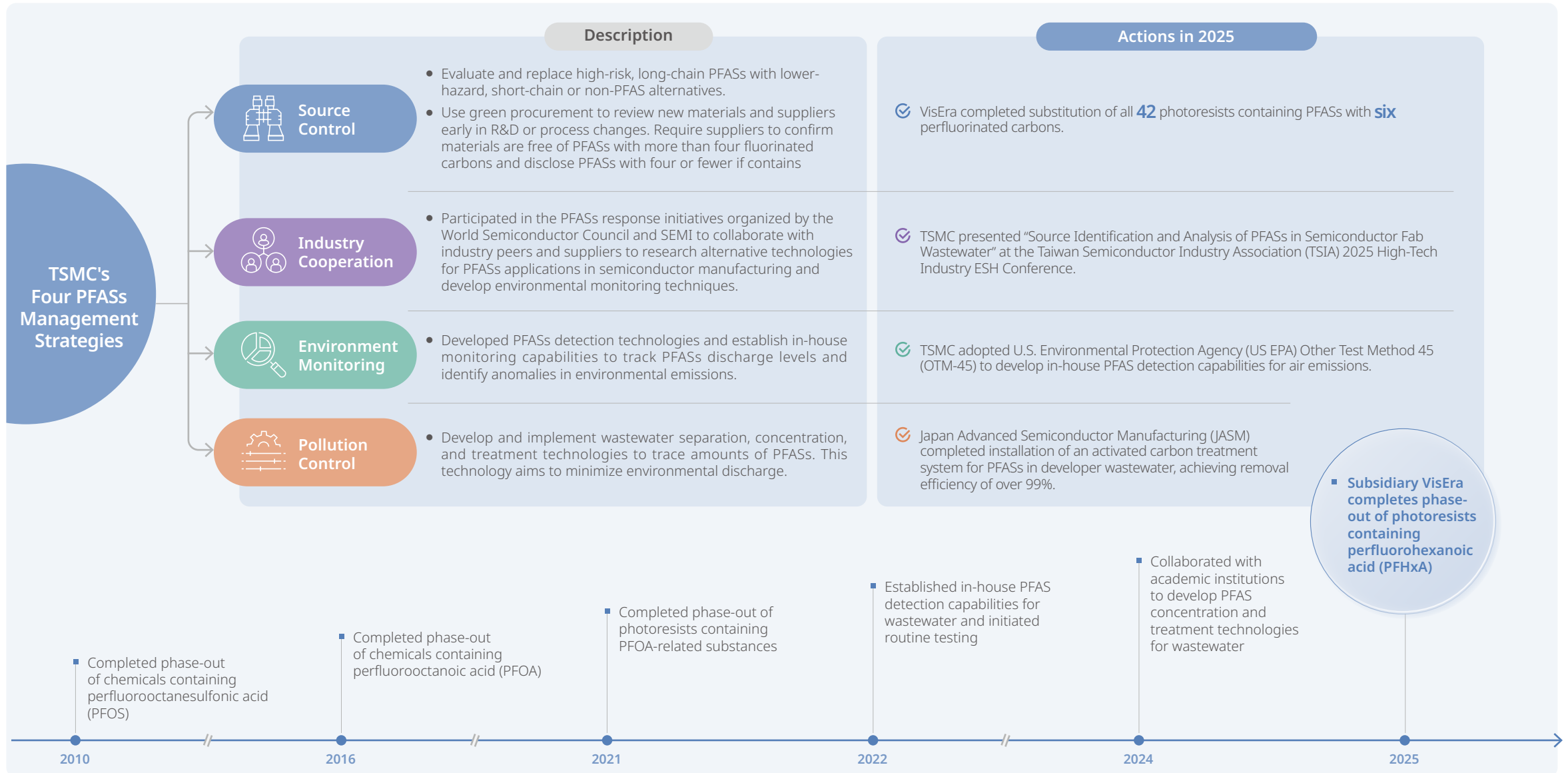
environmental, safety, and health management by actively evaluating non-hazardous or lower-hazard alternatives. NMP, a hazardous chemical used in etching and cleaning processes, has been included in a reduction program initiated in 2016. By 2025, NMP consumption had decreased by more than 95% compared with 2016 levels. Full substitution has been postponed to 2026 as one specialty product etching process has yet to find a viable alternative that meets quality specifications. In addition, NMP concentrations in wastewater from all Taiwan fabs comply with the Effluent Standards set by the Ministry of Environment.

In terms of PFAS substitution and reduction, TSMC drives progress through four management strategies — Source Control, Industry Cooperation, Environmental Monitoring, and Pollution Control. In 2025, VisEra successfully substituted 42 photoresists containing PFASs with six perfluorinated carbons, ahead of regulatory timelines and effectively mitigating both compliance and supply disruption risks. TSMC has already replaced PFASs with six or more perfluorinated carbons with alternatives containing four or fewer perfluorinated carbons, and plans to complete substitution trials in 2026 for the remaining one chemical with an eight perfluorinated carbons PFAS and two chemicals with six perfluorinated carbons PFASs. The Company also continues to develop PFAS detection capabilities in water and air emissions to verify the effectiveness of substitution, reduction, and abatement measures.

TSMC Green Procurement Program



TSMC PFAS Risk Reduction Measures and Results



PDCA Cycle for Sustainable Chemical Risk Management



Realize Quality Applications

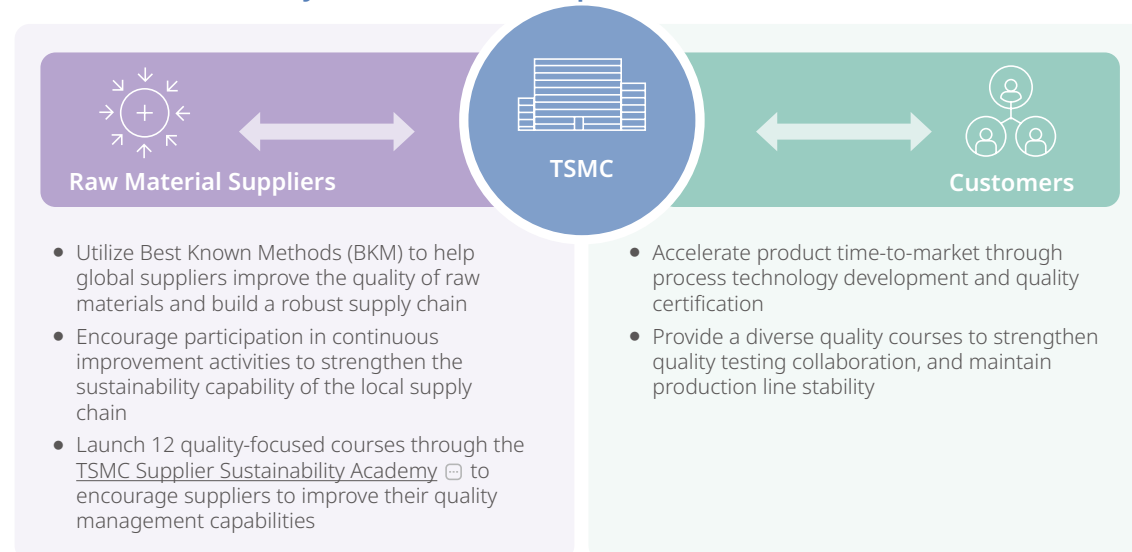
TSMC applies quality practices across three dimensions — technology, manufacturing, and services. During the technology development phase, TSMC supports customers in incorporating product reliability requirements into their design considerations. In 2025, the Company completed reliability qualification for the N2 technology, the N16 FinFET high-voltage display driver IC (DDIC) process, and the CoWoS® advanced packaging solution with a 5.5 × reticle-size interposer. For further details, please refer to Section 5.3.6 “Quality and Reliability” [🔗](#) in the Annual Report.

In manufacturing quality, TSMC’s Quality and Reliability organization works closely with the Operations organization and leverages advanced AI technologies and statistical methods to continuously enhance quality tools and improve the performance of the real-time fab defense system. The Company further strengthens

the application of automotive product design rules and upgrades the automotive quality system to Version 2.0, incorporating more stringent requirements for in-line wafer fabrication and electrical testing capabilities, as well as enhanced abnormal wafer handling procedures. To meet automotive customers’ DPPM requirements, TSMC provides dedicated resources for customer return analysis and real-time physical failure analysis (PFA) to facilitate process improvement.

In terms of quality service, TSMC establishes standardized training programs for new process technologies to help customers become familiar with new process design flows, accelerating product design schedules and tape-out success. In addition, through multi-dimensional quality training courses covering high-voltage stress testing, burn-in, and screening, the Company supports customers in building a comprehensive knowledge framework, improving product quality, and ensuring stable production operations and continuous product optimization.

Focus Areas for Quality Value Chain Development



Case Study

Yield Breakthrough in 3DIC Advanced Packaging Technology Driving a New Era of AI

TSMC drives advanced packaging and heterogeneous integration technologies. By effectively integrating multiple processing units to enhance chip performance, the Company delivers critical breakthroughs for AI and high-performance computing applications. In 2025, TSMC worked with customers on the development of next-generation 3DIC products and addressed yield challenges across wafer-level process and test stages, as well as assembly and test stages. The Company resolved inter-chip signal transmission issues, enabling high-speed, low-latency data exchange, and improved product qualification yield to a level suitable for volume production, thus helping customers capture market opportunities.

As technology advances, chip structures and packaging materials grow increasingly complex, raising the risk of stress-induced cracking, delamination, and warpage, all of which challenge the reliability and lifecycle qualification of next-generation products. In 2025, the Quality and Reliability, Advanced Packaging Technology and Service, and Research and Development organizations collaborated across functions to conduct comprehensive analysis of 3DIC packaging technologies, covering electrical testing, failure analysis, reliability testing, and chemical analysis. At the wafer-level process and test stage, TSMC combined thermal analysis with process optimization to select compatible molding compounds that mitigate damage caused by thermal expansion and contraction. At the assembly and test stage, the Company compiled a microstructure database to define optimized laser grooving process parameters, addressing cracking issues caused by chip stacking.

Through these critical process improvements, TSMC successfully enhanced the 3DIC product qualification yield to a level suitable for volume production while ensuring reliability and accelerating customers’ time-to-volume. The Company also standardized these improvement methodologies and extended them to its advanced packaging processes, laying the groundwork for future technology development and supporting high-performance AI applications.



TSMC has improved 3DIC product qualification yield through critical process improvements.

Customer Relations

Strategies	2030 Goals	2026 Targets	2025 Achievements
React with Precise Response Provide excellent customer service through close collaboration with customers and regular customer meetings/surveys to understand their requirements and respond to their feedback	🌐 Maintain a customer trust and satisfaction rating of over 90% 🌐 Reduce cases of problematic engineering quality to 20% of the level in 2019 for every one million 12-inch wafers shipped	Maintain a customer trust and satisfaction rating of over 90% Reduce cases of problematic engineering quality to 30% of the level in 2019 for every one million 12-inch wafers shipped	Customer trust and satisfaction rating of 96% Target: Over 90% ↑ Reduced cases of problematic engineering quality to 24% of the level in 2019 for every one million 12-inch wafers shipped Target: 30% of the level in 2019 ↑
Virtual Fab Service Provide comprehensive and timely information to ensure the success of customer's products; strengthen processes and systems to ensure customer product information receives the highest level of protection	🌐 Provide >1,200 wafer manufacturing and process technologies and >270 advanced packaging technologies in line with the TSMC technology roadmap 🌐 Pass customer product information security audits with no major flaws	Provide >1,070 wafer manufacturing and process technologies and >200 advanced packaging technologies in line with the TSMC technology roadmap Pass customer product information security audits with no major flaws	Provided >1,062 wafer manufacturing and process technologies and >191 advanced packaging technologies in line with the TSMC technology roadmap Target: 1,062 wafer manufacturing and process technologies, 165 advanced packaging technologies ✓ Passed customer product information security 🔗 audits with no major flaws Target: No major flaws ✓

TSMC's vision is to be “the world's most advanced and largest dedicated semiconductor foundry,” driven by its commitment to advanced technology and exceptional service quality. Through dedicated customer service teams, TSMC maintains close communication and coordination with its customers, ensuring precise responses to their needs. In 2025, the Company earned high-level of customer trust and satisfaction, achieving an impressive rating of 96%, a testament to its superior technology and service. TSMC also streamlined the TSMC-Online™ platform to enhance the overall customer experience. Through technology innovation and service improvements, TSMC helps customers strengthen their product competitiveness and create long-term value together.

Precise Response

TSMC operates on the principle that “customers are partners,” recognizing that the competitiveness of its customers is directly tied to its own success. Customer feedback serves as the driving force behind continuous service improvements. The customer service team gathers insights through the Annual Customer Satisfaction Survey (ACSS), quarterly review meetings, and ad hoc interactions, helping to understand customer needs and develop improvement plans. This approach continuously strengthens partnerships. In 2025, TSMC held 1,446 online and in-person executive-level meetings with 246 customers, conducted 104 quarterly review

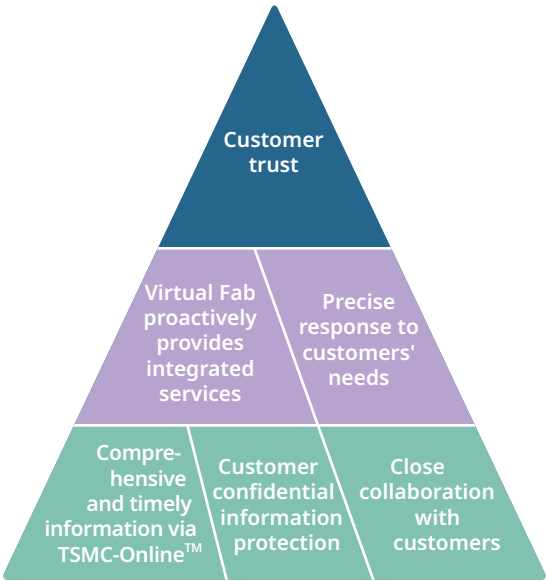
meetings with 30 customers, and completed the annual satisfaction survey for 144 customers.

In response to surging global AI demand and advanced process capacity constraints, TSMC continues to execute its expansion plans. These efforts aim to alleviate capacity pressure while supporting customer growth. By fostering deep communication with customers,, TSMC advances in technological leadership, manufacturing excellence, and customer trust to respond to market changes while maintaining high standards.

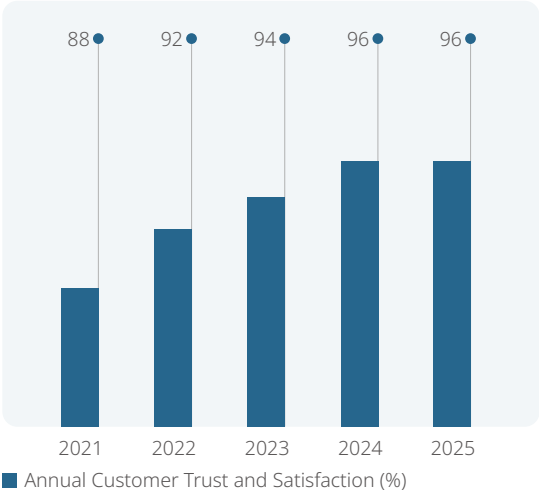
TSMC also remains dedicated to improving product quality and yield. In 2025, engineering quality

incidents per million 12-inch wafers were reduced to 24% of the 2019 level, surpassing the annual target and supporting the long-term goal of achieving a 20% reduction by 2030. To further improve communication effectiveness, the customer service team refined its response strategies through case studies and hands-on training. In 2025, the team conducted 12 training sessions, with an average of 107 participants per session. These learning and practice activities strengthened the team's ability to meet customer needs, helping customers stay competitive while building long-term, mutually beneficial partnerships.

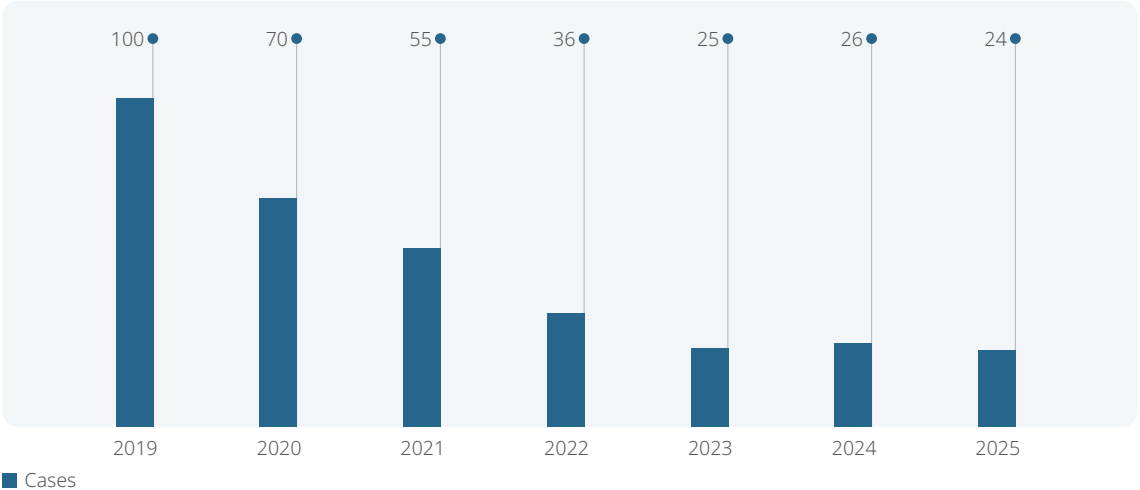
Customer Service Strategy



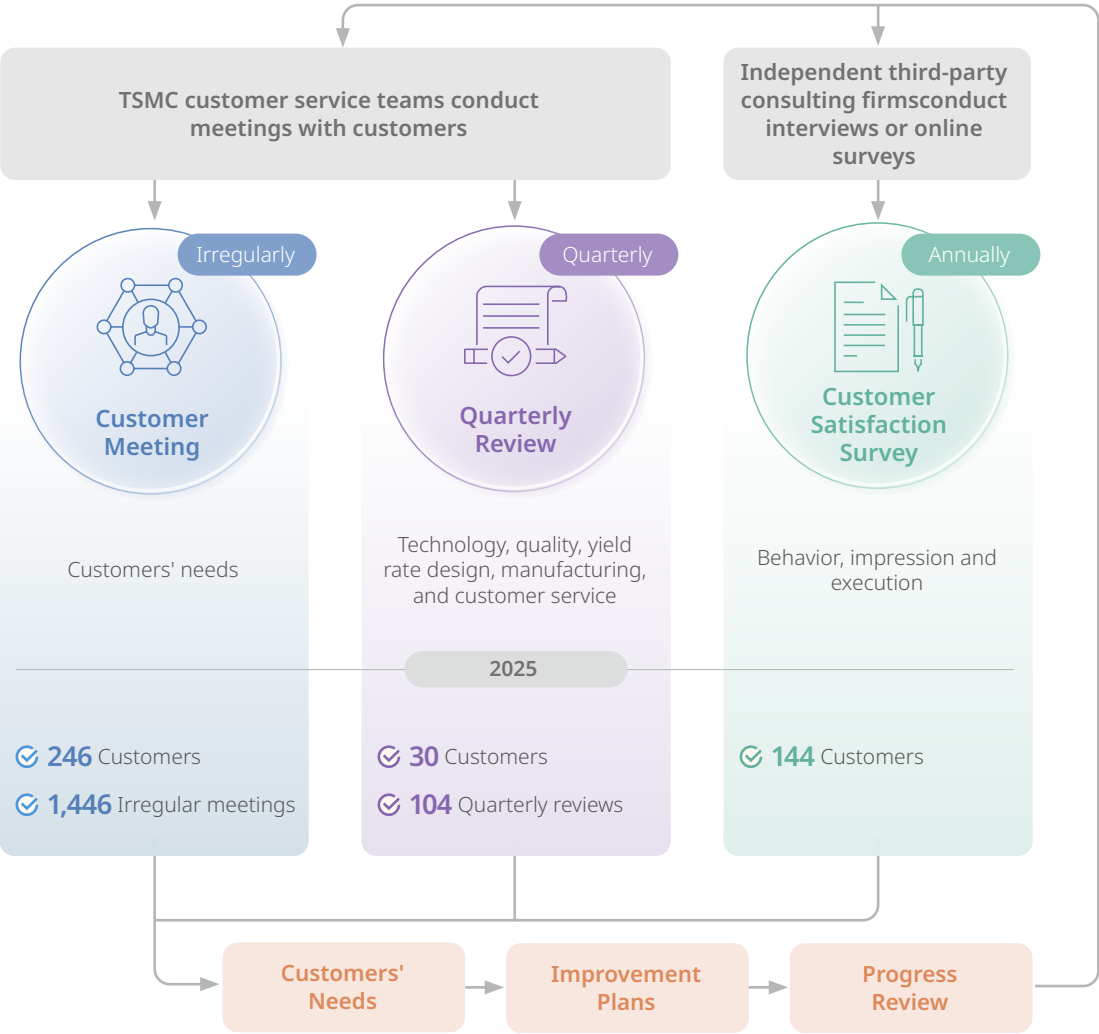
Annual Customer Trust and Satisfaction Index



Cases of Problematic Engineering Quality



Diverse Communication Channels for Customers



Virtual Fab Service

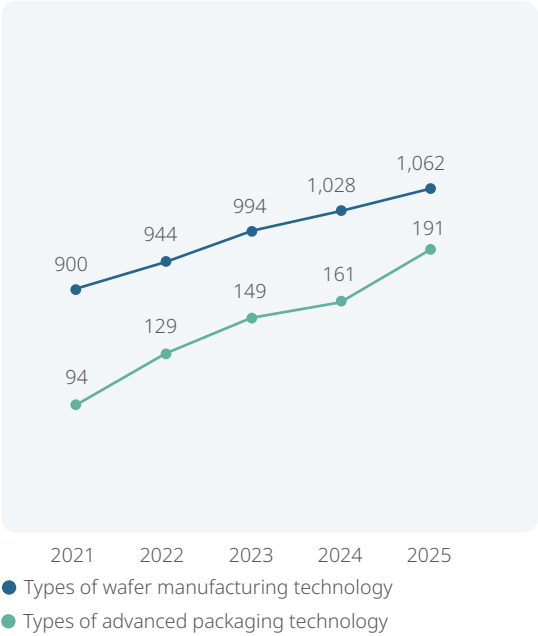
Committed to its vision of being "Everyone's Foundry," TSMC continues to advance alongside evolving wafer process technologies by enhancing its customer self-service portal, TSMC-Online™, helping customers quickly access and manage wafer fabrication information. In 2025, TSMC-Online™ supported 1,062 wafer process technologies and 191 advanced packaging technologies to meet customers' diverse product needs.

Dedicated to protecting customer interests, TSMC follows international cybersecurity standards and holds ISO 27001 certification for information security management. By implementing robust information protection policies and standardized protocols , the Company ensures stringent protection of confidential information, maintaining the security of customer data. As the global adoption of AI heightens information security risks, TSMC continues to strengthen the security of TSMC-Online™ system. Enhancements include improved login mechanisms and a regular IP verification process that leverages smart tools to streamline manual checks and increase user efficiency. From 2025 through February 2026, TSMC achieved significant milestones in security management: blocking 12 abusive IPs to prevent malicious use of network addresses; removing approximately 250,000 unused IPs; deactivating around 3,100 customer accounts inactive for over a year; and completing automated security checks on over 19,000 IP addresses. These measures effectively mitigated risks of data leaks and network

disruptions, further fortifying TSMC's commitment to cybersecurity.

Looking ahead, TSMC plans to launch a new AI online assistant to provide real-time responses to customer inquiries and fully upgrade the TSMC-Online™ service experience, driving innovation in self-service. As a global leader in logic IC technology and capacity, the Company will continue to deliver advanced technology and high-quality products, remaining a trusted long-term partner for customer success.

Types of Technology for Customers





Case Study

Customized Technical Documentation Platform Upgrades Customer Experience

To improve customer experience and data accessibility, TSMC launched the new [Customized Technical Documentation Platform](#) on TSMC-Online™ in 2025. The platform provides a secure, dedicated online environment where customers can quickly access and download required technical documents without going through manual application and approval processes.

The platform consolidates technical documents that were previously dispersed across different organizations and organizes them into dedicated sections by customer code. By adopting a permission-based access control system in place of traditional manual applications, the platform ensures secure and convenient document downloads while streamlining cross-departmental approval processes. As a result, the average time for customers to obtain technical documents has been reduced from 3.5 days to just 0.5 days, improving both efficiency and convenience. Through this platform, TSMC aims to further enhance service quality, strengthen trust and collaboration with global semiconductor partners, and drive progress across the industry.

Customized Technical Documentation Platform



Fast Download

Application time is reduced from 3.5 days to just 0.5 days



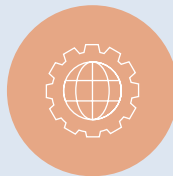
24/7 Service

Download the latest customized technical documents anytime



Self-Service

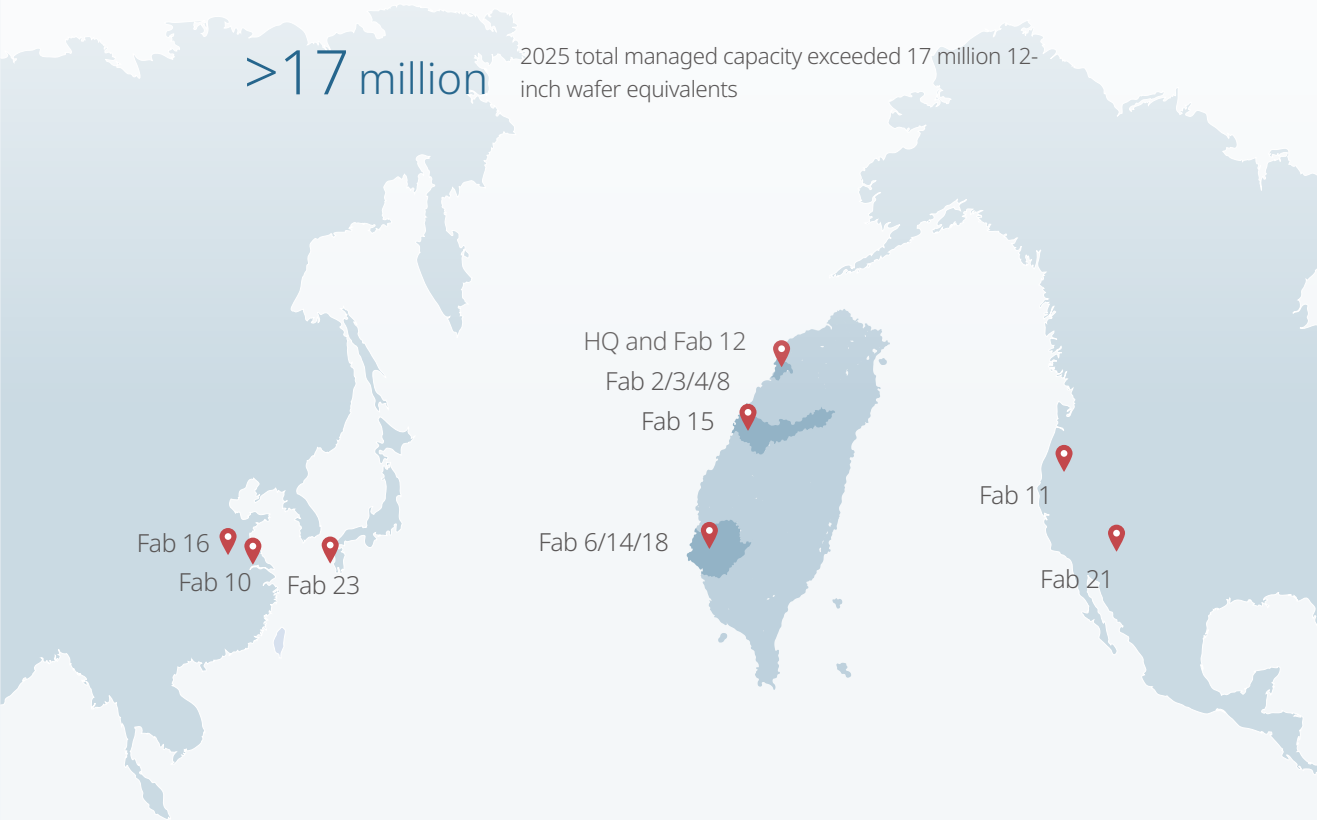
Independent download service allows you to easily retrieve documents



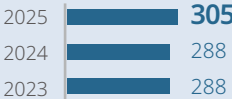
Global Applicability

Breakthrough geographical restrictions to provide a consistent service experience

TSMC Delivers Unrivalled Manufacturing Excellence



Technologies



Customers



Products





A Responsible Purchaser

TSMC is dedicated to responsible procurement, working closely with supply chain partners to ensure excellence in technology, quality, delivery, human rights, and environmental safety. In response to the pressing challenges of climate change, the Company continues to enhance green innovation and climate resilience while striving to create a low-carbon semiconductor supply chain.

Sustainable Supply Chain

1

Introduced blue ammonia, becoming a first for Taiwan's semiconductor industry

100%

Response rate of suppliers invited to participate in CDP, with an average grade of B

4.8 Million

TSMC Supplier Sustainability Academy cumulative users



Sustainable Supply Chain

Strategies	2030 Goals	2026 Targets	2025 Achievements
Improve Sustainability Risk Management TSMC requires all suppliers to adhere to the TSMC Supplier Code of Conduct  , taking actions to improve labor rights, safety and health, environmental protection, business ethics, and the efficiency of the management system; the Company has also taken the initiative to help suppliers continue to improve their core capabilities to reduce risks of disruption to business operations	 Achieve an average human rights rating of Grade B (score 85) on the Self-Assessment Questionnaire (SAQ) for tier 1 suppliers Note 1	Achieve an average human rights rating of Grade B (score 80) on the SAQ for tier 1 suppliers	Achieve an average human rights rating of Grade C (score 78) on the SAQ for tier 1 suppliers Target: Grade C (score 78) 
	 Increase Taiwan local sourcing – 68% for indirect raw materials	Source 66% of indirect raw materials locally	Sourced 65.5% of indirect raw materials locally Target: 65.5% 
	 Increase overseas subsidiaries local sourcing –52.5% for indirect raw materials Note 2	Source 42.5% of indirect raw materials locally	Sourced 35.6% of indirect raw materials locally Target: 35.6% 
	 Increase Taiwan local sourcing –60% for spare parts	Source 48% of spare parts locally	Sourced 45.3% of spare parts locally Target: 45.0% 
	 Continue to diversify production plant sites and assess new suppliers; develop 185 multi-source supply solutions (Base year: 2018)	Complete the development of 176 multi-source supply programs	Completed the development of 166 multi-source supply programs Target: 165 programs 
	 Ensure a cumulative total of 145 local raw materials suppliers receive consultation on process advancement and quality improvement (Base year: 2016)	Ensure a cumulative total of 105 local suppliers receive consultation on process advancement and quality improvement	Ten suppliers received consultation on process advancement and quality improvement, bringing the cumulative total to 95 Target: 10; cumulative total 95 
	 Supplier due diligence on <u>responsible mineral sourcing</u>  : 100% of the minerals used are sourced responsibly	Supplier due diligence on responsible mineral sourcing: 100% of the minerals used are sourced responsibly	100% responsible mineral sourcing Target: 100% 
	 Audit a cumulative total of 30 suppliers (≥ 3 suppliers per year) for due diligence on responsible mineral sourcing	Complete audits on ≥ 3 suppliers for due diligence on responsible mineral sourcing	Completed audits on 3 suppliers for due diligence on responsible mineral sourcing Target: ≥ 3 suppliers 

 Applicable to all TSMC fabs around the world
 Applicable to TSMC fabs in Taiwan and other specific fabs
 Only applicable to TSMC fabs in Taiwan
 Applicable to TSMC overseas fabs

 Exceeded
 Achieved
 Missed Target

Note1: Tier 1 suppliers: Suppliers trading directly with TSMC with more than three orders per year, with order amounts exceeding NT\$5 million, excluding suppliers related to warehousing, hospitals, or those with no further transactions, to ensure the questionnaire's applicability. The number of tier 1 suppliers meeting this definition was 1,429 in 2024 and 1,451 in 2025. To enhance information transparency and the comprehensiveness of management practices, the survey results and management actions for the 1,4294 tier 1 suppliers in 2024 are disclosed, along with the total number of tier 1 suppliers in 2025. To ensure data accuracy, the same supplier is not counted repeatedly within the reporting period. This quantity is used to reflect the width of the supply chain.

Note 2: The data covers TSMC (China), TSMC (Nanjing), TSMC Washington, LLC, TSMC Arizona, and JASM.

Strategies	2030 Goals	2026 Targets	2025 Achievements
Promote Green and Low-carbon Supply Chains TSMC continues to reduce its environmental impact and external costs, mitigate the effects of climate change and resource depletion, and focus on biodiversity by leading suppliers in establishing reduction targets on power and water consumption, waste generation, and carbon emissions, propelling the sustainable development of supply chains	 Reduce supplier^{Note 3} carbon emissions by 15% (Base year: 2025)^{Note 4}  Suppliers^{Note 5} invited to participate in CDP in the year should achieve an average score of B and a response rate of 100%  Ensure 100% of high energy consumption suppliers^{Note 6} receive ISO 14064 GHG Emission verification (Base year: 2021)  Provide consultation on power reduction for suppliers^{Note 7} and reduce energy consumption by a total of 1,500 GWh (Base year: 2018)  Provide consultation on water reduction for suppliers^{Note 7} and reduce water consumption by a cumulative total of 150 million metric tons (Base year: 2020)  Provide consultation on waste reduction for suppliers^{Note 7} and achieve an average waste recycling rate of 86%  Require tier 1 suppliers^{Note 1} to establish phase-out plans for regulated materials^{Note 8}, with a 100% completion rate^{Note 9}	Reduce supplier carbon emissions by 3% Suppliers invited to participate in CDP in the year should achieve an average score of B and a response rate of 100% Ensure 93% of high energy consumption suppliers receive ISO 14064 GHG Emission verification Reduce supplier energy consumption by a cumulative total of 1,250 GWh Reduce supplier water consumption by a cumulative total of 80 million metric tons Achieve an average waste recycling rate of 82% Require tier 1 suppliers to establish phase-out plans for regulated materials, with a 80% completion rate	Reduced supplier carbon emissions by 9% comparing to business-as-usual scenario Target: 8% Suppliers invited to participate in CDP in the year achieved an average score of B and a response rate of 100% Target: average score of B- and a response rate 100% 93% of high energy consumption suppliers received ISO 14064 GHG Emission verification Target:92% Reduced supplier energy consumption by a cumulative total of 1,360 GWh Target: 1,150 GWh Reduced supplier water consumption by a cumulative total of 72.56 million metric tons Target: 65 million metric tons Achieved an average waste recycling rate of 81% Target: 81% Require tier 1 suppliers to establish phase-out plans for regulated materials, with a 75% completion rate Target: 73%

 Applicable to all TSMC fabs around the world
 Applicable to TSMC fabs in Taiwan and other specific fabs
 Only applicable to TSMC fabs in Taiwan
 Applicable to TSMC overseas fabs

 Exceeded
 Achieved
 Missed Target

Note 3: The suppliers are raw material suppliers, including silicon wafers, bulk gases, bulk chemicals and other chemical suppliers.
Note 4: In response to TSMC's commitment to join SBTi with 2025 as the base year, this goal base year has been updated to 2025.
Note 5: Suppliers invited to participate in CDP in 2025: A total of 135 suppliers of raw materials and equipment met the top 75% of procurement categories and expenditures
Note 6: High energy consumption suppliers: Suppliers in Taiwan whose energy consumption at a single site >5 GWh/year
Note 7: Mainly focusing on suppliers in Taiwan
Note 8: Regulated materials include Perfluorooctanesulfonic acid (PFOS), Perfluorooctanoic acid (PFOA), and N-methylpyrrolidone (NMP)
Note 9: This indicator evaluates suppliers' establishment of management systems and procedures for controlled substances as a measure of supply chain chemical risk management maturity. It is not intended as a compliance determination. Suppliers are still required to comply with all applicable regulations regarding substances that are prohibited by law.

TSMC extends its responsible operational governance model to supply chain management and works closely with suppliers to expand sustainability impact. Referencing the Due Diligence Guidance for Responsible Business Conduct issued by the Organization for Economic Cooperation and Development (OECD), TSMC refines its four guiding principles: "Management and Commitment, Identification and Assessment, Mitigation and Improvement, and Communication and Cooperation." With the dual strategies of "Improving Sustainability Risk Management" and "Promoting Green and Low-Carbon Supply Chains," the Company formulates its sustainability goals and action plans.

In 2025, in addition to requiring suppliers to comply with the [Supplier Code of Conduct](#) and complete SAQ, TSMC established, for the first time, a Supplier Human Rights Management Tracking Platform to monitor supplier human rights performance and provide advisory resources, strengthening suppliers' self-management resilience. In alignment with the Science Based Targets initiative (SBTi), TSMC collaborates with suppliers to launch Scope 3 inventory and carbon reduction target projects covering global operations. The Company also jointly initiated the [Blue Ammonia Adoption Project](#) with ammonia suppliers, successfully overcoming the carbon emission challenges associated with aqueous ammonia and becoming the first semiconductor company in Taiwan to adopt blue ammonia. These efforts actively drive supply chain decarbonization and support the achievement of net-zero emissions targets.

Supplier Sustainability Management Organization

To establish a sustainable supply chain management framework, TSMC forms cross-functional management teams based on different areas of expertise. The ESG Steering Committee formulates the vision and

strategy for supply chain management, while the ESG Committee is responsible for executing its resolutions. In addition, the Materials Management organization and the Corporate ESH (Environment, Safety, and Health) Division have established dedicated units, including the Responsible Supply Chain ESG Management Team, the Supply Chain Sustainability Project Team, and the Supply Chain ESH Management Team. These teams are responsible for implementing supplier ESG action plans and audit management across Taiwan operations and overseas subsidiaries. The ESG Committee regularly reports to the Board of Directors on supply chain performance progress, ESG program implementation, and risk management outcomes.

Improve Sustainability Risk Management

In response to changes in the global semiconductor industry and evolving sustainability regulations, TSMC has established a digitalized supplier management system to optimize evaluation, screening, and audit mechanisms. Risk early warning and control processes have been standardized to ensure suppliers meet environmental, social, and governance requirements, reducing potential risks related to climate change and human rights. TSMC works closely with suppliers to set sustainability goals and provides diversified resources and guidance to enhance performance. In

alignment with global business strategies, raw material procurement planning and the upgrading of local suppliers are promoted to strengthen risk control at the source. In 2025, TSMC hosted its first Supply Chain Sustainability Forum, bringing together industry experts and 160 participants from 96 suppliers to discuss human rights management, carbon reduction targets, workplace safety improvements, and sustainability audit requirements, jointly enhancing operational resilience.

Improvement in Supplier Sustainability Management

• Supplier Code of Conduct and Sustainability Standards

As a member of the Responsible Business Alliance (RBA), TSMC supports five key areas, namely Labor, Health and Safety, Environment, Ethical Standards, and Management Systems. The Supplier Code of Conduct and the Letter of Assurance on TSMC's Supplier Code of Conduct and Business Ethics Statement are regularly reviewed and updated. All new suppliers are required to sign these documents as a prerequisite for engagement. Tier 1 suppliers are required to comply and are encouraged to extend these requirements to upstream suppliers, contractors, and service providers, strengthening sustainable management across the supply chain. In 2025, in alignment with the latest RBA Code of Conduct, TSMC updated its Supplier Code of Conduct and [Supplier Sustainability Standards](#). In addition to strengthening ethical requirements, the updates enhance provisions related to modern slavery and employment agreements, deepen supplier human rights management, and promote collaboration with suppliers to advance carbon reduction commitments, particularly in energy consumption and greenhouse gas emissions.





• Supplier Human Rights Governance

TSMC follows the United Nations Development Programme (UNDP) framework covering six human rights categories, namely Governance & Security, Labor Rights, Products & Services Liability, Environmental Rights, Voice & Participation, and Gender Equality. Based on its [Human Rights Policy](#) , TSMC conducts supplier human rights management and conducts performance assessments through the Supplier SAQ, with results incorporated into sustainable supply chain management indicators. In 2025, TSMC launched the [Supplier Human Rights Management Tracking Platform](#)  to evaluate and rate tier 1 suppliers' human rights performance. The platform identifies potential risks, tracks improvement progress, and provides best practice examples, workshop materials, and online consultation services to strengthen suppliers' self-management capabilities. In addition, third-party

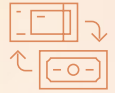
on-site audits were conducted for the top ten suppliers that did not meet required standards to ensure corrective actions were implemented. One-on-one expert consultation was also provided on areas with immediate improvement potential, including labor rights, occupational safety, and inclusion policies. These efforts supported the achievement of the annual target of an average SAQ human rights rating of Grade C (score 78) for tier 1 suppliers.

TSMC empowers suppliers through capability-building initiatives. In 2025, two online training sessions on Supplier Human Rights Management Enhancement and the Supplier Human Rights Management Platform were conducted in English, along with one Supplier Human Rights Workshop and one Supply Chain Sustainability Forum. These events shared global supply chain human rights trends and regulations,

corporate human rights management practices, strategy development approaches, and guidance on SAQ human rights questionnaires, with a total of 394 supplier participants. TSMC is committed to respecting and protecting the human rights of migrant and foreign workers employed by suppliers. A [Migrant Worker Management Statement](#)  is scheduled for release in 2026 to ensure that recruitment, employment, working, and living conditions comply with international human rights and labor standards. For more details, please refer to the [TSMC Human Rights Progress Report](#) .

• Supplier Management Workforce Training Program

TSMC's supplier management personnel play a critical role in advancing supply chain sustainability. In 2025, a series of training programs were conducted covering life cycle assessment and product carbon footprint, carbon emissions calculation methodologies, supplier engagement, Science Based Targets (SBT) and decarbonization pathway planning, as well as raw material management. These programs support supplier management personnel in building a comprehensive knowledge framework, strengthening familiarity with carbon management standards, and addressing practical challenges in suppliers' carbon reduction calculations, enhancing management accuracy and effectiveness. In addition, biennial training on RBA standards is provided for personnel in environmental protection, safety and health, procurement, and materials management functions. These efforts strengthen both internal and external audit capabilities and ensure supply chain management remains aligned with the latest standards.



Payment Practice

TSMC is committed to ensuring a smooth payment process. To avoid any delay in payments, TSMC strictly manages and controls the process across various stages, including procurement requirements (estimate sheet confirmation and budget application), procurement orders (payment conditions and trade conditions), delivery (freight arrangement), acceptance (completion report), payment requisition (payment information), and payment. TSMC continually improves its practices based on regularly tracking progress, identifying causes of delays, feedback from stakeholders, and adopting concrete improvement measures to ensure payments are completed on schedule. In 2025, TSMC made payments according to the agreements between both parties. For additional information on accounts payable, please refer to the [6.1 Financial Overview](#)  section in the Annual Report.



2025 Supplier Management Workforce Training Courses

Course	Content	Objectives	Participants
Supplier Carbon Emissions Management and Carbon Management Tools Workshop (2 sessions)	- Product life cycle and carbon footprint - Carbon emissions calculation methodologies - Supplier engagement and carbon reduction performance tracking - Application of supplier carbon management tools	- Provide specialized training for procurement personnel responsible for supplier engagement on carbon reduction, strengthening knowledge of carbon emissions calculation, performance tracking techniques, and tool application - Facilitate experience sharing and discussion on supplier engagement practices and carbon management-related issues	28
Supplier Carbon Reduction Target Setting and Carbon Data Collection Workshop (2 sessions)	- TSMC net-zero target and supplier carbon reduction targets - Explanation of carbon emissions survey questionnaires - Supply chain decarbonization pathway planning	- Provide specialized training for procurement personnel responsible for supplier engagement, enhancing understanding of Science Based Targets, net-zero targets, and related actions - Strengthen the ability of procurement personnel to effectively communicate TSMC's net-zero targets with suppliers and to develop decarbonization pathways	32
NEW Exploring Practices for Carbon Reduction in the Green Supply Chain	- Energy-saving improvements for HVAC systems - Cooling water quality improvement - Energy efficiency of air compressors - Elevator energy regeneration systems - Energy management information systems	Enhance procurement personnel's understanding of industry energy-saving practices and strengthen knowledge of supplier energy efficiency opportunities	8
Sustainable Raw Material Procurement Management	- Sustainability indices and sustainability management capabilities - Requirements for sustainable raw material procurement - International certification standards - Optimization and enhancement of sustainable raw material procurement	- Enable procurement personnel to understand international trends, regulatory requirements, and evolving standards - Strengthen understanding of international certification standards for recycled material content and identify opportunities for continuous improvement	14
RBA Training	- RBA auditor onboarding training - RBA auditor annual refresher training - RBA observer onboarding training	- Professional training courses were conducted for supplier auditors to explain the RBA Validated Assessment Program (VAP) audit process and the differences introduced in the latest version of the Code of Conduct - Strengthen audit capabilities, including interview techniques, key focus areas, sampling methods, and identification of common findings - Provide case-based learning to support audit judgment and post-training assessment	49

Supplier Selection and Assessment

• New Supplier Collaboration Evaluation

TSMC has established a rigorous evaluation mechanism across three key aspects – business ethics and regulatory compliance, supply capability and risk control resilience, and contract and information security management capability. This mechanism ensures that collaboration with new suppliers is conducted in a fair and transparent manner and aligned with ethical standards, enhancing supply chain security and stability and laying a solid foundation for long-term partnerships.



Business Ethics and Regulatory Compliance

- Require suppliers to sign the Supplier Code of Conduct and the Letter of Assurance on TSMC's Supplier Code of Conduct and Business Ethics Statement to ensure the legality and integrity of their business operations
- Perform third-party background checks on suppliers and relevant personnel in designated regions to evaluate business capability and integrity, ensuring sound ethical standards



Supply Capability and Risk Control Resilience

- Conduct on-site visits to assess suppliers' delivery capability and perform comprehensive evaluations covering supply chain risks and quality stability
- Evaluate suppliers' performance in environmental, safety and health, and fire safety management to identify potential risks and ensure stable and compliant supply



Contract and Information Security Management Capability

- Require the execution of supplier agreements, electronic transaction declarations, and information security management requirements, covering equipment entry control, account usage management, file transfer monitoring, data protection measures, and information security risk management and improvement requirements to ensure smooth collaboration

• Supplier Performance Evaluation

TSMC establishes a performance evaluation mechanism for qualified suppliers across different categories of raw materials, including silicon wafers, process chemicals, and photolithography materials. Supplier performance is evaluated based on five major areas; quality, cost, delivery, service, and sustainability. Key suppliers are assessed on a quarterly basis, with semi-annual review meetings conducted to discuss evaluation results. Annual performance scores are consolidated at year-end and shared with suppliers to recognize achievements and identify areas for improvement.

• Supplier Risk Assessment, Selection, and Management Practices

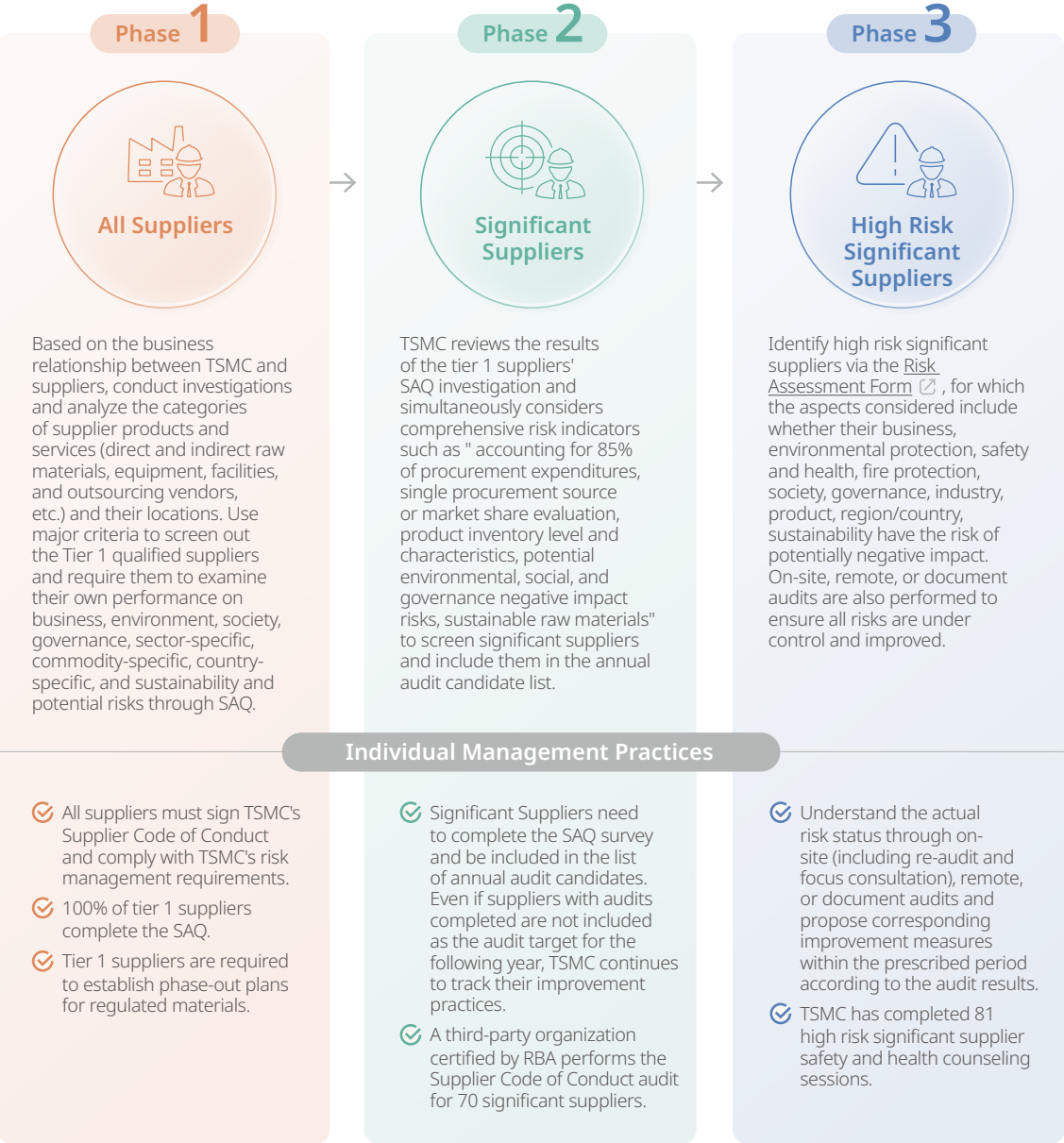
TSMC conducts a three-phase risk assessment and screening mechanism to monitor supplier development status and establish corresponding management and capability-building plans. All tier 1 suppliers are required to complete the SAQ annually. Based on SAQ responses and TSMC's own assessments, the results

serve as one of the key references for identifying significant suppliers and establishing the annual audit candidate list. In 2025, SAQ assessments were completed for 1,429 tier 1 suppliers identified in the previous year. Results indicated that, in the area of “Labor Rights and Human Rights”, 19% of suppliers had not established evaluation criteria for supplier sustainability performance, and 77% had not obtained social responsibility-related certifications such as RBA, Social Accountability 8000 (SA8000), Sedex Members Ethical Trade Audit (SMETA), and Business Social Compliance Initiative (BSCI). In the area of “Environmental Safety and Health”, 1% of suppliers did not properly manage industrial wastewater. In the area of “Fire Safety Equipment Design and Maintenance,” 13% had not designated personnel for fire protection systems. In addition, for newly introduced assessment items in 2025, including “Transportation White Paper 2.0” and “Sustainable Raw Material Management,” 17% of transportation providers had not installed advanced driver assistance systems in their vehicle fleets, and 61% of suppliers had not yet established low-carbon or sustainable raw material production plans.

Supplier Performance Evaluation Dimensions

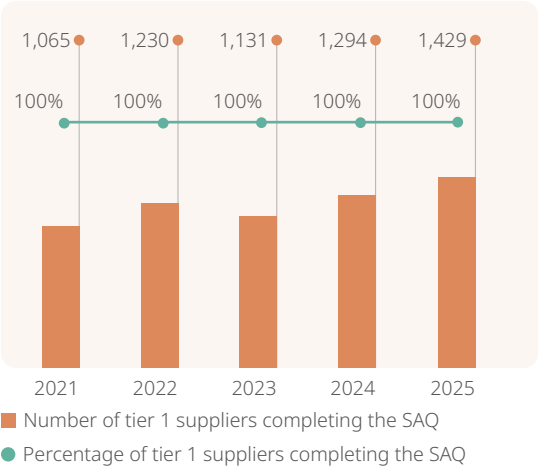
QCDSS	Quality	Cost	Delivery	Service	Sustainability
Materials Management Organization	-	✔	✔	✔	✔
Corporate Analytical Laboratories	✔	-	-	-	-
Nano-Materials Center	✔	-	-	-	-
Corporate ESH Division	-	-	-	-	✔

Supply Chain Three-phase Risk Assessment and Selection



To strengthen risk management, TSMC introduced a reference mechanism for government procurement exclusion lists and continued to apply the “[Supplier TRUST Model – Comprehensive Risk Assessment Technology](#)” (SupTrack). The SupTrack supplier risk management system was developed to enhance risk control capabilities. Assessment results identified a total of 594 significant suppliers, including 396 tier 1 significant suppliers and 198 smelters among non-tier 1 significant suppliers, as well as 123 high risk significant suppliers. Regarding audit findings identified in high-risk significant suppliers, the Company conducts corrective and preventive actions and continuously tracks their resolution through the system to ensure 100% completion of improvement plans. As of 2025, no supplier partnerships have been terminated due to negative impacts. In addition, TSMC requires smelters among non-tier 1 significant suppliers to provide due diligence documentation to ensure no risks of human rights violations or environmental damage exist.

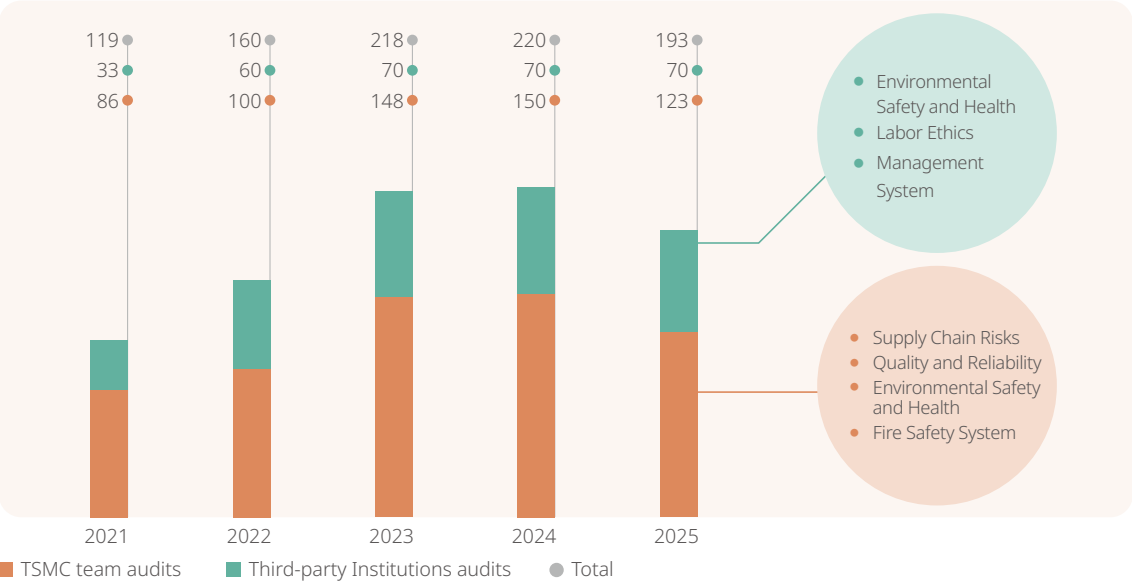
Supplier SAQ Conduction Results



Supplier Audit and Consultation Program

TSMC manages supplier risks through the “Supplier Risk Assessment Form” and the SupTrack supplier risk management system. The Supply Chain Sustainability Program Team and the Supply Chain ESH Management Team jointly form the Supplier Healthiness Assessment Rectification Program (S.H.A.R.P.) audit team. Audits are conducted across six key aspects: Supply Chain Risk, Quality and Reliability, Environmental Safety and Health, Fire Safety System, Labor Ethics, and Management System, and are carried out through on-site or remote approaches. In addition, RBA-certified third-party organizations are engaged to perform comprehensive assessments to identify potential risks and improvement opportunities. Suppliers are required to submit improvement plans and timelines, with progress tracked on a regular basis.

Supplier Healthiness Assessment Rectification Program



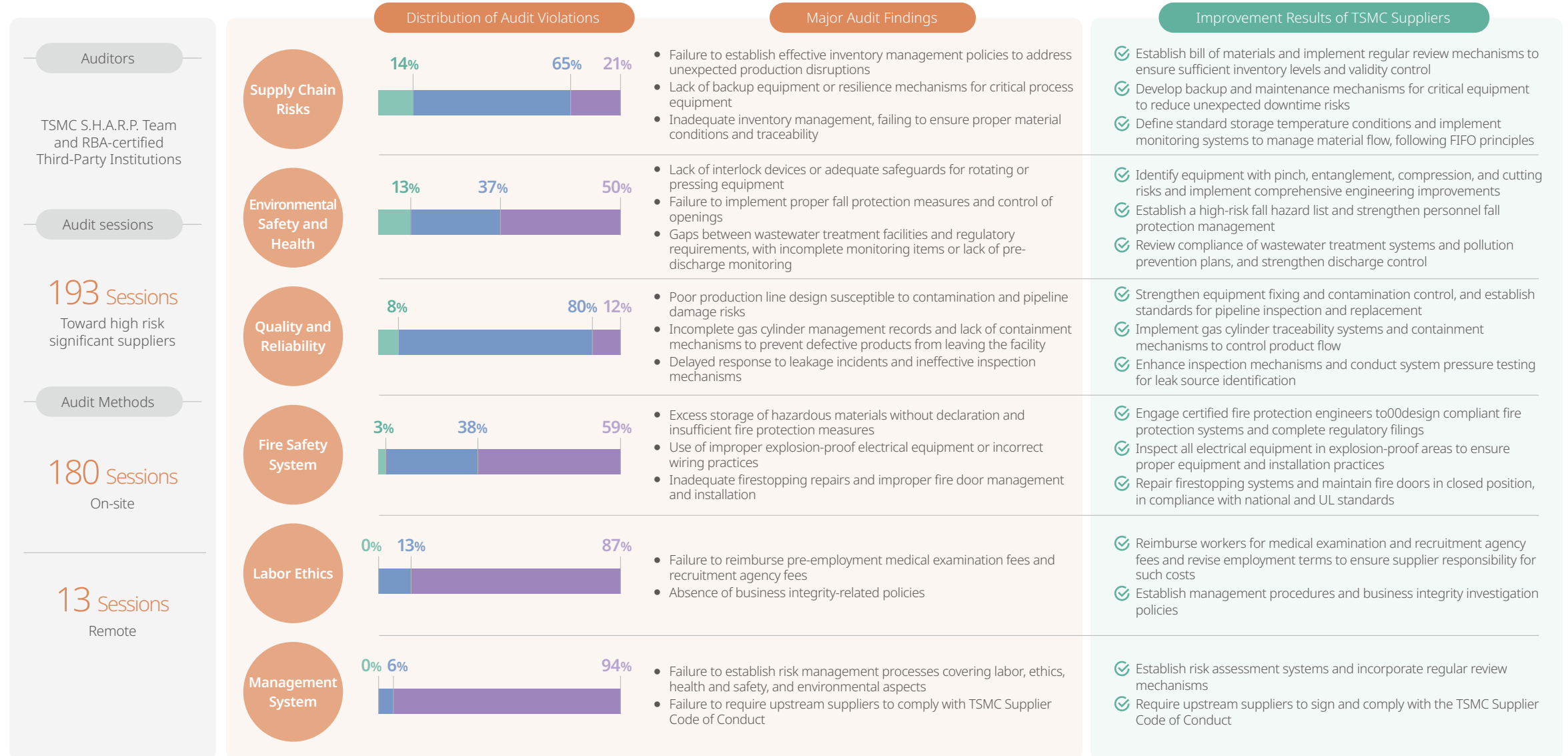
To enhance suppliers' understanding of RBA audits, TSMC, in collaboration with third-party certification organizations, held its first RBA audit briefing sessions in 2025. A total of 65 suppliers participated, covering topics including labor and human rights (ensuring the execution of employment contracts), occupational safety and health (strengthening fire protection system installation), environmental protection (enhancing waste management), and management systems (implementation of TSMC's Supplier Code of Conduct). Among participants, 98% indicated that the sessions enhanced their understanding of human rights, labor standards, and TSMC's key focus areas, while 96% reported improved clarity regarding RBA audit requirements and case practices.

In response to the addition of “Transportation White Paper 2.0” in the 2025 SAQ, the Company conducted 20 dedicated audits for transportation service providers, including wafer transportation and shuttle services. The Company also carried out [Re-audit and Focus Consultation Projects](#), the [New Facility Audit Program](#), and the [Maintain-As-New Project](#) to strengthen suppliers' self-management and continuous improvement capabilities. In 2025, a total of 193 audits were completed for significant high-risk suppliers (123 conducted by TSMC and 70 by third-party organizations). In addition, to strengthen [safety management processes and mechanisms for construction projects](#), weekly on-site audits have been conducted at new fab construction sites since July 2025 to monitor risks associated with suppliers and contractors and to enhance sustainability management capabilities.



TSMC conducts supplier on site audit.

2025 High Risk Significant Suppliers Audits and Areas for Improvement



■ Priority Findings^{Note1} ■ Major Findings^{Note2} ■ Minor Findings^{Note3}

Note 1: Priority findings may present higher risks of production halt, life, serious illegal affairs, or systematic failure. For example: lacking a response mechanism for an unexpected halt in production lines, environmental pollution, hiring child labor, or forced labor

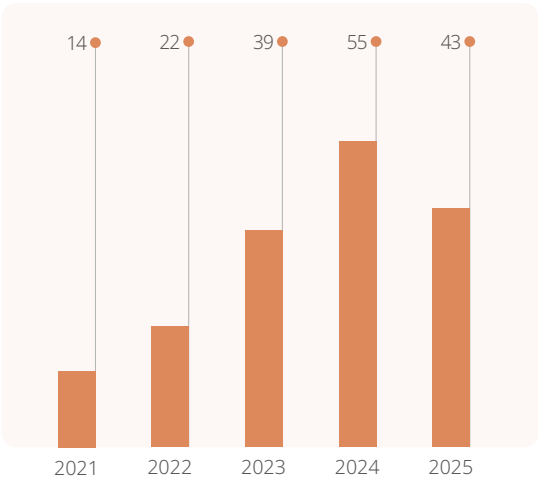
Note 2: Major findings refer to significant differences between implementation and proper ESH procedures, such as daily operations not adhering to ESH procedures

Note 3: Minor findings refer to risks other than priority or major violations, such as incomplete training records or incomplete ESH procedures

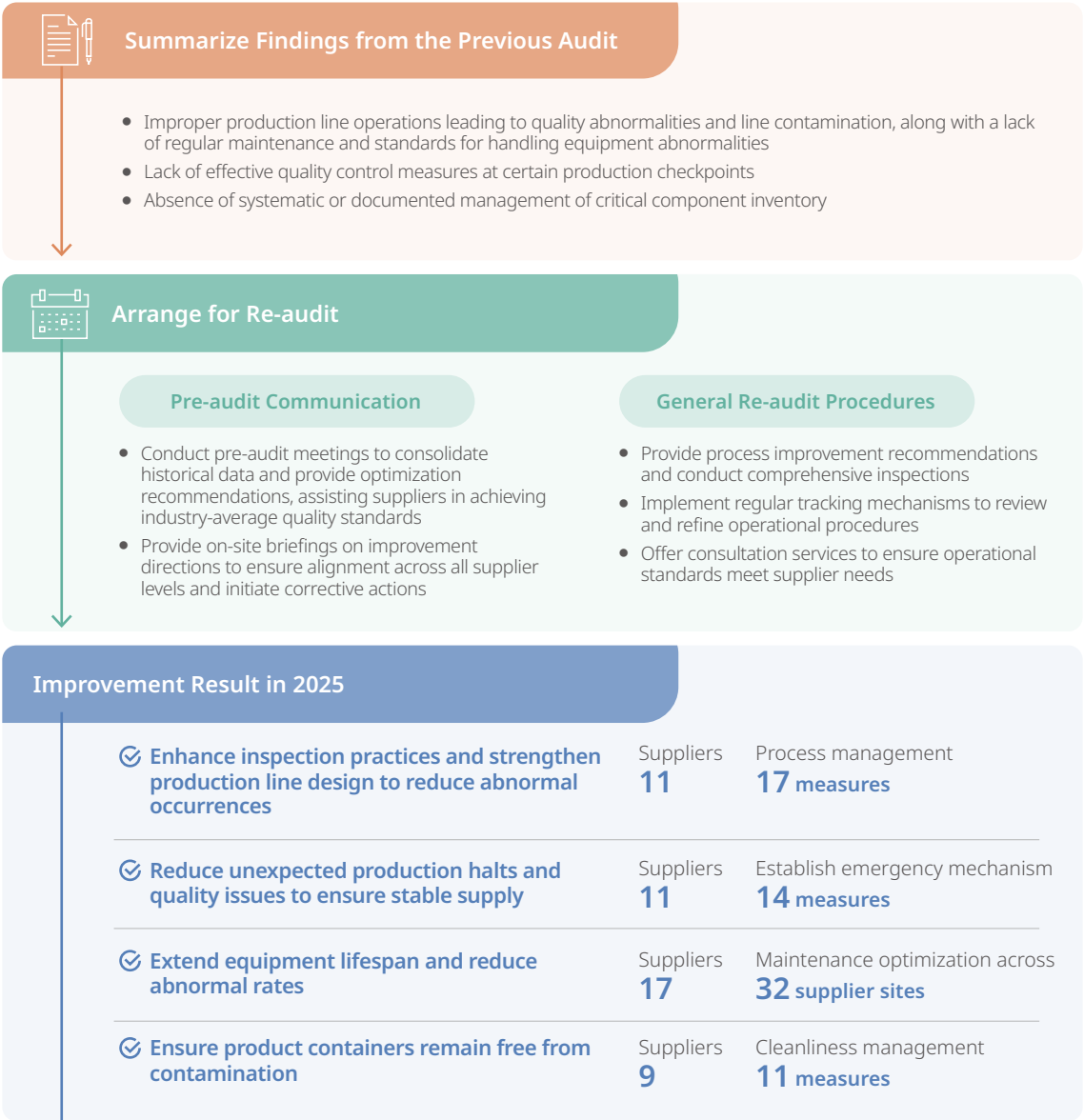
Re-audit and Focus Consultation Projects

TSMC strengthens supplier operational resilience through re-audits and focus consultation projects. These initiatives address issues identified in previous audits and drive improvements focusing on production line and product quality, equipment maintenance, and component management. In 2025, a total of 43 re-audit sessions were completed. TSMC established selection criteria for potential audit candidates based on “supply chain risk and quality and reliability” factors, optimizing the efficiency of audit resource allocation.

Number of Suppliers Re-audited Over the Years



Supplier Re-audit Process and Results



New Facility Audit Program

TSMC adopts a risk-tracing approach to minimize potential improvement costs and integrates government regulations, Best Known Methods, and audit experience to establish new facility design standards. These standards cover key areas including business continuity plans, production line designs, quality management, fire protection measures, environmental health and safety, green supply chain practices, and power stability. TSMC ensures that suppliers comply with these standards at the facility design stage and, in alignment with construction progress, advances collaboration through questionnaire feedback, on-site interviews, and production line inspections. Since 2021, a total of 68 new facility audits for suppliers has been completed. In 2025, TSMC further enhanced the Supply Online 360 platform by introducing a dedicated new facility communication function, enabling timely responses to supplier inquiries related to facility construction and continues to strengthen preventive risk management.

Maintain-As-New Empowers Suppliers for Sustainable Operations

To strengthen supply chain resilience, TSMC advances the Maintain-As-New Project, supporting local suppliers in enhancing the management of their operational sites. The initiative focuses on three key areas: facility repairs, maintenance services, and equipment upgrades . Through these efforts, suppliers establish standardized management practices and improve their ability to respond to unexpected events. In 2025, the project supported four suppliers, reducing production line irregularities from 396 incidents in 2022 to 42, representing an 89.4% decrease. In addition, the average repair time for unplanned downtime was reduced by 7.8 hours, shortening maintenance handling time by 63.4%.

Improvement in Suppliers’ Resilience and Capacity

TSMC works closely with suppliers to enhance their sustainability capabilities through multiple initiatives. Through [Supply Online 360](#)  , the Company provides access to the Supplier Sustainability Academy and a dedicated grievance channel, offering self-directed learning resources and transparent communication platforms. In addition, through training programs, forums, workshops, and tailored audit support, TSMC empowers suppliers to strengthen sustainability management and build stable, long-term partnerships.

• TSMC Supplier Sustainability Academy

TSMC has established seven learning tracks within the Supplier Sustainability Academy, providing online resources that share its operational and manufacturing expertise with suppliers, its upstream and downstream partners, and the general public. Courses covering labor rights protection, environmental protection, safety and health, ethics, and management under the Supplier Code of Conduct, together with corporate greenhouse gas inventory and product carbon footprint, seven courses are designated as required

courses for tier 1 suppliers, strengthening their sustainability capabilities. In 2025, TSMC launched 20 occupational safety and health courses, covering topics such as on-site supervision training, safety assessments for new equipment and new chemicals, and environmental, safety, and health training for contractors of overseas subsidiaries. These courses enhance ESH knowledge among suppliers and contractors and reinforce a strong culture of industrial safety. As of 2025, a total of 116 courses have been offered, reaching 4.8 million engagements. In addition, TSMC extended its internal courses, “From Vision to Action: Exploring TSMC ESG” and “Practicing the United Nations Sustainable Development Goals (SDGs),” to the Supplier Sustainability Academy, making them available for suppliers and the public.

• Suppliers’ Reporting Procedure

TSMC places strong emphasis on the human rights of suppliers and their employees. A Supply Chain Employee Grievance Channel is available on the [Supply Online 360](#)  homepage for use by all supplier personnel. The Company ensures the confidentiality of whistleblower identities and case information, fostering

a transparent workplace environment across the supply chain. In 2025, a total of nine cases were reported, including one related to supply chain management, two involving on-site working environment and facility usage, two concerning wage payment disputes and labor insurance, and four related to business conflicts and unequal treatment. All cases were assigned to the relevant departments for handling, with feedback obtained from whistleblowers where applicable, and suppliers were required to make improvements in accordance with the Supplier Code of Conduct. For details on grievance handling procedures, please refer to the [TSMC Human Rights Progress Report](#)  .

Improvement in the Management of the Supply Chain on Environmental Safety and Health

TSMC established a comprehensive supply chain ESH management and consultation framework, working closely with suppliers to build rigorous standards and requirements, implement deficiency tracking, audits, and continuous improvement, provide professional consultation and training, and promote multi-layer verification and optimization. In addition to the Sustainable Supply Chain ESH Forum, which covers ESH and fire safety topics, TSMC also hosts the [Supply Chain ESH Technical Forum](#)  , inviting supplier management personnel to discuss annual audit results, updates to standards, and key priorities for the coming year. In 2025, a total of 230 and 187 suppliers participated in these forums, respectively, strengthening supplier sustainability and resilience.

In 2025, TSMC continued to advance supply chain risk management by establishing the SupTrack supplier risk management system and conducting overseas supplier audits, completing 63 improvement items covering ESH and fire safety. In addition, TSMC further strengthened ESH management capabilities

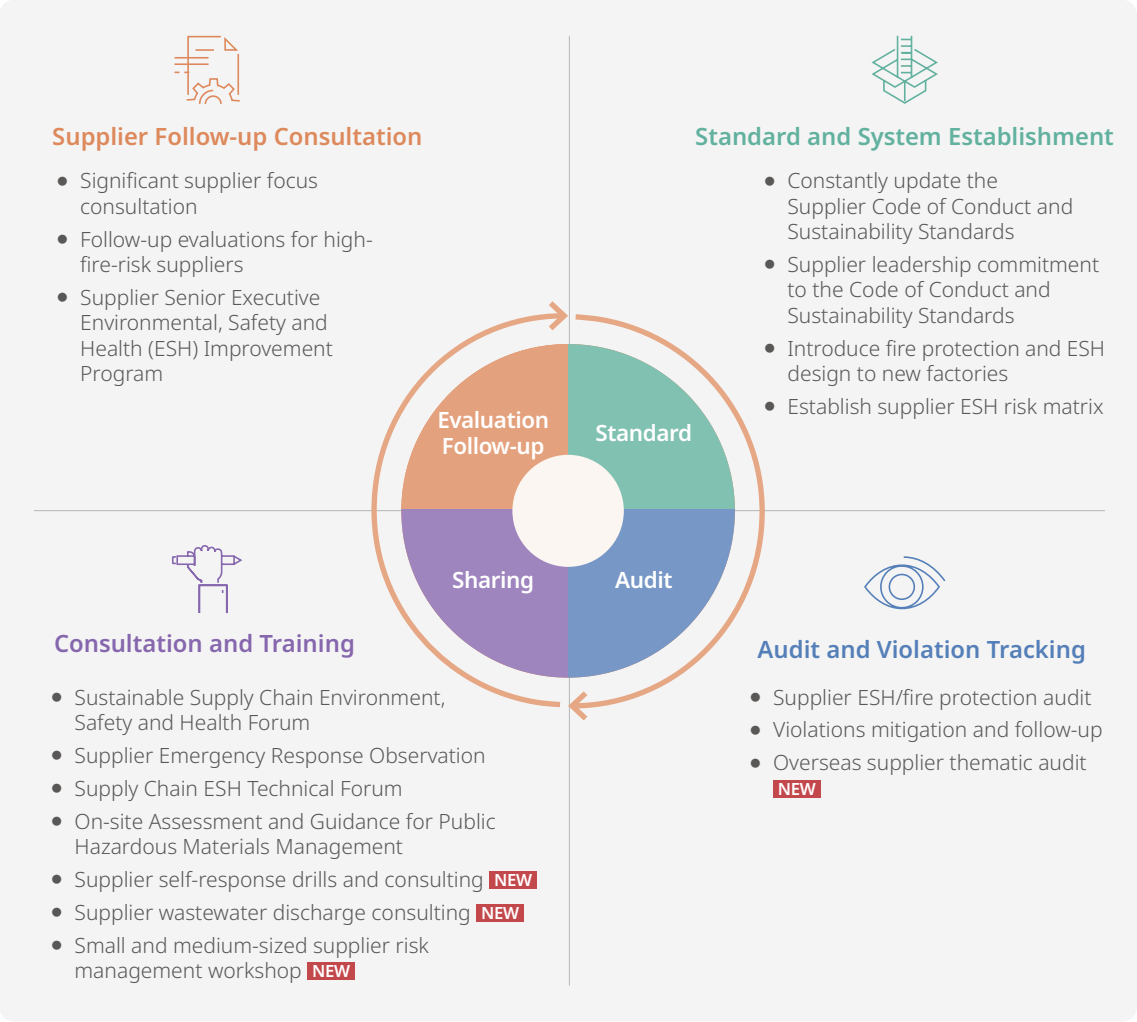
among overseas suppliers. Through the key supplier wastewater discharge supervision enhancement program, TSMC reviewed wastewater treatment gaps identified in prior supplier audits, further assessed suppliers’ wastewater treatment risk levels, and conducted on-site consultation in order of priority. During the year, 93 improvement recommendations were issued to ten priority 1 high-risk suppliers, of which 89 have been completed, with the remaining four hardware improvement actions continuing to be advanced.

Proper emergency response concepts and drill planning form a critical foundation for effective response capabilities. In 2025, TSMC guided 10 suppliers in conducting autonomous fire emergency response drills, enhancing both the quality of execution and the level of implementation. The Company also extended awareness of hazardous materials management to suppliers and collaborated with third-party fire safety engineers to conduct compliance consultation, audits, and improvement recommendations. In addition, to narrow the gap in management resources between small and medium-sized enterprises and larger companies, TSMC launched the Supplier SME Risk Management Workshop. Based on audit findings, the program addresses gaps in electrical safety, fall protection, and fire safety awareness and expertise among SME suppliers. In collaboration with the Ministry of Labor XR Center Occupational Safety and Disaster Prevention Simulation Training Center, the workshop utilizes virtual and augmented reality technologies to simulate workplace hazards such as entanglement, falls from height, and pipeline leaks. Real-life fire incident cases are also incorporated, enabling participants to experience risk scenarios and learn preventive measures. In 2025, a total of 47 SME suppliers participated, strengthening their personnel risk management capabilities.

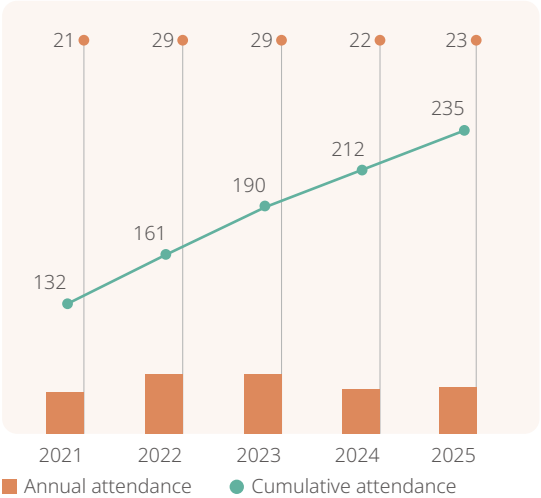
Reporting Procedure



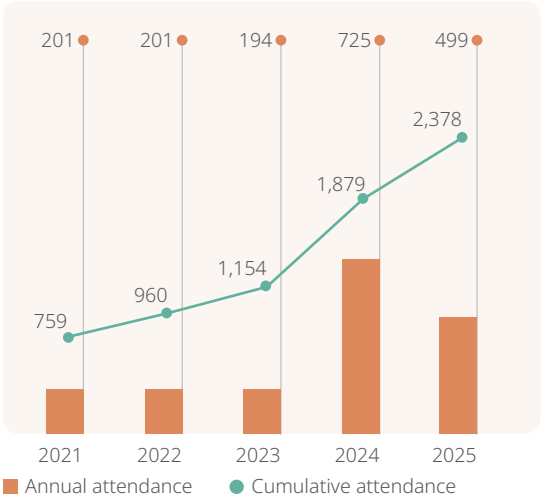
Improvement in Supply Chain ESH Management



Number of Suppliers Observing TSMC Annual Emergency Response Drills



Number of Suppliers Participating in ESH Training

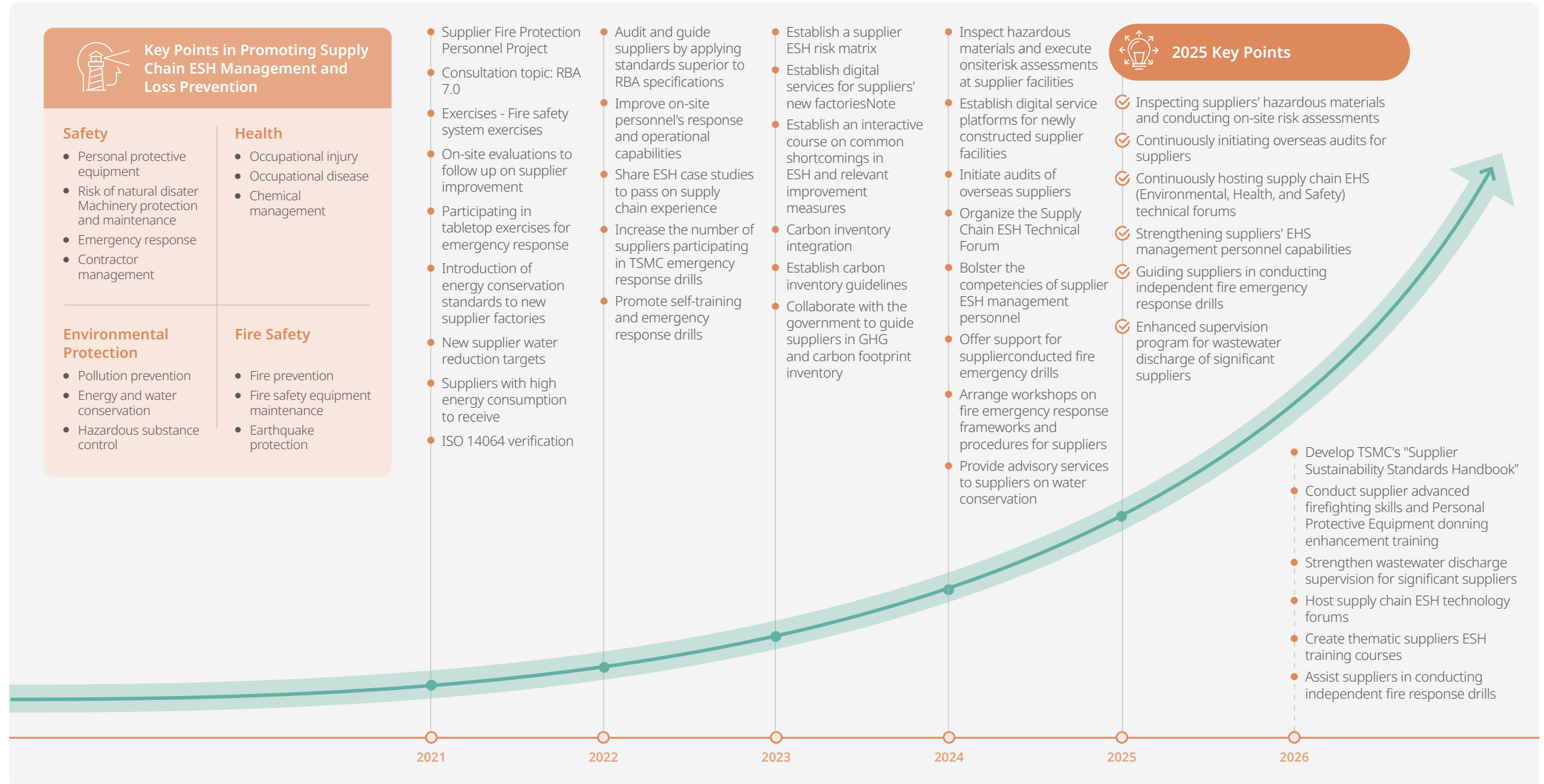


TSMC conducts corrective action tracking and continuous improvement.



TSMC conducts supplier fire safety inspections.

Key Points in Promoting Supply Chain ESH Management and Loss Prevention



Supply Chain Technical Quality Improvement

To ensure supply chain resilience and quality, TSMC collaborates with suppliers to identify and address capacity shortfalls, quality defects, and process optimization needs. Through coordinated efforts between the Materials Management organization, Quality and Reliability, Operations, and relevant business units, the Company promotes the adoption of advanced process equipment and technologies, enhances material product quality, and supports the technological development of local suppliers, creating shared value for all stakeholders.

Procurement Arrangement of Main Raw Materials

TSMC aims to reduce supply disruption risks and

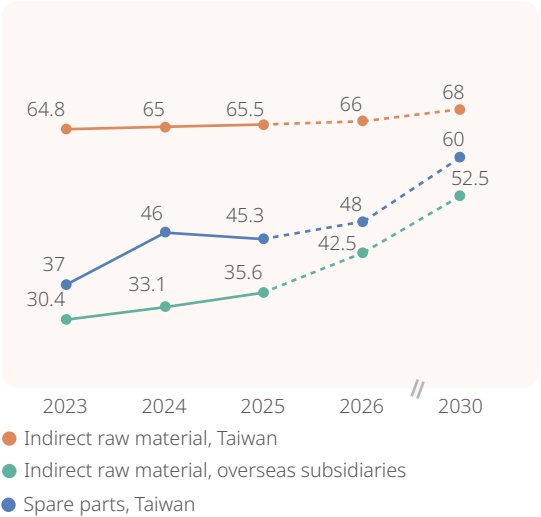
ensure supply chain stability by establishing a comprehensive management strategy for key raw materials, including silicon wafers, process chemicals, photolithography materials, gases, and chemical mechanical polishing materials. This strategy is anchored in four core principles: diverse sourcing of materials, quality control, local procurement, and sustainable operations. To address capacity constraints, quality shortcomings, and potential risks, TSMC optimizes its global footprint, expands sourcing diversity, and increases the proportion of local procurement, supporting local economies and strengthening supply chain resilience. In accordance with the Supplier Code of Conduct, TSMC requires partners to incorporate sustainable development into their operational planning and promotes supplier investment in advanced material development, process innovation, quality enhancement, energy conservation

and carbon reduction, further advancing supply chain transformation. For more details, please refer to the “5.3.5 Raw Materials and Supply Chain Management” section of the Annual Report.

Promote Constant Upgrade of Local Supply Chains

TSMC promotes local procurement across all operational sites, covering six categories: equipment, components, raw materials, facility systems, automation, and goods. The Company has established independent procurement organizations at overseas subsidiaries, including TSMC (China), TSMC (Nanjing), TSMC Washington, LLC, TSMC Arizona, and JASM, to support local suppliers in enhancing technology and quality, reducing costs, stabilizing supply, and lowering carbon emissions. In addition, TSMC has set localized procurement targets for each site to strengthen global capabilities for regional material supply.

Percentage of Local Sourcing Unit: %



2025 Supply Chain Management Challenges and Solutions

Technology and Parts	Capacity	Quality and Measurement Technology
- The percentage of locally produced high-level spare parts for several advanced processes is low as local suppliers lack critical technologies - Parts of specific advanced machinery have to be sent abroad for repair and maintenance, which affects production schedules	Issues/Challenges Capacity insufficient to meet advanced process requirements	Measurement technology insufficient to meet advanced process requirements
Assemble a team of experts to provide consultation for local suppliers, offer technical support, and assist in certification, ensuring that supplier technology developments are consistent with TSMC's business needs Suppliers 40	Mitigation and Improvement Production line expansion and process advancement Suppliers 10	- Add analytical instruments - Introduce advanced instruments - Improve the quality of materials and products Suppliers 10
Developed parts for 197 advanced processes	2025 Performance - New factories supplied a sufficient number of raw materials upon volume production, meeting TSMC quality requirements - Assisted new suppliers to establish the Best Known Method (BKM) for inferior quality improvement	- Zero product returns - Assisted new suppliers to increase detection thresholds - Assisted new suppliers to acquire capabilities for IC material analysis

Global Fab Supply Chain Management Action



Setup procurement targets

Continue to promote or maintain the local procurement percentage to achieve long-term goals



Improve technical quality

Actively improve the technology and quality of suppliers for critical equipment, spare parts, and raw materials to improve local procurement volume



Invitation for factory establishment

Invite suppliers from different countries to establish production, R&D, and training units at TSMC's production sites

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Sustainable Raw Materials

TSMC, in accordance with the [Sustainable Raw Materials Policy](#) [↗](#), integrates sustainability requirements into supplier management through the Sustainable Raw Materials Task Force and the Supplier Healthiness Assessment Rectification Program (S. H.A.R.P.) audit team. Sustainability criteria are incorporated into the supplier SAQ and audit processes to trace raw material sources, reduce negative production impacts, and establish targets for the proportion of recyclable and sustainable raw materials. In addition, TSMC provides sustainability-focused training programs for suppliers of chemicals and metal raw materials, promoting awareness of sustainable raw materials and encouraging the adoption of third-party

certified sustainable materials, enhancing overall supply chain sustainability performance and product environmental benefits.

To further advance resource circularity, TSMC collaborates with suppliers to promote electronic-grade raw material recycling. In 2025, cyclopentanone, tetramethylammonium hydroxide (TMAH) waste liquid, and isopropanol waste liquid were successfully recycled and reprocessed into electronic-grade chemicals, achieving recycling ratios of 19.8%, 10.6%, and 1.9%, respectively.

For metal recycling, TSMC completed a comprehensive

inventory of metal raw materials at its facilities in 2025 and achieved 71% recycled copper usage in copper-manganese (CuMn) targets. The Company plans to expand the scope in 2026 to ensure that all CuMn targets fully adopt recycled copper, with the goal of achieving 100% recycled copper usage in each CuMn target. Based on current technological limits, and taking into account process quality requirements and recycling capabilities, the recycling ceiling for copper is 3.75%. In 2025, the actual recycled usage rate reached 2.66%, representing 71% of the achievable limit. For titanium, the recycling ceiling is 1–2%, with an actual usage rate of 0.4% in 2025, representing 26% of the achievable limit.

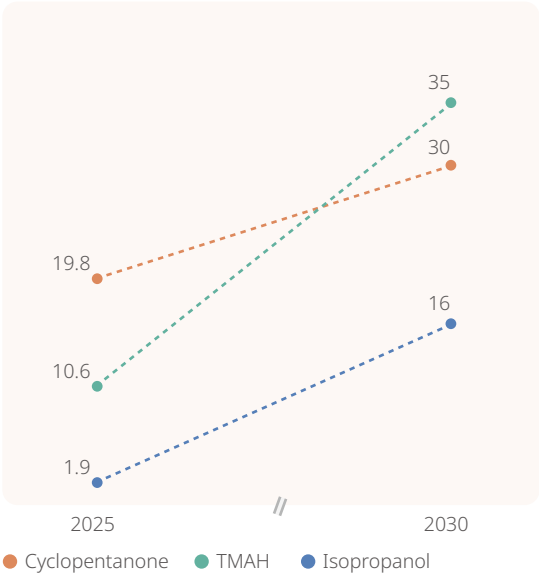
In alignment with the long-term goal of achieving 100% completion of phased elimination plans for regulated materials by tier 1 suppliers, TSMC evaluates and identifies substitution opportunities for regulated materials across the supply chain. In 2025, TSMC completed a comprehensive assessment of regulated material management among tier 1 suppliers and categorized suppliers based on usage into three groups: ongoing monitoring, establishment of consultation mechanisms, and no relevant usage. These classifications serve as the basis for future resource allocation and supplier engagement, ensuring product compliance with environmental standards and progressively enhancing the maturity of chemical management across the supply chain.



TSMC collaborates with suppliers to regenerate electronic-grade isopropanol.

Chemical Recycling Rate

Unit: %



Upstream Traceability Transparency and Recycled Usage Rate of Metal Raw Materials

		Aluminum	Cobalt	Copper	Iron	Nickel	Titanium
Upstream Traceability Transparency (%)	2025 Performance	13%	0%	50%	0%	0%	50%
	2030 Target	100%	100%	100%	100%	100%	100%
Recycled Usage Rate (%)	2025 Performance	0%	0%	2.66%	0%	0%	0.4%
	2030 Target	-	-	3.75%	-	-	1~2%

Responsible Minerals Sourcing

Complying with Rule 13p-1 of the U.S. Securities Exchange Act of 1934 promulgated by the U.S. SEC, TSMC ensures that human rights, health, and the environment in mineral production areas are not violated by purchasing conflict-free raw materials from reliable sources. The Company has adopted legal compliance measures, including the establishment of a due diligence framework following the Model Supply Chain Policy for a

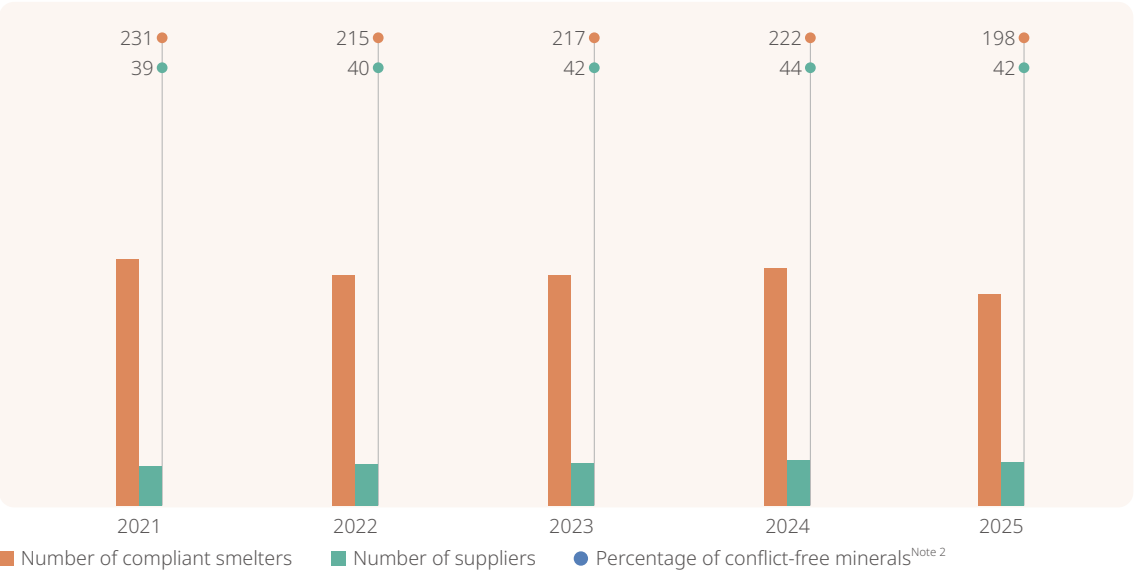
Responsible Global Supply Chain of Mineral from Conflict-Affected and High-Risk Areas published by the OECD. TSMC is one of the staunchest supporters of the RMI and GeSI. The Company adheres to the RMAP promulgated by such organizations, requiring suppliers to procure conflict-free raw materials.

TSMC requires suppliers to comply with the responsible minerals sourcing policy and sign the

statement of responsible minerals for products containing tantalum, tin, gold, and tungsten. Since 2017, TSMC has also disclosed the source smelter for the cobalt used in its products to clients. In 2023, cobalt was formally added to the Supplier Management Standard to ensure that suppliers comply with the sourcing policy. Since 2021, TSMC has audited three suppliers of tantalum, tin, gold, and tungsten annually, ensuring that suppliers

formulate and execute conflict-free minerals management processes and conduct due diligence on upstream suppliers. For the latest disclosure documents, please visit [TSMC's official website](#) or the [US SEC website](#).

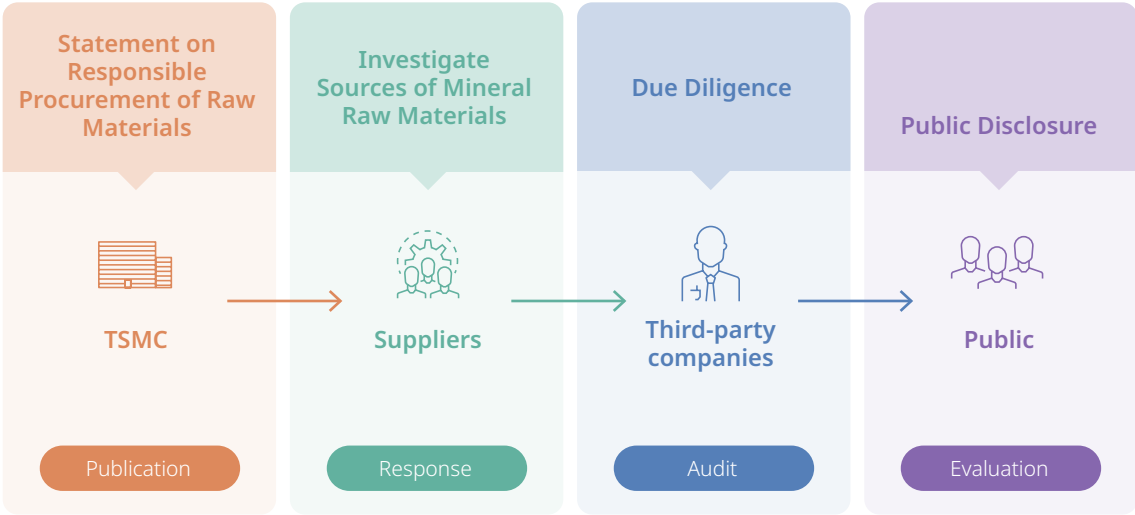
Conflict-free Minerals Due Diligence^{Note 1}



Note 1: Figures from tier 1 Suppliers of TSMC fabs in Taiwan, TSMC Washington, LLC, TSMC (China), TSMC (Nanjing), and VisEra.

Note 2: Legally compliant means smelters and refiners in TSMC's supply chain sourced the tin, tantalum, tungsten, and gold, have been fully audited. Vetted and certified under the RAMP.

Responsible Minerals Management Process



Promote Green and Low-carbon Supply Chains

TSMC advances supply chain decarbonization in accordance with the “T.S.M.C. Supply Chain Carbon Reduction Action Guide,” supporting suppliers in achieving carbon reduction targets through four key approaches: Tracking, Support, Motivation, and Creativity. To strengthen supplier execution of carbon reduction actions, TSMC has entered into greenhouse gas reduction agreements with more than 50 major emission contributors, representing approximately 90% of emissions from the raw material supply chain. These agreements, formally titled the TSMC Greenhouse Gas Reduction, Emissions Elimination & Neutrality (GREEN) Agreement for Suppliers, include defined targets for carbon reduction and renewable energy usage. In response to its SBTi commitment, TSMC has initiated a comprehensive inventory of carbon emission sources across the upstream and downstream value chain and works jointly with suppliers to develop concrete

and feasible decarbonization plans, promoting the transition toward a low-carbon supply chain.

Tracking Performance and Transparency Enhancement

In 2025, the Company invited suppliers accounting for the top 75% of its procurement spending on raw materials and equipment to report their carbon management progress via the Carbon Disclosure Project (CDP). A total of 135 suppliers participated, achieving a 100% response rate and securing an average score of B (from B- in 2024), reaching the 2030 target ahead of schedule. According to survey results, 93% of respondents had established emission reduction targets (rising from 92% in 2024); 81% disclosed carbon emissions from "purchased goods and services," the largest category under Scope 3 emissions (up from 72% in 2024); 45 suppliers earned

Science Based Targets (SBT) certification (compared to 37 in 2024), and 18 joined RE100 (up from 17 in 2024).

In 2025, TSMC deployed the TSMC Supplier Emission Management Tool to 52 significant emission contributors to align carbon emission baselines, track progress under greenhouse gas reduction agreements, and integrate raw material procurement data with supplier product carbon footprint factors, either externally verified or tool-estimated. This enables the calculation and allocation of the Company's carbon emissions, forming the basis for Scope 3 emissions from purchased goods and services. This tool serves as a key platform for aligning decarbonization progress between TSMC and its suppliers, supporting regular updates of supply demand, forecasting medium- to long-term emission changes, and ensuring that carbon reduction plans are sufficient to achieve targets.

To ensure major emission contributors effectively execute [carbon reduction plans](#), the Company held the Supplier Carbon Reduction Plan Assessment Project in 2025. This effort involved on-site engagements with 30 major emission contributors, specifically verifying their emission reduction program and carbon mitigation computations. Working alongside external consultants, the Company also identified new energy-saving and carbon reduction opportunities, including equipment efficiency optimization. In 2025, TSMC and significant emission contributors jointly developed carbon reduction plans totaling 3.7 million metric tons of CO₂e, including measures such as renewable energy adoption and low-carbon raw materials, with 690,000 metric tons of annual carbon reductions already achieved.

T.S.M.C. Supply Chain Carbon Reduction Action Guide

 Tracking	 Support	 Motivation	 Creativity
Monitor supplier carbon emission data and reduction outcomes, and partner with suppliers to consistently elevate the quality and transparency of emission reports	Furnish suppliers with carbon management resources and customized guidance to build their carbon management expertise	Boost supplier incentives for carbon reduction and broaden the scope of influence	Partner with suppliers to innovate and execute cost-effective emission reduction programs
135 suppliers disclosed carbon management progress through CDP 52 major emission contributors adopted supplier emission management tools 30 suppliers completed on-site carbon management assessments to validate reduction plans	16 suppliers completed organizational carbon inventories, carbon footprint verifications, or energy efficiency assessments 3 CDP basic and advanced online training sessions were delivered, with a total of 151 participants 338 million kWh of additional electricity savings achieved by suppliers	NT\$160 million is allocated to support supply chain carbon reduction projects, expected to deliver annual carbon reductions of 165,000 metric tons	- Expand the types of gases reduced at the source, achieving a reduction of 325,000 metric tons of bulk gas usage - Successfully introduced blue ammonia, marking the first application in Taiwan's semiconductor industry



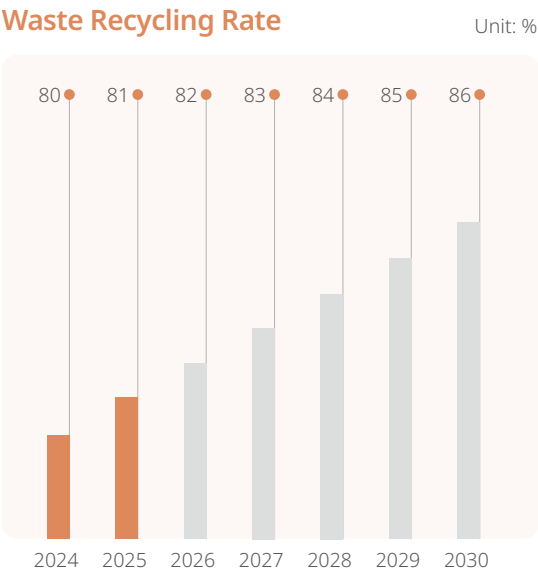
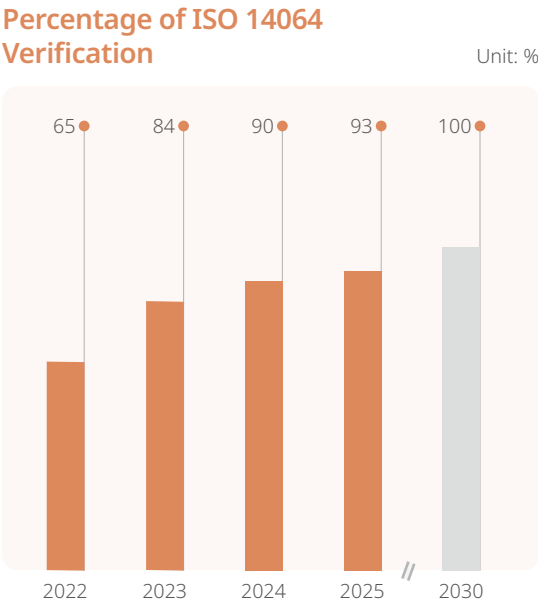
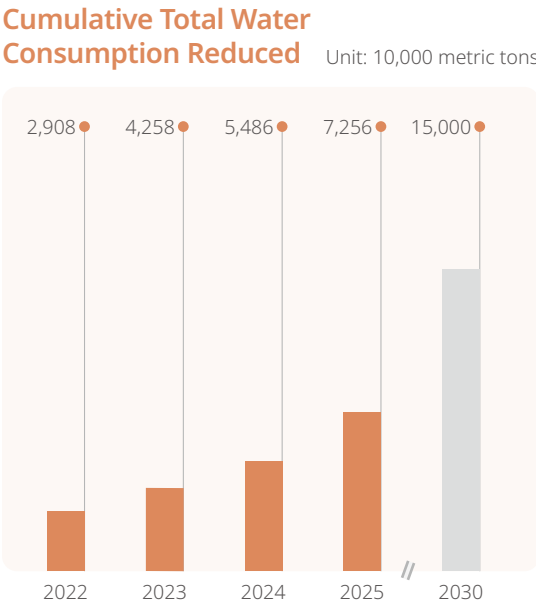
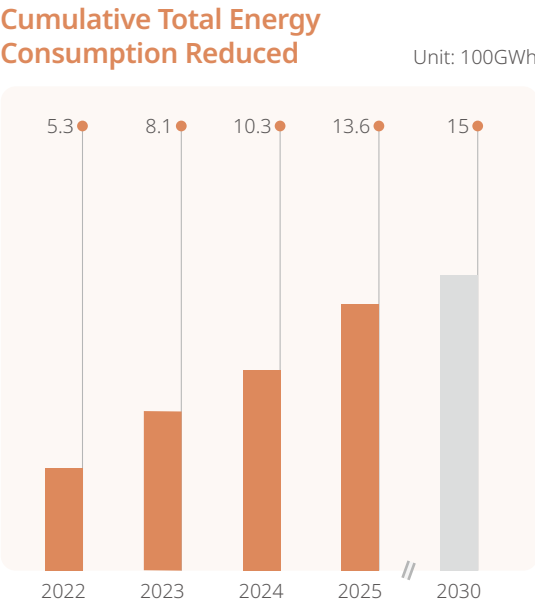
Support for Supplier and Specialized Service

To expand the impact of supplier engagement, TSMC has advanced the 1+N Carbon Management Project for the past three years. In 2025, TSMC supported 16 suppliers in conducting carbon emission assessments and identifying energy-saving opportunities, while completing verification of product carbon footprints for ten products. TSMC delivered ten carbon management training sessions covering topics such as AI-enabled digital decarbonization applications, energy management system implementation, net-zero trends, and corporate carbon reduction strategy planning, with a total of 201 participants.

In 2025, TSMC arranged two online CDP courses at introductory and advanced levels to help suppliers refine questionnaire responses, engaging 100 attendees. Together with external consultants, the Company hosted a full-day in-person workshop delving into critical topics such as “environmental performance tied to climate change and water security,” with 51 local supplier representatives participating. Additionally, a training program on internal auditing for ISO 50001 Energy Management Systems certified all 50 supplier attendees upon completion, strengthening their internal audit practices and energy management capabilities.

In addition, TSMC continued to guide suppliers in improving performance across carbon reduction, electricity savings, water conservation, and waste reduction. Through initiatives such as the adoption of high-efficiency equipment, process optimization, and reduction of energy waste, suppliers achieved an additional 338 million kWh in electricity savings in 2025, bringing the cumulative total to 1.36 billion kWh. The proportion of high-energy-use suppliers certified under ISO 14064 increased to 93%. For high water-use suppliers, TSMC promoted water conservation through technical sharing and project-based consultation, including increasing cooling tower concentration cycles,

improving equipment water replenishment methods, and enhancing water recycling and reuse. These efforts resulted in water savings of 17.7 million cubic meters in 2025, with cumulative savings reaching 72.56 million cubic meters. In addition, TSMC collaborated with suppliers to advance the circular economy. In 2025, suppliers achieved an average waste recycling rate of 81%, supporting sustainable resource utilization and environmental protection.



Motivation Enhancement and Magnify Impacts

To accelerate supplier equipment upgrades and achieve emission reduction targets, TSMC updated the Letter of Assurance on TSMC's Supplier Code of Conduct and Business Ethics Statement in 2025, requiring suppliers to align with TSMC's carbon management policies and targets. Suppliers are expected to adopt measures such as improving energy efficiency, utilizing renewable energy, and adopting low-carbon raw materials. A 100% response rate for signing the statement was achieved. TSMC continued to advance the Supply Chain Carbon Reduction Subsidy Project. In 2025, total subsidies reached NT\$160 million, benefiting 31 suppliers across 48 facilities. The project is expected to be completed by 2028, delivering total carbon reductions of 165,000

metric tons, of which approximately 80,000 metric tons contribute to TSMC's Scope 3 emissions reduction. Subsidy coverage includes energy-efficient equipment upgrades, installation of solar panels, installation of perfluorocarbon (PFCs) or exhaust gas abatement systems, carbon dioxide recovery, energy management systems, and waste heat recovery. For major emission contributors, the Company also leverages the supplier emission management tool, regular meetings, and ad hoc senior-level communications to track decarbonization progress on an ongoing basis. These efforts ensure that suppliers incorporate carbon reduction commitments into core business operations and jointly advance toward net-zero emissions targets.



TSMC subsidizes suppliers in upgrading chiller systems

Creativity Collaboration and Green Innovation

TSMC continues to work closely with suppliers. In 2025, the Company focused on source reduction of raw materials, adoption of low-carbon raw materials, and development of electronic-grade recycling technologies, promoting carbon reduction across the supply chain and driving green innovation.

2025 Green Innovation Cooperation Project



Bulk Gas Efficiency Optimization Across Manufacturing Fabs

Drive source reduction of bulk gases, including nitrogen, hydrogen, oxygen, and argon, by implementing high-efficiency gas pumps, substituting nitrogen with low-carbon dry air, reducing idle gas flow in equipment, and replacing combustion with electric heating to reduce oxygen consumption. These measures resulted in a reduction of 325,000 metric tons of gas usage, equivalent to a carbon reduction of 50,000 metric tons



Recycling of Electronic-Grade Isopropanol [↗](#)

Collaborate with suppliers to develop a dual-cycle recycling mechanism for isopropanol, converting waste liquid into electronic-grade isopropanol while recycling wastewater. In 2025, this initiative reduced the procurement of new solutions by approximately 1,400 metric tons and achieved a carbon reduction of 290 metric tons, marking a milestone in resource circularity



Blue Ammonia Adoption Project [↗](#)

Partner with the supply chain to enable ammonia solution suppliers to adopt blue ammonia with carbon capture and storage (CCS) technology. Introduced at Fab 14A in the fourth quarter of 2025, achieving a quarterly carbon reduction of approximately 250 metric tons. Full deployment across Taiwan fabs by 2030 is expected to deliver annual carbon reductions of up to 70,000 metric tons, leading the semiconductor industry toward low-carbon transformation of critical chemicals



Material Value Extension Management Program [↗](#)

Collaborate with 18 suppliers to extend the lifecycle of 15 key semiconductor process raw materials by 30–50%, effectively reducing waste generation and carbon emissions while enhancing supply chain resilience and resource efficiency

Case Study

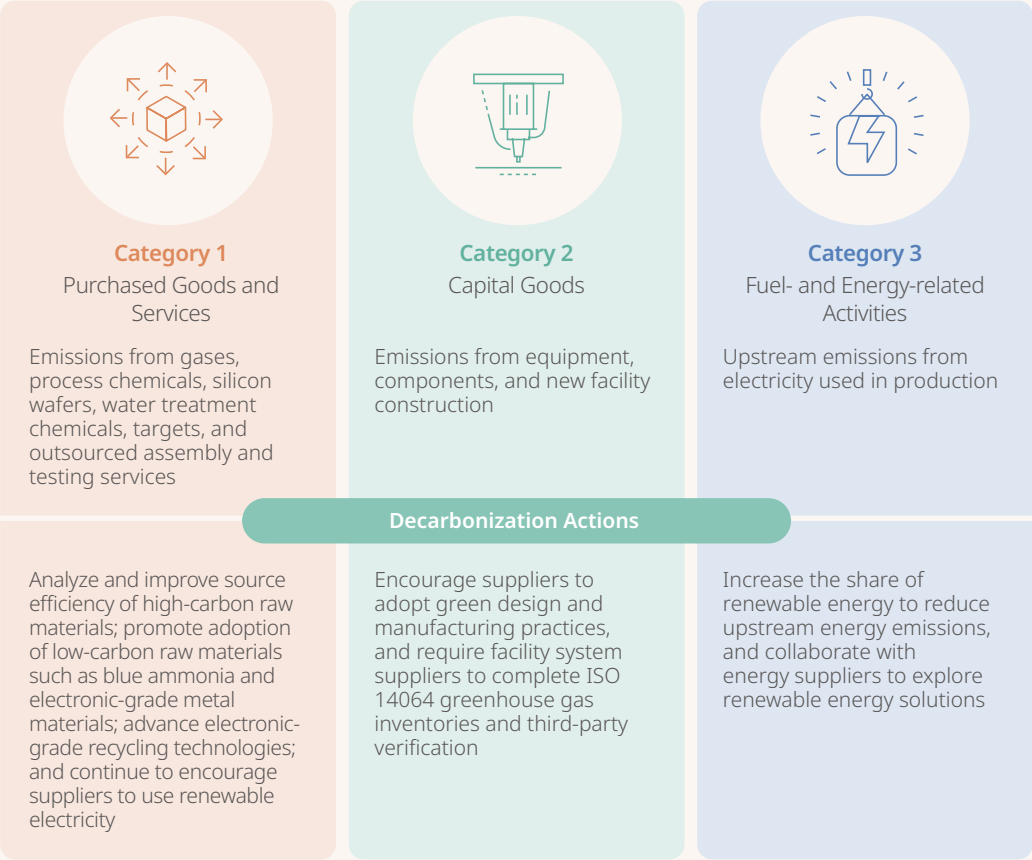
Scope 3 as the Key to Decarbonization: Driving Green Transformation Across the Supply Chain

In response to global climate change challenges, TSMC recognizes its critical role within the global supply chain. In 2025, the Company launched the Science-Based Targets (SBT) project, committing to achieve carbon reduction goals across both its operational boundary and value chain, with Scope 3 identified as the core focus of decarbonization efforts. Through large-scale and systematic Scope 3 inventory and management, TSMC established a comprehensive carbon emissions database, defined a clear decarbonization pathway, and integrated various green supply chain initiatives. The Company aims to achieve an 18.75% reduction in supplier emissions by 2030.

Historically, TSMC focused primarily on Scope 3 emissions related to wafer manufacturing, conducting inventories across eight categories within its Taiwan operations. To meet SBT requirements, TSMC mobilized its global subsidiaries to conduct comprehensive data collection and analysis, covering nearly 4,000 suppliers, 7,000 types of raw materials, and 150,000 transportation records. This initiative enhanced data completeness and accuracy, establishing a holistic emissions profile. Taking Scope 3 Category 1 (Purchased Goods and Services) as an example, TSMC conducted detailed carbon emissions calculations for raw materials representing over 95% of total procurement weight. This included compiling monthly procurement volumes, identifying receiving sites, defining product categories, and consolidating composition, proportion, and weight data. TSMC collaborated with suppliers to conduct product carbon footprint assessments or obtain third-party verification under ISO 14067. For selected materials, emission factors were derived from composition-based databases to build a detailed emissions inventory for raw materials, forming the basis for identifying carbon hotspots and major emission contributors.

Through this comprehensive inventory, TSMC completed calculations across 11 Scope 3 categories [↗](#), with total emissions reaching 36.3 million metric tons of CO₂e, accounting for more than 70% of the Company's total emissions. Among these, Category 1 (Purchased Goods and Services), Category 2 (Capital Goods), and Category 3 (Fuel- and Energy-related Activities) together accounted for over 95% of emissions. In response, TSMC's Materials Management Organization established a cross-functional task force encompassing equipment, facility systems, transportation, raw materials, and warehouse management. This task force develops targeted decarbonization pathways for key emission categories and regularly tracks progress, proactively addressing Scope 3 decarbonization challenges and advancing the Company's SBT commitments.

Decarbonization Actions for Major Emission Categories





A Practitioner of Green Power

TSMC aims to set the standard for environmental protection by seamlessly integrating green practices into daily operations. The Company uses innovative technologies to address climate and energy, water stewardship, circular resource management, air pollution control, and biodiversity. TSMC champions comprehensive sustainable actions to strengthen environmental protection, driven by its commitment to coexist and thrive with the Earth's ecosystem.

Climate and Energy

Water Stewardship

Circular Resources

Air Pollution Control

Biodiversity

Zero Waste Manufacturing Center

Promoted resource regeneration, creating nearly 91,600 tons of [regenerated resources and steam](#)

8,963 Participants

Participated in natural and environmental education, promoting biodiversity mainstreaming

0

Incidents of abnormal operation in air pollution control equipment



Climate and Energy

Strategies	2030 Goals	2026 Targets	2025 Achievements
Strengthen Climate Resilience Develop climate change response and measure to reduce the impact of climate risks	 0 days of production interruption due to climate disasters	0 days of production interruption due to climate disasters	0 days of production interruption due to climate disasters Target: 0 days 
Drive Low-carbon Manufacturing Continue to use best available technology to reduce emissions of greenhouse gases (GHG) and become an industry leader in low-carbon manufacturing	 Reduce Scope 1 and Scope 2 emissions by 31% (base year: 2025), and restore total emissions to 2020 levels ^{Note 1} NEW  Reduce Scope 3 emissions by 15% (base year: 2025) ^{Note 2} NEW	Reduce Scope 1 and Scope 2 emissions by 6.2% (base year: 2025) NEW Reduce Scope 3 emissions by 3% (base year: 2025) NEW	Increased greenhouse gas emissions per unit of production (metric ton of carbon dioxide equivalent (MTCO2e)/12-inch equivalent wafer mask layer) by 2% Target: Reduce 10% (base year: 2020)  ^{Note 3}
Use Renewable Energy Continue to purchase renewable energy and install solar-energy power systems to achieve target of 100% renewable energy use	 60% of the electricity consumption at all company operational sites comes from renewable energy	35% of the company's total electricity consumption comes from renewable energy	Reached 100% renewable energy use at overseas subsidiaries; renewable energy accounted for 20.1% of total company electricity consumption Target: TSMC overseas sites used 100% renewable energy; accounting for 20% of TSMC's power consumption 
Increase Energy Efficiency Plan and implement new energy-saving measures each year to increase energy efficiency	 Achieve a cumulative energy-saving rate of 7.5% from new energy-saving measures adopted between 2026 and 2030 ^{Note 1}  Double energy efficiency after five years of volume production for each process technology	Achieve a cumulative energy-saving rate of 1.5% starting in 2026 Energy efficiency of 3nm process technology increases by 0.4 times in the 3 rd year of volume production	Achieved a cumulative energy-saving rate of 16% from 2016 to 2025 Target: 15%  Energy efficiency of 3nm process technology was 0.5 times higher in the 2 nd year of volume production Target: Energy efficiency of 3nm process technology 0.2 times higher in the 2 nd year of volume production 

 Applicable to all TSMC fabs around the world
 Applicable to TSMC fabs in Taiwan and other specific fabs
 Only applicable to TSMC fabs in Taiwan
 Applicable to TSMC overseas fabs
 Exceeded
 Achieved
 Missed Target

Note 1: TSMC supports and commits to Science Based Targets (SBT) and, in 2025, reviewed and updated its existing carbon reduction and energy-saving targets to align with Science Based Targets initiative (SBTi) requirements. Updates included defining reduction scopes, adjusting the base year, optimizing energy efficiency planning, and setting more ambitious reduction levels to strengthen the Company's sustainability commitments.

Note 2: Based on SBTi requirements for Scope 3 coverage under Near-Term Targets, TSMC identified key emission sources: Category 1 (purchased goods and services, e.g., raw materials and outsourced packaging services), Category 2 (capital goods, e.g., equipment), Category 3 (fuel- and energy-related activities)

Note 3: For factors contributing to unmet targets, see "[Drive Low-carbon Manufacturing](#) .

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Climate resilience is critical to sustainable operations. The World Economic Forum’s (WEF) [Global Risks Report](#) 2026 identifies environmental risks as three of the top ten global risks over the next decade: Extreme Weather Events, Biodiversity Loss and Ecosystem Collapse, and Critical Change to Earth Systems. Recognizing its responsibility, TSMC remains committed to achieving net-zero emissions by 2050. To align with SBTi requirements, the Company reviewed and updated its carbon and energy targets, set stricter reduction standards, adopted 2025 as the base year, and submitted its reduction plan in 2026, reinforcing its commitment to environmental sustainability.

In 2025, TSMC made continued progress in renewable energy adoption and energy efficiency. At Taiwan fabs, renewable energy constituted 11.4% of total electricity use, and the Company brought its first offshore wind power online. On energy efficiency, [five major energy conservation teams](#) 2025 conducted [2,141 energy conservation measures across eight categories](#) 2025, delivering approximately 900 GWh of annual savings. At the Taichung Zero Waste Manufacturing Center, the semiconductor industry’s first carbon capture facility completed trial operation, advancing low-carbon manufacturing through green innovation and setting a new benchmark for sustainable industry development.

Strengthen Climate Resilience

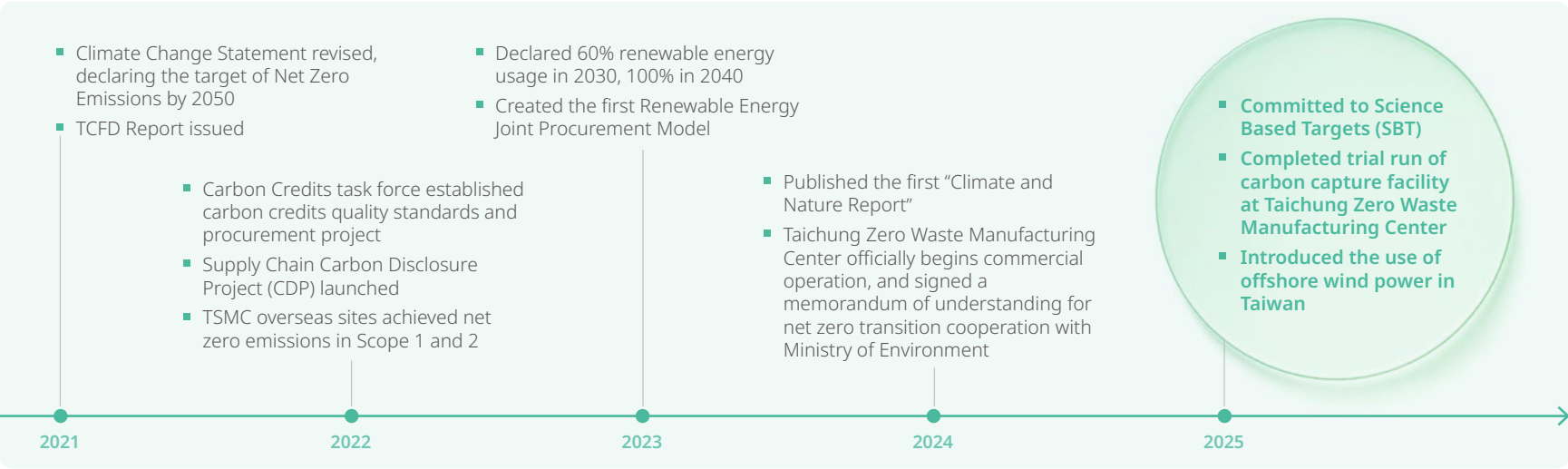
Environment Programme (UNEP) COP30 in 2025, the UNEP released its [Global Cooling Watch Report 2025](#) 2025, proposing a “sustainable cooling pathway” framework to guide global cooling standards, aiming to cut greenhouse gas emissions and lower energy demand. Concurrently, The Ministry of Environment in Taiwan, where TSMC is headquartered, published its 2035 Nationally Determined Contributions (NDC 3.0), setting more ambitious decarbonization targets and an implementation framework. TSMC closely monitors international developments and continues to strengthen its [GHG reduction standard practices](#) 2025. Guided by its [climate management framework](#) 2025, the Company supports sustainable operations throughout

its facilities and supply chain, regularly [identifies climate risks and opportunities](#) 2025, and applies [climate risk adaptation measures](#) 2025 to enhance organizational resilience. In 2025, TSMC maintained uninterrupted production, demonstrating operational stability and strong adaptability.

Alongside its energy conservation and carbon reduction efforts, TSMC further embraces a “Just Transition” by engaging stakeholders to address climate challenges. Internally, the Company conducts regular training programs and workshops on energy conservation, carbon reduction, water stewardship, and circular

economy practices, equipping employees with green skills and raising environmental awareness. Externally, TSMC promotes its [Water Positive](#) 2025 initiative to restore local water resources and supports natural conservation and biodiversity protection through the Plant-A-Tree Program and the [Eco Plus! Ecological Harmony Program](#) 2025. The Company also drives supply chain participation through the [“T.S.M.C. Supply Chain Carbon Reduction Action Guide](#) 2025,” supporting suppliers in meeting emissions targets and bolstering climate resilience across the value chain, while creating shared sustainable value throughout the transition.

Summary of Response Measures for Climate Change



Climate Management Framework

TSMC’s [Climate Change Statement](#) and [Environmental Policy](#) serve as its guiding framework, with the Board of Directors overseeing related management measures. The ESG Steering Committee, chaired by the Chairman, defines the Company’s short-, medium-, and long-term climate change strategies. Through the ESG Committee, the Company integrates cross-functional resources, drives project collaboration, and reports progress to the Board on a regular basis. In 2025, TSMC aligned with the IFRS S2 Climate-related Disclosures and [the semiconductor manufacturing standards of Taiwan’s Reference Guidelines for the Determination of Sustainable Economic Activities](#), boosting transparency and further elevating its sustainability governance.

	Corporate Management Strategies and Actions	2025 Execution Summary
 Governance	The Board will regularly review risks and opportunities related to climate change	- Expanded renewable energy use and reviewed progress at each stage - The ESG Steering Committee regularly monitored and reviewed SBT submission progress and target execution NEW - The Energy Saving and Carbon Reduction Committee defined five major energy conservation teams and adopted the achievement rate of annual energy conservation targets and the level of innovation for energy conservation ideas as benchmarks to encourage the conception and implementation of energy conservation ideas - The chairperson of Risk Management Steering Council reported to the Audit and Risk Committee regarding net zero transition, water resources, power supply risks, natural disasters, regulations, and other issues related to climate change
 Strategies	- Organize interdepartmental discussions and identify short-, mid-, and long-term climate risks and opportunities - Assess the potential financial and operational impact on TSMC from major climate risks and opportunities - Conduct scenario analysis and assess SBT and net zero emission reduction blueprint and actions - Assist suppliers in enhancing awareness and adaptability to climate risks, develop and execute specific carbon reduction actions	- Planned and carried out 2,141 energy-saving measures across eight major categories, saving additional 900 GWh. See "Increase Energy Efficiency" for more information - Promoted the "Green Energy for Charity" project to install photovoltaic (PV) systems for charity organizations and schools in remote townships. See "Renewable Energy Systems" for more information - Completed financial impact qualitative assessment of major climate risks and opportunities and conducted financial impact quantitative assessment of financial impact of major climate risks. See "TSMC Climate and Nature Report" for more information - See "TSMC Climate and Nature Report" for more information - Required major emission contributors to execute GHG emission reduction agreement and commit to reduction targets - Conducted "TSMC Supply Chain Carbon Reduction Action Guide" to assist suppliers in achieving carbon reduction targets
 Risk Management	- Use TCFD frameworks to develop a process for identifying climate risks - Set up and execute response measures based on the results of climate risk identification and prioritization - Integrate climate risk identification and assessment in the ERM process	- Evaluated the qualitative and quantitative financial impact of major climate risks/opportunities discussed in the climate risk/opportunity workshop - Reported assessment results of the climate risks/opportunities and response plans to the ESG Committee Chairperson - See "6.2 Risk Management" in the annual report for more information
 Metrics and Targets	- Set management indicators related to climate - Through ISO 14064 annual inventory and disclosure of GHG emissions, review the impact on the company’s operations and assess the risks of Scope 1, Scope 2, and Scope 3 and related mitigation strategies - Set climate management targets and review progress and performance	- See "Climate and Energy Strategies, Goals, and Outcomes" for more information - Continued to execute carbon reduction measures based on various inventory and evaluation results. See "Drive Low-carbon Manufacturing" for more information - Set climate and energy targets for 2030 with regular performance review by senior executives. See "Climate and Energy Strategies, Goals, and Outcomes" and "GHG Reduction Standard Practices" for more information



Drive Low-carbon Manufacturing

TSMC reviews its overall carbon performance annually based on third-party verified greenhouse gas inventory results. In 2025, total greenhouse gas emissions were approximately 49.63 million metric tons of CO₂ equivalent, with Scope 1 Direct Emissions from Processes (including fluorinated greenhouse gases and nitrous oxide) accounting for 4%, Scope 2 Indirect Emissions from Energy Usage (electricity use) for 23%, and Scope 3 Indirect Emissions from the Value Chain—covering upstream and downstream activities such as raw material production, capital goods, upstream energy activities, waste treatment, commuting, and transportation—for 73%, representing the largest emission source. As advanced process capacity continued to expand, total greenhouse gas emissions increased by 2% compared to the base year (2020), falling short of the annual target. The Company is continuing to advance [energy-saving and carbon](#)

[reduction measures](#) [🔗](#), while increasing [renewable energy use](#) [🔗](#) to meet its decarbonization commitments.

TSMC closely follows international climate governance trends and maintains industry-leading greenhouse gas reduction practices. For Scope 1 direct emissions, the Company installed local scrubbers at process tools in 2025, lowering emissions of fluorinated greenhouse gases and nitrous oxide. The Company also converted central chiller systems to refrigerants with lower global warming potential (GWP) and ozone depletion potential (ODP), reducing hydrofluorocarbon use.

For fluorinated greenhouse gas substitution in manufacturing processes, TSMC collaborated with gas and equipment suppliers in 2025 to develop emission mitigation solutions for carbon tetrafluoride (CF₄) in

etching processes and nitrogen trifluoride (NF₃) in chemical vapor deposition processes. The Company collected equipment testing data from suppliers and plans to introduce these solutions for small-scale in-fab validation. To accelerate its net-zero transition, TSMC invested in emerging technologies and built the semiconductor industry's first carbon capture facility at the Taichung Zero Waste Manufacturing Center. Using membrane technology, the facility captures carbon prior to release, lowering greenhouse gas emissions. The Company completed trial operation by the end of 2025, demonstrating leadership in carbon reduction technologies while enabling a circular approach that converts waste into resources.

For Scope 2 Indirect Emissions from Energy Usage, TSMC launched the [EUV Dynamic Energy Saving Program](#) [🔗](#) in 2025 to improve electricity efficiency in

advanced processes and conducted feasibility assessments for adopting high-performance cooling equipment, including electronic chillers, to support low-impact manufacturing. The Company also added six certified green buildings, bringing the total number of facilities with LEED Gold or higher certification to 57. Additionally, the Fab 15 Phase 5 Office Building obtained Net-Zero Building Energy Label, and the Fab 18 Phase 1 Office Building achieved Nearly Zero-Carbon Building Label. For Scope 3 Indirect Emissions from the Value Chain, TSMC expanded its Supply Chain Carbon Reduction Subsidy Project and partnered with ammonia suppliers to launch the [“Blue Ammonia Adoption Project”](#) [🔗](#), becoming the first semiconductor company in Taiwan to use blue ammonia while continuing to explore low-carbon raw material alternatives. For more information, refer to [“Promote Green and Low-Carbon Supply Chains”](#) [🔗](#).

Green Building Certificates



LEED

Added 6 buildings

Office building of Fab 18 Phase 7, Fab 20 Phase 1, office building of Fab 21 Phase 1, Fab 21 Computer Room, Fab 21 Phase 1, and Advanced Backend Fab 6 Phase 2

No. 1 in global semiconductor industry and Taiwan

LEED green building certification area

57 12-inch fabs worldwide obtained the LEED Gold Certification or above

Three Platinums and 54 Golds



EEWH

Added 1 building

Office building of Fab 12 Phase 8

32 building

12-inch fabs in Taiwan have obtained EEWB certifications (21 Diamonds, eight Golds, and three Silvers)

No. 1 in Taiwan

Excellent Green Building Award



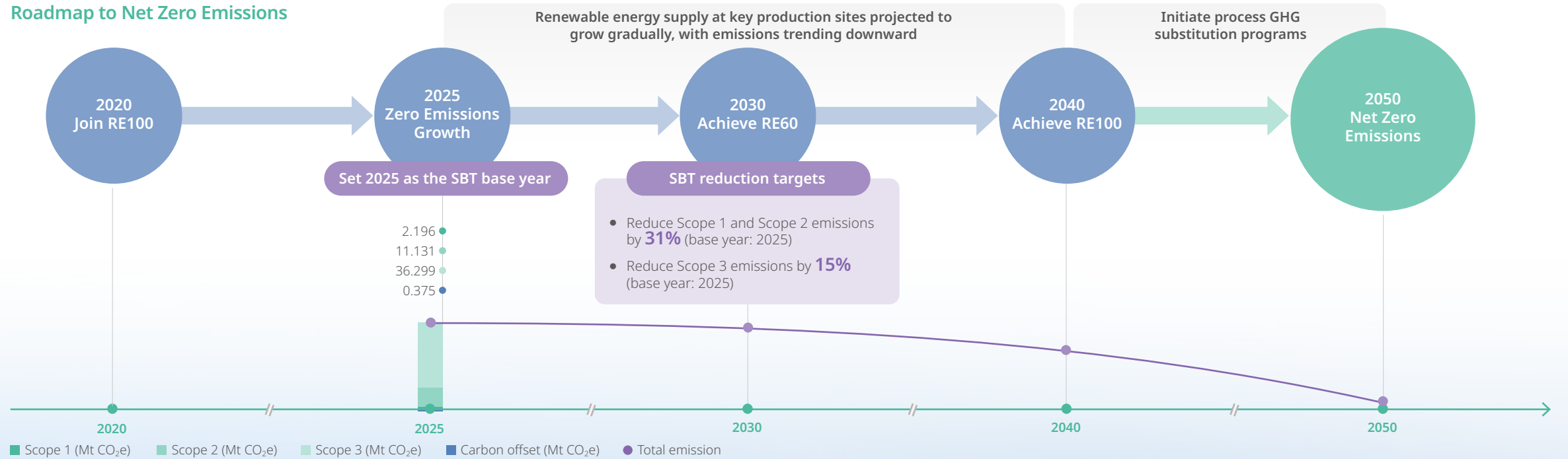
Green Factory

No. 1 in Taiwan

Number of certified green factories

14 Green factories

Roadmap to Net Zero Emissions



GHG Reduction Standard Practices



Scope 1 Direct GHG Emissions

Processes that use F-GHGs and nitrous oxide

- Optimize gas quantity used in production
- Install Point-of-Use abatement equipment for F-GHG and nitrous oxide
- Low Global Warming Potential Gas Substitution Project

3,540 Units

96%

158 Units

- Installed abatement systems on all newly installed process tools emitting fluorinated greenhouse gases and nitrous oxide
- Installed/replaced abatement systems on 60 existing fluorinated greenhouse gas process tools; achieved a company-wide fluorinated greenhouse gas abatement rate of 96%
- Transitioned all central chiller systems in new fabs to eco-friendly refrigerants



Scope 2 Indirect GHG Emissions (From Purchased Energy)

Energy usage

- Build green buildings
- Enhance energy efficiency
- Utilize renewable energy
- Incorporate energy-saving and low-carbon emission designs into next-generation process equipment
- EUV Dynamic Energy Saving Program

1

2,141 Measures

1

5,780 GWh

- Ranked first globally among semiconductor companies in green building certified floor area; certified seven new buildings, bringing cumulative totals to 57 LEED (U.S.) and 32 EEWH (Taiwan) certifications
- Surpassed peers with comparable technology in advanced process energy efficiency^{Note 1}; executed 2,141 energy-saving measures, saving approx. 900 GWh and cutting emissions by nearly 420,000 metric tons
- Led the industry's only Next-Generation Semiconductor Manufacturing Tool Energy Conservation Project; collaborated with 11 suppliers to develop energy-efficient tools and components, achieving annual electricity savings of 460 GWh
- Used about 5.78 billion kWh of renewable energy globally, accounting for 20.1% of total electricity use



Scope 3 Indirect GHG Emissions (Value Chain)

Raw material production, energy-related activities upstream, and transportation

- Require suppliers to pass third party verification
- Guide suppliers on energy saving
- Subsidize suppliers to replace or install new equipment
- Provide on-site carbon reduction guidance for suppliers
- Adopt low-carbon raw materials

93%

1,360 GWh

165,000 Metric tons

- Required high electricity-use suppliers^{Note 2} to complete greenhouse gas inventories with third-party verification; achieved a verification rate of 93%
- Guided suppliers in setting energy-saving targets and action plans; added 338 GWh in annual electricity savings, cutting emissions by 160,000 metric tons; cumulative electricity savings since 2018 reached 1,360 GWh
- Provided NT\$160 million in subsidies; selected 31 suppliers, cutting emissions by 165,000 metric tons

30 Suppliers

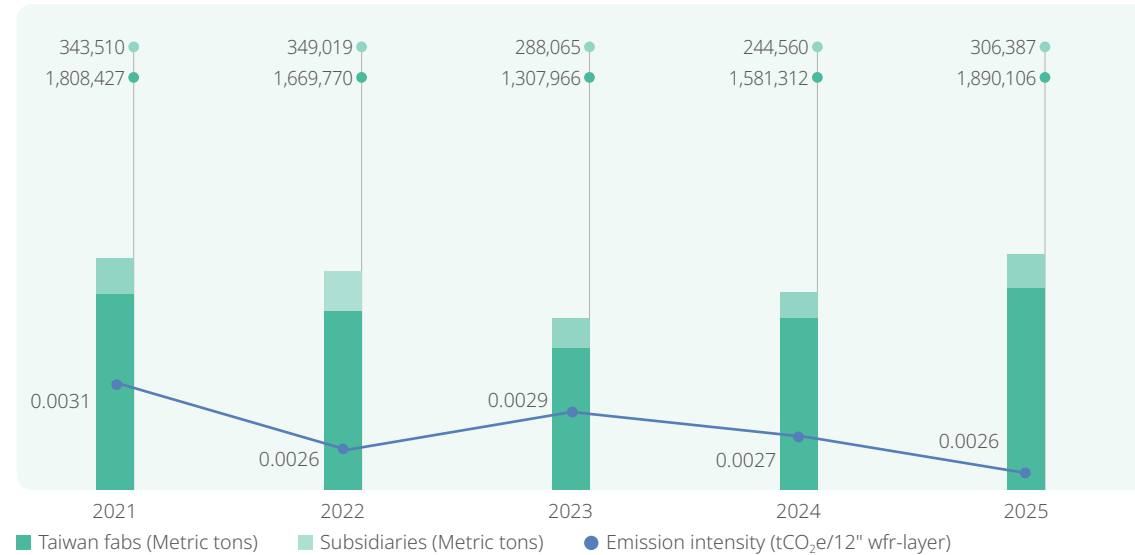
70,486 Metric tons

- Completed on-site guidance for 30 domestic suppliers, strengthening carbon reduction capabilities and performance
- Adopted electronic-grade IPA and blue ammonia; projected annual emission cuts of approx. 70,486 metric tons upon full adoption

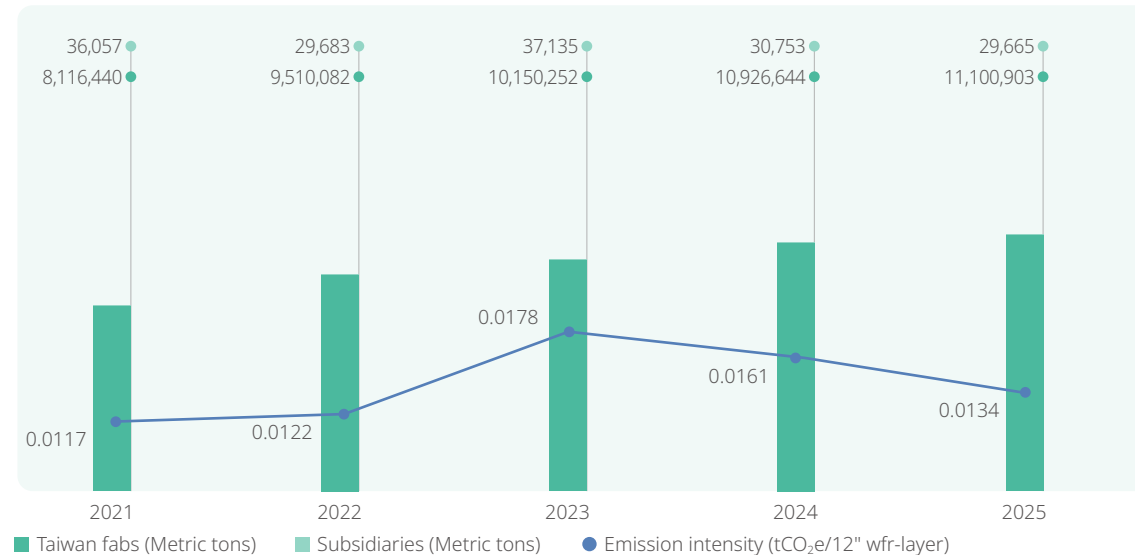
Note 1: Figures from the Joint Steering Committee (JSTC) report of the World Semiconductor Council
 Note 2: High Energy Consumption Suppliers: Suppliers that consume more than 5GWh/year in a single factory.



Scope 1 GHG Emissions



Scope 2 GHG Emissions



Scope 3 GHG Emissions

UNIT: Metric tons



Note 1: Scope 1 data is prepared using the operational control approach as the inventory boundary. From 2020 to 2024, the Company used the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the 100-year Global Warming Potential (GWP100) values from the IPCC Fifth Assessment Report. In 2025, the Company applied the GWP100 values from the IPCC Sixth Assessment Report. Greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).

Note 2: In terms of electricity emission factor, TSMC fabs in Taiwan (including the R&D Center) and VisEra adopted 0.474 kg CO₂e/kWh as announced by Ministry of Economic Affairs in 2024; TSMC (China) adopted the average emission factor of power grids in Shanghai City of 0.574 kg CO₂e/kWh in 2023; TSMC (Nanjing) adopted the national electricity average emission factor of 0.531 kg CO₂e/kWh; TSMC Washington, LLC adopted an electricity emission factor of 0.288 kg CO₂e/kWh; TSMC Arizona adopted an electricity emission factor of 0.320 kg CO₂e/kWh; JASM adopted an electricity emission factor of 0.423 kg CO₂e/kWh; and Japan 3DIC R&D Center adopted an electricity emission factor of 0.452 kg CO₂e/kWh.

Product Carbon Footprint

TSMC regards product carbon footprint assessment as a core element of product stewardship and eco-design. The Company follows ISO 14067 and the Product Category Rules (PCR) for Integrated Circuit Wafer Fabrication Services, covering a “cradle-to-gate” boundary from raw material extraction to completion of TSMC’s manufacturing processes. To track decarbonization progress more closely throughout its operations and supply chain, TSMC increased the frequency of product carbon footprint assessments to an annual basis starting in 2025, enabling precise monitoring of emissions in all fabs. Assessment results are verified by a third party every three years in accordance with ISO 14067 requirements. The findings support carbon reduction strategy development,

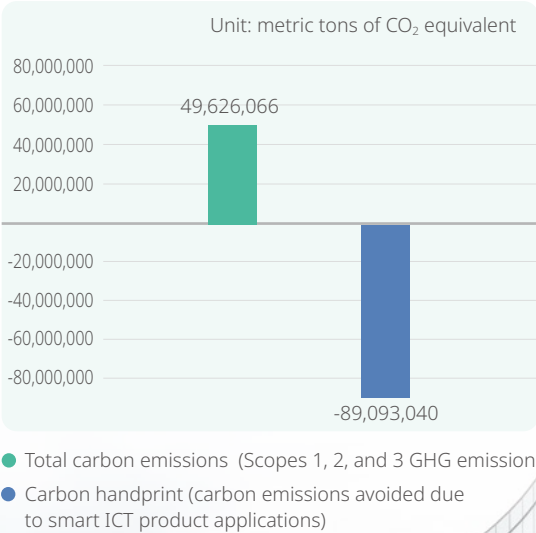
process optimization, and sustainability disclosure, and are integrated into the ISO 14001 Environmental Management System to drive continuous improvement.

TSMC’s 2026 assessment results show that, compared with 2023, product carbon footprints decreased by 8.8% in mature process fabs (>7nm) in 2025, while advanced process fabs (≤ 7nm) dropped by 46.5%, reflecting TSMC’s continued efforts in environmental stewardship and sustainable operations.

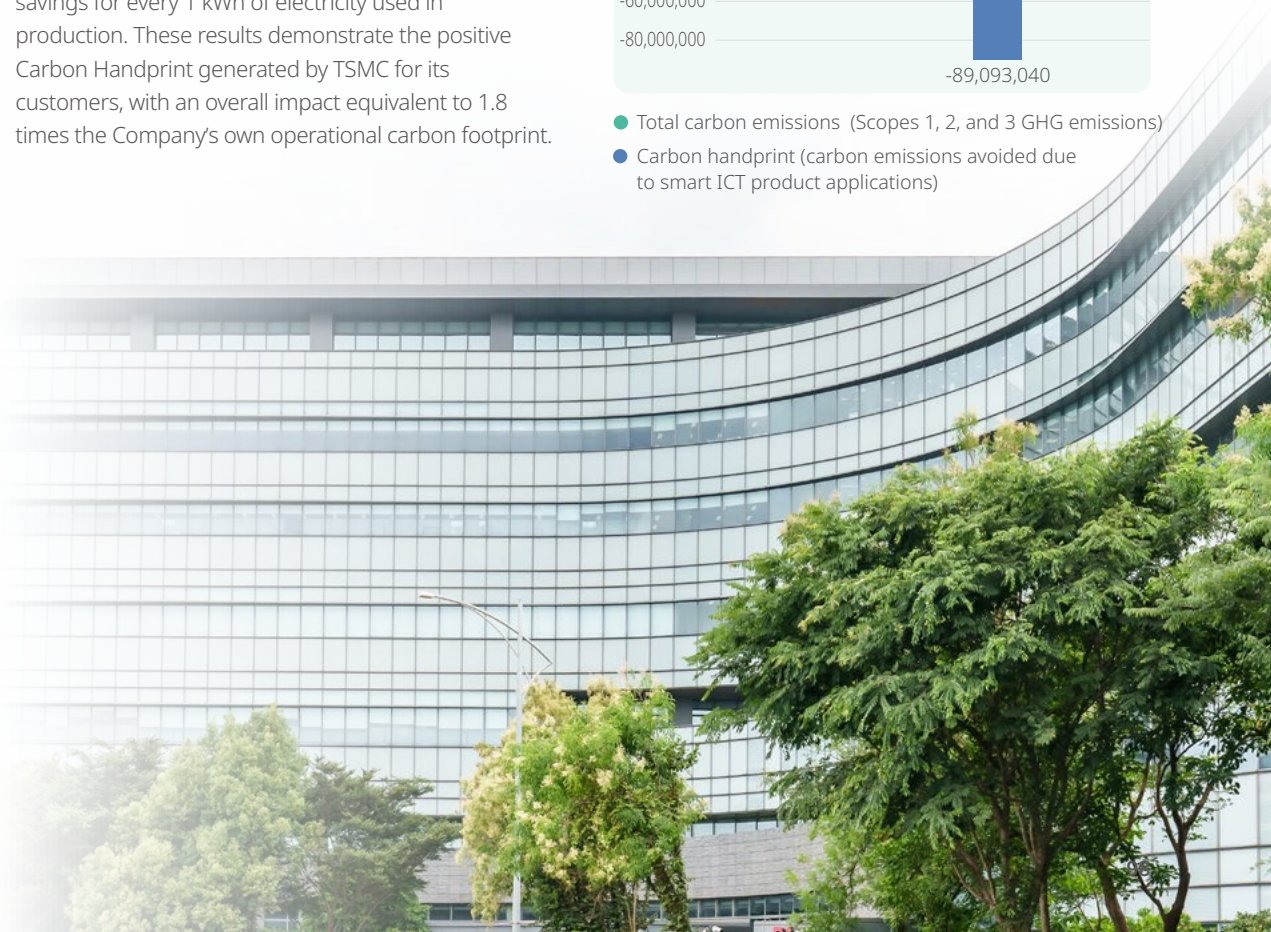
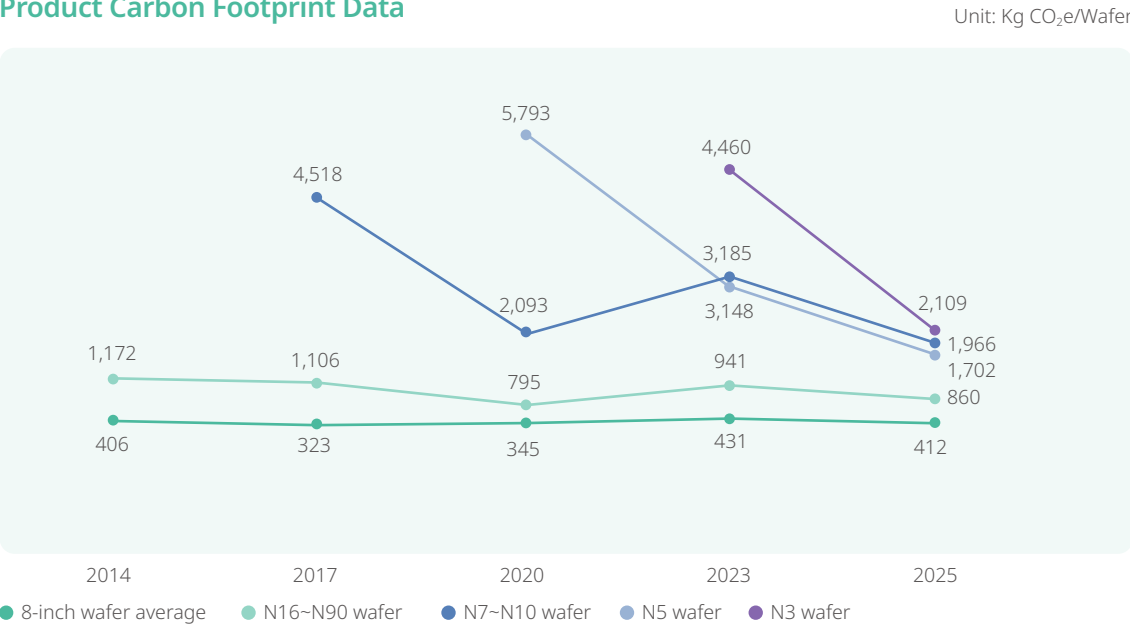
Beyond quantifying carbon emissions through product carbon footprint assessment, TSMC adopts the “[Carbon Handprint](#)” concept to measure the positive

contribution of its technologies and products to global emissions reduction. Based on estimates from the Industrial Technology Research Institute’s Industry, Science and Technology International Strategy Center (ISTI), ICT products using TSMC chips across [six major smart applications](#) enabled approximately 188,000 GWh of global electricity savings in 2025, avoiding about 89.09 million metric tons of carbon emissions. In particular, high-performance computing products enable approximately 11.8 kWh of global electricity savings for every 1 kWh of electricity used in production. These results demonstrate the positive Carbon Handprint generated by TSMC for its customers, with an overall impact equivalent to 1.8 times the Company’s own operational carbon footprint.

Total Carbon Emissions and Carbon Handprint in 2025



Product Carbon Footprint Data



Use Renewable Energy

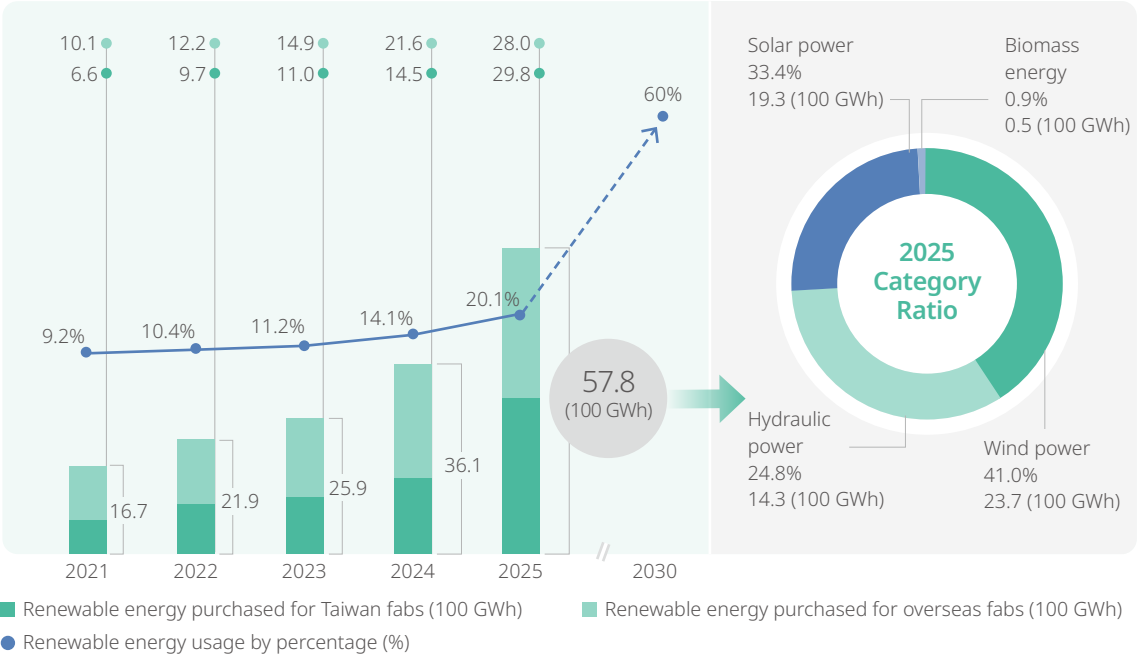
TSMC continues expanding its use of renewable energy. In 2025, renewable energy accounted for 20.1% of the Company's total global electricity consumption, while usage at Taiwan fabs increased to 2,940 GWh, representing 11.4% of total electricity consumption in Taiwan operations. In September of the same year, TSMC became the first private company in Taiwan to use offshore wind power. Overseas fabs continue to increase renewable energy adoption in support of the RE100 target.

In energy transition efforts, TSMC completed participation in the Ministry of Economic Affairs and Taiwan Power Company's "Flexible Green Power Allocation Pilot Program" in 2025 and continued engagement in the updated "Green Power Market Flexible Allocation Pilot Program." With TSMC integrating over 40 renewable energy suppliers and confirming the electricity demands of each fab, the mechanism achieves more precise and real-time supply-demand balancing in 15-minute

intervals, enhancing renewable electricity efficiency and flexibility throughout TSMC fabs. Total installed capacity participating in the program reached 2.3 GW, including 1.2 GW from the ongoing Roof-mounted PV Procurement Project, supporting renewable energy diversification and the green economy. As of 2025, TSMC has signed renewable energy purchase agreements totaling 7.3 GW of capacity. Once all projects are fully operational, they are expected to supply approximately 15,800 GWh of renewable electricity annually, avoiding about 7.5 million metric tons of carbon emissions.

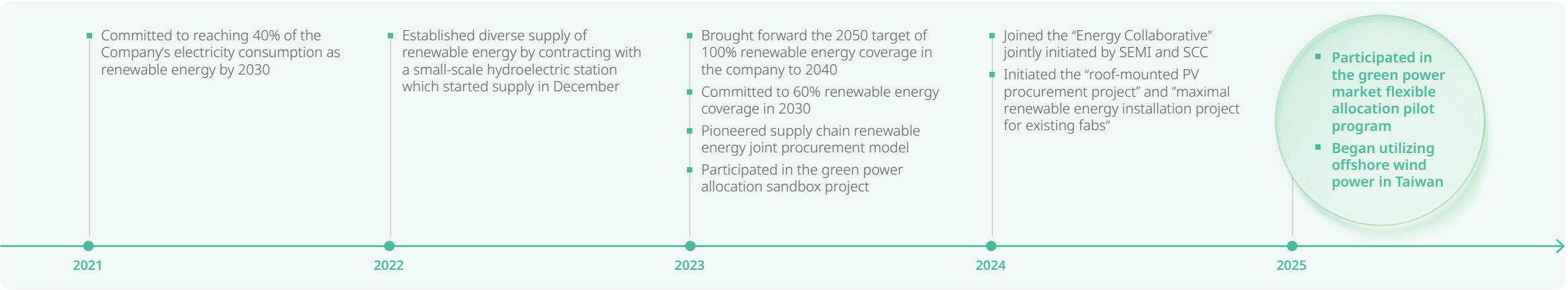
In 2025, TSMC collaborated with the Taiwan Semiconductor Industry Association (TSIA) and the SEMI Energy Collaborative (EC) to strengthen renewable energy development. The Company worked with government agencies, power utilities, and industry partners to review regulatory frameworks and remove supply barriers, with the aim of reducing carbon emissions in the semiconductor industry and jointly advancing environmental sustainability.

Renewable Energy Consumption and Ratio



Note: Definition of renewable energy use: Self-generated renewable energy, purchased renewable energy and renewable energy certificates

Renewable Energy Development Timeline





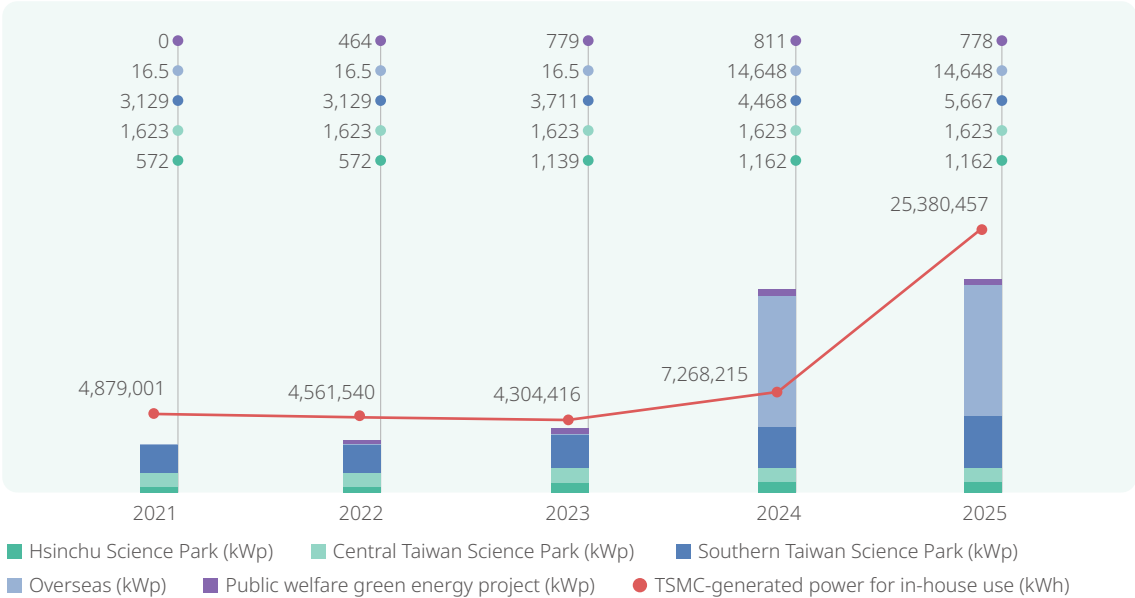
Renewable Energy Systems

Beyond procuring renewable energy, TSMC also installs on-site photovoltaic systems to generate zero-carbon renewable electricity for its fabs, while advancing the Maximal Renewable Energy Installation Project for existing Fabs. In 2025, newly installed solar capacity reached 1,199 kWp, and a 14.6 MWp solar power system at the TSMC Arizona fab parking facility entered operation — bringing total company self-generated electricity to over 25 GWh, a 3.4-fold increase over the prior year, and cutting emissions by approximately 8,872 metric tons. TSMC Arizona also installed 86 EV charging stations, providing shaded parking spaces for employees and contractors and encouraging electric vehicle adoption to reduce transportation-related emissions.

TSMC Arizona fab parking lot solar PV system

In 2025, TSMC continued its Public Welfare Green Energy Program to strengthen community well-being. Led by the TSMC Charity Foundation, the program leverages TSMC’s facility resources and subcontractor network, in collaboration with government agencies and academic institutions, to install solar photovoltaic systems free of charge at social welfare organizations and rural schools, creating a stable source of revenue for these institutions through green electricity sales. In 2025, 14 new sites were added, with an installed capacity of approximately 778 kWp and electricity generation of 0.834 GWh, yielding annual electricity sales revenue of approximately NT\$3.55 million.

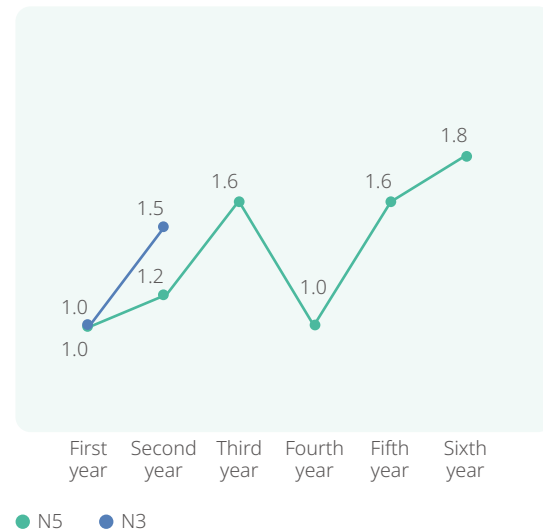
TSMC Renewable Energy Installed Capacity and Power Generation for In-house Use



Increase Energy Efficiency

In 2025, TSMC's total energy consumption reached 30,990 GWh, with purchased electricity constituting approximately 92.8%, natural gas 7.1%, and diesel 0.1%. In preparation for its 2026 application to the Science Based Targets initiative (SBTi), the Company reviewed and raised its energy-saving targets, increasing in 2025 the annual average electricity-saving target from 1.2% to 1.5%. Newly established fabs — Fab 20 and Fab 22 — as well as overseas operations such as TSMC Arizona, also joined the energy-saving program, further enhancing energy efficiency.

Process Energy Efficiency



Note 1: The standardized baseline for energy efficiency is the values taken from the first year of volume production.

Note 2: The data covers fabs in Taiwan, (excluding the R&D Center)

Note 3: Process energy efficiency is defined as product equivalent per kWh of electricity consumed (12-inch wafer-mask layer equivalents / kWh).



Case Study

Developed a Smart Standby Energy-Saving Mechanism, Saving 85 million kWh

During wafer fabrication, electric-heating local scrubbers — both primary and backup units — must maintain standby temperatures of 700 °C–1,000 °C to treat a wide variety of process tail gases. Even when the primary unit operates normally, backup units must remain active to enable immediate switchover in the event of an anomaly. To enhance energy efficiency, TSMC initiated the development of a smart standby energy-saving mechanism in 2020, conducting independent temperature ramp-up tests and operator response training for each equipment type. By optimizing the linkage between primary and backup units, backup units automatically enter a smart sleep mode when the primary unit is operating normally, significantly lowering standby energy consumption. When an abnormal temperature drop signal from the primary unit is detected, the backup unit immediately initiates a rapid heat-up sequence to reach operating temperature, ensuring uninterrupted tail gas treatment.

This mechanism not only lowers standby energy consumption of backup units but also minimizes component wear caused by prolonged high-temperature operation, extending overall system lifespan and enhancing operational stability. Through sustained team efforts, TSMC completed performance validation and operator training for four equipment types in 2025 and fully deployed the mechanism across 2,444 units at all 8-inch and 12-inch wafer fabs — saving 85 GWh while strengthening system reliability and response capability.



TSMC enhances standby mode for electric-heating local scrubber backup units.

Expand Energy-saving Measures

TSMC is committed to identifying energy-saving opportunities. In addition to establishing [five major energy conservation teams](#) ㊦ based on process technologies, the Company drives energy efficiency through a range of initiatives. In 2025, TSMC executed 2,141 energy conservation measures across eight categories, including tool exhaust reduction, optimization of cooling water temperature and usage, optimization of pipeline heating system temperatures, installation of aerogel

insulation kits, and upgrades to hot water recovery tanks. These initiatives delivered approximately 900 GWh of annual energy savings, reduced nearly 420,000 metric tons of CO₂ emissions, and generated electricity cost savings of approximately NT\$3.85 billion.

To strengthen energy efficiency in advanced processes, TSMC collaborated with suppliers through the [EUV Dynamic Energy Saving](#)

[Program](#) ㊦, successfully reducing peak power consumption by 44% while maintaining production capacity. In 2025, the Company also completed [testing of standby energy-saving modes for electric-heating local scrubbers](#) ㊦, enabling the equipment to enter sleep mode during idle periods and supporting more environmentally responsible process management.

Under the Energy Conservation Action Project for

Next Generation Fab Tools, TSMC expanded its external collaborations, increasing the number of equipment partners from six to 11 in 2025 and continuing to develop energy-saving components for fab tools. Energy savings from new tools reached 460.14 million kWh in 2025. The Company also launched a feasibility assessment for developing tool energy-saving modes, aiming to reduce energy consumption during standby and improve operational efficiency.

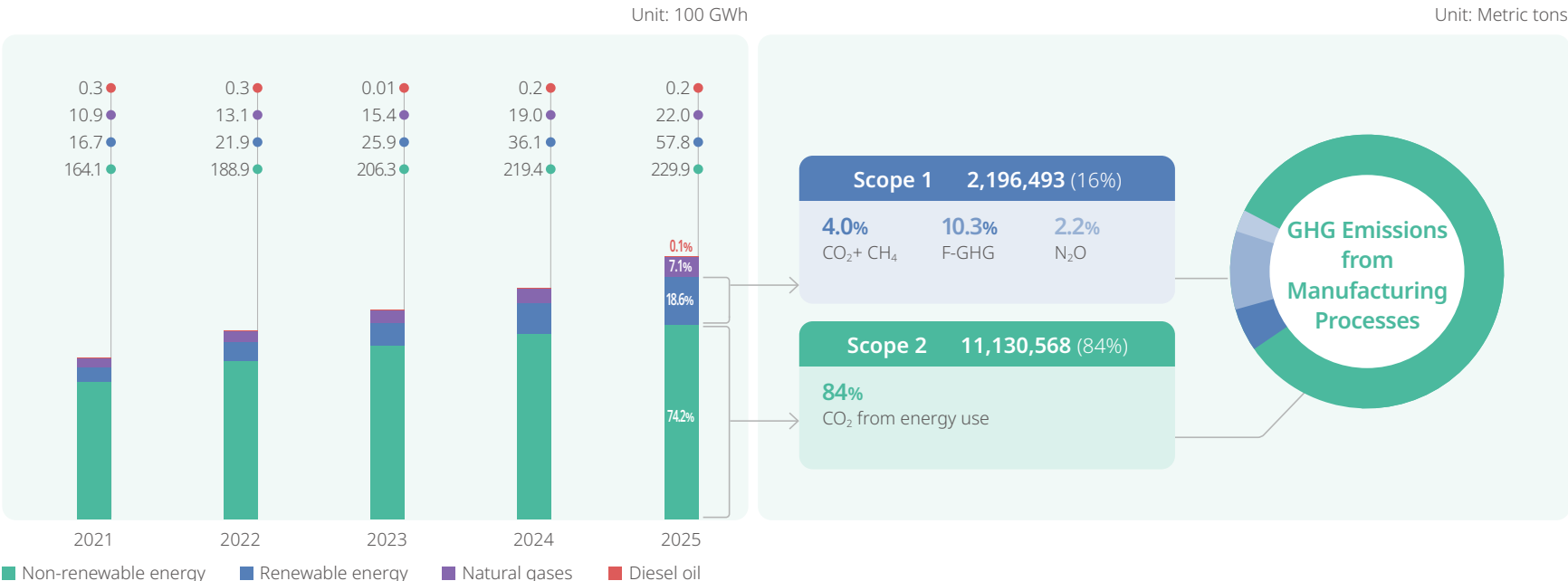
Unit Product Energy Consumption



Note 1: The data covers fabs in Taiwan (including the R&D Center), TSMC (China), TSMC (Nanjing), TSMC Washington, LLC, TSMC Arizona Corporation, JASM, and VisEra.

Note 2: Diesel and natural gas are not used for production and are excluded from the calculation.

Energy Consumption

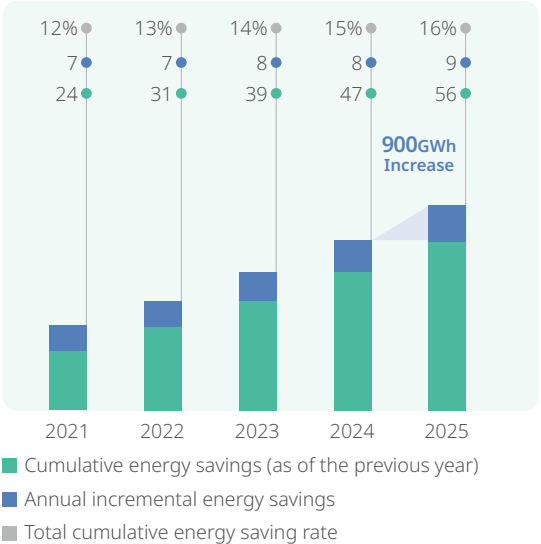


Note 1: (Import) LNG = 9,000 kcal/m³; vehicle diesel = 8,642 kcal/L; 1 kcal = 4,186.8 J; 1 kWh = 860 kcal ≈ 3,600 kJ

Note 2: GHG emissions from production processes include only direct emissions (scope 1) and indirect emissions from electricity use (scope 2).

To boost the efficiency of energy-saving and carbon reduction management teams in all fabs, TSMC held training at the Hsinchu, Taichung, and Tainan fabs in 2025, focusing on forward-looking technologies such as carbon sequestration and carbon-free electricity. The training covered TSMC's SBT net-zero roadmap and strategic blueprint, promoting green transformation through technical knowledge exchange. A total of 295 participants attended the three sessions.

Cumulative Energy Savings Unit: 100 GWh



Note: 1 kWh = 3,600 kilojoules

Continuous Innovation with Five Key Energy Conservation Teams

Advanced Processes R&D Team	12-inch Wafer Fab Team	Advanced Backend 8-inch Wafer Fab Team	EUV Team	Facility Team
Targets (including existing and future tools)				
Next Generation 3nm/2nm	12-inch wafer fabs (including overseas fabs)	Backend fabs and 8-inch wafer fabs (including overseas fabs)	EUV tools	Shared facilities not used for production
Mission				
- Develop energy-efficient components - Optimize programs - Set tool specifications	- Replace and upgrade equipment with low energy efficiency - Optimize programs - Launch energy-saving programs at new domestic and overseas fabs	- Replace and upgrade equipment with low energy efficiency - Set specifications for new tools in backend fabs	- Optimize programs - Develop energy-efficient components	- Upgrade equipment with low energy efficiency - Develop smart energy conservation systems - Set specifications for new tools
Achievements from Key Programs in 2025				
- Installed high-performance equipment in new tools at Fab 20 and Fab 22, saving 127.65 GWh - Executed the Low Global Warming Potential Gas Substitution Project, projected to reduce HFCs consumption by approximately 16%	- Optimized tool exhaust and cooling water usage through process adjustments at existing fabs, saving 91.13 GWh - Adopted 5nm high-performance tools with optimized settings at TSMC Arizona, saving 28.94 GWh NEW	- Accelerated high-performance pump/chiller replacement plans at Fabs 2, 3, 5, 6, and 8, saving 7.22 GWh - Deployed high-performance tools with optimized settings at advanced backend fabs, saving 44.12 GWh	Advanced the <u>EUV Dynamic Energy Saving Program</u> ; field measurements showed energy savings of up to 8% of total annual tool energy consumption NEW	Executed <u>energy-saving mechanisms for electric-heating local scrubbers</u> , saving 85 GWh NEW

Energy Conservation Measures

- Replaced yellow-light fixtures with LED lighting

44 Energy-saving measures | **59.54 GWh** Energy-saving kWh | **28,222 Metric tons** Reduced of CO₂



Lighting Energy Savings

All Fabs

- Converted air compressor cooling water supply from chilled water to warm water **NEW**
- AI powered chilled water energy saving system
- Replaced cold water with PCW for cooling air compressors throughout first- and second-stage compression

20 Energy-saving measures | **60.75 GWh** Energy-saving kWh | **28,794 Metric tons** Reduced of CO₂



A.C. Energy Savings

All Fabs

- Consolidated UPS systems **NEW**
- Replaced aging equipment with new units **NEW**
- Installed variable-frequency drive (VFD) controls on equipment **NEW**
- Applied wet film plate energy-saving measures **NEW**

120 Energy-saving measures | **78.75 GWh** Energy-saving kWh | **37,326 Metric tons** Reduced of CO₂



Increased Performance

All Fabs

- Energy-saving mode for uninterrupted power supply system
- Reduced standby temperature for local scrubber backup units
- Cooling fan for battery cabinet to conserve energy

41 Energy-saving measures | **52.11 GWh** Energy-saving kWh | **24,701 Metric tons** Reduced of CO₂



Standby Energy Savings

All Fabs

Facility Equipment

A total of
2,141
Measures

Manufacturing Tools



Energy Usage Management

All Fabs

- Reduced PCW and exhaust consumption for tools
- Optimized tool program settings

256 Energy-saving measures | **91.13 GWh** Energy-saving kWh | **43,196 Metric tons** Reduced of CO₂



Unit Replacement

All Fabs

- Replaced high-performance pumps and chillers

414 Energy-saving measures | **42.13 GWh** Energy-saving kWh | **19,970 Metric tons** Reduced of CO₂



New Unit Specs

All Fabs

- Installed high-efficiency energy-saving auxiliary equipment and components in new tools
- Optimized water usage and exhaust settings for new tools

1,065 Energy-saving measures | **460.14 GWh** Energy-saving kWh | **218,106 Metric tons** Reduced of CO₂



Equipment Adjustments

All Fabs

- Upgraded tools with energy-saving components
- Hot DI water circulation system

181 Energy-saving measures | **42.65 GWh** Energy-saving kWh | **20,216 Metric tons** Reduced of CO₂

Water Stewardship



Strategies	2030 Goals	2026 Targets	2025 Achievements
Sustainable Water Stewardship^{Note 1} Enforce climate risk mitigation policies, implement daily water conservation and water shortage adaptation, develop diversified water sources, and advance restoration initiatives to lower environmental risks	 Global Water Positive achievement rate of > 65%	Global Water Positive achievement rate of 18%	Global Water Positive achievement rate of 21% Target: 17% ↑ Increased unit water consumption by 8.8% (L/12-inch equivalent wafer mask layer) (Base year: 2010) Target: Reduce unit water consumption by 2.7% (Base year: 2010) — Note 2 18% Replacement of water resources with reclaimed water Target: 15% ↑
Innovative Water Pollution Prevention Technology Improve the efficiency of water pollution control and removal of water pollutants	 Reduce water pollution composite indicator^{Note 3} by >60%	Reduce water pollution composite indicator reduction rate by 60%	Water pollution composite indicator reduction rate of 61.9% Target: 60% ↑

 Applicable to all TSMC fabs around the world

 Applicable to TSMC fabs in Taiwan and other specific fabs

 Only applicable to TSMC fabs in Taiwan

 Applicable to TSMC overseas fabs

 Exceeded

 Achieved

 Missed Target

Note 1: TSMC is committed to optimizing water use efficiency. To drive a more comprehensive and systematic approach to water stewardship and effectively address climate change challenges as well as ensure water resilience, the Company integrated its "Water Resource Risk Management" and "Diverse Water Resource Development" strategies into "Sustainable Water Stewardship" in 2025. The Company also adopted global Water Positive impact as a key indicator to evaluate the overall effectiveness of its strategy and its positive contribution to the ecological environment.

Note 2: For factors contributing to unmet targets, please refer to "[Strengthen In-house Water Reclamation and Water Use Efficiency](#) .

Note 3: Covers ten key pollutants — chemical oxygen demand (COD), fluoride, suspended solids (SS), ammonia nitrogen, nitrate nitrogen, arsenic, boron, copper, cobalt, and total phosphorus — serving as indicators to assess overall pollutant concentration reduction and control performance.

TSMC upholds the commitments made in its [Water Statement](#) and advances [four key water conservation measures](#) to enhance in-fab water reclamation and overall water use efficiency. The Company also set achieving Water Positive impact as a core sustainability objective, while expanding the

adoption of alternative water sources such as reclaimed water and desalinated seawater to deliver tangible results. In 2025, cumulative reclaimed water use at Taiwan fabs reached 23.53 million cubic meters, with the substitution rate rising to 18%. In 2026, reclaimed water from the Kaohsiung Qiaotou facility

will be introduced, and the TSMC S.T.S.P. Reclaimed Water Plant will be further expanded, with daily supply capacity expected to reach 30,000 cubic meters by 2028. At the same time, TSMC Arizona began construction of a reclaimed water facility, incorporating industry-leading near-zero liquid

discharge (NLD) technology and setting a new benchmark for water stewardship in the semiconductor industry.

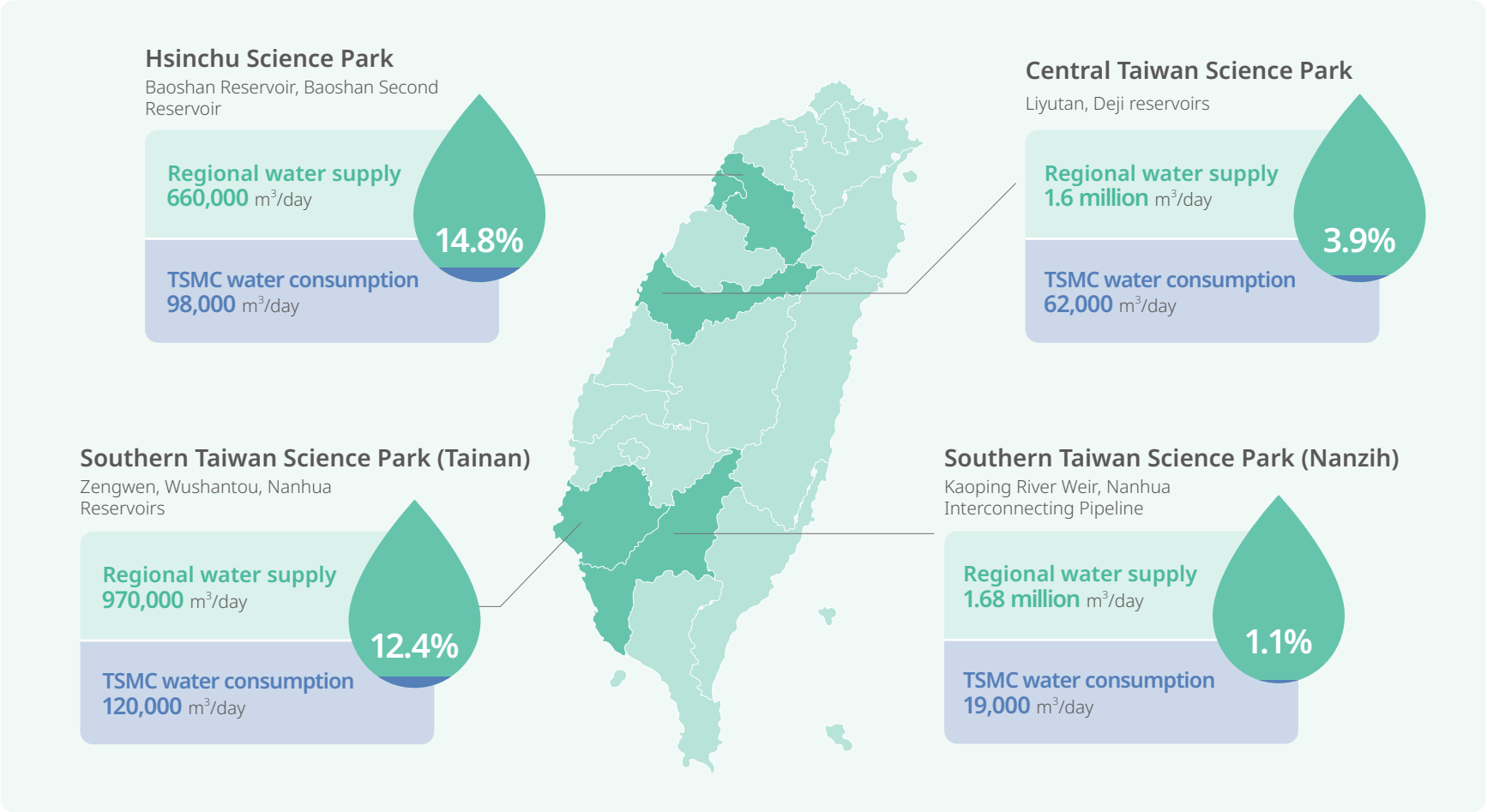
Furthermore, TSMC actively develops diversified water sources and restoration initiatives. In 2025, in addition to JASM's achieved of groundwater replenishment, TSMC Arizona is also planning river restoration efforts for the Verde River in its operating watershed. These initiatives aim to optimize regional water efficiency and improve aquatic ecosystems, with completion anticipated in 2026, thereby fostering environmental sustainability.

Sustainable Water Stewardship

TSMC applies the World Resources Institute (WRI) water risk assessment tool each year to evaluate water-related risks across its global operations. Based on the 2025 assessment results, TSMC (China) and TSMC Arizona are classified as high-risk locations, while all other sites fall within medium-low or low-risk categories.

Although TSMC (China) is located in a water-abundant region, significant fluctuations in raw water quality place it in the high-risk category. The site ensures a stable and high-quality process water supply through a municipal water purification plant and in-fab water treatment systems. TSMC Arizona, located in a desert climate region, initiated a local reclaimed water plant project in 2024, with construction commencing in 2025. The facility plans to adopt NLD technology to maximize water reclamation, minimize wastewater discharge, and optimize concentrated waste treatment, while advancing water resource restoration initiatives.

TSMC Water Consumption Share Across Four Science Parks



Resource: Water Resources Agency, Ministry of Economic Affairs

For sites in medium-low or low water risk regions, TSMC applies established preventive measures — such as elevating site ground levels and installing flood barriers — while incorporating proven water reclamation, reuse, and wastewater treatment systems from existing fabs into the planning and design of new facilities. At the same time, regional operations teams regularly review local water use profiles and water availability conditions and take timely response actions as needed to ensure operational resilience. In addition, TSMC continues to advance the use of diversified alternative water sources, including reclaimed water and desalinated seawater, to ease pressure on local water resources.

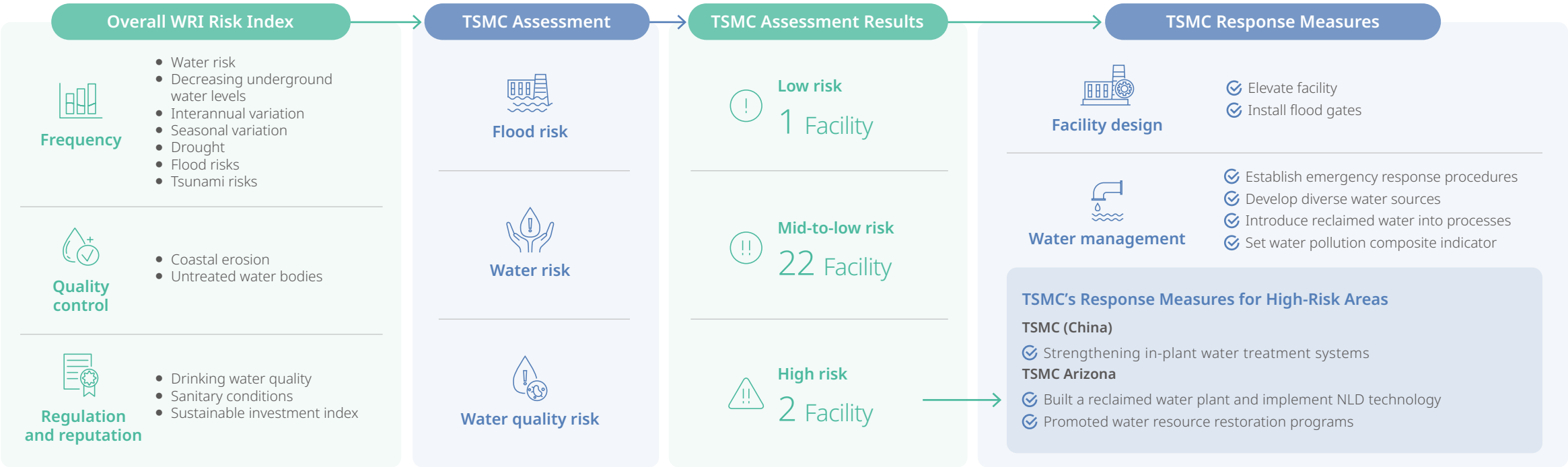
Water Resource Management and Technological Development

TSMC manages site water according to the Alliance for Water Stewardship (AWS) standard. In 2025, the Hsinchu and Taichung sites underwent annual certification, while the Tainan sites completed their triennial recertification, with all sites maintaining Platinum-level performance. For an overview of TSMC's overall water management framework, please refer to the [Water Flow and Upstream/Downstream Environmental Relationship Diagram](#) .

To advance environmental sustainability, TSMC channels resources through its [Water Stewardship Cooperation Model](#) and continues investing in new technology development through a Joint Development Project (JDP) with academic institutions. In 2025, the Company collaborated with universities in Taiwan on research covering phosphoric acid wastewater treatment and recycling, three-dimensional groundwater monitoring technologies, and analysis of trace unknown substances in ultrapure water, with the aim of strengthening water quality monitoring and treatment capabilities. TSMC also partnered with institutions in the United States, Japan, and China to

study per- and polyfluoroalkyl substances (PFASs) treatment and their potential environmental impacts, addressing shared global environmental challenges. Given JASM's reliance on groundwater resources, TSMC additionally collaborated with local universities in Kumamoto on groundwater quality assessment, volume simulation, and monitoring in response to regional hydrogeological conditions.

WRI Risk Identification



Water Positive

In response to its global expansion and increasing water demand from advanced manufacturing processes, TSMC upholds sustainable co-prosperity as its guiding principle and adopts Water Positive impact as a key performance indicator, integrating water stewardship efforts across multiple dimensions. The core concept of water positivity is to ensure that the volume of water returned to local ecosystems through diversified water sourcing and external water restoration initiatives is equal to or greater than the volume of water withdrawn for operations. Diverse water resources include tap water replacement such as reclaimed water, as well as supplementary tap water sources such as desalinated seawater and brackish water. Water restoration initiatives encompass groundwater

recharge, wetland restoration, reservoir dredging, and watershed rehabilitation, all aimed at mitigating environmental impacts and achieving sustainable water use.

Reclaimed Water

TSMC expanded its use of reclaimed water, with cumulative consumption reaching 23.53 million cubic meters in 2025 (including 22.73 million cubic meters of reclaimed water intake and 0.80 million cubic meters of water exchange), achieving a substitution rate of 18% at Taiwan fabs. In addition, the Company completed the expansion of the Kaohsiung Nanzi and Qiaotou reclaimed water plants and signed agreements for the Hsinchu Science Park reclaimed water plant. The Qiaotou reclaimed water plant is expected to supply 25,500

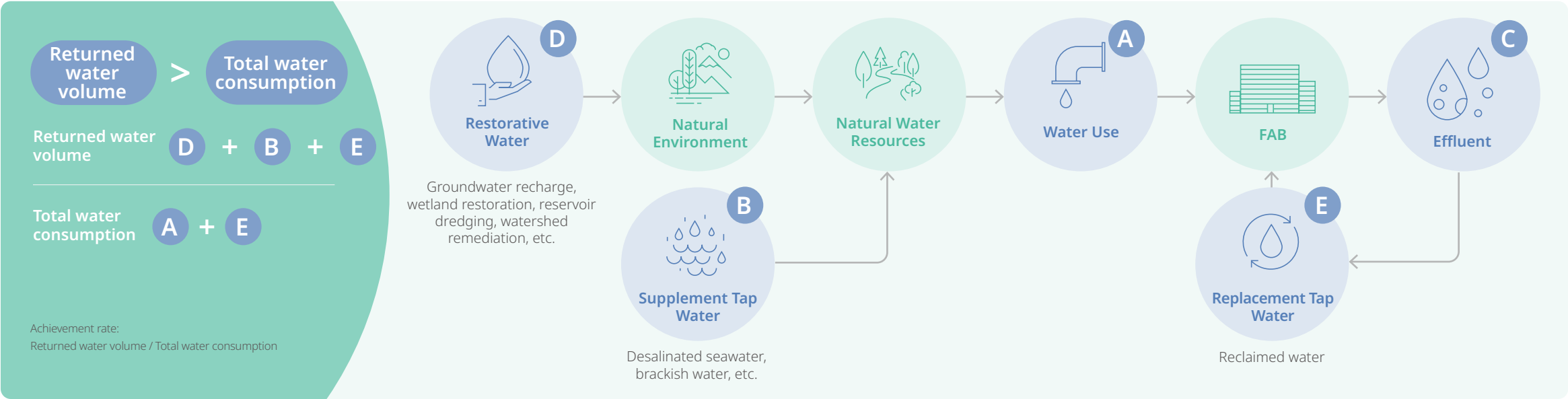
cubic meters of reclaimed water per day to Fab 22 starting in 2026.

For reclaimed water that cannot be directly supplied to fabs due to distance or volume constraints, TSMC pursued innovative collaboration models. In 2025, through coordination by the Tainan City Government Water Resources Bureau, TSMC partnered with industrial users near the Rende Reclaimed Water Plant to establish Taiwan's first cross-regional reclaimed water exchange mechanism based on a carbon trading-inspired concept, with official water supply commencing in September. This tripartite collaboration enhanced the cost efficiency of reclaimed water delivery and regional water resource utilization, while reducing reliance on local natural water resources and creating shared benefits among stakeholders.

Desalinated Seawater and Brackish Water

Beyond reclaimed water, TSMC supports national policies on diversified water resource development. In 2025, the Company signed additional desalinated seawater subscription contracts for 136,000 cubic meters per day. To reinforce a resilient foundation for water supply, TSMC also collaborated with industry, government, and academic partners to explore emerging water sources, including brackish water in tidal river reaches and atmospheric water harvesting technologies, with the aim of converting these sources into industrial-grade water through advanced treatment technologies, further enhancing water supply stability and resilience.

Water Positive Calculation Method



• Restorative Water

In terms of water resource restoration, TSMC not only conducts research on river restoration and water-saving initiatives for agricultural irrigation at its Taiwan fabs, but also actively advances conservation across its global operations. At JASM in Kumamoto, Japan, the Company carried out groundwater recharge programs, achieving a restoration volume of eight million cubic meters in 2025, with continued expansion of the program scope, demonstrating solid progress in sustainable water stewardship.

The Salt River is one of the primary water sources in the watershed where TSMC Arizona operates. To address long-standing seepage and evaporation losses along the upstream Verde River conveyance system, TSMC plans to convert the existing open earthen canal into a closed pipeline system, thus improving regional water use efficiency, restoring flows in the Salt River, and enhancing aquatic habitats. The project was formally contracted at the end of 2025, with completion scheduled for 2026, and is expected to deliver positive outcomes for local ecosystems and biodiversity conservation.

Strengthening In-house Water Reclamation and Water Use Efficiency

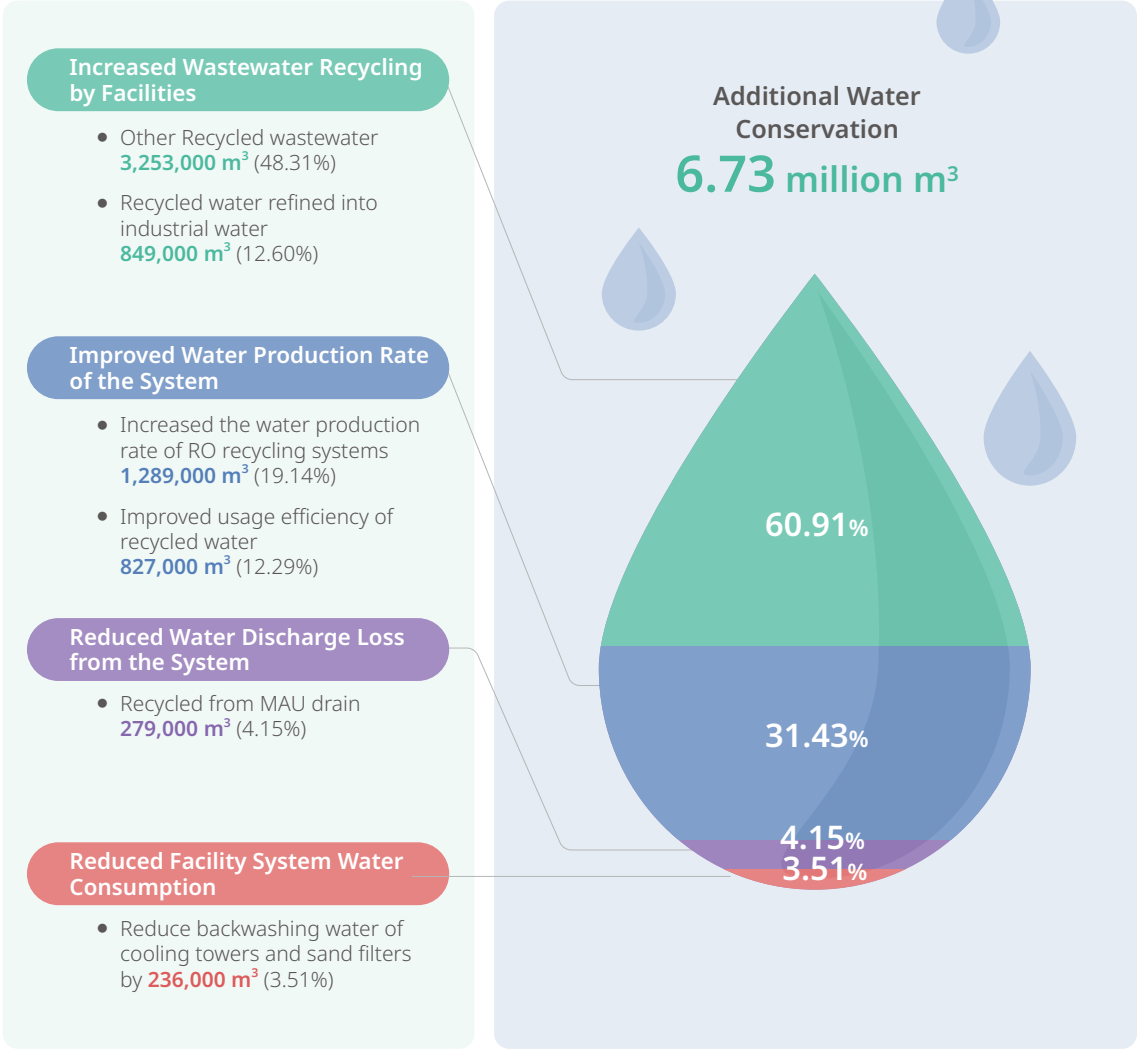
TSMC manages in-fab water usage through its diversified water supply integration platform and implements four water conservation measures: Decreasing Water Discharge Loss from the System, Reducing Facility System Water Consumption, Increasing Wastewater Recycling by Facilities, and Improving Water Production Rate of the System. In

2025, newly achieved water savings reached 6.73 million cubic meters, while total reclaimed water volume from the overall recovery system stood at 318.94 million cubic meters, representing a 12% increase compared with 2024.

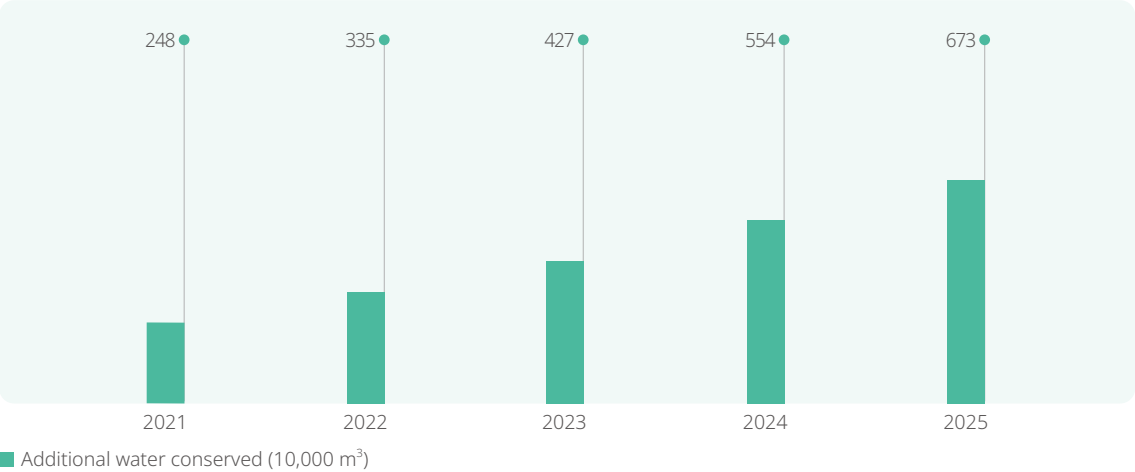
In 2025, TSMC’s unit water consumption was 153.3 liters per 12-inch equivalent wafer mask layer, down 4.8% from 161.0 liters in 2024, but still above the 2010 baseline of 140.9 liters per 12-inch equivalent wafer mask layer. This was primarily driven by strong global wafer demand in recent years and the accelerated expansion of TSMC’s global footprint, with multiple newly built fabs in pre-production qualification stages, including Fab 20 Phases 1 and 2, Fab 22 Phases 1 and 2, TSMC Arizona Fab Phase 1, JASM Fab Phase 1, and Advanced Backend Fab 8. These sites accounted for approximately 20% of total global tap water consumption, thus affecting the reduction trend in unit water consumption. Excluding these new fabs, unit water consumption in 2025 would have been 122.3 liters per 12-inch equivalent wafer mask layer, a 13.2% decrease compared with the 2010 baseline, reflecting continued improvements in water efficiency at existing fabs.

As TSMC continues to scale up its operations, the impact of new fab ramp-ups on water consumption per unit of product will remain an ongoing factor. To tackle this challenge, the Company focuses on its global Water Positive achievement rate as the key indicator for guiding and evaluating water resource management performance, furthering its commitment to sustainable water stewardship.

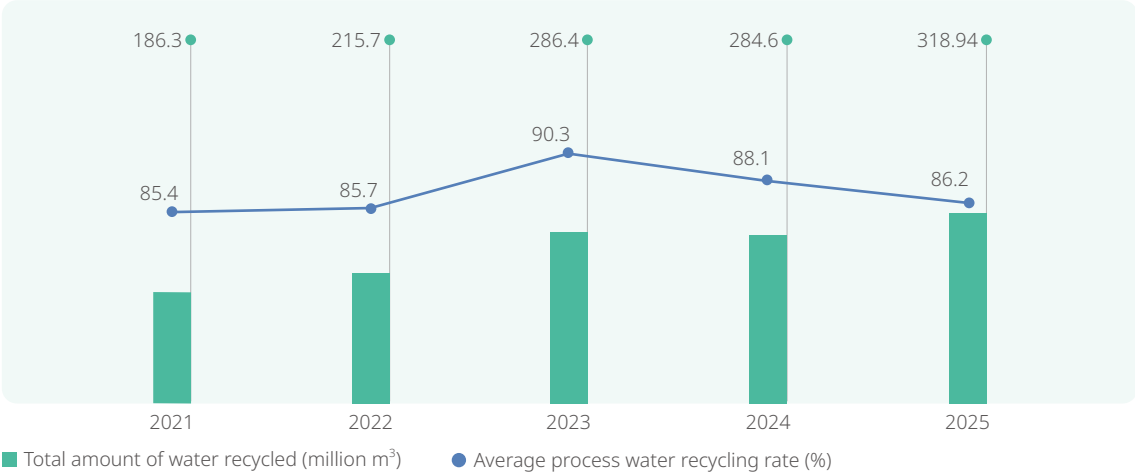
Water-saving Measures and Achievements in 2025



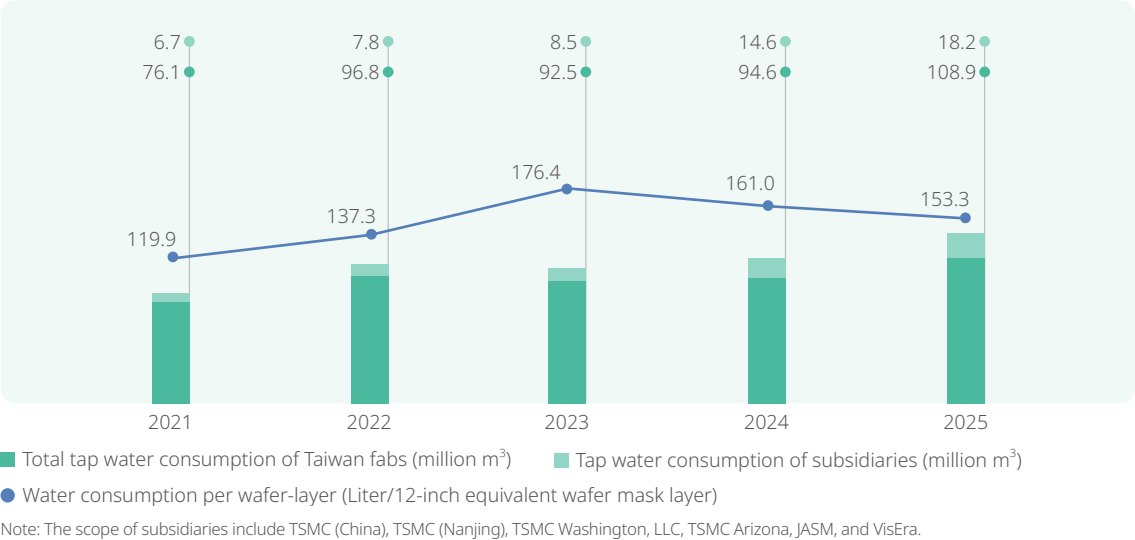
Annual Incremental Water Conservation



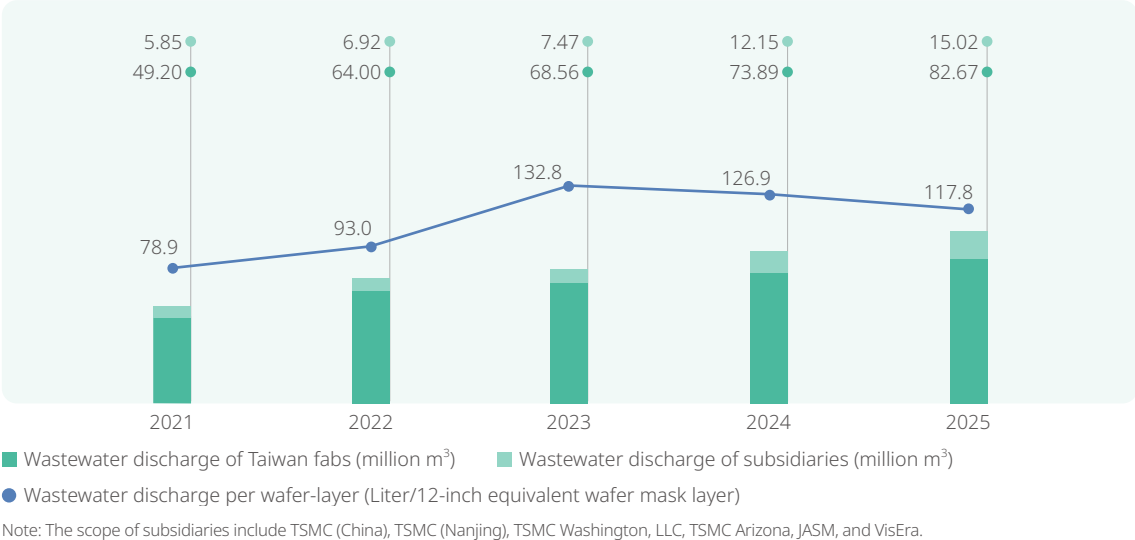
Water Recycling and Process Usage Efficiency



Tap Water Consumption and Water Consumption per Wafer-layer



Wastewater Discharge per Unit



Product Water Footprint

To effectively manage and reduce product water footprint, TSMC conducts a product water footprint assessment every three years, with third-party verification in accordance with ISO 14046. The [2024 assessment results](#) indicate that, due to fab expansion and associated increases in water demand, the share of water footprint attributed to the wafer manufacturing stage increased. In response, TSMC strengthened water-saving measures in manufacturing processes to cut water consumption. At the same time, the Company monitors pollution prevention performance through the water pollution composite indicator reduction rate and actively develops advanced [wastewater treatment technologies](#) to improve pollutant removal

efficiency and reach its environmental sustainability objectives.

Water Resources Education

Guided by the principle of shared prosperity between business and the environment, TSMC leverages environmental education to raise awareness of sustainable water use among both internal and external stakeholders. Externally, TSMC launched its environmental education website in 2025, providing the public with environmental education courses, activities, and outreach information. Among these initiatives, the TSMC S.T.S.P. Reclaimed Water Plant Environmental Education Center offers diversified water resource programs designed for different age groups, using interactive formats to enhance public

awareness and engagement. In 2025, TSMC held a total of 71 events, attracting 2,971 participants and fostering greater public attention to water resource conservation.

Internally, TSMC continues to reinforce employees' water resource awareness. In addition to ongoing "Understanding Reclaimed Water Plant Tours," the Company launched two online courses in 2025, "Water Stewardship" and "TSMC Environmental Education: A Comprehensive Analysis of Water Stewardship." These courses provide knowledge on water resources and the Company's strategies, while encouraging employees to practice water conservation in daily operations. As of December, 1,550 employees completed both on-site activities and online courses.



Case Study

Innovative Application of Reclaimed Water Cuts Chemical Usage by 20%

In 2024, TSMC successfully introduced reclaimed water into advanced manufacturing processes. Compared with tap water, reclaimed water contains significantly lower levels of total organic carbon (TOC) and conductivity, as well as sodium bromide originating from the treatment process. In 2025, TSMC further leveraged these characteristics by conducting precise analysis and adjustment of operating parameters of the ultrapure water system. As a result, consumption of chemicals including hydrochloric acid, sodium hydroxide, and sodium bromide in processes such as urea treatment, activated carbon, and ion exchange resin units was reduced by more than 20%. In addition, reduced TOC and turbidity extended the replacement cycle of activated carbon consumables by 30%, leading to additional cost and resource savings. This innovation demonstrates multiple benefits in process optimization, resource conservation, and environmental performance, underscoring TSMC's commitment to sustainable water stewardship.



TSMC uses reclaimed water to reduce energy and resource consumption.



TSMC promotes water resource education programs.



Innovative Water Pollution Prevention Technology

TSMC continues to advance pollution prevention technologies through the development of [an Ammonia Nitrogen Wastewater Diversion and Processing Inspection System](#) [↗](#), which reduces effluent conductivity by 40% and chemical usage by 30%. In 2025, the system was implemented at Fab 20 Phase 1, and was then validated at Fab 20 Phase 2 and Fab 22 Phase 1, demonstrating its scalability. The system is being adopted as a standard design for new fabs and further extended to existing facilities. In addition, for PFASs-containing process wastewater, TSMC introduced drinking-water-grade bituminous coal granular activated carbon (GAC)

adsorption and filtration technology, achieving an average removal efficiency of 95%. The system was fully deployed at all existing fabs in 2025 and incorporated as the standard wastewater treatment design for new fabs, further enhancing overall treatment performance.

TSMC (Nanjing) completed a “Wastewater Phosphorus Reduction Project” in 2025 to comply with stringent local total phosphorus discharge regulations (3 ppm). Through optimization of the defluorination system, adoption of phosphorus-free corrosion inhibitors in cooling towers, and tighter control of phosphorus-containing chemicals, the site

reduced total phosphorus discharge by more than 45%. The phosphorus-free cooling tower corrosion inhibitor not only addresses local discharge requirements but also demonstrates potential for company-wide application, demonstrating TSMC’s green technology innovation capability.

Wastewater Classification and Resource System

TSMC establishes 39 wastewater diversion systems for recycling and reuse based on process wastewater composition and concentration characteristics. For wastewater that cannot be reclaimed, the Company

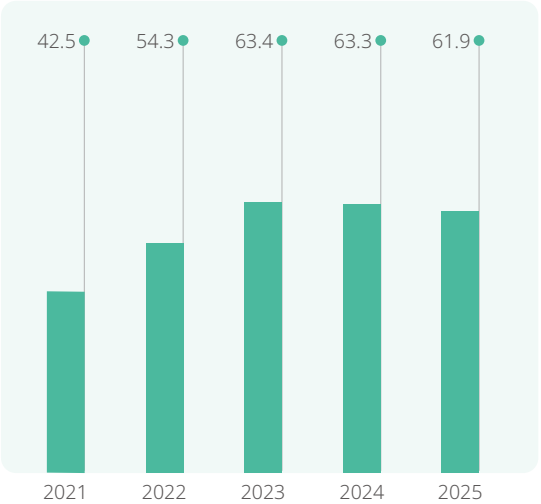
applies membrane bioreactor systems, hypochlorous acid (HOCl) conversion systems, and high-gravity rotating beds before discharging treated effluent to science park wastewater treatment facilities. In 2025, the global Water Pollution Composite Indicator reduction rate reached 61.9%, exceeding the annual target of 60%. To ensure stable system operation and achieve zero failure in pollution control, wastewater treatment systems are equipped with redundancy and early warning mechanisms, enabling continuous operation in the event of system malfunctions. No abnormal wastewater discharge incidents occurred in 2025.

TSMC continuously enhances wastewater resource management.

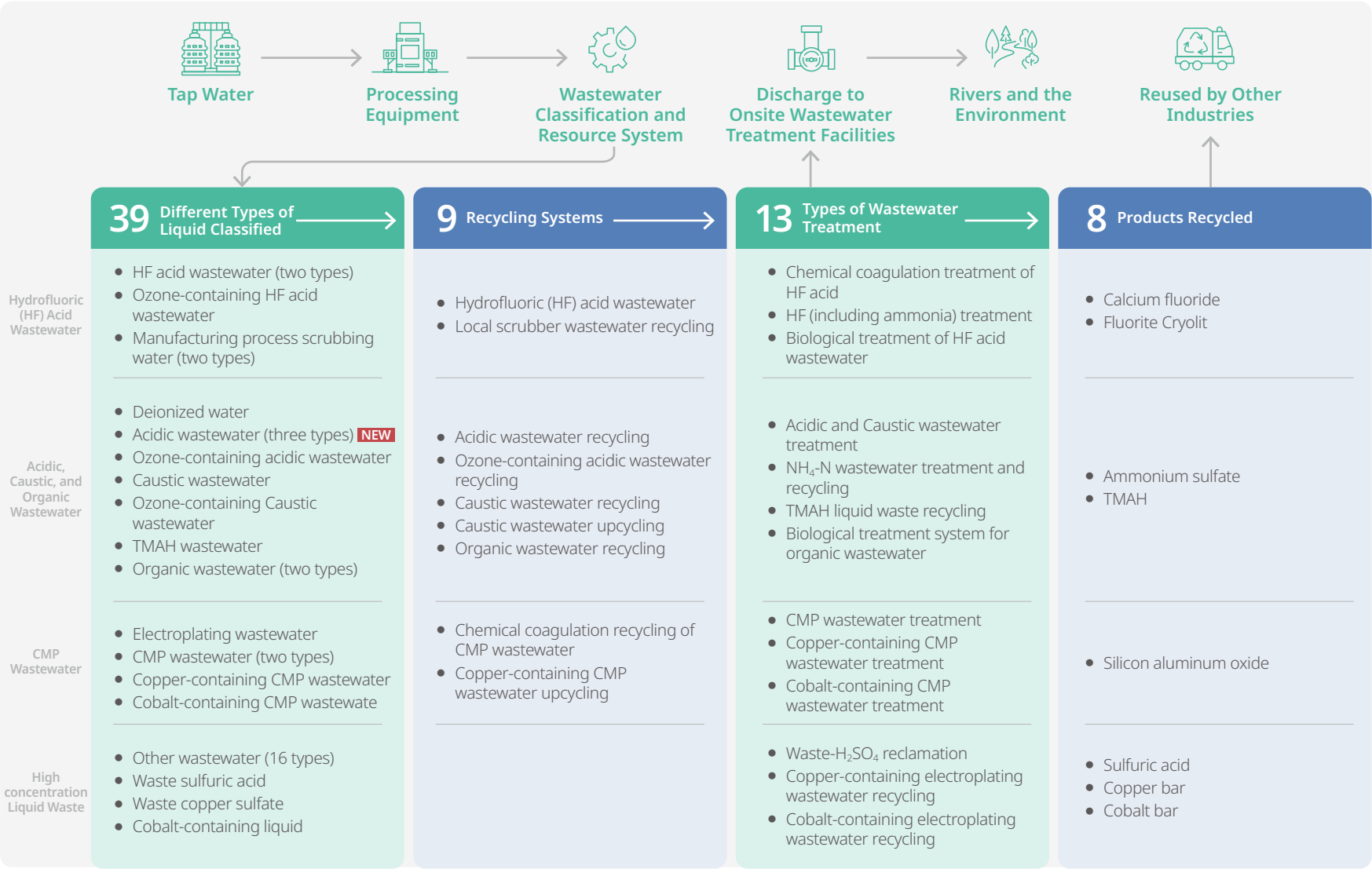


In anticipation of Taiwan's total phosphorus effluent discharge standards taking effect in 2027, TSMC acted ahead of schedule by officially incorporating total phosphorus into its Water Pollution Composite Indicator management framework in 2025. The Company segregates and recovers phosphoric acid-containing wastewater at the source, then concentrates it using evaporation technology and transfers it to qualified recyclers for conversion into secondary industrial-grade phosphoric acid. This approach not only effectively manages total phosphorus levels in wastewater but also advances circular economy principles.

Water Pollution Composite Indicator Reduction Rates



Wastewater Classification and Resource System



Circular Resources

Strategies	2030 Goals	2026 Targets	2025 Achievements
Sustainable Resource Management Note 1 Continuously promote waste segregation and source reduction, require suppliers to provide low-chemical consumption tools. The Company also engaged in developing innovative resource recovery technologies, actively promote the reuse of recycled electronic-grade chemicals to enhance resource utilization	🔄 In-house recovery rate Note 2 $\geq 70\%$ 🌐 100% Waste recovery rate Note 3	In-house recovery rate $\geq 35\%$ 98% Waste recovery rate	Outsourced waste Note 4 amount per wafer production in Taiwan Note 5 : ≤ 1.08 (kg/12-inch equivalent wafer mask layer) Target: ≤ 1.11 ↑ Outsourced waste amount per wafer production in overseas subsidiaries: ≤ 1.17 (kg/12-inch equivalent wafer mask layer) Target: ≤ 1.36 ↑ In-house recovery rate in Taiwan 33% Target: $\geq 33\%$ ✓ Promoted four “incineration-to-recovery” projects Target: three projects ↑ Waste recovery rate 98% Target: 97% ↑
Strengthen Audit and Guidance Enhance contractor capabilities in self-management and resource recycling through audit, guidance, and tracking with applied technologies	🔄 All waste contractors shall acquire ISO 14001 or other international EHS Management certification Note 6 🔄 All waste contractors shall finish building the System of Waste Intelligent Fast Track (S.W.I.F.T.) Note 7 🔄 Increase the percentage of “Excellent” and “Good” waste contractor evaluation results to 90% Note 8	92% of waste contractors shall acquire ISO 14001 or other international EHS Management certifications 60% of waste contractors shall finish building the System of Waste Intelligent Fast Track (S.W.I.F.T.) Increase the percentage of “Excellent” and “Good” waste contractor evaluation results to 90%	92% of waste contractors shall acquire ISO 14001 or other international EHS Management certifications Target: 90% ↑ 56% of waste contractors shall finish building the System of Waste Intelligent Fast Track (S.W.I.F.T.) Target: 48% ↑ Increased the percentage of “Excellent” and “Good” waste contractor evaluation results to 91% Target: 90% ↑

🌐 Applicable to all TSMC fabs around the world

🌐 Applicable to TSMC fabs in Taiwan and other specific fabs

🔄 Only applicable to TSMC fabs in Taiwan

🌐 Applicable to TSMC overseas fabs

↑ Exceeded

✓ Achieved

— Missed Target

Note 1: As capacity changes and global expansion have made emission intensity per unit of production a less effective measure of management performance in recent years, TSMC has replaced the original "outsourced waste amount per wafer production" metric with "in-house recovery rate." The Company has also continued upgrading waste treatment technologies, actively shifting incinerated waste toward reuse and recovery processes; accordingly, the "waste recovery rate" replaces the previous target of "reducing CO₂ emissions from waste incineration to 2020 levels."

Note 2: In-house recovery involves on-site recycling and reuse, on-site recycling into products, the Zero Waste Manufacturing Center, electronic-grade chemical recycling, and chemical leasing.

Note 3: Due to technical and material limitations in waste recovery, the long-term target of 100% waste recovery has been adjusted to 99.5%.

Note 4: Outsourced waste refers to waste processed through methods other than in-house recovery.

Note 5: The data includes TSMC fabs in Taiwan and VisEra.

Note 6: Waste treatment contractors include waste disposal and recovery contractors, government-owned enterprises, public-private enterprises, enterprises operating under the Act for Promotion of Private Participation in Infrastructure Projects, wholesale and retail enterprises, contractors handling waste exempted from itemized online reporting, and those who handle waste wood, waste lubricants, waste cooking oil, and food waste

are not included in this scope.

Note 7: Waste treatment contractors include waste disposal and recovery contractors, government-owned enterprises, public-private enterprises, enterprises operating under the Act for Promotion of Private Participation in Infrastructure Projects, wholesale and retail enterprises, contractors handling items exempted from itemized online reporting, entities operating in the Zero-Waste Manufacturing Center, and contractors handling waste wood, waste lubricant, waste cooking oil, and food waste are not included in this scope.

Note 8: The evaluation does not include wholesale and retail enterprises, contractors handling waste exempted from itemized online reporting, entities operating in the Zero-Waste Manufacturing Center, and contractors handling waste wood, waste lubricants, waste cooking oil, and food waste.

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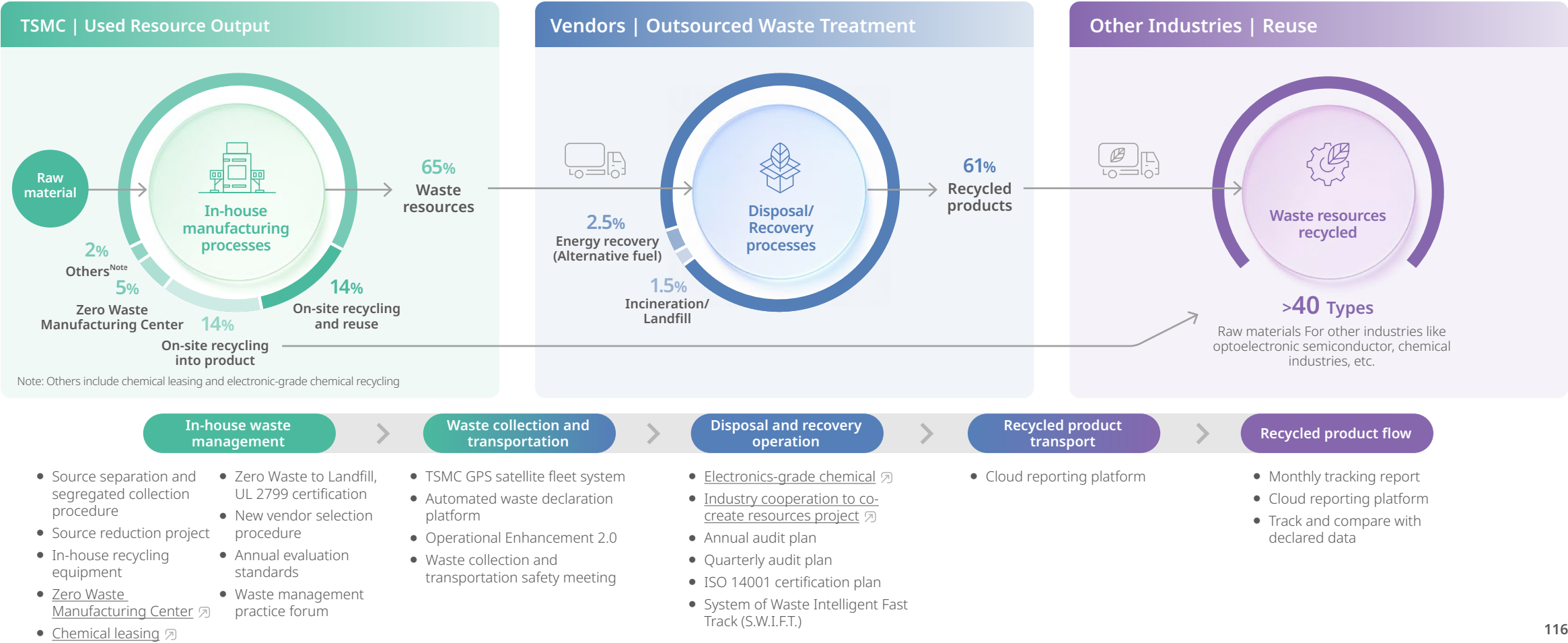
TSMC drives resource circulation through two strategies: Sustainable Resource Management and Audit & Guidance. By deepening waste segregation, source reduction, and recovery technologies, the Company realizes the dual value of waste resource integration and circular utilization. In 2025, TSMC integrated its source reduction and circular economy strategies into sustainable resource management. At the same time, the Company prevents illegal disposal

and environmental pollution risks through audits and guidance. These efforts aim to “minimize waste, maximize recycling, and optimize management.” In 2025, TSMC’s global waste recovery rate reached 98%, and its Taiwan fabs maintained a landfill rate below 1% for 16 consecutive years. TSMC also sustained [UL 2799 platinum certification at its Taiwan fabs](#) and extended these practices to overseas sites, thereby enabling TSMC (Nanjing) and TSMC (China) achieve UL

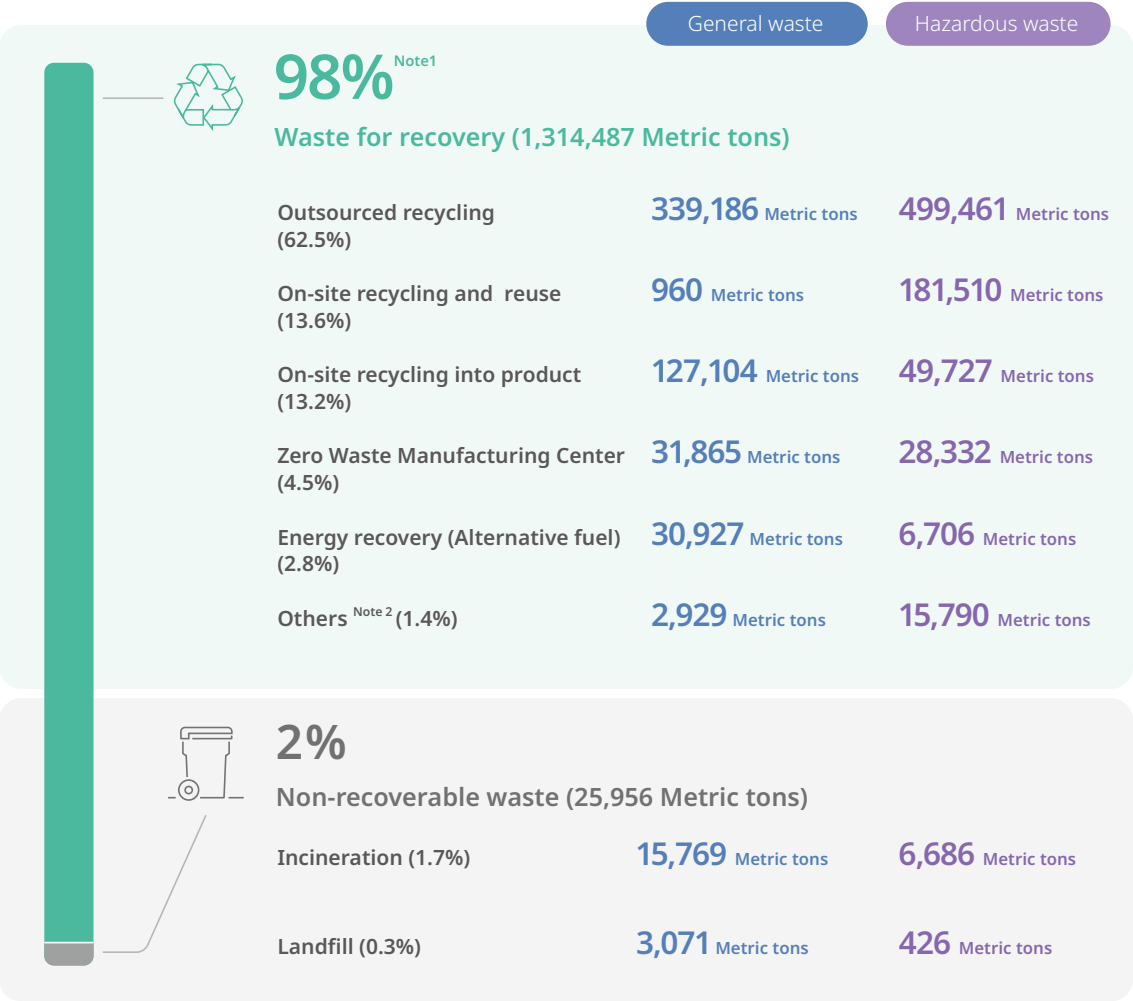
2799 platinum certification, all of which demonstrates its commitment to the Company’s [Environmental Policy](#). In addition, TSMC actively builds a green circular resource system by collaborating with suppliers to [convert isopropanol \(IPA\) waste into electronic-grade products](#), which were successfully adopted at its wafer fabs in 2025. Under the incineration-to- recovery

program, approximately 850 metric tons of aluminum-plastic packaging waste were diverted from incineration. The Company also works with suppliers on anaerobic digestion trials of organic sludge to produce biogas, shifting sludge treatment from incineration to recovery. Through these diversified sustainable resource management initiatives, TSMC fosters greater environmental friendliness.

TSMC Waste Life Cycle Management Procedure



2025 Total waste production **1,340,449 Metric tons**



Note 1: The data includes TSMC fabs in Taiwan, TSMC China, TSMC Nanjing, TSMC Arizona, TSMC Washington, LLC, JASM, and VisEra
 Note 2: Includes 18,719 metric tons of electronic-grade chemicals

Outsourced Waste

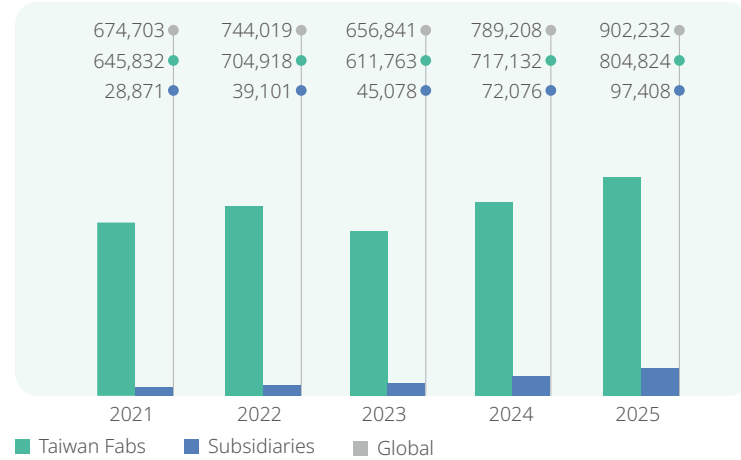
Unit: Metric tons/year





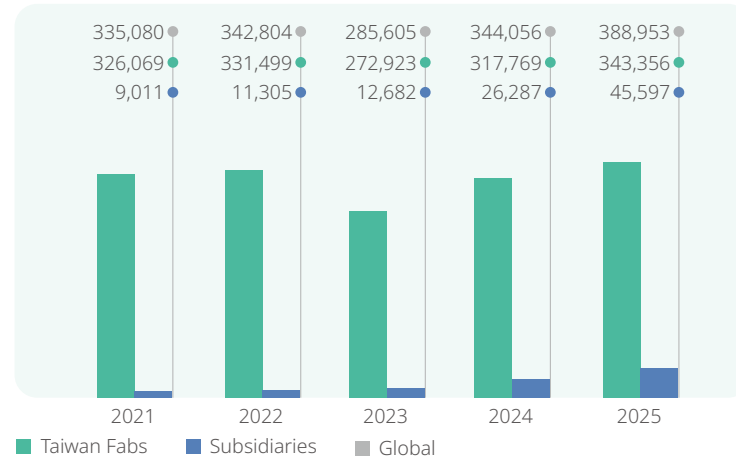
Outsourced Waste

Unit: Metric tons/year



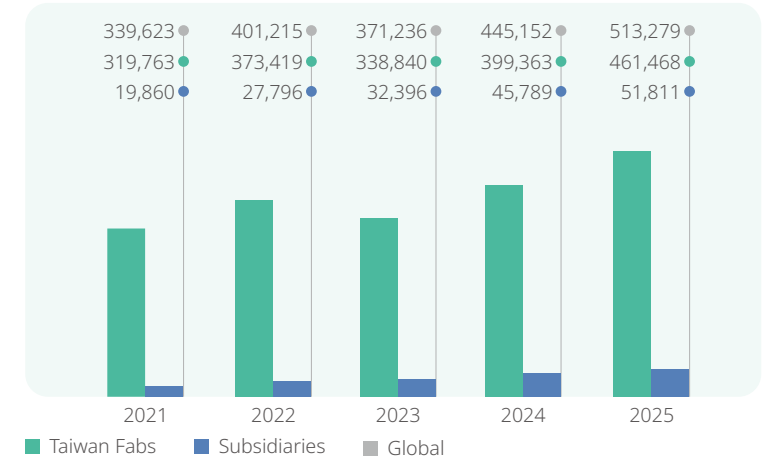
Outsourced General Waste

Unit: Metric tons/year



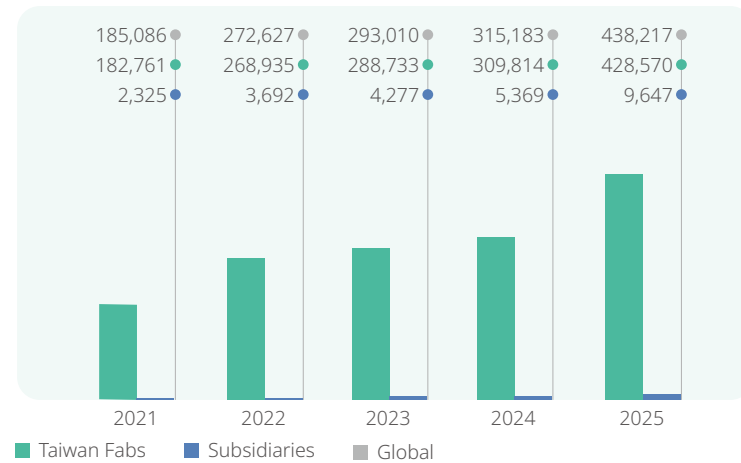
Outsourced Hazardous Waste

Unit: Metric tons/year



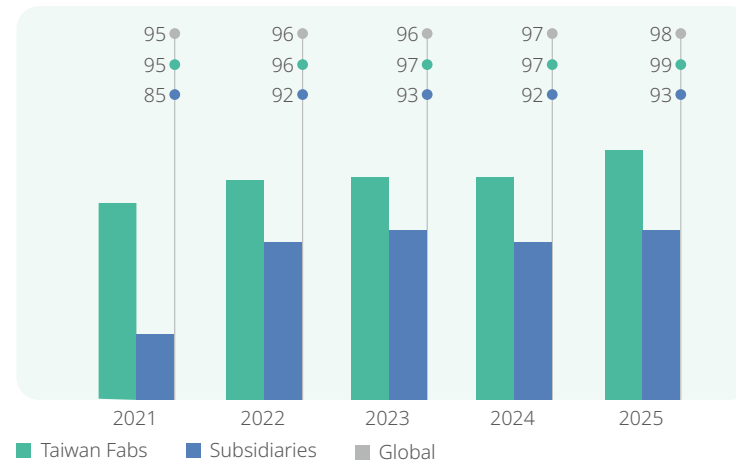
In-house Recovered Waste^{Note}

Unit: Metric tons/year



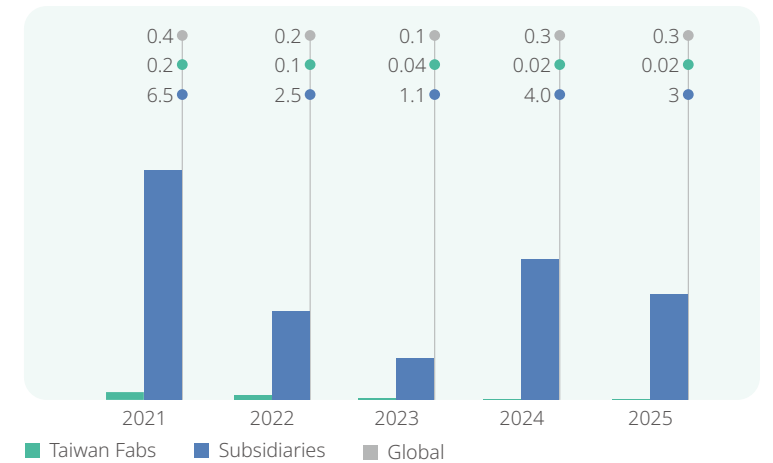
Waste Recovery Rate

Unit: %



Percentage of Waste Sent to Landfills

Unit: %



Note: In-house recovery includes on-site recycling and reuse, on-site recycling into product, the Zero Waste Manufacturing Center, electronic-grade chemical recycling, and chemical leasing.

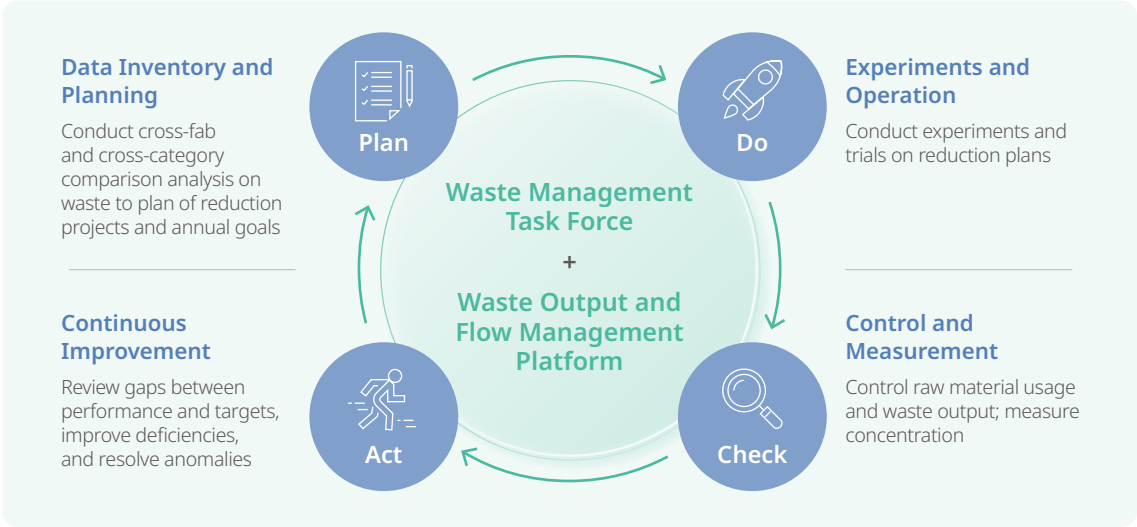
Sustainable Resource Management

To minimize waste generation, TSMC reduces waste at the process source and optimizes raw material usage. The Company established the Waste Management Task Force at Taiwan fabs to integrate process, facilities, and circular resource management units. Using a Plan–Do–Check–Act (PDCA) approach, the group sets annual waste reduction plans. Measures include adjusting tool parameters, optimizing process technologies, and extending material lifecycles to lower raw material consumption. On-site recycling is prioritized for materials after use. Waste generation is monitored through the Waste Output and Flow Management Platform, with regular progress

and performance tracking. In 2025, TSMC drove 198 waste reduction projects on production tools, estimated to reduce approximately 26,278 metric tons of waste.

Isopropanol (IPA), widely used in process cleaning due to its rapid evaporation and high solubility, is one of the main sources of waste liquid. In 2025, TSMC Arizona addressed abnormal pH levels in IPA waste by coordinating with Taiwan fabs to adjust tool drainage methods, successfully restoring pH to the normal range. Fab 18A and TSMC Arizona are estimated to reduce waste liquid by approximately 200 metric tons per month.

TSMC Waste Reduction Management Mechanism



Taiwan Fab Waste Reduction Measures and Results, 2025



TSMC aims to maximize resource reuse. Through the “Action Plans to Turn Waste into High-Value Products”, the Company converts sulfuric acid, copper sulfate, cobalt sulfate, ammonium sulfate, hydrofluoric acid, and silicon-containing waste liquids into products for use on-site, or for other industries. In 2025, Taiwan fabs recycled and reused 172,800 metric tons of waste on site and recycled 176,800 metric tons of waste into products, delivering approximately NT\$2.39 billion in economic benefits . At the same time, TSMC adopted the Waste Sulfuric Acid Reclaim System 2.0 , developing new catalysts and using high-temperature, corrosion-resistant glass-lined reactors to enhance recovery efficiency and extend equipment durability. Following one year of operational validation, the system became standard design for all new fabs starting in 2025, further increasing the value of recycled materials.

Regarding the “Electronic-Grade Chemicals Recycling Project”, TSMC collaborated with suppliers in January 2025 to develop a dual-cycle recycling

mechanism for Isopropanol (IPA) waste . The Company optimized distillation column process parameters and enhanced impurity separation, reclaiming electronic-grade isopropanol for on-site reuse. Secondary wastewater was purified and repurposed in cooling towers, establishing a cradle-to-cradle green recycling system. In the Chemical Leasing program, TSMC completed a demonstration project in 2024 that applied regenerated activated carbon in acidic wastewater recycling systems. In 2025, the Company expanded the scope to include copper-containing chemical mechanical polishing (CMP) wastewater. The project received approval from the Ministry of Environment and is scheduled for adoption in 2026. At the Taichung Zero Waste Manufacturing Center, TSMC recovered 60,197 metric tons of fluorine-containing sludge, silicon-containing sludge, isopropanol waste, and organic solvent waste, producing approximately 12,800 metric tons of reusable materials and 78,800

metric tons of steam. The Tainan Zero Waste Manufacturing Center is planned and under construction to further expand recovery capacity.

TSMC also worked with suppliers to drive the Outsourced Waste Resource Recovery Program. In 2025, the Taiwan fabs converted organic sludge into biogas through anaerobic digestion to generate green electricity and processed waste resin into feedstock for steel production. Overseas fabs successfully commissioned four new recovery technologies . To expand the impact of resource circulation, TSMC launched the Global Resource Circulation Expansion Project in 2025, bringing together waste management teams from all fabs to share recovery technologies and explore additional circular opportunities.

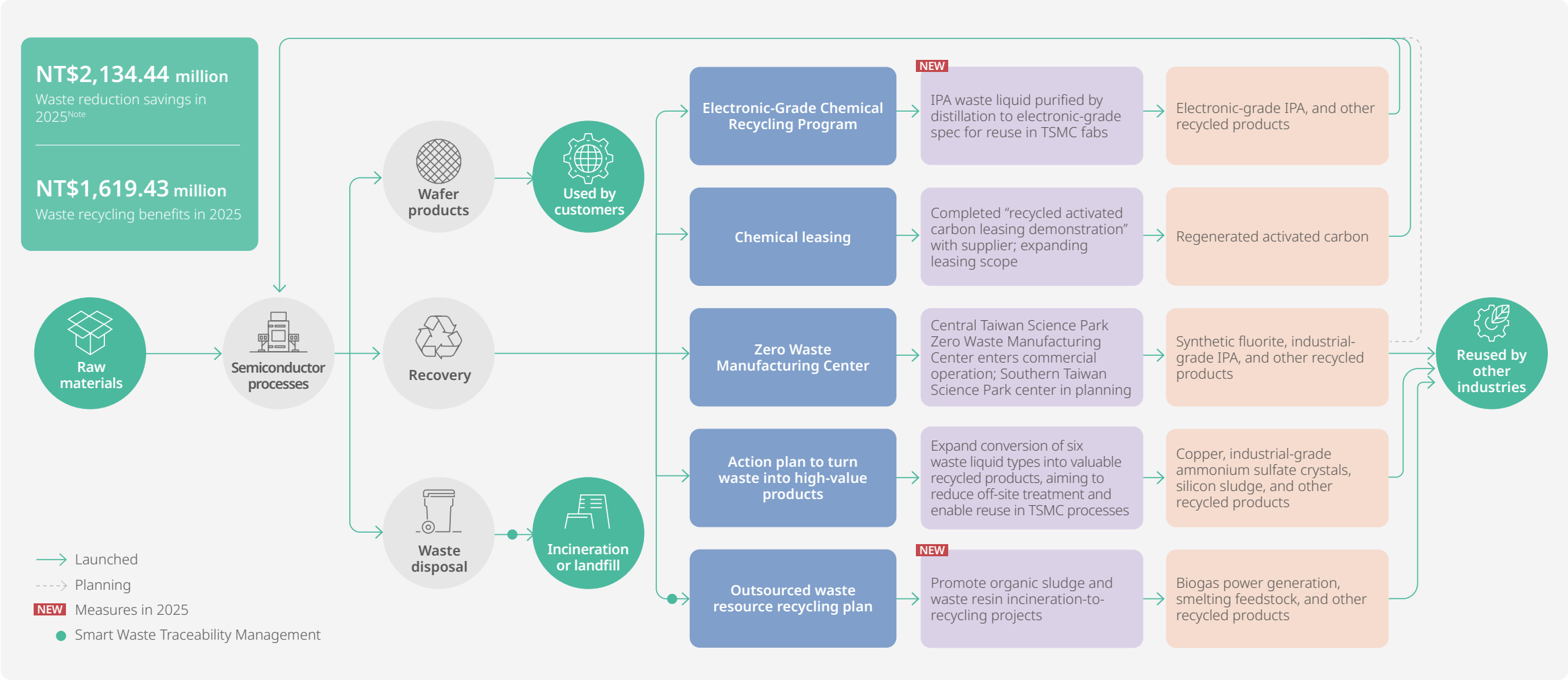
To strengthen employees’ knowledge of circular resource management, TSMC organized online courses covering waste classification principles,

relevant waste regulations, and international ESH certifications such as ISO 14001. In 2025, the Company held 52 sessions with approximately 27,200 participants. In August, TSMC launched the Waste Output and Flow Management Platform, presenting material life cycles and waste reuse in an interactive fashion, and ran a prize quiz featuring limited-edition business card holders made from 100% recycled wafer cassettes to encourage employees to propose ideas for circular innovation. In November 2025, TSMC hosted a Circular Economy Forum, inviting experts from industry, government, and academia to discuss Taiwan and global trends in resource circulation, business models, TSMC strategies and challenges, and Zero Waste Manufacturing Center technologies. The event drew 327 employees, fostering in-depth exchange and advancing circular economy practices, demonstrating the Company’s innovation and commitment to sustainable operations.

TSMC aims to maximize resource reuse.



Sustainable Resource Management Implementation Plan



Note: Figures represent cost savings on outsourced waste treatment achieved through estimated waste reduction volumes from production tools and in-house waste recovery (on-site reuse and on-site recycling into products for sale).

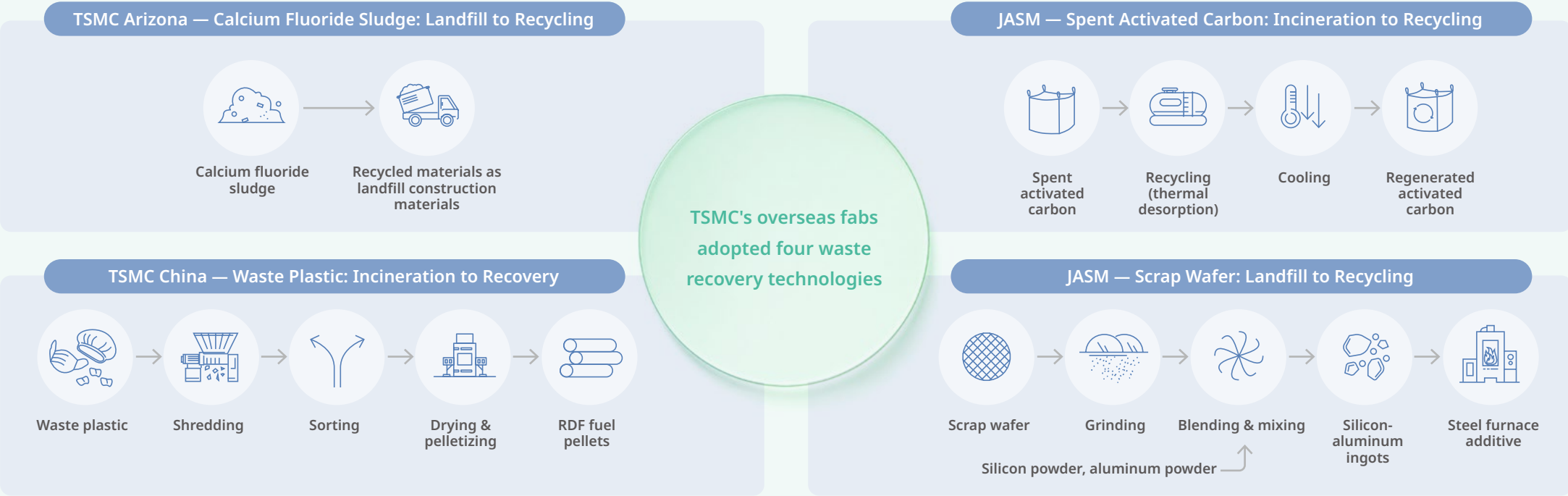
 Case Study

Extending Resource Circulation Globally and Upgrading Recovery Technologies at Overseas Fabs

To support its global expansion, TSMC launched the Global Resource Circulation Expansion Project to share 60 resource reuse practices from Taiwan fabs with overseas sites. In 2025, the Company launched four recovery technologies, including calcium fluoride sludge recycling at TSMC Arizona, conversion of spent activated carbon from incineration to recycling at JASM, scrap wafer diversion from landfill to recycling, and plastic waste conversion from incineration to recovery at TSMC China. These efforts raised the global recovery rate by 0.04%. When TSMC's Taiwan fabs jointly became the first in the

global semiconductor industry to earn UL 2799 certification, the highest platinum rating, in 2023, the Company expanded this approach through Smart Copy. In June 2025, TSMC Nanjing and TSMC China also obtained the same highest platinum rating through joint certification. TSMC plans to strengthen technology sharing and exchange across all global fabs, advancing resource circularity and sustainable recycling while demonstrating its environmental commitment.

TSMC Global Resource Circulation Expansion Project



Strengthen Audit and Guidance

TSMC’s [Supplier Transportation Management White Paper](#) , sets clear requirements for vehicle, driver, and transportation management. The Company strengthened accountability in outsourced waste transport and promoted a culture of transportation safety. Through a dedicated GPS tracking system, TSMC monitors waste transport from end to end to ensure transparent management and prevent illegal dumping. To improve transportation safety, the Company upgraded the “Waste Collection and Transportation Enhancement Project 2.0” in 2025, adding on-site spot tests to reinforce safety awareness in addition to continued quarterly training and online assessments for transport personnel. In 2025, TSMC

conducted 316 spot checks, with a 99% pass rate. Further, TSMC completed annual audits of 65 transport vendors, with 100% coverage for tankers, sludge hauling vehicles, and hazardous waste transport vehicles. The Company addressed 29 deficiencies, including one in operational management, four in personnel training, seven in vehicle and personnel safety, and 17 in transport procedures.

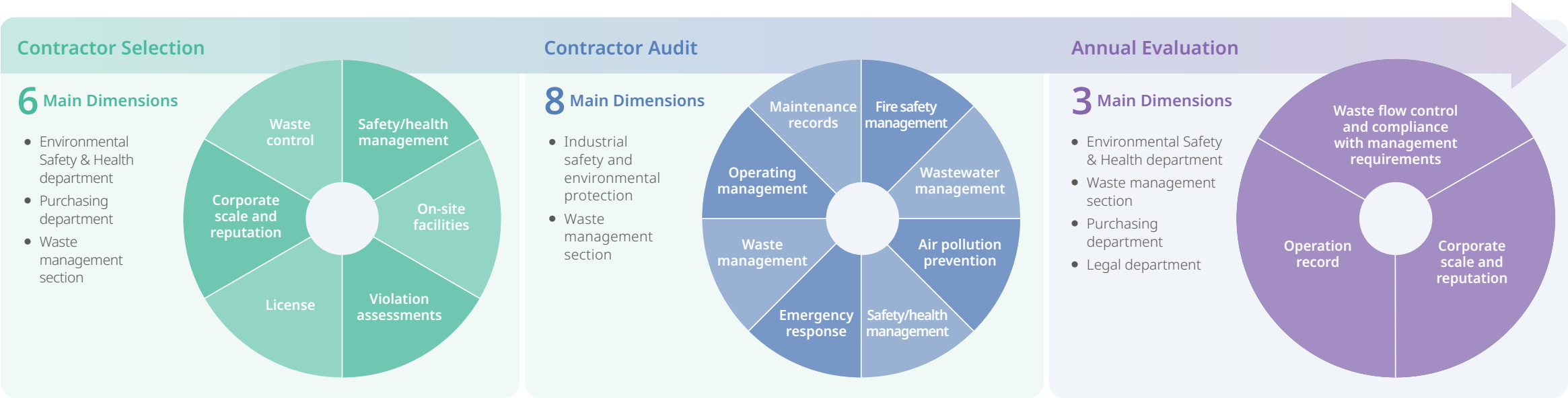
For waste treatment contractors, TSMC launched the Waste Treatment Contractor Sustainability Enhancement Project. The Company first established a new contractor selection system, conducting document reviews and on-site inspections across six dimensions.

For existing contractors, TSMC and third-party auditors carry out annual audits and guidance covering eight dimensions and 156 audit items. Finally, contractor performance is evaluated across three dimensions to inform retention or replacement decisions. In 2025, TSMC completed on-site audits of all 77 contractors, achieving 100% coverage, and resolved 68 identified deficiencies. The share of contractors rated "Good" or above rose from 88% in 2024 to 91%.

TSMC requires waste contractor to obtain ISO 14001 or ISO 45001 certification three years after becoming qualified partners, establishing a foundation for standardized management while completing the

setup of System of Waste Intelligent Fast Track to reinforce waste life cycle management through technological tools. In 2025, the proportion of vendors obtaining international EHS certifications such as ISO 14001 reached 92%, and the proportion of vendors establishing tracking systems reached 56%. The Company also supported contractors’ digital transformation by incorporating electronic facility inspection forms and digital approval workflows into the smart tracking system, replacing paper-based operations, streamlining processes, and enhancing efficiency for shared sustainability goals.

Waste Treatment Vendor Sustainability Enhancement Project



Waste Collection and Transportation Enhancement Project 2.0 to Improve Safety Management



Contractor Selection Before Collection and Transportation

- Establish a standardized vendor qualification and selection process
- Establish personnel and vehicle certification systems to ensure operational proficiency and vehicle compliance



Collection and Transportation Operation Observation

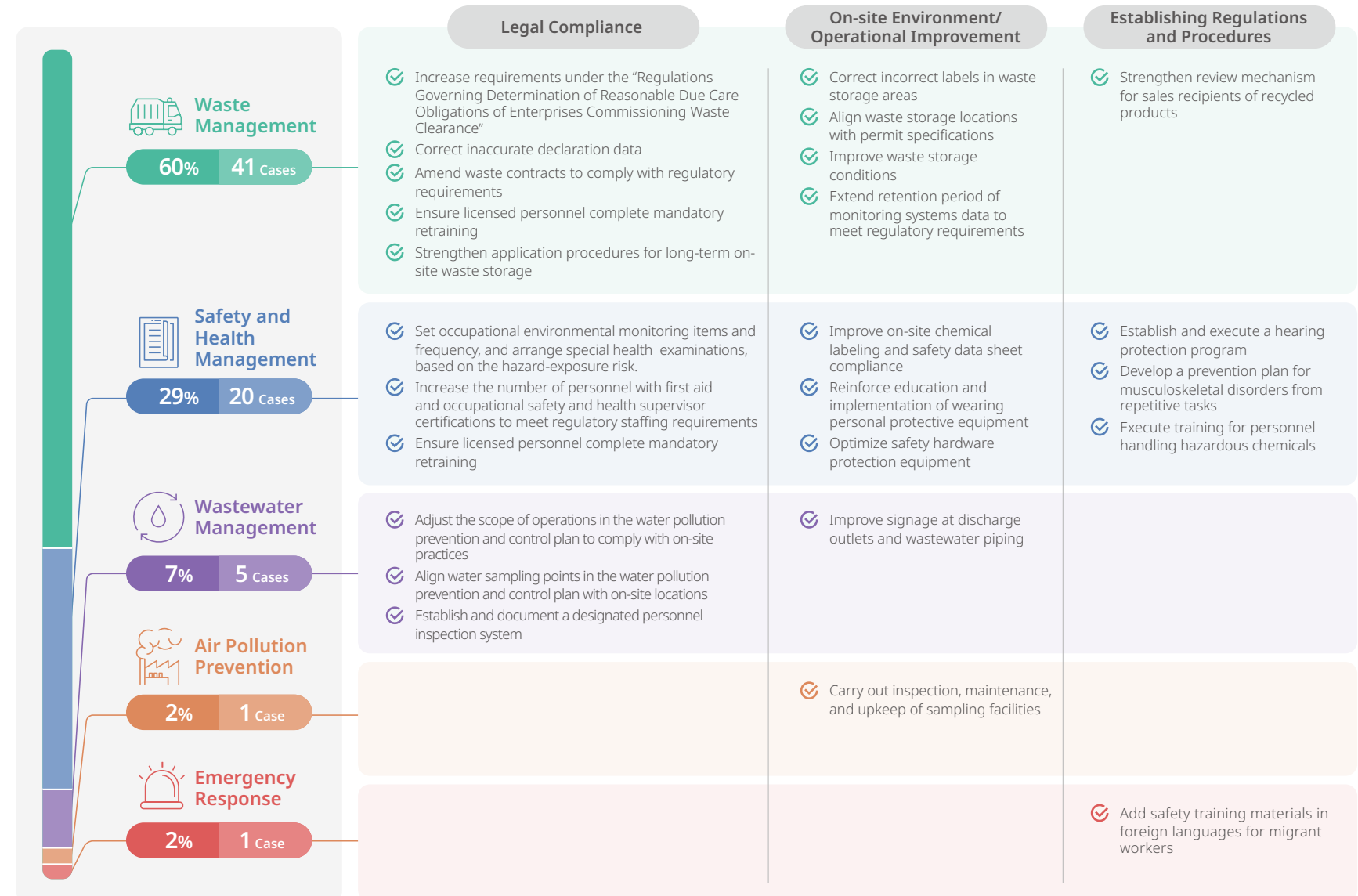
- Audit on-site tanker operations for compliance based on documentation, vehicle specifications, and operational procedures
- Require contractor supervisors to conduct ride-along self-audits to strengthen operational management of the transportation process
- Implement on-site tests for drivers to ensure their familiarity with operational procedures **NEW**



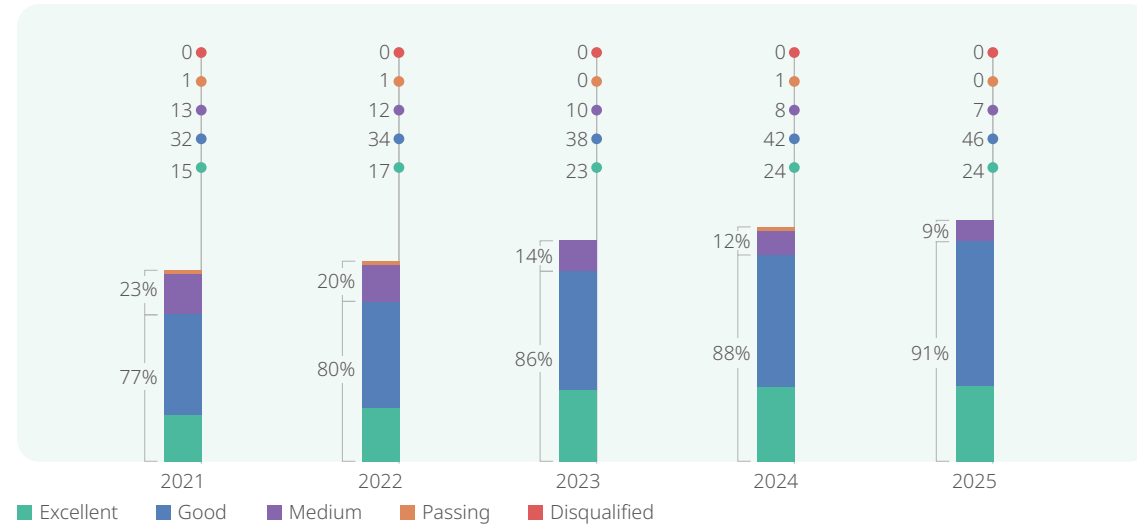
Annual Audit After Collection and transportation

- Conduct annual audits to comprehensively review contractor management and operations
- Strengthen accident case awareness and self-inspection practices through the annual personnel training program and the annual tank truck inspection plan
- Organize waste collection and transportation safety meetings to reinforce safety culture awareness
- Implement quarterly training sessions and online assessments to reinforce familiarity with operational procedures

Waste Treatment Vendor Audit and Guidance Results in 2025

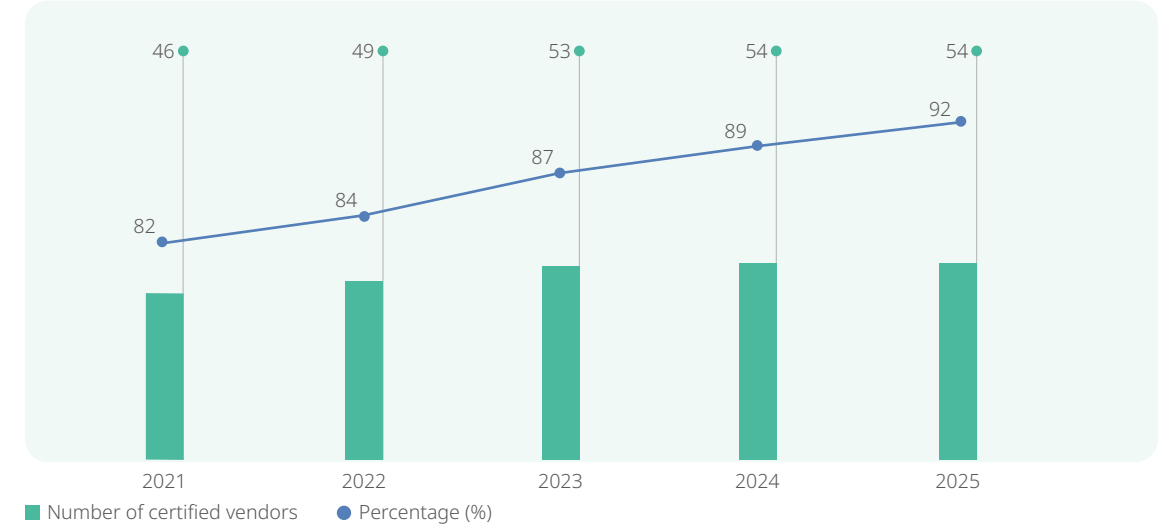


2025 Waste Treatment Vendor Evaluation Results

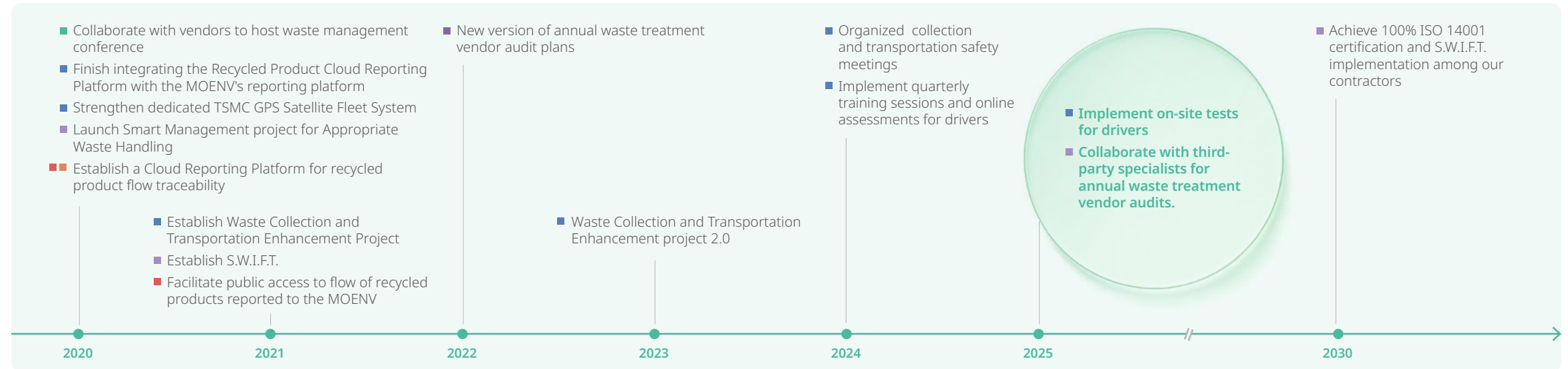


Note: The total score is 100 points; greater than 90 points is rated as "Excellent"; 80-89 points is "Good"; 70-79 points is "Medium"; 60-69 points is "Passing"; vendors with less than 60 points are Disqualified

ISO-certified Waste Treatment Vendors



Waste Treatment Vendor Management Milestones



Air Pollution Control

Strategies	2030 Goals	2026 Targets	2025 Achievements
Adopt Best Available Technology Adopt the Best Available Technology to control pollutants emitted from TSMC operations and minimize environmental impact	 Reduce air pollution composite indicator by >90% ^{Note 1}	Reduce air pollution composite indicator by >85%	Reduced unit air pollutant emissions ^{Note 2} by 58% Target: 58% ✓
	 Reduction rate of volatile organic gases: >99%	Reduction rate of volatile organic gases: >98.7%	Reduction rate of volatile organic gases: 98.9% Target: >98.6% ↑
Strengthen Monitoring for Air Pollution Control Equipment Leverage backup systems and dual-track management, along with pollutant monitors, to ensure that the equipment works as intended and to prevent abnormalities	 Report <1 abnormal occurrence ^{Note 3} in air pollution control equipment	Report <1 abnormal occurrence in air pollution control equipment	Reported 0 abnormal occurrences in air pollution control equipment Target: <1 ✓

 Applicable to all TSMC fabs around the world

 Applicable to TSMC fabs in Taiwan and other specific fabs

 Only applicable to TSMC fabs in Taiwan

 Applicable to TSMC overseas fabs

 Exceeded

 Achieved

 Missed Target

Note 1: To strengthen air quality management and environmental resilience, TSMC adopted the “>90% reduction rate in air pollution composite indicator” target in 2025, replacing the previous target of “65% reduction in unit air pollutant emissions” to more effectively measure pollution control performance. The composite indicator covers eight air pollutants: total hydrocarbons (THC), sulfuric acid (H₂SO₄), hydrochloric acid (HCl), nitric acid (HNO₃), hydrofluoric acid (HF), phosphoric acid (H₃PO₄), chlorine (Cl₂), and ammonia (NH₃). The reduction rate is calculated by taking the emission control concentration for each pollutant in new processes as stipulated by the “Air Pollution Control Act” (including draft amendments) as the baseline, subtracting TSMC’s actual emission concentration, and then dividing by the aforementioned control concentration to obtain the average value.

Note 2: Unit air pollutant emissions are calculated by dividing the air pollutant amount (grams) by the 12-inch wafer equivalent (with 2015 as the base year).

Note 3: Abnormalities in air pollution control equipment indicate abnormal air pollution caused by malfunctioning equipment with no backup that could not be repaired in 24 hours, or equipment that ceased functioning.

TSMC drives air pollution reduction through source segregation and multi-stage treatment technologies, minimizing pollutant emissions. In 2025, the volatile organic compounds (VOC) reduction rate reached 98.9%, reflecting strong environmental management performance. The Environmental Monitoring Center expanded its

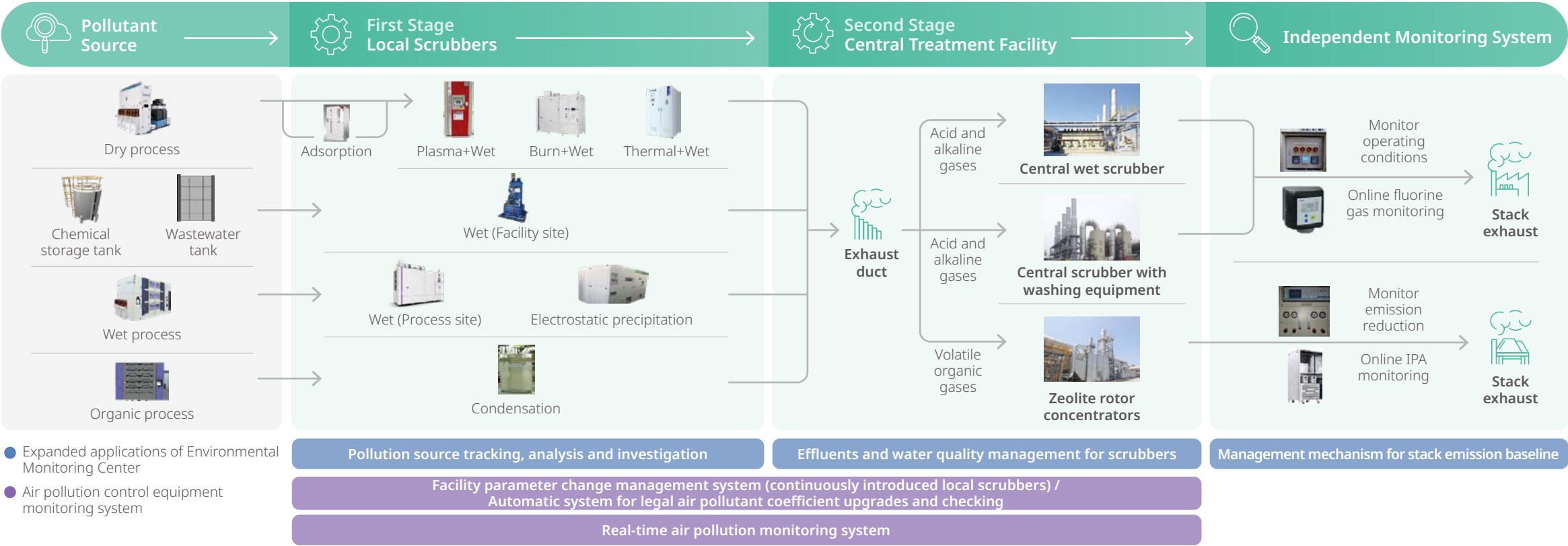
scope of services by adding 11 new testing items and obtained [ISO/IEC 17025 accreditation](#) — the international standard for laboratory competence and quality — enhancing the accuracy and credibility of testing data and supporting environmental sustainability.

Adopt Best Available Technology

Acid and alkaline gases and VOCs are the primary air pollutants generated during semiconductor manufacturing. TSMC addresses these issues through two approaches: segregation and reduction at the exhaust source, and enhanced processing at terminal-end equipment, applying multi-stage treatment systems to achieve best available technology standards. For high-concentration acid and alkaline gases, as well as greenhouse gases with toxic, corrosive, or

flammable properties, first-stage segregation directs exhaust to high-performance local scrubbers for pre-treatment, after which residual trace acid/alkaline gases are conveyed to central scrubbers for second-stage wet scrubbing and neutralization. VOCs are evaluated based on boiling point to determine the need for condensation-type local scrubbers; treated exhaust is then routed to zeolite rotor concentrators for adsorption, effectively cutting emissions.

Air Pollution Control Procedures



Different Types of Local Scrubbers

Process	Semiconductor Fabrication	Target Pollutant	Control Technologies	Equipment	Reduction Rate	Real-time Parameter Monitoring
 Dry process	Epitaxial dry etching	Corrosive gases	Burn-wet		>99%	- Natural gas flow - Oxygen flow - Circulating water flow - Inlet pressure
		Perfluorocarbons	Burn-wet			
	Dry etching	Corrosive gases	Plasma-wet		>95%	- Current amperage - Circulating water flow - Inlet pressure
		Perfluorocarbons				
	Thin film	Flammable gases	Thermal-wet with chemical dosing		>95%	- Reactor temperature - Circulating water flow - pH value - Inlet pressure
		Corrosive gases				
	Diffusion	Perfluorocarbons	Thermal-wet with chemical dosing (Add high-efficiency spray device)		Hydrochloric acids >87% Particulate matters >86%	
		Flammable gases				
 Wet process	Sputtering	Hydrochloric acids	Thermal-wet with chemical dosing (Add high-efficiency spray device)		Hydrochloric acids >87% Particulate matters >86%	
		Particulate matters				
	Ion implantation sputtering epitaxy	Toxic gases	Adsorption		>95%	- Pressure difference of local scrubber - Inlet pressure
 Organic process	Thin film	Nitrous oxide (N ₂ O)	High-temperature thermal+wet		>90%	- Reactor temperature - Circulating water flow - Inlet pressure
		Corrosive gases	Wet + chemical dosage		>95%	- Differential pressure of local scrubber - Circulating water flow - Inlet pressure - pH value
		Organic gases				
 Storage tanks	Wet etching	Alkaline gases PM _{2.5}	Wet electrostatic precipitation		>90%	- Inlet pressure - Corona voltage - Corona current
		High boiling point organics	Condensation		Specific high boiling point organics >95%	- Differential pressure of local scrubber - Condensation temperature
 Storage tanks	PR stripping	Chemical Storage tank	Wet + chemical dosage (Facility site)		>95%	- Differential pressure of local scrubber - pH value - Circulating water flow - Inlet pressure
	Wastewater tanks	Acid and alkaline gases				

Source Reduction and Management - High Efficiency Local Scrubbers

To prevent air pollution risks arising from new processes and chemicals, TSMC operates a two-stage review mechanism through its New Tool and New Chemical Review Committee to ensure comprehensive control and minimize environmental impacts. In 2025, the Committee completed 330 reviews, including 160 new tools and 170 new chemical evaluations. The first-stage review focuses on assessing risks associated with new chemicals and establishing corresponding control measures. The second-stage review evaluates potential environmental impacts of emission testing results to determine the most appropriate exhaust segregation strategy and local scrubbers. Pre-treatment technologies include electrothermal, combustion, plasma, chemical scrubbing, adsorption, condensation, and wet scrubbing systems.

In 2025, TSMC adopted a [nitrous oxide \(N₂O\) reduction technology](#) that passed both the SEMI S2 Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment and the TSMC New Tool and New Chemical Review Committee review in 2024. It was deployed at Fab 12A, Fab 12B, Fab 14A, Fab 14B, Fab 15A, and Fab 15B. The Company plans to complete the retrofit or replacement of electric-heating local scrubbers throughout all existing fabs by 2028, with the aim of further improving abatement efficiency and enhancing overall emission control performance.

Strengthening Management of Terminal Prevention Facilities - Central Scrubbers

Acid and alkaline gases are first treated by local scrubbers and then routed to central scrubbers for wet scrubbing and acid–base neutralization. For wet processes, which generate relatively higher volumes

of acid and alkaline gases, a centralized scrubber system combined with water-wash equipment is applied through a two-stage scrubbing process to enhance pollutant removal efficiency. For VOC treatment, existing fabs continue to execute the “Replacement Program for Inefficient Single Zeolite Rotor Concentrators,” and new fabs adopt dual zeolite rotor concentration systems. In 2025,

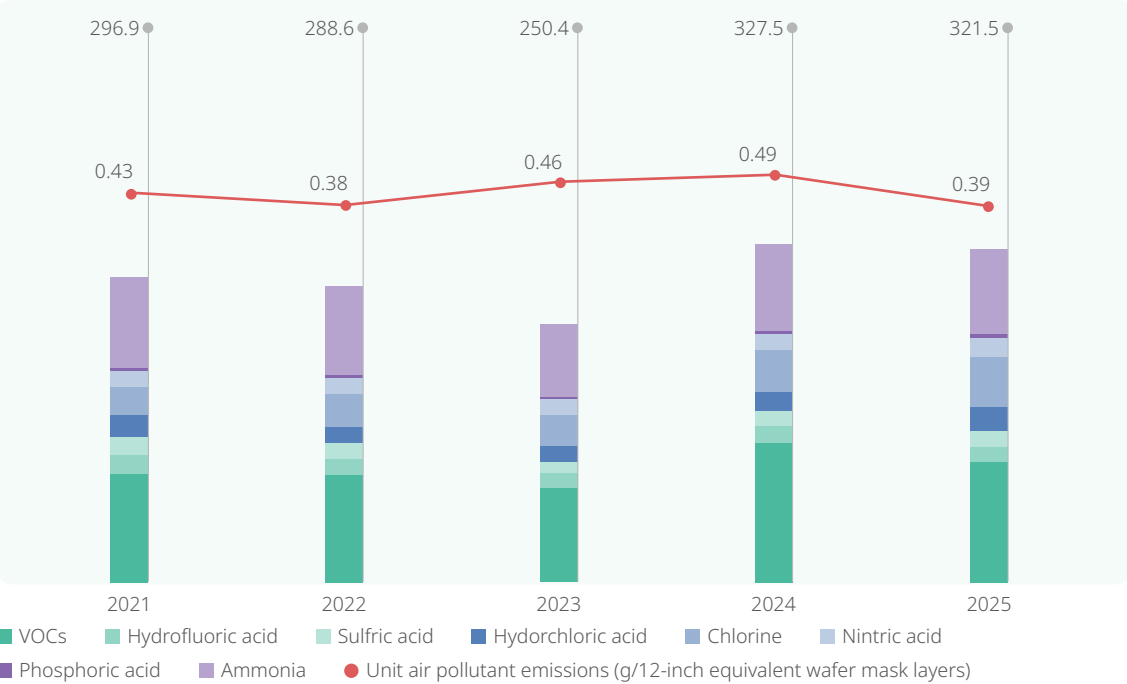
advanced backend fabs further improved VOC removal performance by optimizing zeolite rotor material selection to enhance methanol adsorption capacity.

To address potential secondary nitrogen oxide (NOx) emissions arising from high-temperature combustion of VOC-concentrated exhaust from zeolite rotor

systems, low-NOx burners were deployed at newly built facilities in 2025, including Fab 20 Phase 2, Advanced Backend Fab 7, and Advanced Backend Fab 8. These systems utilize low-oxygen combustion and flow field control technologies to reduce NOx emissions. The VOC reduction rate reached 98.9% in 2025.

Historical Emissions and Emissions Per Unit of Production

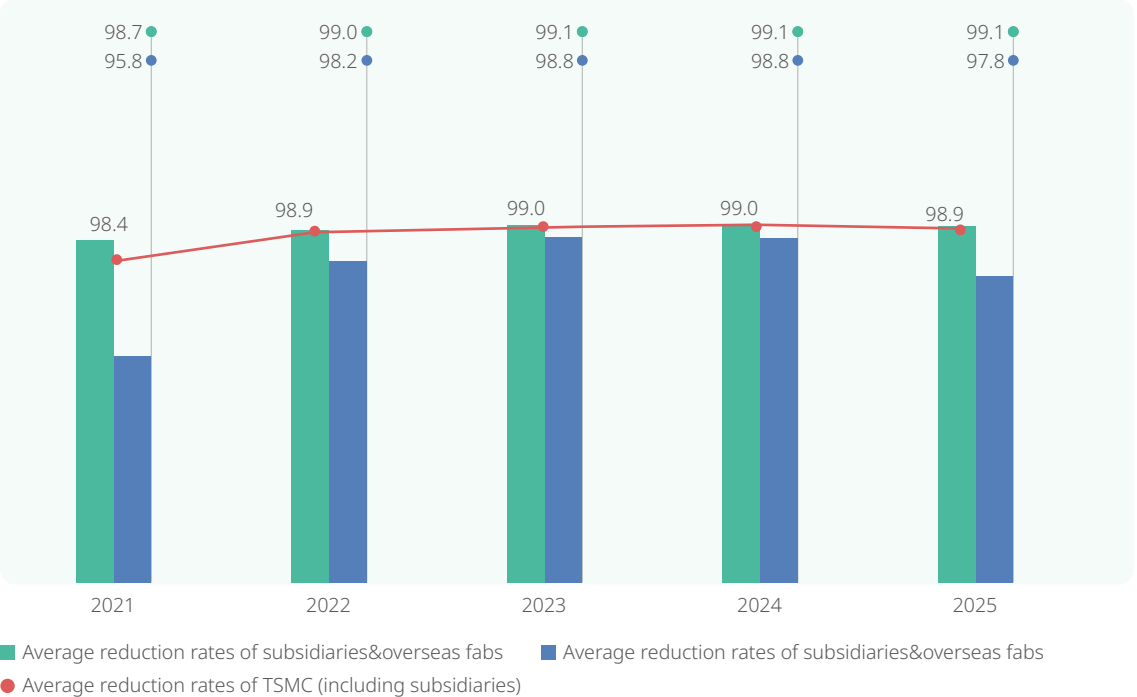
Unit: Tons/year



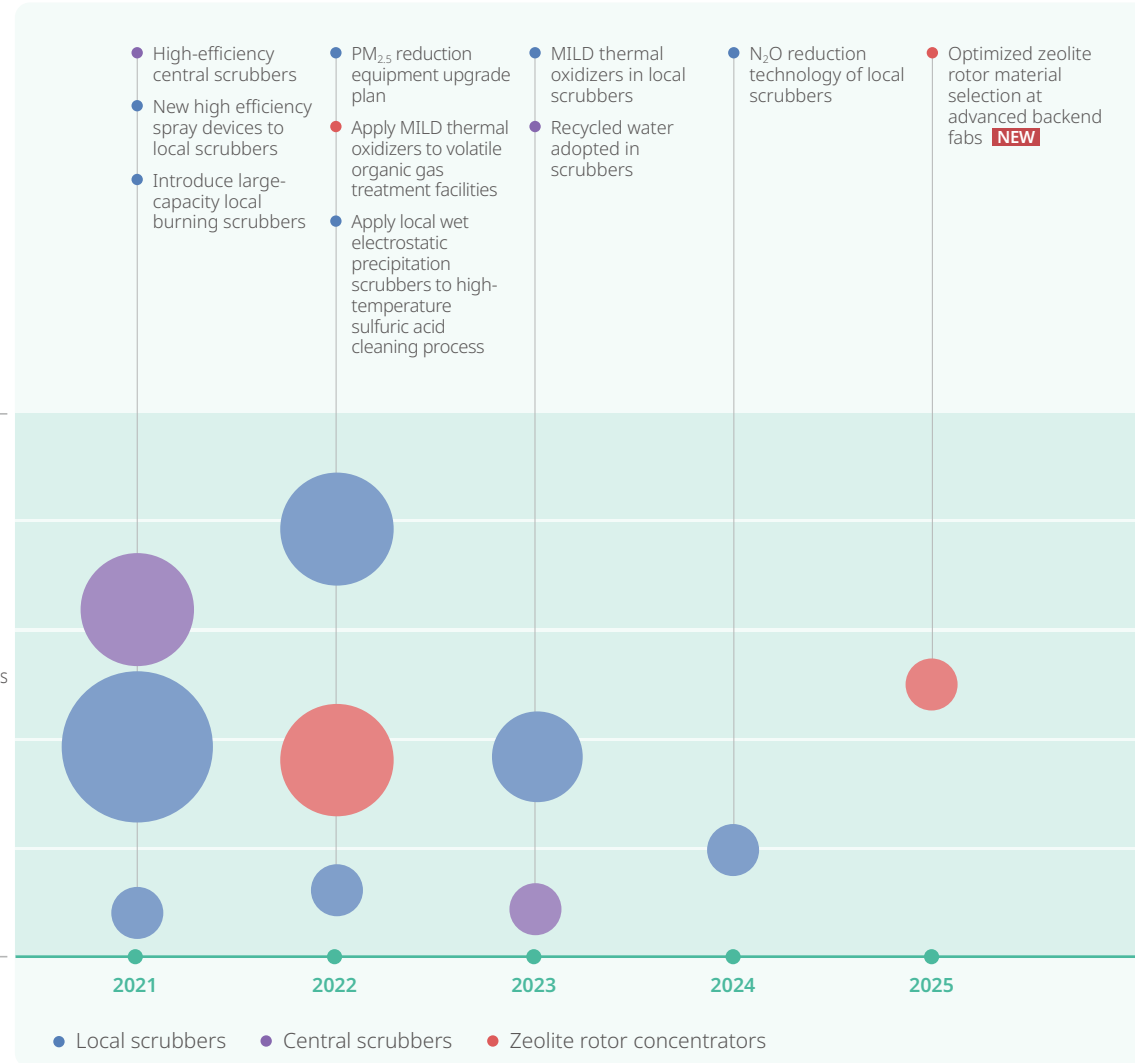
Note: TSMC air pollutant emissions are reported in accordance with local laws and regulations.

Historical Volatile Organic Gas Reduction Rates

Unit: %



Historical Assessment of Air Pollution Control Technology and Reduction Performance



Note: Size of the bubble indicates the technology's reduction efficiency.

Enhanced Monitoring of Air Pollution Prevention Equipment

TSMC continues to improve the stability and monitoring capability of its air pollution control systems by installing automated monitoring instruments across emission stacks, including total hydrocarbon monitors and online monitoring systems for isopropanol and fluorine gas, to verify monitoring data against actual emissions. The Company leverages the "Automated Verification System for Air Pollution Reporting Legal Coefficients," the "Facility Parameter Change Management System," and the "Facility Monitoring and Data Collection System" to track operating parameters of local scrubbers, while using automated cross-checking and verification functions to ensure reporting accuracy and prevent data loss or errors caused by human factors.

In response to advances in process technology and fab expansion needs, TSMC continued the 2024 upgrade

of its Facility Parameter Change Management System in 2025, incorporating key control parameters of local scrubbers into the change management scope at newly built Fab 20 Phase 2, Advanced Backend Fab 7, and Advanced Backend Fab 8, ensuring stable operation of air pollution control equipment.

To maintain the stable operation of air pollution control systems, TSMC adopts an "N+1" model with backup systems, monitoring mechanisms, and alarm functions for abnormal conditions. In the event of equipment failure, the Facility Department and Industrial Safety and Environmental Departments can immediately activate backup units or initiate emergency repairs, supported by uninterruptible power supply (UPS) systems to minimize operational risk, achieving the zero-failure target for pollution control systems. In 2025, no abnormal events involving air pollution control equipment occurred, and no penalties or fines were incurred due to non-compliance with air pollution regulations.

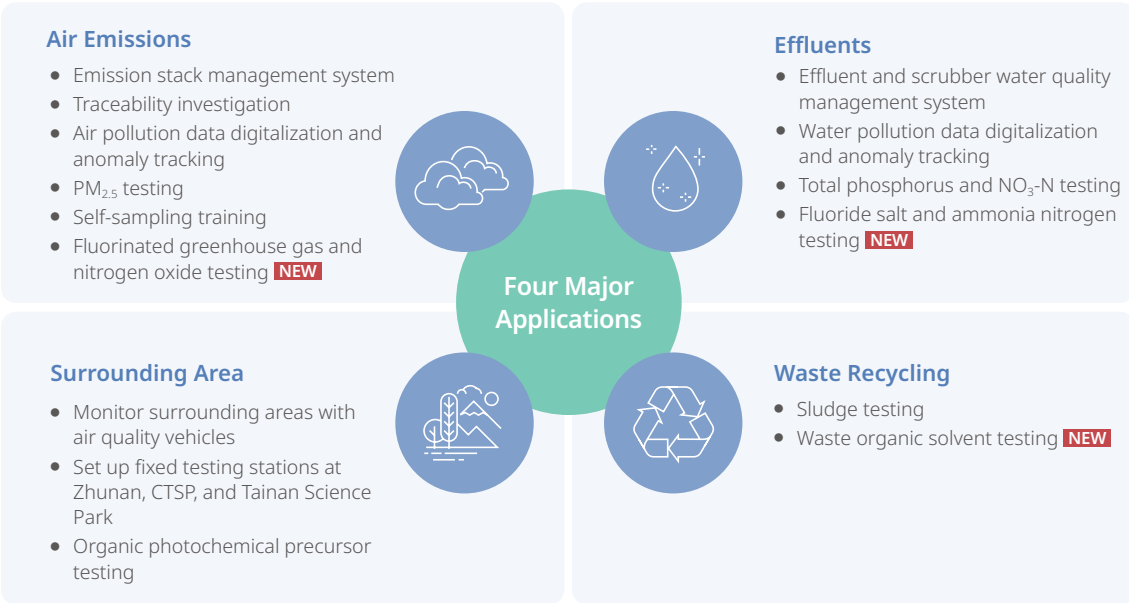
Enhancing the Functional Capabilities of the Environmental Monitoring Center

Through sampling and analytical techniques, TSMC's Environmental Monitoring Center helps fabs identify optimal treatment methods for target pollutants, strengthening overall pollution control performance. In 2025, the Center further expanded its testing scope by adding fluorinated greenhouse gas analysis for air emissions, as well as fluoride salts and ammonia nitrogen testing for effluent. In the waste recycling domain, it developed eight analytical methods for sludge and waste organic solvent testing. Sludge analyses include moisture content, calcium fluoride and calcium carbonate in fluoride sludge, calcium

fluoride in silicon-containing sludge, volatile solids, and elemental composition, while waste organic solvent testing includes moisture content and organic acid-base value analysis.

Beyond technical advancements, the Environmental Monitoring Center further strengthened the independent sampling and analytical capabilities of related personnel. In 2025, three workshops were conducted with a total of 39 participants, completing 96 hours of hands-on training in acid, alkaline, and heavy metal sampling, as well as data interpretation. These initiatives enhance air pollution abatement efficiency and create value for environmental protection.

Four Key Applications of the Environmental Monitoring Center



Case Study

Advance ISO/IEC 17025 Accreditation to Enhance Testing Capabilities

To improve environmental emissions management, TSMC's Environmental Monitoring Center enhances monitoring and control of pollutants in emission sources. Based on fab requirements, sampling and analysis are conducted for volatile organic compounds, acids, and alkaline substances to accurately identify pollutant types and enable source tracing, improving the efficiency and coverage of abatement systems. To ensure data accuracy, consistency, and reliability, TSMC established a laboratory quality management system compliant with ISO/IEC 17025 international standards, providing comprehensive control over personnel, facilities and environments, equipment traceability and calibration, and analytical technical processes. The Center conducts regular sample comparisons with the National Environmental Research Academy (NERA) accredited laboratories and maintains comprehensive documentation of testing processes to support traceability and technical improvement.

Following the ISO/IEC 17025 international accreditation obtained by the Facility Environmental Laboratory at TSMC (Nanjing), TSMC's Environmental Monitoring Center and Facility Diagnostic and Analysis Center in Taiwan was also successfully accredited in 2025. TSMC will continue to promote its in-house testing mechanisms and standardized practices across additional fabs, while providing technical support to further enhance environmental monitoring capabilities throughout its global operations.



The Environmental Monitoring Center passes ISO/IEC 17025 accreditation.

Biodiversity



Strategies	2030 Goals	2026 Targets	2025 Achievements
Achieve No Net Loss (NNL) of nature and biodiversity Identify risk and impact sources. Adopt science-based assessment methodologies to quantify and manage impacts and restoration outcomes	 Implement on-site and off-site ecological habitat enhancement. Achieve 10% progress toward NNL NEW	Establish NNL baselines for Taiwan fabs NEW	Develop a Nature and Biodiversity NNL Action Roadmap NEW -
Promote ecological restoration and education Drive ecological conservation and restoration while expanding access to environmental education	 Engage more than 9,000 participants annually in nature and environmental education programs NEW	Engage more than 9,000 participants annually in nature and environmental education programs NEW	Engage 8,963 participants in nature and environmental education programs NEW -

 Applicable to all TSMC fabs around the world

 Applicable to TSMC fabs in Taiwan and other specific fabs

 Only applicable to TSMC fabs in Taiwan

 Applicable to TSMC overseas fabs

 Exceeded

 Achieved

 Missed Target

To address biodiversity loss, the United Nations Convention on Biological Diversity established the Kunming-Montreal Global Biodiversity Framework under the vision of “living in harmony with nature,” serving as a key global reference for biodiversity conservation through 2030. In alignment with this framework, TSMC follows its [Biodiversity Statement](#) to protect aquatic and terrestrial ecosystems and collaborates with stakeholders to advance ecological conservation and ensure biodiversity sustainability.

In 2025, TSMC designated biodiversity as a material topic. The Corporate Sustainability Office, Corporate ESH Division, Facility, and Materials Management organizations jointly focused on two strategies: achieve No Net Loss (NNL) of nature and biodiversity, and promote ecological restoration and education. TSMC launched an impact identification process and developed a Nature and Biodiversity NNL Action Roadmap, tailoring ecological restoration, environmental conservation, and education programs to the characteristics of each global site. The Company also supports sustainable carbon negative technologies and cross-sector collaboration, to realize the harmonious development of technology and ecology.

Achieving NNL of Nature and Biodiversity

Also in 2025, TSMC developed a Nature and Biodiversity NNL Action Roadmap with internal and external stakeholders to build a pathway toward net positive impact through phased ecological actions. Near-term efforts focus on establishing methodologies and developing ecological habitats at Taiwan sites. Mid-term efforts expand evaluation of habitat effectiveness and enhance regional ecological network functions. Long-term efforts apply regular quantitative monitoring to continuously improve ecological quality. TSMC commits to fulfilling its corporate citizenship responsibilities through concrete actions and works toward achieving NNL and Net Positive Impact (NPI) for nature and biodiversity, contributing to global ecological conservation.

Nature and Biodiversity NNL Action Roadmap



Note: Fabs include both operational and pre-operational facilities.



Impact Identification and Assessment

Since 2023, TSMC has followed the Taskforce on Nature-related Financial Disclosures (TNFD) guidelines and applied the LEAP methodology — Locate, Evaluate, Assess, and Prepare — to identify dependencies between its global sites and surrounding ecosystems. The Company has adopted Life Cycle Assessment (LCA) and the LC-Impact model to assess biodiversity loss, with the Potentially Disappeared Fraction (PDF) of species as the key indicator.

Assessment results show that TSMC operations have limited impact on surrounding ecosystems, with biodiversity risk rated as minor across global fab

locations. The analysis identifies greenhouse gas emissions, water consumption, and wastewater discharge as the top three environmental impact drivers. To reduce these impacts, TSMC advances carbon reduction, water conservation, and water pollution prevention measures. For greenhouse gas management, the Company installs process exhaust treatment systems, improves energy efficiency, and expands renewable energy procurement and use to reduce Scope 1, 2, and 3 emissions. For water stewardship, TSMC adopts low-conductivity water treatment technologies at advanced process fabs, increases use of reclaimed water to reduce chemical

consumption, and lowers salinity in discharge to minimize impacts on aquatic ecosystems, integrating biodiversity into core green operations. For details, refer to the “[Climate and Energy](#)” and “[Water Stewardship](#)” sections of this report, as well as the [Climate and Nature Report](#).

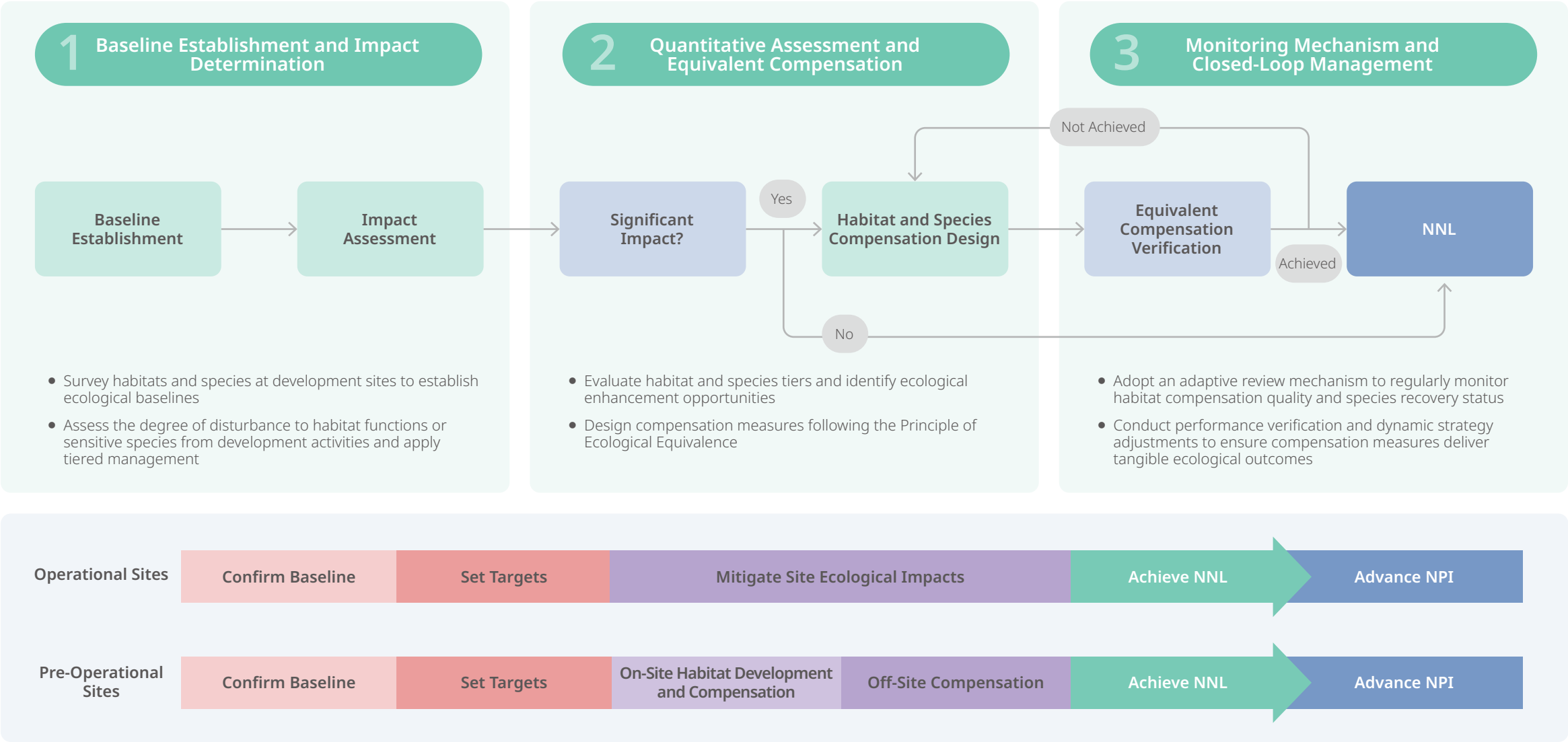
Develop Natural and Biodiversity NNL Assessment Methodology

To ensure effective biodiversity protection, TSMC designated 2025 as the base year for biodiversity impact and performance assessment. Referring to international frameworks — including the

Nature Positive Initiative, Germany's Federal Compensation Ordinance (BKompV), Australia's Biodiversity Assessment Method, and the UK Biodiversity Metric — TSMC collaborates with third-party expert consultants to establish a tiered management approach for operational and pre-operational facilities based on operational stage. In 2026, the Company plans to establish a consistent and quantifiable NNL assessment methodology, complete ecological baseline assessments for Taiwan fabs, quantify the biodiversity impacts of its operations, and develop corresponding conservation actions.

TSMC is committed to ensuring the effective execution of biodiversity conservation actions.

NNL Methodology Development Process



3

Monitoring Mechanism and Closed-Loop Management

Equivalent Compensation Verification

NNL

- Adopt an adaptive review mechanism to regularly monitor habitat compensation quality and species recovery status
- Conduct performance verification and dynamic strategy adjustments to ensure compensation measures deliver tangible ecological outcomes

Operational Sites

Confirm Baseline

Set Targets

Mitigate Site Ecological Impacts

Achieve NNL

Advance NPI

Pre-Operational Sites

Confirm Baseline

Set Targets

On-Site Habitat Development and Compensation

Off-Site Compensation

Achieve NNL

Advance NPI

Supply Chain Impact Identification and Management

TSMC extends biodiversity management to its supply chain. Referencing the Sector Actions Towards a Nature-Positive Future guidance jointly published by the World Economic Forum (WEF) and the World Business Council for Sustainable Development (WBCSD), the Company prioritizes suppliers in specific sectors including chemicals, energy, and waste management across key operating regions in Taiwan. TSMC conducts overlay analyses of supplier sites and surrounding ecosystems and investigates suppliers that may operate in ecologically sensitive areas to verify site compliance, environmental impact assessment approvals, and mitigation measures. Assessment results show that suppliers pose a low risk to the ecological environment, and TSMC will continue to monitor their impact.

To build supplier awareness of biodiversity, TSMC's Supplier Code of Conduct requires suppliers to comply with biodiversity conservation regulations, commit to zero deforestation during development and operations, and participate in land conservation. In 2026, the Company plans to launch a biodiversity awareness training series for suppliers and encourage supply chain partners to issue biodiversity statements to help minimize impacts on the natural environment. Recognizing the direct ecological impacts of renewable energy facilities during construction, operation, and decommissioning, TSMC established the Renewable Energy Supplier Biodiversity Screening Guidelines in 2025. Through assessment, identification, measurement, and monitoring, the Company identifies biodiversity risks associated with renewable energy development, reviews their impacts mitigation

measures, and plans to incorporate these findings as considerations in future procurements. For details, refer to the [Climate and Nature Report](#) .

Promote Ecological Restoration and Education

TSMC works with stakeholders to advance the coexistence of business operations and the natural environment by planning and carrying out ecological restoration efforts both at and beyond its sites. In 2025, TSMC became the first company in Taiwan to restore endangered species within a fab site and register a natural carbon sink through coastal afforestation. Through three categories — environmental education facilities, project-based initiatives, and volunteer engagement — TSMC provides environmental education services to schools and the public, develops biodiversity talent across educational levels, and expands the reach and impact of environmental stewardship.

Ecological Restoration Actions

TSMC explores biodiversity conservation opportunities to minimize the ecological and environmental impacts of its operations. Within its sites, TSMC conducts ecological surveys, builds ecological ponds and waterways, restores close-to-nature forests to protect rare species, and plants host and nectar plants to enhance species diversity. The Company also extends these conservation efforts beyond its sites through the Eco Plus! Ecological Harmony Program and the Plant-A-Tree Program, building collaboration platforms with stakeholders and launching ecological restoration programs at domestic and overseas sites to advance environmental sustainability through concrete action.

• Eco Plus! Ecological Harmony Program

TSMC launched the Eco Plus! Ecological Harmony Program on the International Day for Biological Diversity (May 22) in 2024, focusing on three categories: habitat, species, and knowledge. For the habitat category, as of

end-2025 TSMC extended eco-friendly farming to one hectare and submitted an application for Other Effective area-based Conservation Measures (OECM) recognition for Fab 15A to the Ministry of Agriculture's Forestry and Nature Conservation Agency. In terms of the species category, TSMC transformed the Fab 15A ecological pond into a [sanctuary for the Squalidus banarencui](#) , an endangered fish species, marking the first case in Taiwan of a company restoring an endangered species within its fab site. This achievement reflects cross-sector collaboration under the Taichung Regional Green Network Conservation Cooperation Memorandum of Understanding, signed between the Taichung Branch of the Forestry and Nature Conservation Agency, the Third River Management Branch of the Water Resources Agency under the Ministry of Economic Affairs, and the Agriculture Bureau of Taichung City Government. Regarding the [knowledge category](#) , TSMC focuses on citizen science and species identification while supporting emerging biodiversity talent and research.



Squalidus banarencui now inhabits the ecological pond at TSMC's Taichung site, setting a new benchmark for biodiversity conservation efforts

• Plant-A-Tree Program

TSMC has supported the Plant-A-Tree Program since 2021 to create spaces where people and nature can coexist. By the end of 2025, the Company had planted a total of 435,000 trees and 2,040,000 shrubs and ground cover plants. To expand its benefits, TSMC applied for a Voluntary Greenhouse Gas Reduction Project under the Ministry of Environment in February 2024, adopting the Afforestation and Reforestation Carbon Sink Project methodology, which was validated by a third-party verification body. In January 2025, the project received approval from the Ministry of Environment, making TSMC [the first company in Taiwan to register a carbon sink through coastal afforestation](#) . The project is expected to generate approximately 1,011 metric tons of carbon dioxide

equivalent (CO₂e) in carbon credits over the next 30 years, delivering both ecological conservation and climate mitigation benefits.

At its Nanjing site, TSMC has worked with local authorities since 2020 to rescue abandoned trees, with more than 3,200 trees salvaged by the end of 2025. The Company also successfully restored 10 specimens of *Sinojackia rehderiana*, a nationally protected Class II endangered species in China, within the site. TSMC plans to introduce additional species, including *Tilia miqueliana* and *Liriodendron chinense*, to further expand conservation planting areas.

• TSMC Honey Program

Bees are pollinators, essential to global plant reproduction. Since 2024, TSMC has partnered with the

Department of Life Science at Tunghai University and local beekeepers at its Hsinchu, Taichung, and Tainan sites to launch the [TSMC Honey Project](#) . Restoration bases were established at Fab 12 Phase 8, Fab 14B, Fab 15A, Fab 15B, and Fab 18B, with environmental education integrated into family day events at each site to deepen awareness of ecological conservation. By the end of 2025, 59 hives across the restoration bases housed approximately 1.18 million bees and produced a total of around 500 kilograms of honey.

• Ecological Restoration at Overseas Sites

TSMC's actions on biodiversity conservation are tailored to the ecological characteristics of each operating location. In 2025, European Semiconductor Manufacturing Company (ESMC), TSMC's subsidiary in

Dresden, Germany, worked with local environmental authorities and conservation groups to successfully protect and relocate more than 350 sand lizards to 12 newly established habitats. ESMC also adopted environmentally friendly measures for temporary construction roads and staging areas, including protective fencing along construction routes and waterways, wildlife passages for otters under temporary bridges, capture buckets for safe amphibian relocation, and dedicated ponds to support breeding habitats for northern swans and salamanders. In Arizona, TSMC partnered with local conservation groups on a water efficiency improvement project for the Verde River supply canal, restoring river flow and improving aquatic habitat conditions. For details, refer to the ["Water Stewardship"](#)  section.



Nature and Environmental Education

The Kunming-Montreal Global Biodiversity Framework highlights that strengthening biodiversity communication, education, and awareness is essential to advancing framework implementation and driving behavioral change while promoting sustainable lifestyles. Beyond its core business-driven biodiversity mitigation and adaptation measures, the TSMC Ecological Park in Central Taiwan Science Park and the TSMC Southern Taiwan Science Park Reclaimed Water Plant Environmental Education Learning Park have both received accreditation as Environmental Education Facilities from the Ministry of Environment. Through these facilities, TSMC invests in nature and environmental education to build public environmental awareness and strengthen community engagement. In addition, through cross-sector initiatives such as the [Eco Plus! Ecological Harmony Program](#) , the [Plant-A-Tree Program](#) , and ecological volunteer programs, the Company encourages students and academics to participate in Taiwan's biodiversity conservation and motivates employees to contribute to environmental stewardship and serve as ecological education ambassadors, supporting biodiversity development.



Environmental Education Facilities

TSMC works to strengthen positive ecological impact on its sites. The TSMC Ecological Park in Central Taiwan Science Park offers the "Green Park Exploration Tour" and "Waterdrop Baby's Fab Journey" programs, while the [TSMC Southern Taiwan Science Park Reclaimed Water Plant Environmental Education Learning Park](#)  provides water resource courses for elementary and junior high school students as well as adults, including "Urban Mini Reservoir" and "Environmental Education Workshop: The Art and Magic of Reclaimed Water." In 2025, the two facilities engaged 3,192 and 2,971 participants, respectively.



The TSMC Ecological Park in Central Taiwan Science Park promotes nature and environmental education.

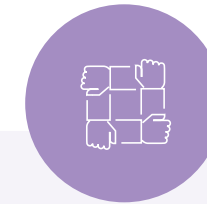


Project-based Initiatives

TSMC collaborates with internal and external stakeholders to advance ecological restoration. In 2025, the Eco Plus! Ecological Harmony Program developed a [cross-education-level capacity-building strategy](#) , to expand biodiversity conservation capabilities. The [Plant-A-Tree Program](#)  engaged 822 employees in tree planting and habitat development activities, building ecological awareness and advancing sustainability in practice.



TSMC's Plant-A-Tree Program encourages employees to take action for environmental sustainability.



Volunteer Engagement

TSMC formed ecological volunteer teams composed of employees with strong interest in environmental issues. These volunteers conduct guided tours and hands-on activities at on-site environmental education facilities and the Tainan Jacana Ecological Education Park, helping students and the public better understand environmental protection and biodiversity. In 2025, ecological volunteer activities reached 246 participants. For details, see the [TSMC Charity Foundation](#)  section.



TSMC's ecological volunteers promote environmental and biodiversity awareness, expanding the reach of environmental education.



Case Study

Cross-Generational Biodiversity Education to Empower a Sustainable Future

Talent is the foundation of biodiversity mainstreaming. TSMC's Eco Plus! Ecological Harmony Program integrates industry, government, academia, and research resources to build knowledge across all levels of education — from elementary and middle school through high school, universities and research institutions, to the public. In 2025, through three initiatives — cultivate citizen scientists, establish an incentive mechanism, and develop species identification experts — the program added 4,209 new [iNaturalist platform](#) users, trained 840 bird survey specialists, and recognized 22 outstanding biodiversity research proposals. TSMC views talent development as a key bridge connecting conservation action with a sustainable future.

Three Empowerment Initiatives under the Eco Plus! Ecological Harmony Program

Cultivate Citizen Scientists

Elementary, junior, and senior high schools

- ✔ **411** schools reached
- ✔ **4,209** new iNaturalist platform users (2024–2025)

TSMC collaborates with the Ministry of Education and the widely used natural science platform [iNaturalist](#) to promote training for citizen scientists in primary and secondary schools. By integrating with the existing education system, the Company fosters early-stage biodiversity awareness and develops the next generation of ecological surveyors.



TSMC promotes citizen science development.

Establish an Incentive Mechanism

Universities and research institutions

- ✔ **First** Biodiversity Scholarship and Proposal Grant launched
- ✔ **55** domestic and international organizations participated / **22** winning entries recognized (2025)

TSMC collaborates with the Taiwan Biodiversity Research Institute under the Ministry of Agriculture and the Taiwan Society of Plant Systematics to launch the inaugural [TSMC Biodiversity Scholarship and Proposal Grant](#). The Company also hosted the [TSMC Biodiversity International Forum and Award Ceremony](#) to recognize winning projects and invited domestic and international ecologists to exchange perspectives, stimulating momentum for conservation.



Award recipients share their work at the TSMC Biodiversity International Forum and Award Ceremony.

Develop Species Identification Experts

General public

- ✔ **840** bird survey specialists trained
- ✔ **First** species identification training system established (2025)

TSMC leverages the [iNaturalist platform](#) and the [eBird Taiwan database](#) to build a biodiversity knowledge base. In collaboration with the Taiwan Biodiversity Research Institute under the Ministry of Agriculture, the Company established a structured training and assessment system for species identification professionals, and partnered with the Taiwan Wild Bird Federation to expand bird survey talent development.



TSMC partners with the Taiwan Wild Bird Federation to develop bird survey talent.



An Admired Employer

TSMC values its commitment to employees, fostering a people-oriented workplace culture with open communication. The Company actively cultivates an inclusive and safe workplace where employees can continue to learn and grow. TSMC also provides competitive compensation and benefits, striving to be an employer of choice within the semiconductor industry.

Inclusive Workplace

Talent Attraction and Retention

Talent Development

Occupational Safety and Health

92%

Inclusive Workplace Score in the Employee Engagement Survey, achieving the top 50% target of the Global High Performance Companies Norm

Top 25%

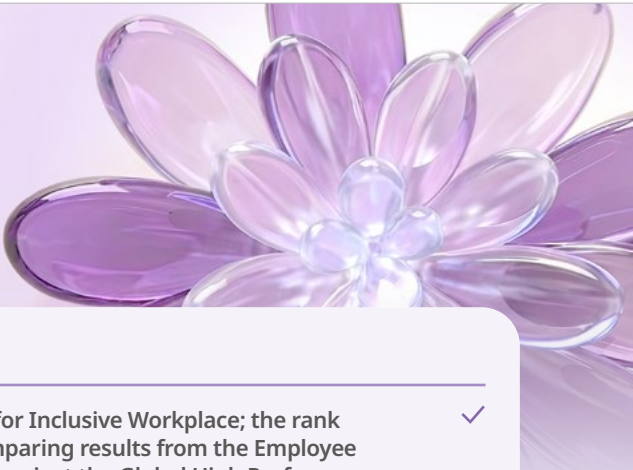
Total compensation ranked within the top 25% in the industry

9,225

Employees recruited worldwide



Inclusive Workplace



Strategies	2030 Goals	2026 Targets	2025 Achievements
Establish an Open-Style Management System Fulfill <u>Core Values and Business Philosophy</u>  and continue to shape an inclusive culture	 Rank in the top 25% for Inclusive Workplace; the rank is determined by comparing results from the Employee Engagement Survey ^{Note1} against the Global High Performance Companies Norm	-	Rank in the top 50% for Inclusive Workplace; the rank is determined by comparing results from the Employee Engagement Survey against the Global High Performance Companies Norm Target: Rank in the top 50% 
Unleash the Potential of Diverse Talent Provide resources to support diverse talent to grow and flourish	 Women in management: $\geq 18\%$  Women account for 30% of all newly-hired fresh graduates technical professionals	Women in management: 15.8% Women account for 27.6% of all newly-hired fresh graduates technical professionals	Women in management: 15% Target: 15.2%  ^{Note2} Women account for 27.8% of all newly-hired fresh graduates technical professionals Target: 27% 

 Applicable to all TSMC fabs around the world

 Applicable to TSMC fabs in Taiwan and other specific fabs

 Only applicable to TSMC fabs in Taiwan

 Applicable to TSMC overseas fabs

 Exceeded

 Achieved

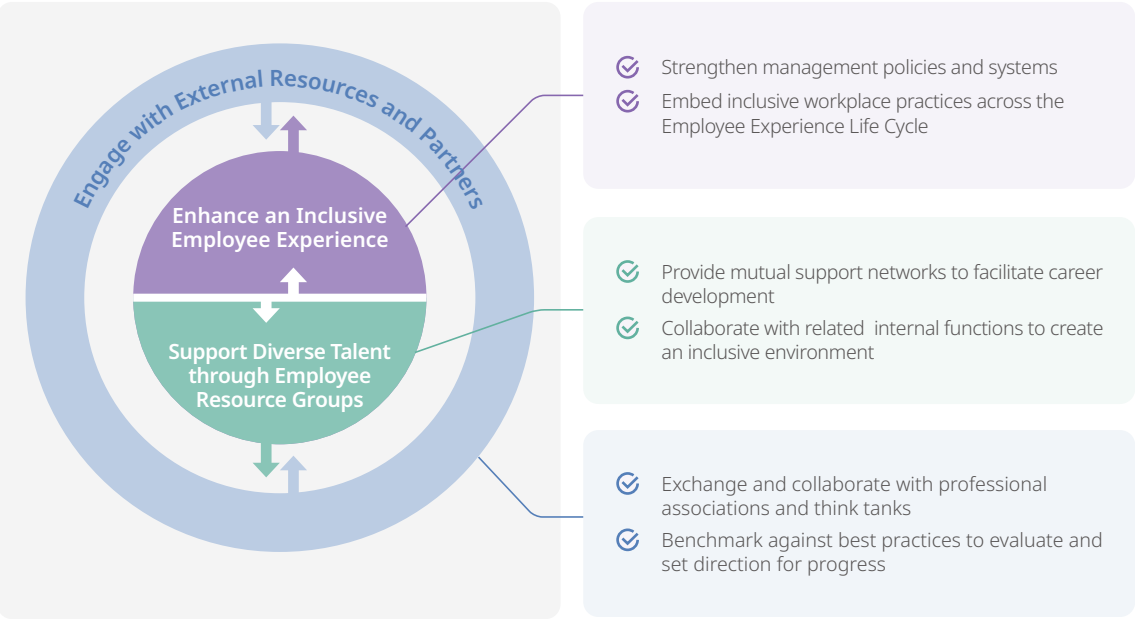
 Missed Target

Note 1: The Employee Engagement Survey is issued every two years and the next survey will be issued in 2027.

Note 2: While the female manager ratio of 15% in 2025 did not meet the target, it still rose by 0.4 percentage points from the previous year's 14.6%.

TSMC is committed to building an inclusive workplace where employees, regardless of background or identity, can advance their careers in roles that suit their strengths, apply their capabilities, and strengthen their sense of belonging and engagement. In 2025, the Company held its inaugural [Global Inclusive Workplace Month](#) [🔗](#) (GIW Month) and formally established its fifth Employee Resource Group, Pride@tsmc — putting its [core values](#) [🔗](#), [business philosophy](#) [🔗](#), and [people vision](#) [🔗](#) into practice. TSMC also extended its inclusion principles throughout the supply chain, bringing together diverse innovation and collective intelligence to advance broader social good.

Three Strategic Approaches



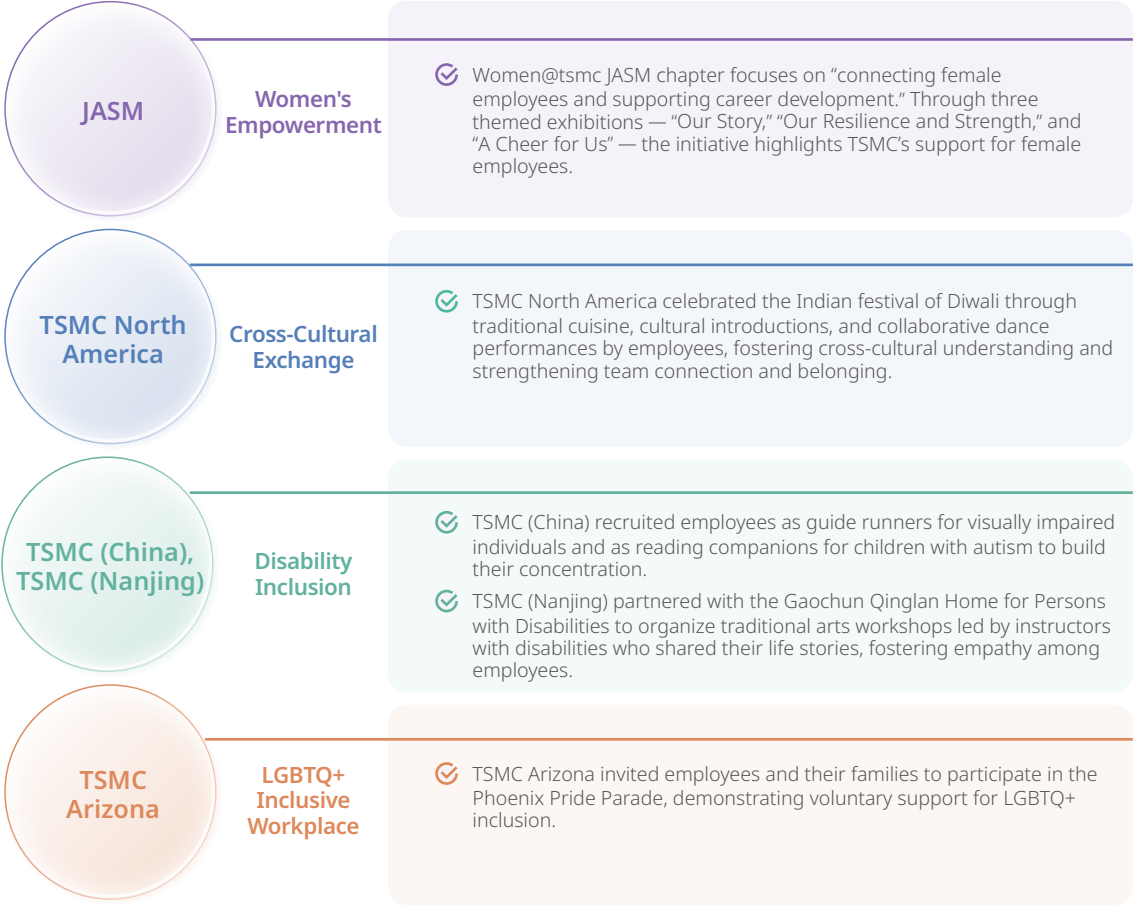
Establish an Open-Style Management System

Guided by its business philosophy of an Open-Style Management System, TSMC focuses on three key directions: [enhance an inclusive employee experience](#) [🔗](#), [support diverse talent through employee resource groups](#) [🔗](#), and [engage with external resources and partners](#) [🔗](#). The Company also drives diverse talent recruitment and development initiatives at each stage of the Employee Experience Life Cycle through its processes and policies; fosters a sense of inclusion and promotes understanding and

collaboration through employee resource groups; and aligns with international standards while deepening engagement with external resources and partnerships. Subsidiaries also draw on local cultures and needs to launch a wide range of localized initiatives, creating an

inclusive workplace where employees feel valued, can unlock their potential, and develop a strong sense of belonging. For more global initiatives, please refer to [“Cultivate an Inclusive Employee Experience”](#) [🔗](#) .”

Inclusive Workplace Highlights Across Subsidiaries

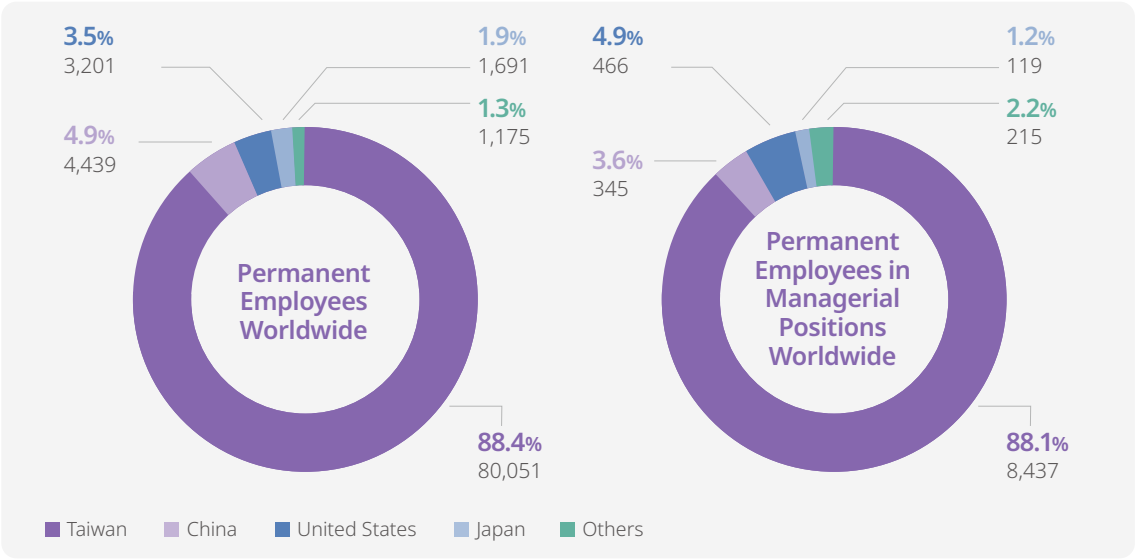


Diverse Workforce

TSMC encourages interaction among employees from varied cultures, disciplines, and backgrounds, and supports the employment of persons with disabilities to drive innovation and competitiveness. In hiring and promotion decisions, the Company does not engage in discrimination or differential treatment based on gender, age, disability, religion, race, ethnicity, nationality, political affiliation, or sexual orientation. As its global footprint continues to expand, TSMC not only develops local talent in Taiwan but also broadens its recruitment reach across Japan, the United States, Europe, and Southeast Asia. In 2025, the Company's global workforce reached 91,487 employees, with permanent employees representing 64 nationalities and Taiwan, mainland China, the United States, and Japan together accounting for over 98% of total

headcount. By regional distribution, 86.36% of employees are based in Taiwan operations, 7.57% in other parts of Asia (including mainland China, Japan, and South Korea), 5.84% in North America, and the remainder in Europe. TSMC evaluates the effectiveness of its inclusive workplace initiatives through employee feedback and regular surveys. In the 2025 Employee Engagement Survey, "Inclusive Workplace" — assessed across four areas: supporting diverse talent, listening to employee voices, inclusive leadership, and sense of belonging — achieved a satisfaction score of 92%, up from 86% in the prior survey, reaching the top 50% of the Global High-Performance Norm.

Distribution of Permanent Employees Worldwide by Nationality in 2025



Global Workforce Structure in 2025

Category		Male		Female		Total	
Global Employees - Employment Contracts	Permanent Employees ^{Note1}	60,636	(67.0%)	29,921	(33.0%)	90,557	(99.0%)
	Temporary Employees ^{Note2}	621	(66.8%)	309	(33.2%)	930	(1.0%)
Global Employees - Employment Types	Full-time Employees	61,050	(67.0%)	30,102	(33.0%)	91,152	(99.6%)
	Part-time Employees	207	(61.8%)	128	(38.2%)	335	(0.4%)
Permanent Employees - Position	Managers	8,143	(85.0%)	1,439	(15.0%)	9,582	(10.6%)
	Professionals	34,476	(77.1%)	10,214	(22.9%)	44,690	(49.4%)
	Assistants	9,952	(87.5%)	1,416	(12.5%)	11,368	(12.6%)
	Technicians	8,065	(32.4%)	16,852	(67.6%)	24,917	(27.5%)
Permanent Employees - Education	Ph.D.	2,862	(87.5%)	409	(12.5%)	3,271	(3.6%)
	Master	34,750	(77.0%)	10,392	(23.0%)	45,142	(49.8%)
	Bachelor	17,898	(66.6%)	8,987	(33.4%)	26,885	(29.7%)
	Other Higher Education	2,251	(35.6%)	4,064	(64.4%)	6,315	(7.0%)
	High School	2,875	(32.1%)	6,069	(67.9%)	8,944	(9.9%)
Permanent Employees - Age	18-30	22,303	(70.6%)	9,288	(29.4%)	31,591	(34.9%)
	31-50	34,721	(65.4%)	18,348	(34.6%)	53,069	(58.6%)
	51+	3,612	(61.3%)	2,285	(38.7%)	5,897	(6.5%)
Permanent Employees - Work Location	Taiwan Fabs and VisEra	52,026	(66.5%)	26,181	(33.5%)	78,207	(86.4%)
	Asia ^{Note3}	4,582	(66.9%)	2,269	(33.1%)	6,851	(7.6%)
	North America	3,889	(73.5%)	1,401	(26.5%)	5,290	(5.8%)
	Europe	139	(66.5%)	70	(33.5%)	209	(0.2%)

Note 1: Permanent employees refer to those who have signed contracts with no fixed term, as defined according to the GRI Standards.
 Note 2: Temporary employees are those who have signed fixed-term contracts.
 Note 3: Asia includes China, Japan, and South Korea.
 Note 4: Figures rounded to one decimal place may not sum to 100%.

Unleash the Potential of Diverse Talent

TSMC adopts Gallup's Employee Experience model, focusing on every key stage of the employee journey — attraction, recruitment, onboarding, engagement, performance, development, and retention/turnover — to build an inclusive workplace. This lifecycle-based approach reflects the Company's people-centric philosophy and earned TSMC the Grand Prize in the Inclusive Workplace category of the ESG Corporate Sustainability Awards by Global Views Monthly in 2025. For more practices, please refer to ['Cultivate an Inclusive Employee Experience'](#).



Achievements in 2025

- Design stage-specific lectures for female students from education through early career to encourage participation in STEM fields - Organize Accessible Education Center Student and Counselor Visit events and collaborate with occupational therapy specialists on job redesign to enhance workplace accessibility - Recruit international talent through global recruitment events and participation in major international semiconductor conferences
- Evaluate candidates' job fit during interviews and provide necessary assistance and accommodations - Launch learning programs and life support initiatives for female talent to help employees integrate into the workplace - Provide a bilingual "Living Guide" for international talent, covering practical information such as healthcare, transportation, and education
- Apply a five-stage framework to guide employees toward sustained action and embed inclusion into daily behaviors, progressively deepening an inclusive workplace culture - Establish five employee resource groups to focus on and support diverse identities
- Create an equitable performance assessment system to ensure assessment results reflect actual employee performance - Offer diverse courses and tools to enhance employees' professional skills and self-efficacy - Promote mentorship programs for talents in R&D and operation units - Incorporate managers' communication and interaction capabilities with diverse talent into training programs
- Increase workplace flexibility, including TSMC ChildCare Benefit Program 3.0 - Improve hardware facilities, such as accessible environments, all-gender restrooms, the quiet rooms, and cultural corridors

Deepen an Inclusive Workplace Culture Progressively

In alignment with the [TSMC Global Inclusive Workplace Statement](#) , the Company advances inclusion through a structured progression from "Raising Awareness" and "Inspiring Passion" to "Learning and Development" and "Continuous Practice," ultimately achieving "Sustainable Inclusion." Through this journey, TSMC supports and empowers employees, fostering an inclusive culture grounded in respect and a sense of belonging.

Support Diverse Talent through Employee Resource Groups

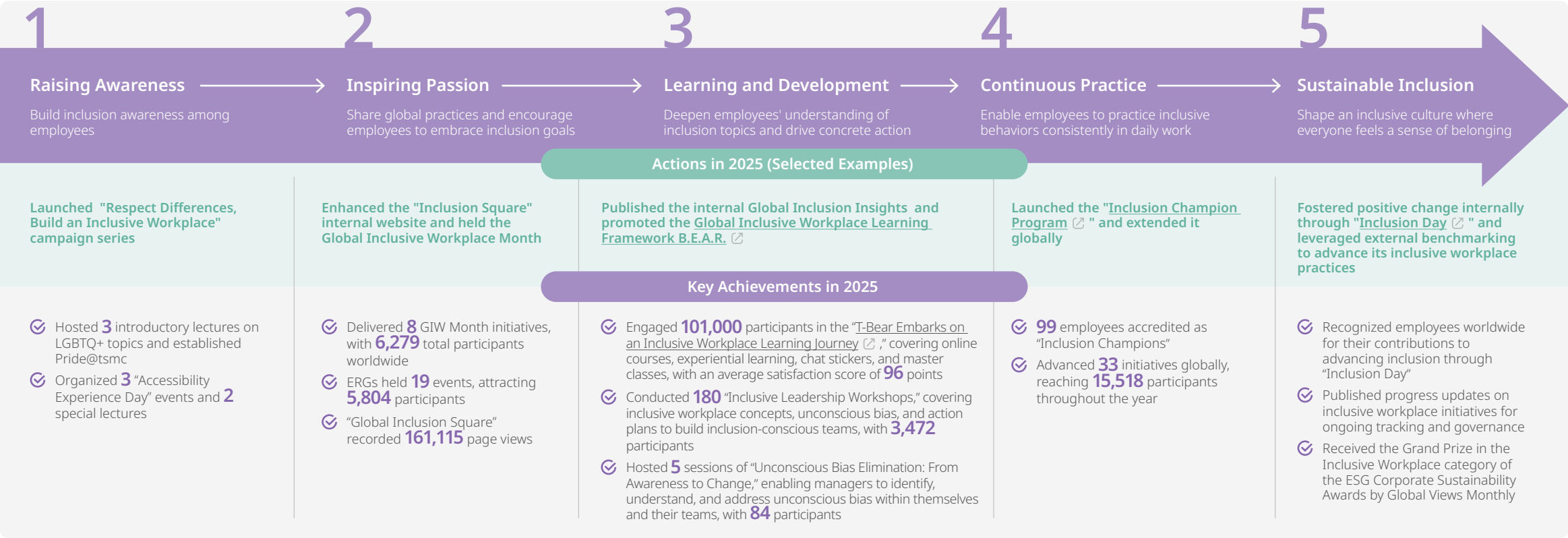
TSMC's employee-led Employee Resource Groups (ERGs) bring together allies who share commitment to each common cause. The Company encourages all employees, regardless of personal identity, to support and speak up, fostering mutual understanding and helping to remove bias. These groups not only provide a platform for employees from diverse backgrounds

to connect but also bolster a stronger sense of belonging and support individual growth and career development.

TSMC's ERGs cover areas including gender, sexual orientation, race/nationality, persons with disabilities, and U.S. veteran status. In addition to Women@tsmc, Global Family@tsmc, Accessibility@tsmc, and Veterans@tsmc (U.S.), the Company established Pride@tsmc in 2025. Each ERG is sponsored by at least

one senior executive to ensure alignment with corporate goals and strategy while supporting advocacy efforts. The Company also organizes Cross-ERG Strategy Workshops to facilitate experience exchange, jointly develop annual goals and action plans, and further integrate ERG initiatives into its broader workplace inclusion strategy. For more details, please refer to "[Foster Employee Resource Groups](#) " .

Progress in 2025



Engage with External Resources and Partners

TSMC promotes an inclusive workplace by collaborating with professional associations and think tanks. Through experience sharing and learning from international best practices, the Company continuously refines its initiatives and contributes to key advocacy efforts to expand its impact.

In 2025, TSMC joined global organizations such as Out & Equal and Disability: IN to advance workplace inclusion for LGBTQ+ individuals and persons with disabilities. The Company also participated in the Global Semiconductor Alliance (GSA) Talent Initiative and mentorship programs to connect industry resources, empower women's leadership, and build

networks for knowledge and experience transfer. In addition, through the TSMC Supplier Sustainability Academy and related workshops, the Company enhances inclusion awareness across its supply chain and drives sustainable growth. Learn more about the external partnerships in "[Expand Our Impact, Together](#) [↗](#)."

TSMC continues to invest in talent development and workforce diversity. In 2025, women in STEM roles among regular employees reached 27,649, representing 32.2% of STEM positions. Women accounted for 27.8% of newly-hired fresh graduates technical professionals and 15.0% of managerial roles.



Sylvia Fang, Senior Vice President and General Counsel (right) shares insights on inclusive leadership with Jason Chen, Acer Chairman and CEO (center), and honors female employees who have excelled in patents and trade secrets.

Percentage of Female Employees

	2021	2022	2023	2024	2025
Females in All Employees	35.4%	34.4%	34.2%	33.7%	33.0% ^{Note 6}
Females in Management	13.0%	13.3%	14.1%	14.6%	15.0%
Females in Junior Management ^{Note 1}	13.4%	13.6%	14.3%	15.0%	15.6%
Females in Top Management ^{Note 1}	8.3%	6.1%	5.9%	11.4%	6.3%
Females in Newly-Hired Fresh Graduates Technical Professionals ^{Note 2}	21.3%	23.7%	28.4%	28.7%	27.8%
Females in TSMC Academy ^{Note 3}	5.2%	5.5%	6.1%	6.3%	9.5%
Females in Management Position in Revenue-Generating Functions ^{Note 4}	10.6%	10.9%	11.4%	11.5%	11.6%
Females in STEM Positions ^{Note 5}	34.8%	33.8%	33.5%	33.0%	32.2%

Note 1: Junior management positions include first-line managers while top management positions include Vice Presidents and higher.
Note 2: Newly-hired fresh graduates technical professionals include all newly-hired technical professionals with less than one year of recognized experience.
Note 3: TSMC Academy members with outstanding achievements, insights, or breakthroughs in specific fields or experts with outstanding contributions to TSMC.
Note 4: Management positions in revenue-generating functions include managers of R&D, operations, Q&R, sales, and other units.
Note 5: STEM positions include R&D, operations, Q&R, information technology, and information security employees, and other units.
Note 6: The percentage of female employees declined in 2025 because new hires were mainly engineers and there was a significantly lower number of female engineers compared with male engineers in the labor market.

Compensation Ratio by Gender (Female as 1)

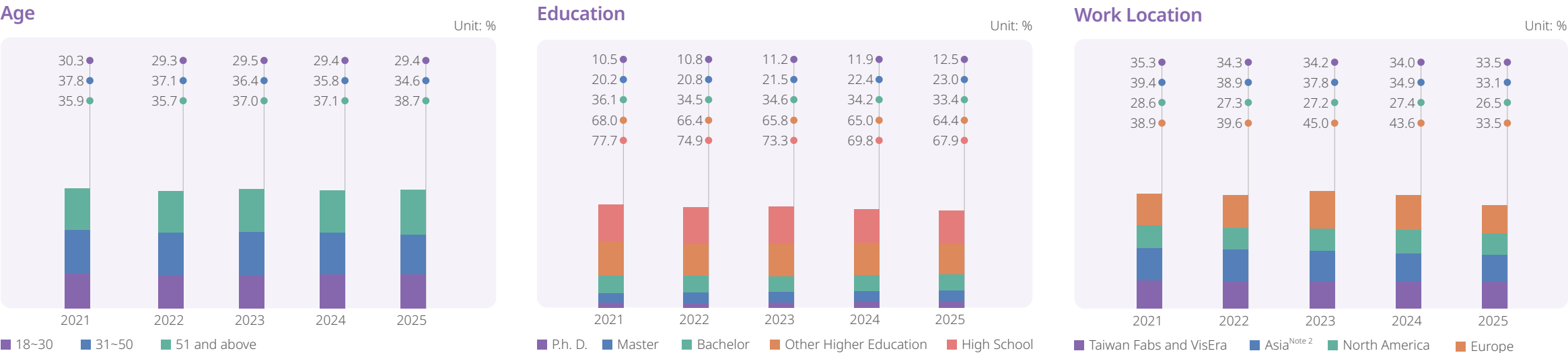
Region/Subsidiary	Positions	2021	2022	2023	2024	2025
Taiwan	Managers	0.97:1	0.97:1	0.97:1	1.00:1	1.04 :1
	Professionals	0.93:1	0.93:1	0.92:1	1.01:1	1.01 :1
	Assistants	0.93:1	0.91:1	0.92:1	0.88:1	0.87 :1
	Technicians	1.14:1	1.15:1	1.18:1	1.03:1	1.03 :1
China	Managers	1:1	0.96:1	1.11:1	0.97:1	0.98 :1
	Professionals	1:1	0.99:1	1.04:1	0.99:1	0.99 :1
	Assistants	1.14:1	1.19:1	1.12:1	1.03:1	1.11 :1
	Technicians	1.16:1	1.13:1	1.11:1	0.99:1	0.99 :1
North America ^{Note1}	Managers	-	-	-	0.90:1	0.87 :1
	Professionals	-	-	-	0.98:1	1.00 :1
	Assistants	-	-	-	0.96:1	1.03 :1
	Technicians	-	-	-	0.97:1	0.98 :1

Region/Subsidiary	Positions	2021	2022	2023	2024	2025
Europe ^{Note1}	Managers	-	-	-	0.81:1	0.80 :1
	Professionals	-	-	-	1.14:1	1.03 :1
	Assistants	-	-	-	-	-
	Technicians	-	-	-	-	-
Japan ^{Note1}	Managers	-	-	-	0.88:1	0.94 :1
	Professionals	-	-	-	1.01:1	0.97 :1
	Assistants	-	-	-	0.92:1	0.97 :1
	Technicians	-	-	-	0.95:1	0.97 :1
VisEra	Managers	0.69:1	0.69:1	0.71:1	0.85:1	0.88 :1
	Professionals	0.85:1	0.91:1	0.87:1	0.90:1	0.88 :1
	Assistants	1.18:1	1.18:1	1.17:1	1.11:1	1.09 :1
	Technicians	1.04:1	1.05:1	1.01:1	0.95:1	0.94 :1

Note 1: Starting from 2024, the grouping will be updated and within each category, the ratio for each job grade will be calculated first and then averaged to avoid skewing in the overall figures.

Note 2: The headcount size of Korea is not sufficient in each job category for conducting analysis.

Percentage of Female Employees^{Note 1}



Note 1: The percentage of female employees in each category is calculated based on the "total number of employees within that specific category." For example, the 29.4% female ratio for the 18-30 age group represents their share of "all employees aged 18-30"; likewise, the 23.0% for master's degrees refers to the share of female employees among "all employees with a master's degree"

Note 2: Asia includes China, Japan and South Korea

Case Study

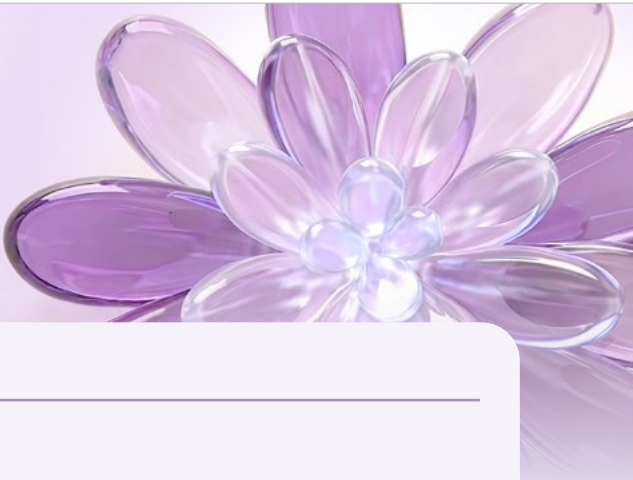
I Belong@tsmc — Fostering Belonging, Co-Creating Inclusion

At TSMC, a strong sense of belonging serves as a key driver of innovation, potential realization, and sustainable growth. In 2025, the Company held its inaugural Global Inclusive Workplace Month under the theme “I Belong@tsmc” and invited employees to share their “My TSMC Moment” stories. The event attracted 3,145 participants worldwide and collected 1,472 heartfelt stories. These narratives vividly illustrate the mutual support, seamless collaboration, and the joy of self-realization experienced by TSMC employees. Collectively, these experiences shape a deep sense of belonging within TSMC. In addition, TSMC partnered with ERGs and external partners/allies to engage in diverse celebrations and inclusion topics covering gender, race/nationality, disability, U.S. veteran status, and sexual orientation — through which the Company advanced its “Inclusion with Allyship” initiative. By utilizing various engagement formats, TSMC aims to enhance employees’ awareness and understanding of inclusion, further fostering a sense of belonging and inspiring active participation.



Employees support each other and collaborate at work, fostering a sense of belonging.

Talent Attraction and Retention



Strategies	2030 Goals	2026 Targets	2025 Achievements
Fulfill the Core Value Offer employees quality jobs and strengthen employee commitment	Conduct a Core Values Survey every two years to reinforce core values - Achieve over 95% employee satisfaction with the implementation of Integrity - Attain over 95% employee satisfaction with the fulfillment of Commitment - Reach over 95% employee satisfaction with the practice of Innovation - Secure over 95% employee satisfaction with efforts to build Customer Trust	Conduct a Core Values Survey every two years to reinforce core values - Achieve over 95% employee satisfaction with the implementation of Integrity - Attain over 95% employee satisfaction with the fulfillment of Commitment - Reach over 95% employee satisfaction with the practice of Innovation - Secure over 95% employee satisfaction with efforts to build Customer Trust	- - - - -
	Conduct an Employee Engagement Survey every two years and develop enhancement plans to achieve a ranking within the top 25% for Sustainable Engagement, as compared to the Willis Towers Watson Global High-Performance Norm.	-	Strive to achieve a ranking at the 50th percentile for Sustainable Engagement in comparison to the Willis Towers Watson Global High-Performance Norm through the biennial Employee Engagement Survey. Target: 50%
	Maintain position top 25% among industry peers in total compensation	Maintain position top 25% among industry peers in total compensation	Maintained position top 25% among industry peers in total compensation Target: 25%
	Less than 10% total turnover rate	Less than 10% total turnover rate	Total turnover rate 2.9% Target: ≤ 10%
	Less than 10% new hire (<1 year) turnover rate	Less than 12% new hire (<1 year) turnover rate	New hire turnover rate (<1 year) 5.7% Target: ≤ 13%

As technology rapidly advances, a new generation of talent emerges. TSMC leads cutting-edge technologies while investing in talent development. In 2025, the Company recruited 9,225 employees and created 6,712 quality positions, offering competitive compensation, benefits that exceed regulatory requirements, and a healthy, inclusive work environment where employees feel valued while excelling. The Company also supports new hires through [onboarding programs](#) that assist them adapt quickly and integrate into the workplace, bringing fresh innovative energy to the Company.

Fulfill Core Values

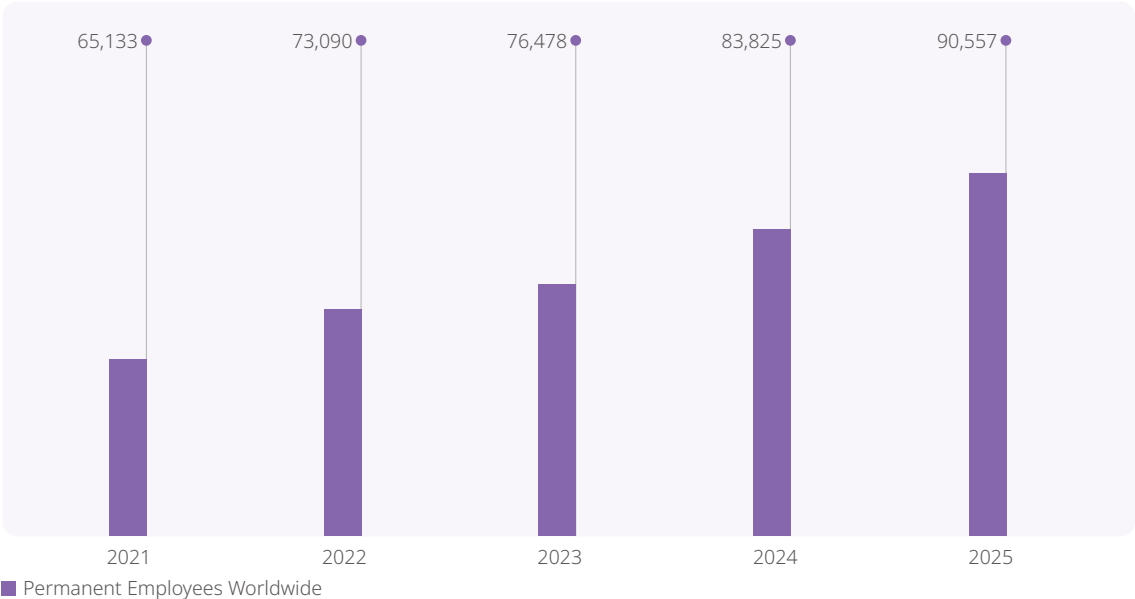
In 2025, TSMC optimized its original "Culture Refresh Program" and upgraded it to "Culture Refresh Program 2.0." This initiative aimed to seamlessly integrate TSMC's corporate core values into all key stages of the employee experience lifecycle by re-examining and improving systems and processes for talent sourcing, onboarding, and development. Internally, over 500 core value case discussion workshops were held. A new culture ambassador system was also introduced, where employees were selected through training and

certification to serve as trainers for new hires and newly appointed managers. Simultaneously, in 2025, a particular focus was placed on TSMC's Japan subsidiary, JASM, where 6 case discussion workshops were held to enhance cross-regional and cross-generational employees' understanding and consensus on TSMC's core values, thereby attracting and retaining talent who shared the same ICIC values and deepening their identification with the corporate culture.

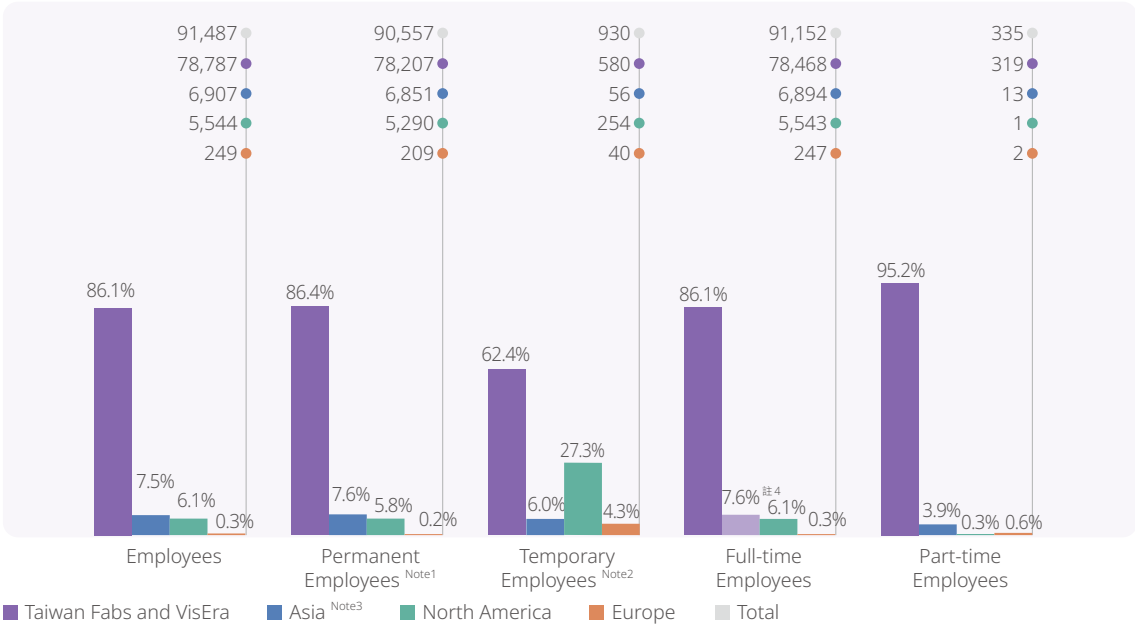
Strong Talent Pool

In 2025, TSMC's global workforce reached 91,487 employees. By contract type, 90,557 were permanent employees and 930 were temporary employees. By employment type, 91,152 were full-time and 335 were part-time.

Number of Permanent Employees Worldwide



2025 Workforce Type Distribution - by Work Location



Note 1: Permanent employees refer to those who have signed contracts with no fixed term, as defined according to the GRI Standards.
 Note 2: Temporary employees are those who have signed fixed-term contracts.
 Note 3: Asia includes Shanghai, Nanjing, Japan, and South Korea.
 Note 4: Rounded to one decimal place, the total may not equal 100%.

Strengthening Diversity in Talent Recruitment

TSMC follows a “shared vision and values” approach and selects talent based on character and capability. The Company does not discriminate in hiring based on gender, age, disability, religion, race, ethnicity, nationality, political affiliation, or sexual orientation. TSMC prioritizes local hiring. For its major operations in Taiwan and VisEra Technologies, the Company balances technology development needs with workforce diversity, recruits both experienced professionals and recent graduates, and includes overseas specialists with critical expertise in its recruitment strategy to advance core technologies and sustain global competitiveness.

• Support the Career Development of Female Tech Talent

TSMC encourages women to pursue careers in STEM fields. In 2025, the Company held a range of programs, including its ongoing “Walk Together and Show Your Uniqueness” career talks, which drew more than 110 female master’s and PhD students. TSMC also hosted four “Girl’s Talk” sessions for female interns, with 300 participants, covering topics from career exploration to building confidence at work. The Company also sent eight representatives to the Society of Women Engineers annual conference and career fair to share workplace experience and semiconductor career paths, encouraging women to apply their expertise and demonstrate their value.

• Global Internship Program

TSMC’s “DNA Summer Internship Program” centers on Develop, Navigate, and Advance Offer. The program gives students in-depth experience of TSMC’s workplace culture and encourages them to pursue advance offer opportunities. In 2025, the program attracted 1,028 interns from more than 15 countries, including 374 female students (36%), 85 international students, and 217 students studying outside of Taiwan, reflecting the diversity of TSMC’s global talent pool.

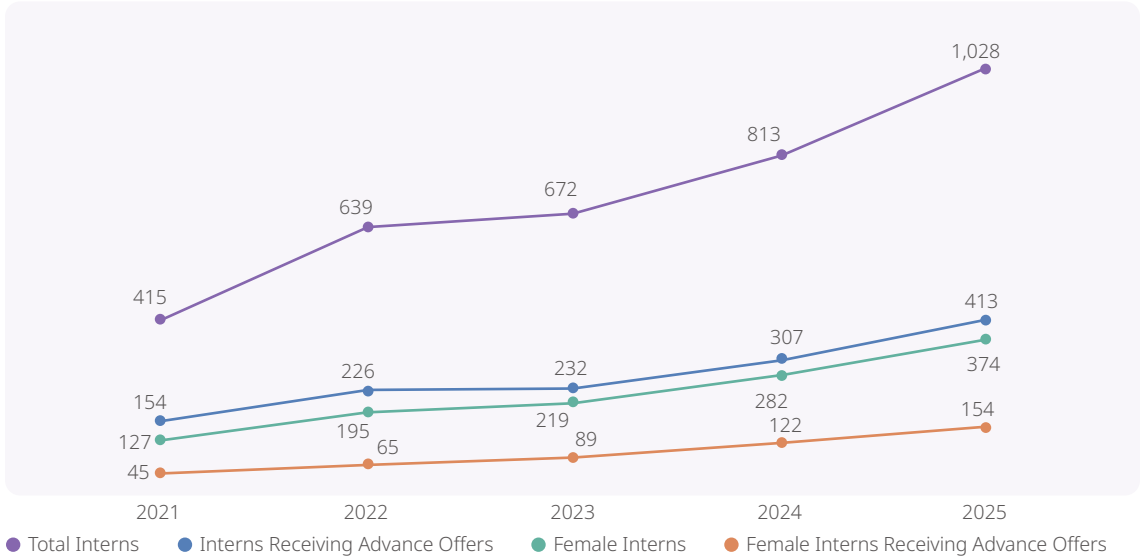
To support interns’ professional growth and cross-cultural exchange, the program provides bilingual

learning resources, including lectures on competitive advantages and semiconductor learning materials, along with an intern project poster exhibition and cross-cultural workshops. Participants present their results and engage with peers, building technical capability while broadening international perspectives and networks. Feedback from interns has been positive. Upon completion of the program, 701 interns were eligible for advance offers, and TSMC extended offers to 413 based on strong performance (59%), including 154 female interns (37.3%), reflecting the Company’s commitment to talent development.



TSMC is committed to recruiting female tech talent.

Interns Receiving Advance Offers in Taiwan Fabs and VisEra



• Recruit Disabled Employees

TSMC works to expand recruitment of candidates with disabilities. In 2025, the Company held two “Accessible Education Center Student and Counselor Visit” sessions, where employees with disabilities shared workplace experience, drawing 96 students and counselors from 13 schools. TSMC also partnered with university centers for accessible education, the Workforce Development Agency, and local labor authorities to host three recruitment briefings for candidates with disabilities and participated in one government-organized job fair for individuals with disabilities, broadening its recruitment network.

To ensure fair access to employment, TSMC launched the “Accessibility DL Prescreen” program, which uses

objective assessments including English, math, and typing tests, with occupational therapists supporting interview evaluations. Based on assessment results, suitable candidates are recommended to improve interview opportunities and hiring rates for applicants with disabilities. During the program, TSMC held three online briefings and five online assessments and hired 27 technicians with disabilities, demonstrating its commitment to an inclusive workplace.

TSMC also prioritizes matching employees to roles that suit their abilities. Occupational therapists conduct job analyses for specific positions and provide placement recommendations based on disability type, enabling hiring managers to better understand the needs of employees with disabilities and assign roles accordingly. In 2025, TSMC employed 573 individuals

with mild to moderate disabilities and 124 with severe or above disabilities, achieving a weighted employment ratio of 1%. Subsidiary VisEra Technologies fell below the 1% threshold due to the nature of its work and has paid the statutory differential contribution fee as required.

• Global Top-tier Professionals and Campus Recruitment

TSMC conducts [overseas recruitment activities](#) and participates in significant international semiconductor conferences to build connections with industry experts and potential talent, with the aim of attracting experienced professionals. In 2025, the Company took part in campus recruitment fairs at 19 leading universities in the United States and hosted dedicated

information sessions and mingle sessions, drawing more than 3,000 students. In Japan, TSMC organized “TSMC Semiconductor Day” in collaboration with 14 local universities to share industry trends and invited alumni to exchange career experiences, attracting more than 800 students.

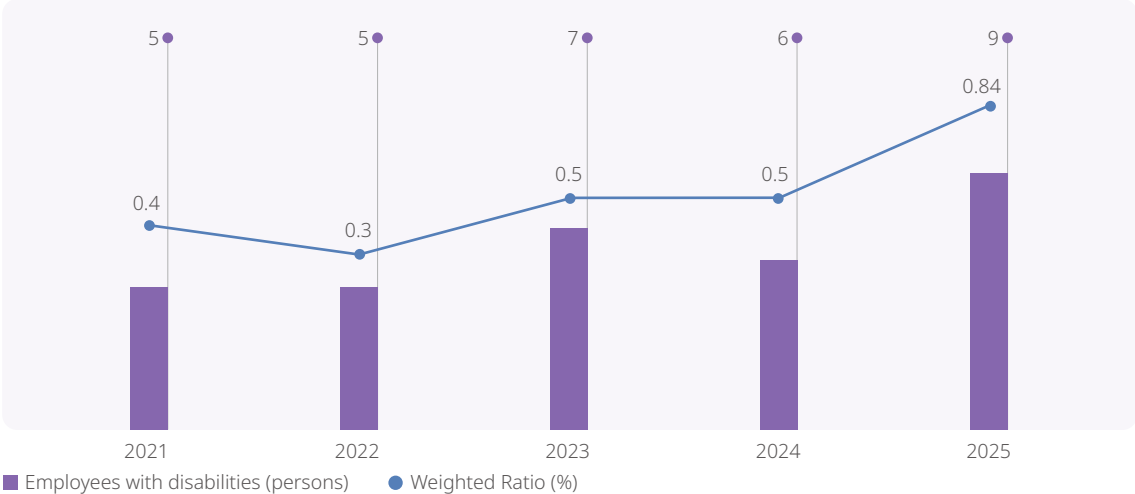
In Singapore, Malaysia, and India, TSMC partnered with 12 leading universities to hold online information sessions for STEM students, introducing job opportunities and sharing experiences through alumni, attracting more than 500 participants. In Europe, the Company continued collaboration with 14 universities in Germany and Poland and participated in significant semiconductor conferences to enhance academic exchange and brand visibility, attracting top European talent to TSMC.

Employees with Disabilities – Taiwan



Note: Calculated based on the number of insured persons in the company stipulated by the Bureau of Labor Insurance

Employees with Disabilities - VisEra



• Apprenticeship Program

TSMC Arizona is building a semiconductor talent base in Phoenix, Arizona and supports local employment. In 2024, the Company partnered with the City of Phoenix, the Arizona Department of Economic Security, and local educational institutions to establish an apprenticeship program targeting on-the-job training, technical mentorship, and personal professional development across four areas: facilities, equipment, process, and wafer manufacturing. The program was launched in April 2025 and trained approximately 130 individuals. By December 2025, eight equipment technicians obtained industrial maintenance certifications, and 35 apprentices completed more than 1,500 hours of on-the-job training and passed first-semester technical courses. Applications for the 2026 sessions opened in February to expand talent development.

• Assimilate Foreign Employees

In 2025, TSMC’s Taiwan fabs employed 1,928 foreign employees, representing 2.1% of its global workforce, with new foreign hires accounting for 4.3% of total new hires. To support employees and their families in adapting to life in Taiwan, the Company provides assistance with relocation, housing, and children’s education, along with onboarding programs, Mandarin training subsidies, and certification bonuses. In 2025, subsidies totaled NT\$1,114,621 and were disbursed to 72 applicants. TSMC also

invites employees to join the Global Family@tsmc Employee Resource Group, which fosters cross-cultural understanding through a one-on-one Cultural Ambassador program, engagement activities, and multicultural celebrations. Recognizing the role families play in employees’ long-term settlement in Taiwan, the Company also established a support community to help family members integrate into Taiwanese society.

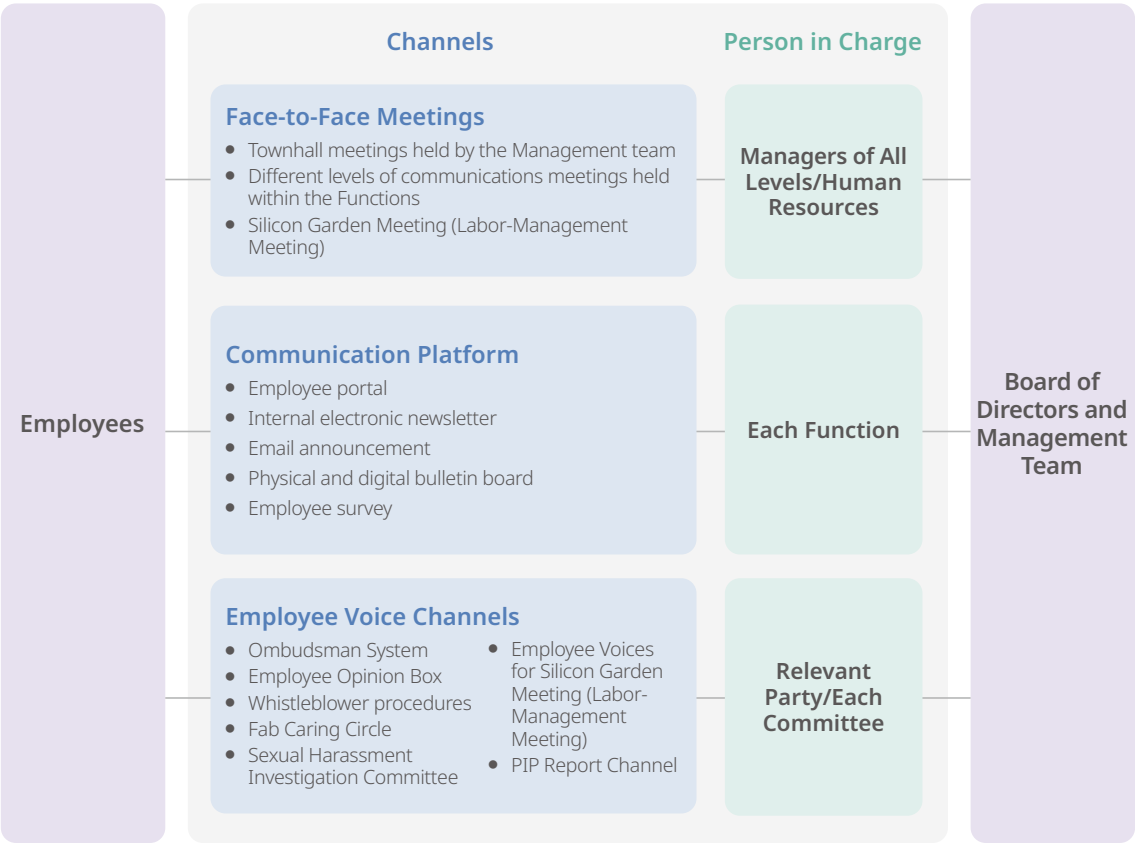
To enhance employees’ cross-cultural capabilities, TSMC launched the [Intercultural Intelligence Program](#)  in 2024 that covered eight themes — intercultural awareness, intercultural adaptability, inclusive leadership and unconscious bias, language, local laws, social norms, workplace collaboration, and intercultural management. The Company provided 88 in-person courses and online learning resources to systematically build employees’ cross-cultural communication and collaboration efficiency. In 2025, the program delivered 166 in-person class sessions with 3,157 participants and achieved a recommendation score of 95.8 points, while online learning resources recorded 3,850 course completions. The Company also introduced a “Scenario-based Intercultural Group Coaching” series with eight sessions and 194 participants, using case studies and guided scenarios to help employees apply core principles, avoid cultural misunderstandings, and improve cross-cultural interactions.

Enhance Employee Engagement

• Two-Way Communication Channels

TSMC values employee input and provides multiple communication channels that encourage feedback to improve management practices. The Company also strengthens interaction and communication between managers at all levels and employees to build a strong sense of belonging and cohesion.

Internal Communications



Note 1: Internal electronic newsletter: Covers key company activities, publishes inspirational articles, and features outstanding teams or individuals.

Note 2: Silicon Garden Meeting (Labor-Management Meeting): A forum where employees raise general organization-wide suggestions, which are consolidated by representatives and discussed collectively at the meeting.

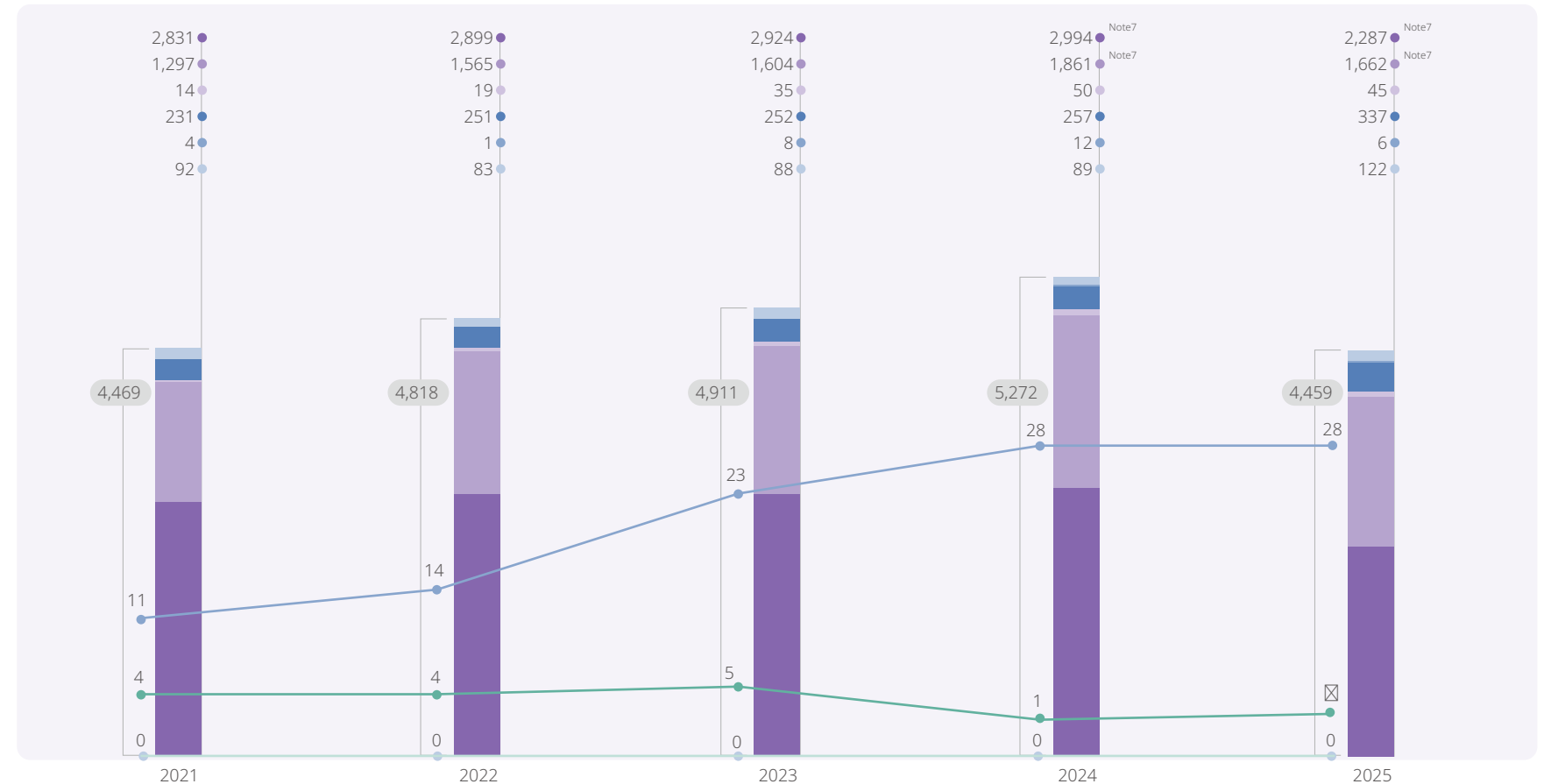
• Employee Feedback Channels

In 2025, TSMC received 4,459 employee feedback and complaint cases through multiple channels, including 45 cases via the Sexual Harassment Investigation Committee, 337 through the Ombudsman System, 6 under the Whistleblower Procedures, and 122 through the Irregular Business Conduct Reporting System. All cases were promptly handled, responded to, and tracked by dedicated personnel.

Of the sexual harassment cases reviewed by the Sexual Harassment Investigation Committee, 28 were substantiated. TSMC imposed disciplinary actions based on severity, including termination or role reassignment, and provided necessary support and protection to employees who raised concerns. To foster a harassment-free workplace, the Company updated its training course “TSMC Human Rights Policy – Build a Workplace Free of Sexual Harassment” in 2025, adding special case studies and guidance on reporting channels to enhance employee awareness of prevention measures and available protections.

In addition, two cases investigated for business ethics violations were substantiated, with the employees involved receiving termination or written warnings based on severity. TSMC continues to promote business ethics through training programs. In 2025, all participants in the Annual Business Ethics and Regulatory Compliance Course (including content on the Personal Data Protection Act) achieved a 100% pass rate.

Cases Reported through Employee Voice Channels ^{Note1}



- Fab Caring Circle ^{Note2}
- Employee Opinion Box ^{Note3}
- Sexual Harassment Investigation Committee ^{Note4}
- Ombudsman System
- Whistleblower Procedures ^{Note5}
- Irregular Business Conduct Reporting System ^{Note6}
- Verified Cases: Irregular Business Conduct
- Verified Cases: Sexual Harassment
- Verified Cases: Discrimination

Note 1: Fab Caring Circle, Employee Opinion Box, Ombudsman System, Sexual Harassment Investigation Committee, Irregular Business Conduct Reporting System cover all TSMC facilities.

Note 2: Addresses employee's concerns regarding work and personal lives, primarily catering to direct labor.

Note 3: Offers a channel for employees to raise issues and provide feedback on their work and work environment.

Note 4: Offers a dedicated reporting channels to promote a harassment-free workplace.

Note 5: Provides a reporting avenue for significant management, financial, auditing, and ethical issues, overseen by the Audit Committee.

Note 6: For reporting channels related to violations of professional ethics, significant management misconduct, workplace violence, and other incidents, the reported cases include both external reports and internal employee reports.

Note 7: Starting from 2024, the number of submissions to the Fab Caring Circle and Employee Opinion Box at each site will include reports from TSMC's overseas fabs.

Respect Freedom of Association

TSMC provides multiple channels for employees to give feedback and respects freedom of association. At Taiwan fabs, the Company holds Silicon Garden Meetings (Labor-Management Meetings) in accordance with regulations. In 2025, 25 Silicon Garden Meeting units across operations, R&D, and support organizations constituted 86.7% of the global workforce. These meetings are held regularly with participation from company and employee

representatives, covering operational updates and employee rights and interests. All changes to work rules require agreement from representatives of both management and employees. Employee representatives also raise suggestions on topics of concern, including workplace and employee life initiatives, such as introducing license plate recognition systems in parking facilities and

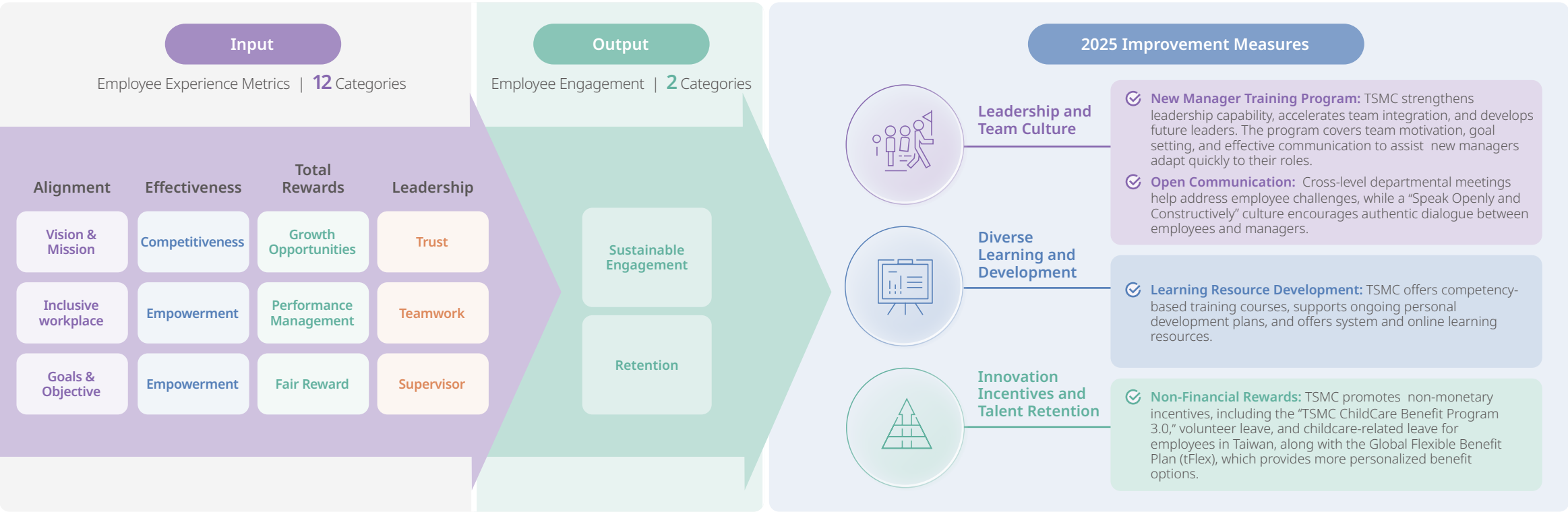
employee benefits programs, such as enhancing [Family Day event design](#) .

Employee Engagement

In 2025, TSMC conducted its Global Employee Engagement Survey, with 76,279 permanent employees throughout TSMC and its global subsidiaries participating, achieving an 88%

response rate. Compared with the 2023 survey, all four employee experience dimensions — management direction, work effectiveness, total compensation, and team leadership — showed improvement. Employees’ confidence in leadership, view of the Company’s competitiveness, growth opportunities, empowerment, and compensation all exceeded benchmarks set by global high-performing companies.

Employee Engagement Model



Compensation and Benefits

• Provide Competitive Total Compensation

TSMC’s total compensation includes base salary, allowances, cash bonuses, and profit sharing. At Taiwan fabs and VisEra Technologies, newly hired master’s-level engineers earned average annual total compensation exceeding NT\$2 million in 2025. Direct employees earned average annual total compensation above NT\$1 million, with average monthly income more than four times Taiwan’s statutory minimum wage. Compared with the previous year, both average salary and median salary for full-time employees at Taiwan fabs increased in 2025.

Since 2022 all permanent employees at TSMC and its wholly owned subsidiaries have been eligible to

participate in the Global Employee Stock Purchase Plan. Starting in July 2025, the program expanded to include all permanent employees at major overseas subsidiaries in which TSMC holds a controlling stake. TSMC provides a 15% purchase subsidy to encourage employees to invest in the Company and share in its long-term growth, with more than 85% of global employees participating.

From 2020 to 2025, TSMC’s total annual employee compensation and benefits expenses  increased from approximately NT\$194.6 billion to approximately NT\$396.1 billion. Over the same period, average annual compensation and benefits per employee rose from NT\$2.53 million to NT\$4.33 million. According to the 2025 Employee Engagement Survey, 84% of employees consider the Company’s overall

compensation reasonable. This result exceeds benchmarks for global high-performing companies (60%) and high-tech companies (57%) in the Willis Towers Watson survey, indicating that TSMC offers market-competitive pay, while earning broad employee recognition for compensation fairness.

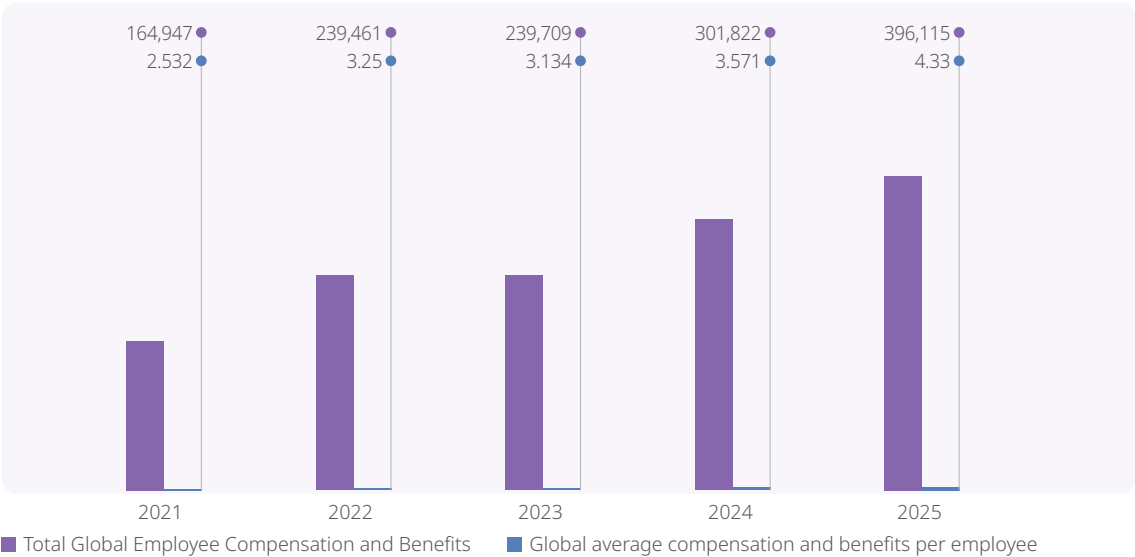
In 2025, TSMC maintained steady revenue and profitability. Approved cash bonuses and profit sharing for Taiwan operations totaled NT\$206.1 billion, and the annual salary adjustment was carried out as planned.

» Compensation Programs

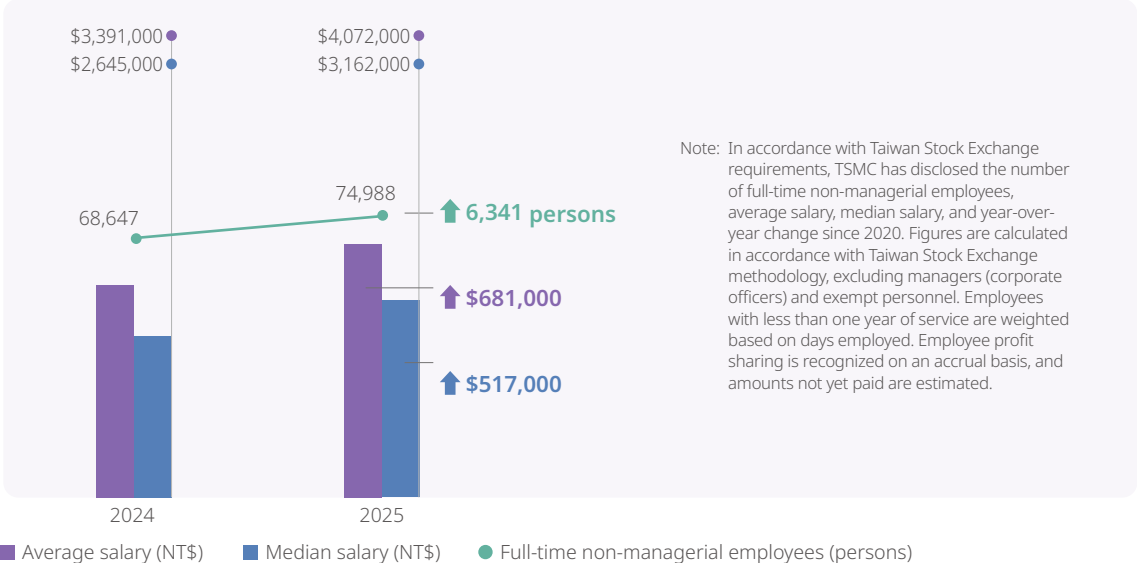
At Taiwan fabs, annual incentive programs are structured over a two-year cycle. Employee cash bonuses are paid quarterly within the year to

provide timely recognition, while employee cash profit sharing is distributed in the following year to encourage long-term service and sustained contribution. At overseas sites, compensation programs vary by local market and country, and include either annual cash bonuses or long-term incentive plans spanning one to three years. In 2025, the median total compensation for TSMC employees globally (excluding pensions and benefits) was approximately NT\$2.95 million. The ratio of this median to the President’s total compensation was approximately 1:822. The ratio of the percentage increase in the President’s annual total compensation to the median percentage increase in annual average employee total compensation was approximately 6.7:1.

Compensation and Benefits Expenses



Average and Median Salaries



» Corporate Officer Shareholding Guidelines

TSMC believes that long-term share ownership by corporate officers aligns their interests with those of shareholders. In 2020, the Company established its Corporate Officer Shareholding Guidelines, requiring the Chairman, President, and other corporate officers to hold shares with a value equivalent to a [specified multiple](#) ☐ of annual base salary. Corporate officers are required to meet the target shareholding level within three years of appointment and must maintain the required shareholding value throughout their employment.

» Linkage Between Executive Compensation and Performance Evaluation

The compensation of TSMC's President and corporate officers is governed by the Company's bonus policy, which links rewards to both corporate operating objectives and individual annual performance goals. Corporate objectives comprise financial and non-financial indicators, while individual goals include operational targets as well as [ESG metrics](#) ☐. The incentive amount granted to each corporate officer is determined based on role, contribution, and performance. Corporate officers' compensation includes employee restricted stock awards with a three-year vesting period (for details, please refer to TSMC's 2025 Annual Report, Section 4.6.1 "[Status of Employee Restricted Stock](#)" ☐), and is subject to adjustment based on the Company's total shareholder

return (TSR) relative to the S&P 500 Information Technology Index TSR, as well as ESG performance outcomes. By anchoring compensation to these two quantitative indicators, TSMC reinforces management accountability for long-term shareholder value creation and enhanced ESG performance, ensuring a strong alignment between executive pay and overall business performance. Effective in 2025, TSMC adopted an annual Long-Term Incentive (LTI) bonus plan to attract and retain corporate executives and critical talent. Eligible participants will receive bonuses, tied to a set of performance metrics. These metrics include individual annual performance, company financial indicators (Revenue Growth Rate, Gross Margin, Return on Equity), company TSR performance relative to a peer group, and company ESG achievements. Through these diverse and clear quantitative indicators, we strengthen management's long-term and continuous creation of company revenue and shareholder value while improving ESG performance towards target achievement, which shows a strong correlation with the Company's overall operating performance.

• Providing Comprehensive Benefits

» Maternity Benefits

TSMC provides lactation rooms to support the breast milk collection needs of female employees. Besides providing parental leave in accordance with local laws and regulations for employees after childbirth, the Company also offers a comprehensive leave management system so that employees have flexibility

in making use of their vacation days to take care of their children. In 2025, a total of 7,213 employees in Taiwan and VisEra were eligible for unpaid parental leave, constituting 9.0% of employees. Among them, 509 employees applied for unpaid parental leave, with an expected return-to-work figure of 577 for the entire year. Out of these, 510 employees expected to return to work either on schedule or in advance, resulting in a return to work rate of 88.4%. As for the retention rate after returning, of the 572 employees who returned to work in 2024, a total of 523 remained at TSMC as of the

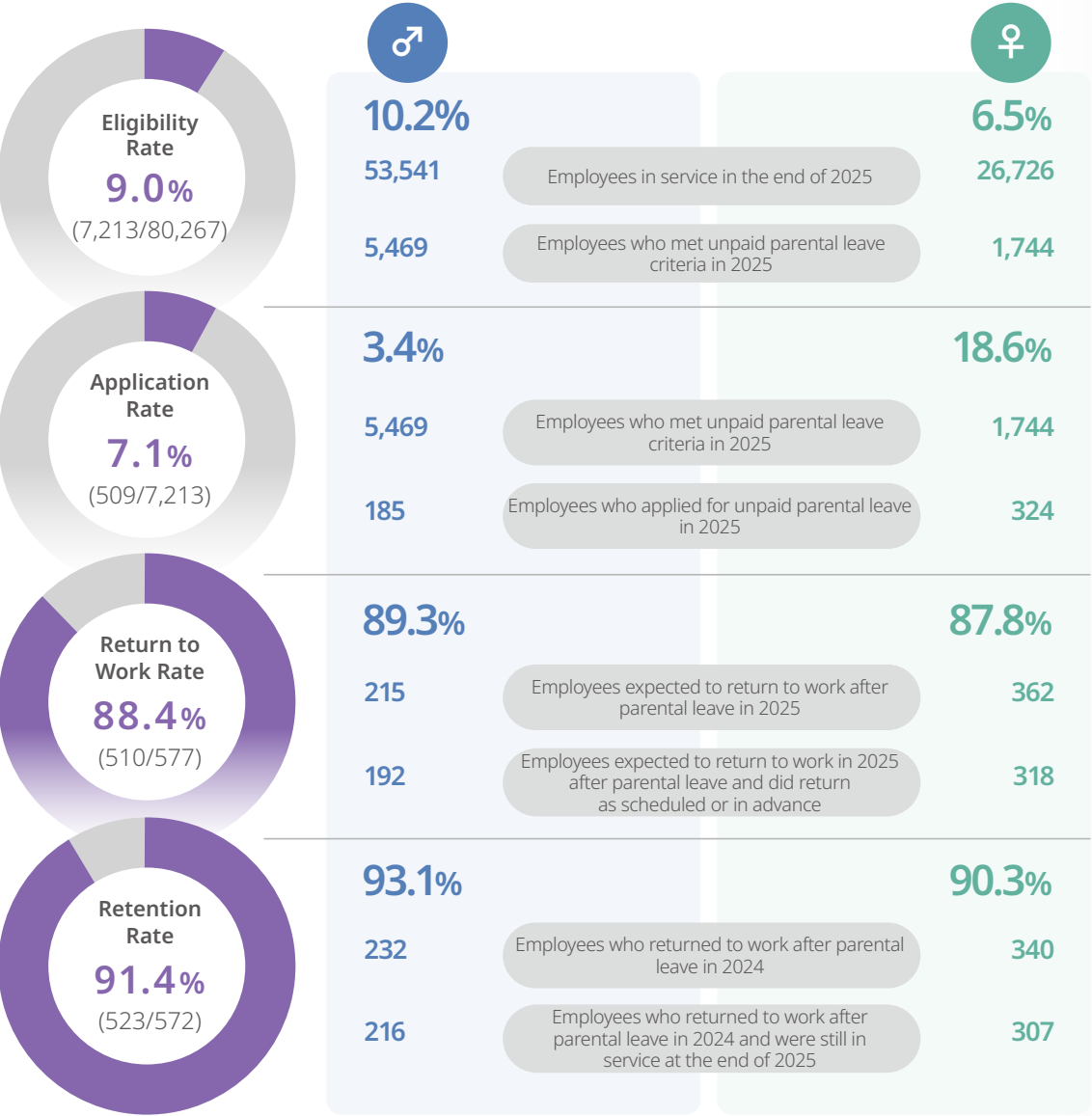
end of 2025, achieving a 91.4% [retention rate](#) ☐.

In 2025, the number of employees in TSMC's Taiwan fabs and VisEra aged between 20 and 64 accounted for 0.54% of Taiwan's population of the same age group. During the same time, the number of employees' newborns was 2,331, which was 2.2% of the total number of newborns in Taiwan, an example of the Company's [outstanding benefits](#) ☐ in mitigating the impact of sub-replacement fertility in Taiwan.

Newborns in TSMC's Taiwan Fabs and VisEra



Unpaid Parental Leave in TSMC's Taiwan Fabs and VisEra - Application, Return to Work, and Retention Rate



Facilities Eco Family Day invites parents and children for cleanroom garments experience.

» Establish TSMC Kindergarten

To support employees’ family responsibilities while developing their career aspirations, TSMC operates four kindergartens throughout its Hsinchu, Taichung, and Tainan sites, offering childcare services from 7:00 a.m. to 8:00 p.m. with capacity for up to 528 children. These facilities provide a safe and high-quality learning environment for employees’ children aged two to six, enabling parents to focus on work while enhancing overall quality of life. The kindergartens develop distinctive curricula built around four pillars: Thematic STEAM Education, Immersive Food and Agriculture Education, Communicative Language Education, and Interactive Parenting Education.

The Hsinchu Science Park kindergarten received both an Excellence Award and a Merit Award at the 2025 Hsinchu County Outstanding Teaching Plan Competition for Early Childhood Education Institutions, recognized for its innovative STEAM lesson plans. The Central and Southern Taiwan Science Park kindergartens emphasize immersive food and agriculture education, guiding children to explore aquaponics systems, build greenhouse trellis structures, grow fruits and vegetables, and prepare meals, delivering a well-rounded hands-on learning experience.

» Solid Pension System

TSMC offers a defined benefit pension plan in compliance with Taiwan’s Labor Standards Law and has established a Labor Pension Fund Supervisory Committee. Since July 1, 2005, the Company has

provided a defined contribution plan under the Labor Pension Law while instituting employee retirement regulations based on local laws in overseas operational locations. The supervisory committee holds quarterly meetings as required by law to oversee pension affairs and deposit funds into pension reserves according to individual retirement plans. Meanwhile, annual pension actuarial assessments are conducted by actuarial consulting firms to meet disclosure requirements for listed companies, ensuring adequate pension allocations to protect employees’ future retirement benefits. For specific contribution rates and amounts, please refer to [TSMC’s Consolidated Financial Statements](#) [🔗](#) for details.

Pension Contributions and Reserve Status



Defined Benefit Plans

- In Taiwan facilities and VisEra, pensions are calculated based on employees’ years of service and average salary for the last six months before retirement, in accordance with the Labor Standards Law. The pension contribution amount is remitted to the Labor Pension Fund Supervisory Committee, which deposits it in a dedicated account at the Bank of Taiwan under the committee’s name

Pension Reserve Status in 2025

- ✔ Taiwan facilities and VisEra contribute 2% of total monthly employee salaries to the Employee Pension Fund
- ✔ As of the end of 2025, the fair value of plan assets for Taiwan facilities was NT\$ 13,326.843 million. In accordance with the above regulations, the amount recognized as expenses by TSMC in 2025 was NT\$256.924 million. The amount to be contributed in the future as required by law has been accounted for as an accrued pension liability, totaling NT\$ 6,012.286 million as of the end of 2025
- ✔ As of the end of 2025, the balance in the old labor pension system reserve account at VisEra was NT\$4.11 million

New Employee Assimilation and Retention

• New Employee Adaptation Program

To accelerate new employee integration and improve retention, TSMC launched “Fresh Graduate Essential” in 2025, designed for employees within their first four months at the Company. The program equips new hires with practical skills in interpersonal communication, seeking guidance at work, time management, and emotional adjustment. A total of 23 sessions were delivered with 532 participants, achieving an average satisfaction score of 95.7 points.

In the same year, TSMC also continued its new employee workplace adaptation program for employees with four months to less than one year of tenure, offering the in-person course “New Employee Success,” centering on workplace dynamics, communication, and stress management. The program ran 94 sessions with 2,924 participants and achieved an average satisfaction score of 96.1 points. In addition, the online course “Workplace Soft Skills for Generation Z” provided training in stress management, growth mindset development, and strategies for addressing workplace challenges, with 1,346 completions and an effectiveness rating of 97 points.



Defined Contribution Plans

- In Taiwan facilities and VisEra, employee retirement regulations are established according to the Labor Pension Act, and funds are contributed to individual pension accounts at the Bureau of Labor Insurance
- Overseas subsidiaries also contribute funds at a specific rate of total monthly salaries of local employees to pension management entities

Pension Reserve Status in 2025

- ✔ In Taiwan facilities, funds were contributed at 6% of employees’ monthly salaries to their individual labor pension accounts. The total pension contributed by all global entities, including overseas subsidiaries, recognized as expenses in 2025, amounted to NT\$6,707.46 million

• New Employee Support Initiative

TSMC uses the WeCare Survey to regularly track how new employees are assimilating. In 2025, the Company expanded the survey, which was previously available in Traditional Chinese, Simplified Chinese, English, and Japanese, by adding a German version, extending its coverage to new hires at ESMC. A total of 41,075 voluntary responses were collected from new hires, representing a 51% increase from 2024, reflecting strong engagement among newcomers. The employee sentiment index, which measures employees' positive perception of the Company based on their work and life experience over the past month, remained stable at 8.3 out of 10. TSMC also encourages new employees to provide feedback directly through [multiple communication channels](#) , ensuring every voice is heard and appropriately addressed.

• Buddy Program

The Buddy Program plays a crucial role in assisting new employees adapt to the company culture. TSMC established this structured Buddy program and offers the in-person course "The 3 Key Factors of Being a Good Buddy," which equips buddies with the right mindset, core skills, and empathy to effectively support new hires. The Company also introduced the Buddy Management System (BMS), through which managers can assign certified buddies — selected through personality assessments and

training courses — to support new employees. At Taiwan fabs, the BMS is integrated with the HR AI assistant "Bonnie" to remind managers to complete buddy assignments and streamline the process. The program has been extended to TSMC (China), TSMC (Nanjing), TSMC Arizona, and JASM. By the end of 2025, TSMC automated the feedback survey process, replacing manual distribution to enable real-time tracking of buddy effectiveness.

By the end of 2025, TSMC had certified 16,126 buddies, with 14,537 in Taiwan sites and 1,589 in overseas subsidiaries, representing a 23% increase from the previous year. To recognize their contributions, TSMC held its inaugural Operations Buddy Award in March 2025, honoring 62 outstanding buddies selected from each fab. The Company also shared video messages of appreciation from new hires to encourage more employees to take on the buddy role.

Maintain Healthy Turnover Rate

TSMC's overall employee turnover rate in 2025 was 2.9%, down 0.6 percentage points from 2024, while the turnover rate among employees within their first year of employment stood at 5.7%. To support talent retention, TSMC continues to enhance onboarding programs and employee care initiatives, aiming to foster shared growth with the Company.



TSMC colleagues recognized with the inaugural Operations Buddy Award.

 Case Study

TSMC ChildCare Benefit Program 3.0: Enabling a Win-Win for Employees' Families and Careers

To deepen support for female employees and strengthen care for employees' families, TSMC expanded the scope of the ChildCare Benefit Program in 2025. In addition to the four existing stages — pre-pregnancy, childbirth, under one year old, and under six years old — the Company introduced new pre-pregnancy support measures. These include up to one day of egg-freezing leave for female employees, as well as one day of assisted reproduction leave per treatment cycle for both male and female employees (for themselves or when accompanying their spouses), demonstrating respect for reproductive autonomy. The Company also provides employees in adoptive families with 10 days of adoption leave within one year, reinforcing its commitment to diverse family structures.

In 2025, applications for the newly introduced measures reached 8,883 employees, accounting for 11.2% of the Taiwan fabs' workforce. Among these, the application ratio between male and female employees for assisted reproduction leave, childcare leave, and adoption leave was approximately 7:3, reflecting TSMC's support for gender equality and a family-friendly workplace.

Beyond fertility-related benefits, TSMC also helps ease employees' parenting pressures by incorporating family care and parenting support into its Employee Assistance Programs. Employees are entitled to up to five hours of free one-on-one psychological counseling annually. In 2025, the Company hosted nine parenting lectures to support employees in navigating childcare challenges and foster healthier parent-child relationships.

People are TSMC's most valuable asset. Since its launch in 2022, the "TSMC ChildCare Benefit Program" has continuously supported women's development while addressing employees' family needs. Looking ahead, TSMC will continue to listen to employee feedback, review program effectiveness, and introduce additional benefits to realize the shared vision of employees and the Company growing together.

I am grateful the Company introduced childcare leave, which allowed me to accompany my child through early intervention therapy — witnessing every meaningful progress in his rehabilitation. This has made a profound difference in his physical and emotional development and helped me find balance between family and work so I can be fully present for my family.

TSMC Employee

Parenting-themed Seminars

Invite experts to share practical knowledge on parenting, mental health, and parent-child interaction

TSMC Child Care Benefit Program 3.0

Provide support resources spanning from pre-pregnancy through early childhood development, helping employees balance work and parenting needs

Consultation and Counseling Services

Establish professional consultation channels to provide one-on-one guidance on parenting issues, as well as psychological support and counselling



TSMC continues to optimize family care benefits. The picture shows employees participating in a parent-child day event.

Talent Development

Strategies	2030 Goals	2026 Targets	2025 Achievements
Unleash Employees' Potential and Innovation Enable self-learning and create positive impact to the Company and society	🌐 Achieve an average of no less than 100 hours of learning in employees, including 12 hours dedicated to nontechnical skills training ^{Note1}	Achieve an annual average of no less than 100 hours of learning in employees, including 11 hours dedicated to nontechnical skills training	Achieved an annual average of 90.4 hours of learning in employees, including 14.2 hours dedicated to nontechnical skills training Target: 92 hours, 7 hours Note2
Equip Employees with Future Capabilities Prepare employees with skills needed for the future and build a talent pool	🌐 Fill over 80% of manager positions through internal promotions 🌐 Fill over 50% of vacancies through internal transfers 🌐 60% completion of the talent pipeline within two years for fab directors/directors	Fill over 80% of manager positions through internal promotions Fill over 50% of vacancies through internal transfers 50% completion of the talent pipeline within two years for fab directors/directors	Filled 90.1% of manager positions through internal promotions Targets: ≥ 80% Filled 64.3% of vacancies through internal transfers Targets: ≥ 50% Completed 50.7% of the talent pipeline for fab directors/directors Targets: 50%

🌐 Applicable to all TSMC fabs around the world
🌐 Applicable to TSMC fabs in Taiwan and other specific fabs
🇹🇼 Only applicable to TSMC fabs in Taiwan
🌐 Applicable to TSMC overseas fabs

⬆ Exceeded
✓ Achieved
— Missed Target

Note 1: To improve learning quality and effectiveness while strengthening the development of non-technical skills, including leadership and general capabilities, TSMC has adjusted the target for employees' average annual learning hours to "no less than" 100 hours and will progressively increase non-technical skill training hours each year.

Note 2: In 2025, employees' average annual learning hours were 90.4 hours, slightly below the target of 92 hours. This was mainly due to changes in employees' learning channels and behaviors, for example, increased use of the Company's internal knowledge management platform for self-directed learning, which resulted in a portion of learning hours not being fully tracked and recorded.

To ensure sustainable corporate development, TSMC places its [People Vision](#) at the core of its talent strategy, working to inspire outstanding employee performance and build a robust talent pipeline system. Anchored in the TSMC Talent Development Model, the Company employs two key strategies — “Unleash Employees’ Potential and Innovation” and “Equip Employees with Future Capabilities” — to comprehensively strengthen talent competitiveness and drive new industry breakthroughs.

Unleash Employees’ Potential and Innovation

To motivate employees to realize their full potential and foster innovation, while supporting long-term individual and organizational development, TSMC provides diverse learning resources and channels. The Company encourages employees to develop personal learning plans and strengthens self-directed learning through a wide range of learning programs.

For personal effectiveness, employees may select learning programs, based on their needs, to enhance four core general capabilities — innovation, performance achievement, teamwork, and learning agility. In 2025, TSMC offered 291 in-person courses, attracting 6,747 participants. For language learning, employees assess their proficiency through testing and strengthen their second-language listening, speaking, reading, and writing skills through a combination of business English workshops, Workplace English Conversation workshops, English Foundations workshops, live online sessions, and one-on-one English consultations, and E-Learning

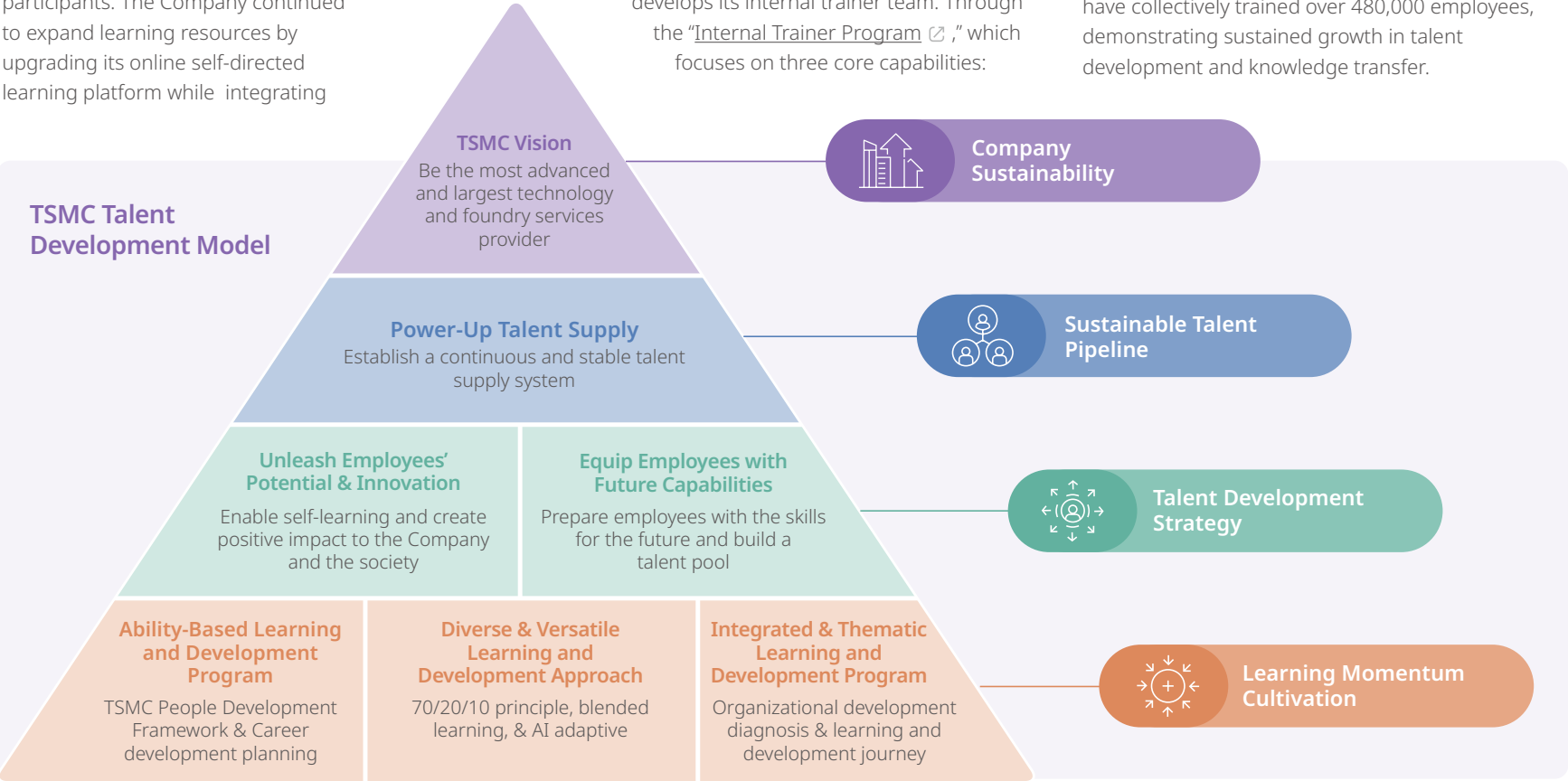
in four languages — Mandarin Chinese, English, Japanese, and German. In 2025, these programs drew 97,015 participants.

TSMC also provides elective programs for managers, featuring lectures delivered by domestic and international experts to enhance leadership and decision-making capabilities. In 2025, 126 in-person courses were offered, attracting 2,473 participants. The Company continued to expand learning resources by upgrading its online self-directed learning platform while integrating

external resources. TSMC launched seven curated self-learning campaigns, transforming learning from one-way knowledge delivery into an active, exploratory learning experience and drawing 449,660 participants in 2025.

To ensure the talent required for sustainable corporate development, TSMC not only leverages external resources but also actively develops its internal trainer team. Through the “[Internal Trainer Program](#),” which focuses on three core capabilities:

delivery, facilitation, and design, TSMC strengthens trainers’ teaching skills, learner engagement, and course development capabilities to enhance overall training quality. In 2025, the program conducted 55 sessions, training 1,330 participants, with an average satisfaction score of 96.7 points. For the past 19 years, TSMC has recognized exceptional internal trainers through its TSMC Excellent Trainer Award. As of June 2025, TSMC had 3,881 internal trainers who have collectively trained over 480,000 employees, demonstrating sustained growth in talent development and knowledge transfer.



Equip Employees with Future Capabilities

Building employee capabilities and developing talent pipelines are critical to sustaining TSMC’s operational growth and leadership position. To equip engineers with essential skills and knowledge, the Operations organization’s Engineer Training Committee develops structured learning roadmaps tailored to different career stages, covering courses in regulations, technical skills, management, and personal effectiveness. In 2025, the target training population reached 67,252 employees, achieving a 100% participation rate, with total participants exceeding 1,090,418. The Research and Development organization also designed a one-year development program built around three core themes — leadership, strategic thinking, and innovation. Through structured coursework, experience sharing, and project-based learning, the program is intended to cultivate mid- to senior-level talent. In 2025, 50 R&D managers participated, with an average of 70 training hours per participant.

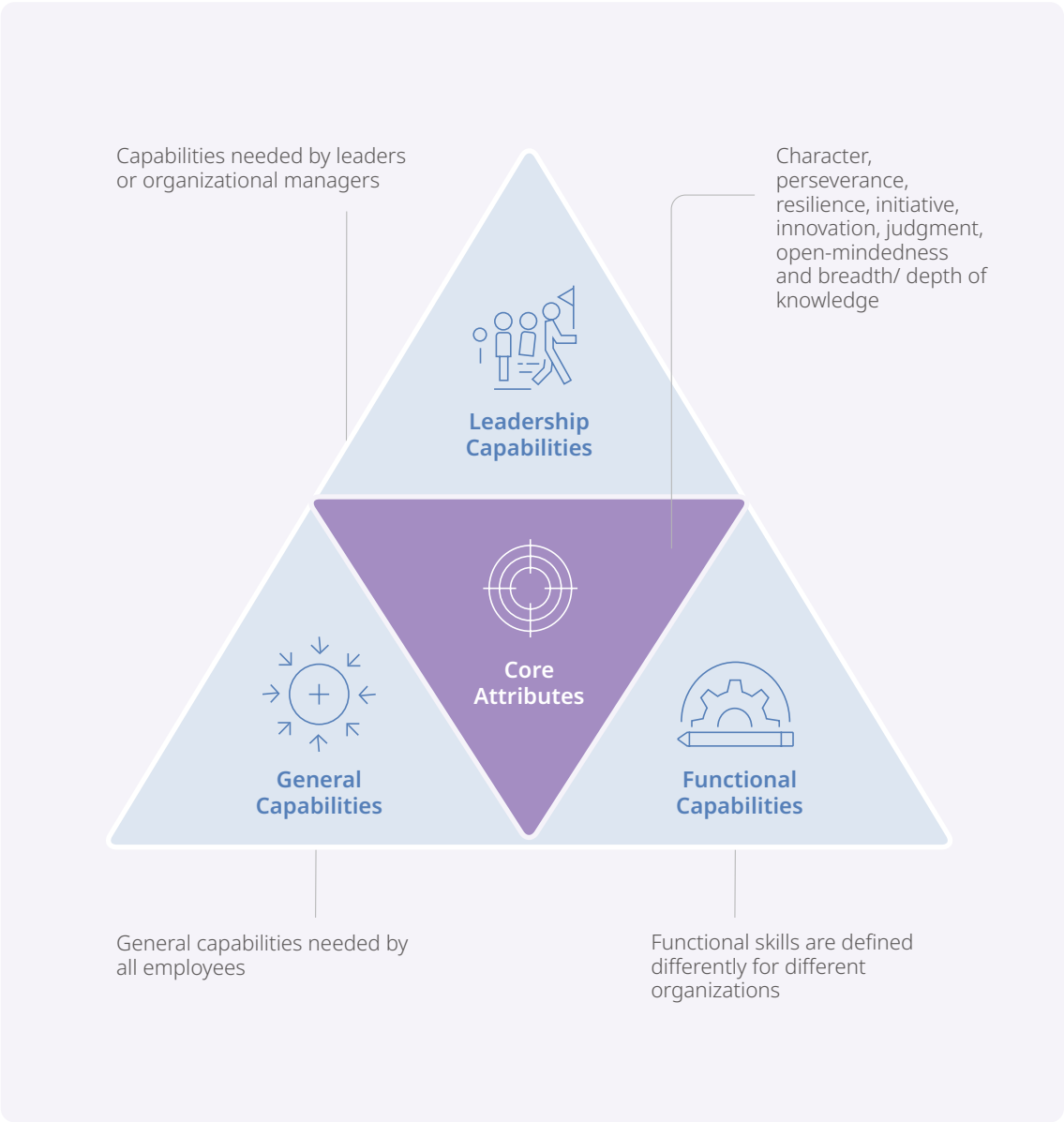
To help newly appointed managers in navigating role transitions, TSMC provides comprehensive support. In 2025, the target training population was 1,238 managers, achieving a 99% participation rate, with total participants reaching 8,400, accelerating their upward mobility and strengthening leadership effectiveness. For department managers within their first year of appointment, TSMC centers on five core managerial capabilities — effective team leadership, decision-making and risk management, talent development and empowerment, innovation, and global leadership. The Company integrates internal and external instructors with scenario-based simulations to deliver training, with a total of 164 participants completing the program as of 2025.

In response to shifts in the global operating environment, TSMC prioritizes leadership development as a key driver of sustainable growth. The Company tracks talent pipeline readiness for fab/div-level director and above positions, reaching 50.7% bench strength (% of target positions with short- and mid-term pipeline candidates) in 2025. To build short- and mid-term succession pipelines, TSMC employs the Enterprise Leadership Development Program (ELDP) to systematically develop mid- to senior-level managers and strengthen their leadership and business management capabilities. This training program brings together expert guidance from renowned domestic and international authorities in business management, aiming to comprehensively enhance participants' leadership and management capabilities. The curriculum design focuses on unlocking the potential of diverse teams and fostering their continuous development. Beyond systematic classroom learning, individualized coaching from internal mentors or external coaches is also provided. Tailored development activities are customized based on participants' individual learning needs, designed to accelerate leadership development, improve decision-making quality, and ensure participants effectively apply what they learn in real-world work settings, transforming it into concrete results.

Ability-Based Learning Program

TSMC adopts the TSMC Capability Model as the guiding framework for talent selection and development. The Company first ensures that employees possess the required core attributes, and then enhances their general capabilities, leadership capabilities required at different leadership levels, and job-specific functional capabilities through ability-based learning programs.

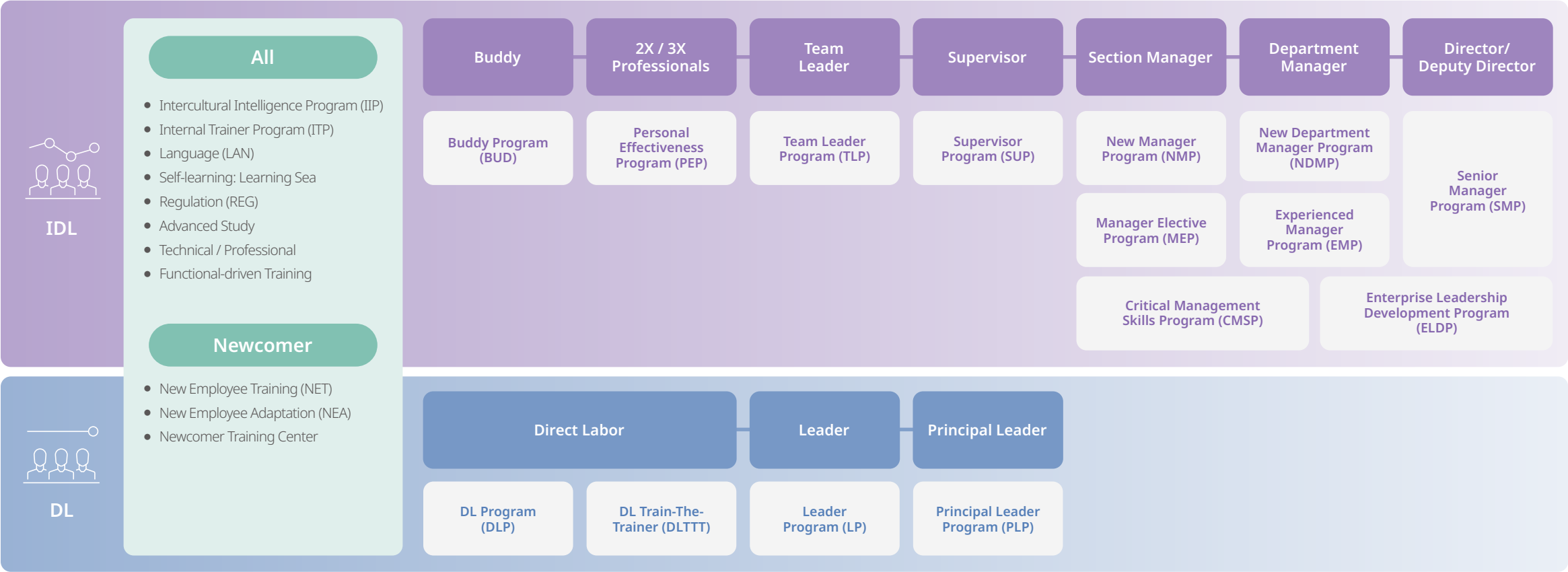
TSMC Capability Model



Grounded in the TSMC Capability Model, the Company established a comprehensive talent development program. New employees gain an understanding of the Company's vision, mission, and core values through the New Employee Training program, and build foundational semiconductor knowledge and skills at the Newcomer Training Center. After onboarding, they participate in the New Employee Adaptation (NEA) program to develop workplace mindset, communication and collaboration skills, and stress management capabilities. Direct employees also enhance their process knowledge, quality awareness, and self-management skills through the Direct Labor Program (DLP).

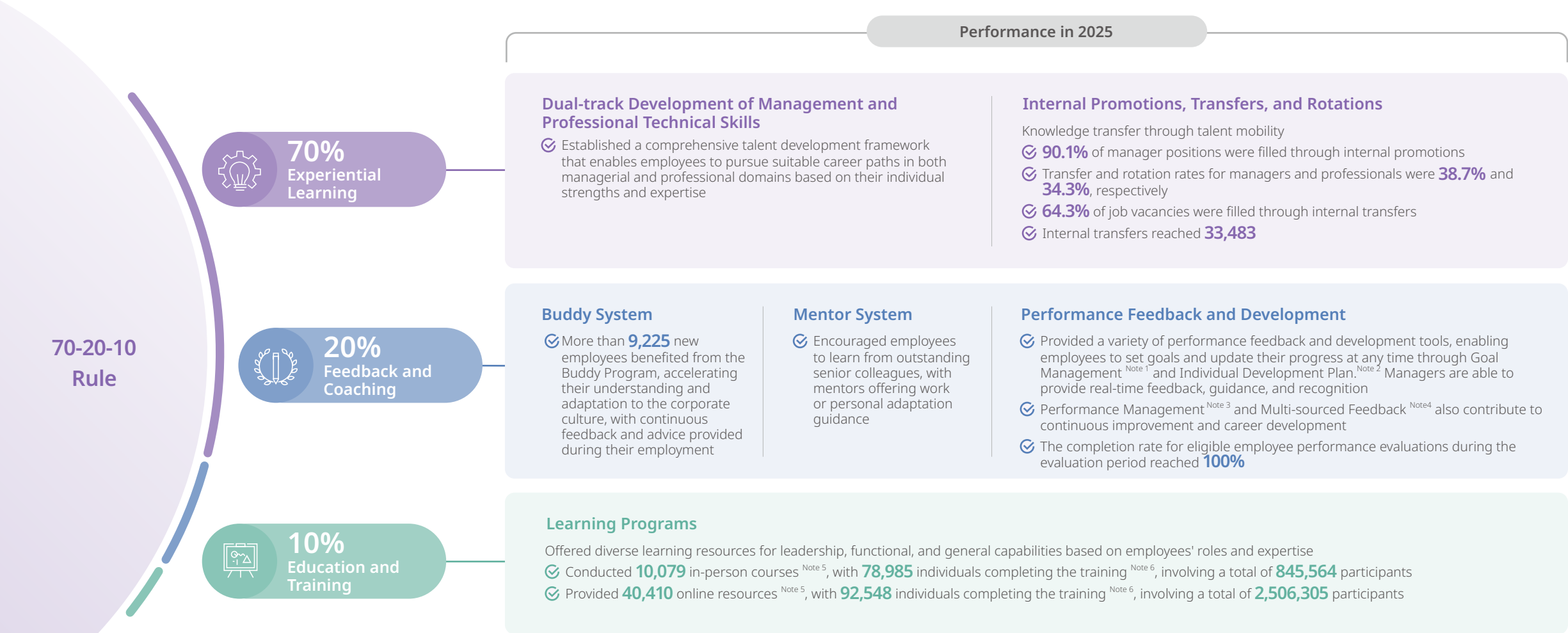
Before being promoted to managerial roles, indirect employees are required to complete the New Manager Program (NMP) to develop frontline management capabilities. Managers at different levels participate in the Experienced Manager Program (EMP) and the Senior Manager Program (SMP), respectively. Direct employees further strengthen their management skills through the Leader Program and the Principal Leader Program. Through this structured, tiered training framework, TSMC supports employees' career development and professional growth, ensuring that talent at all levels continues to create value for the Company.

Internal Learning Roadmap-Corporate and Functional



Diverse and Versatile Learning Approach

TSMC adopts the 70-20-10 Rule, centering around three key dimensions: Experiential Learning, Feedback and Coaching, and Education and Training. By integrating a blended learning approach, the Company provides employees with diverse and versatile resources in applying what they have learned to their work and life, laying a foundation for their career development.



Integrated and Thematic Learning Development Programs

To meet organizational learning and development needs, TSMC established a systematic organizational development diagnostic process. The Company designs blended learning journeys based on the 70-20-10 Rule while analyzing the impact of these journeys on behavioral change as well as the relevant influencing factors. In 2025, a total of 26 organizations participated, with 328 sessions conducted and 9,335 participants completing the program. The overall course recommendation score reached 95 points.

One example is the in-person course "Building an innovative team through psychological safety," designed for managers. The program includes pre- and post-training behavioral surveys, a core training session, assignments, a follow-up session, and group trend reports with individual analysis. The results indicate positive feedback in terms of satisfaction, engagement, and perceived value. Participants' confidence in applying what they learned increased from 8.28 in the pre-training assessment to 9.34 after the follow-up session (out of 10). Participants also demonstrated observable behavioral changes in the workplace, as validated through both self-

assessments and evaluations by their direct reports. In addition, managerial support — such as discussing the program's purpose with participants and assisting in goal setting — was identified as a key driver of behavioral change.

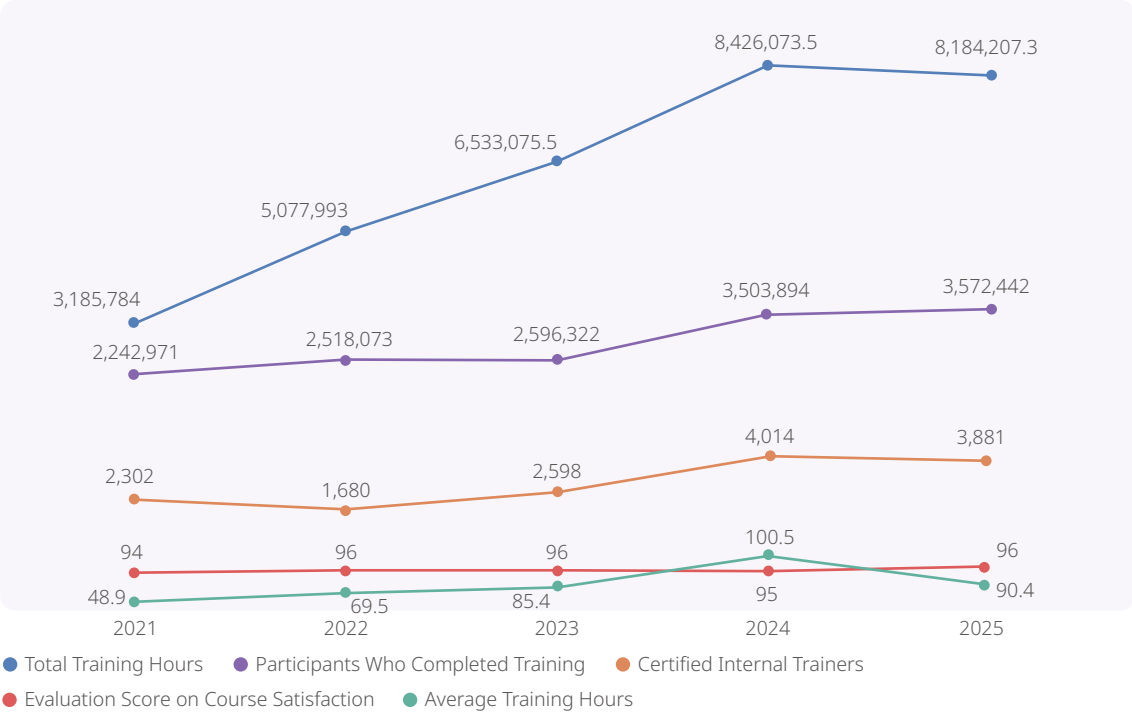
Learning and Development Metrics and Evaluation

• Training Metrics

TSMC proactively designs diverse learning programs, integrating in-person courses, online learning, and internal and external resources to develop employees' soft and hard skills, to enhance job performance. In 2025, employees averaged 90.4 learning hours per year. Total training expenditure reached NT\$1.38 billion, with an average training cost of NT\$15,200 per employee, representing a 23.1% year-over-year increase^{Note}.

Note: In order to align the definition of training expenses with international market research information (as in Training magazine) to include total training spending, outside products and services, and training staff payroll, starting in 2022 the Company began including training staff payroll in annual training expenses.

Historical Training Index



Note 1: Starting in 2022, certified internal instructors who obtained repeated certifications are counted only once.
 Note 2: The calculation period for internal trainers runs from July 1, 2024 to June 30, 2025.



TSMC provides diverse learning and development resources to empower employees' career growth.

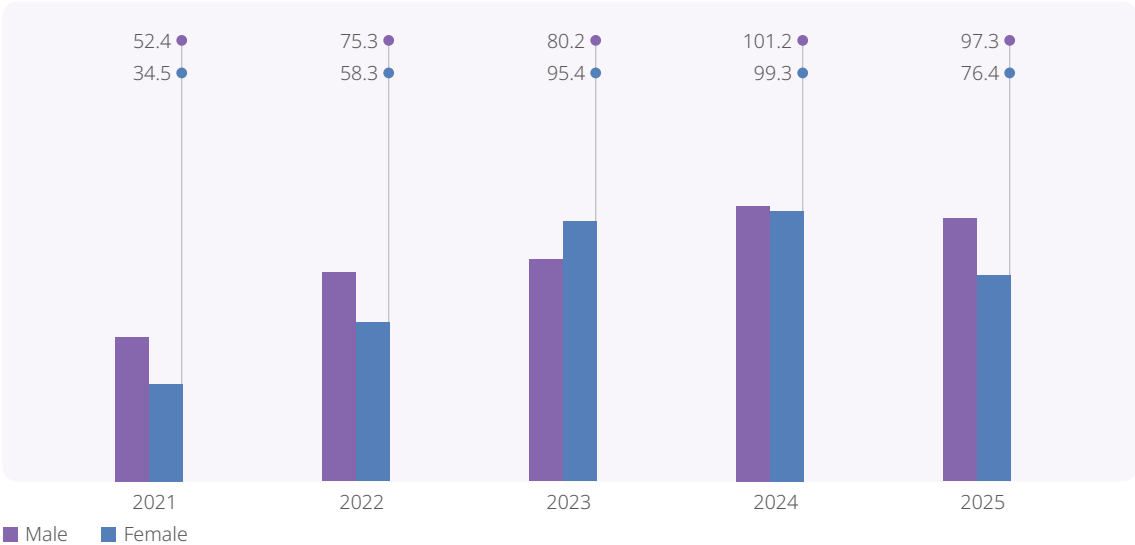
Average Training Hours per Person - by Job Function

Unit: hour



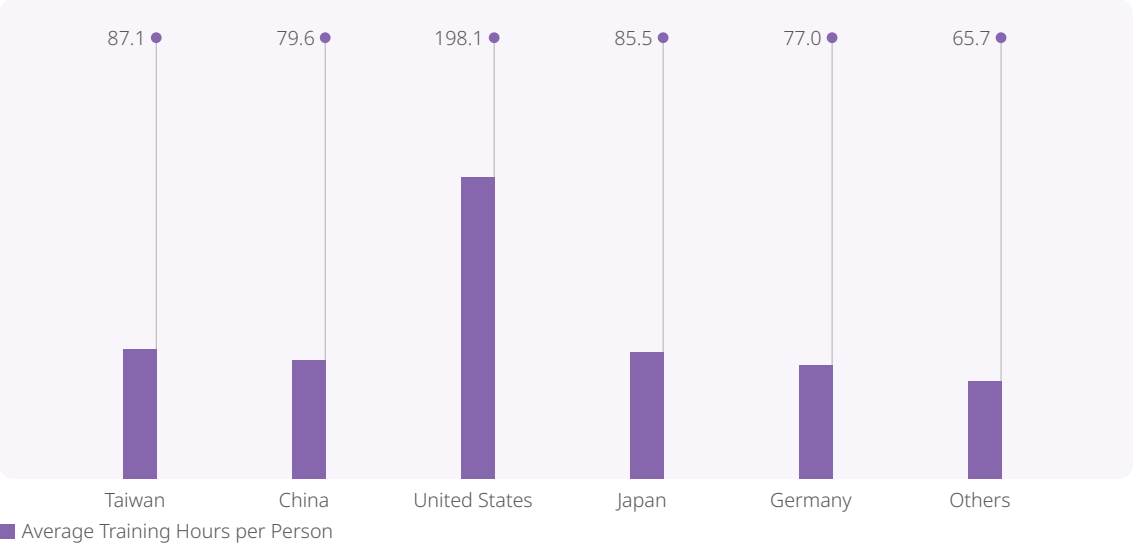
Average Training Hours per Person - by Gender

Unit: hour



Average Training Hours per Person - by Nationality

Unit: hour

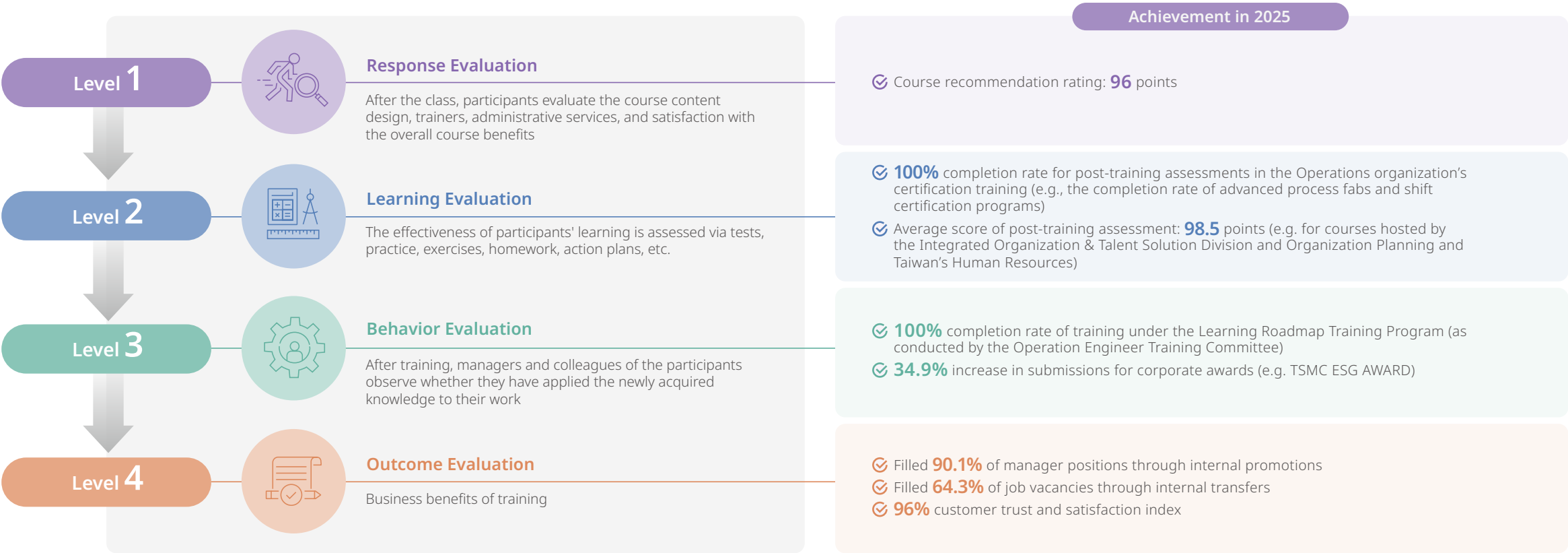


TSMC provides diverse learning resources and channels through various learning programs.

• Evaluation Model

TSMC employs the Kirkpatrick Model's four levels of evaluation to validate training effectiveness. In 2025, all courses conducted by the Human Resources department met the criteria for Level 1 (Response), with an average recommendation score of 96 points. To assess course effectiveness, on-the-job training programs organized by a wide range of organizations achieved Level 2 (Learning) or Level 3 (Behavior), enabling trainees to understand and apply knowledge in their daily work. The Company integrates Level 4 (Outcome) into its employee performance management and development systems, showcasing training effectiveness through internal metrics such as employee promotions and transfers.

Kirkpatrick Model





Case Study

Career Exploration and Mindfulness-Based Stress Reduction Programs for Women Engineers

Talent development is central to TSMC's global talent strategy. Recognizing that employees — particularly women engineers — may face the dual demands of work and family responsibilities, TSMC provides diverse resources to support their career growth. In August 2025, TSMC launched the "Empowering Women Engineers, Creating New Career Heights" program series to help female engineers achieve work-life balance, strengthen confidence in self-expression, and transform stress into motivation for professional advancement and workplace impact.

The program series consists of two themes: "Career exploration, unleashing influence, and becoming a better self" and "Mindfulness stress reduction, releasing sources of stress, cultivating the instinct to heal." Through case discussions, facilitation by external experts, and sharing by internal trainers, participants are encouraged to apply what they have learned in the workplace. The "Career Exploration" theme focuses on interpersonal communication and self-leadership to support long-term career development. From August to November in 2025, 14 sessions were offered with 566 participants, achieving an overall recommendation and effectiveness rating of 96 points. The "Mindfulness stress reduction" theme deals with stress management, emotional awareness, and psychological resilience, helping participants strengthen self-regulation and recovery capabilities. From October to December in 2025, 20 sessions were held with 904 participants, achieving an overall recommendation and effectiveness rating of 93 points.

Through this program series, TSMC demonstrates its commitment to an inclusive workplace and takes concrete actions to support women engineers in breaking boundaries and continuing to grow in a rapidly changing environment, thus reaching new career milestones.



The trainer guided us to build influence, helping me understand that different levels of seniority have different needs. I gained the ability to see things from others' perspectives and learned practical strategies for developing both myself and my team.

Wei-Ting Gu

participant in the "Career exploration, unleashing influence, and becoming a better self" program



I gained many new insights and approaches, as well as techniques for relaxing both body and mind.

C.Y.Li

participant in the "Mindfulness stress reduction, releasing sources of stress, cultivating the instinct to heal" program



Participants demonstrate communication skills learned in the program and are encouraged to share career aspirations with their managers.

Occupational Safety and Health

Strategies	2030 Goals	2026 Targets	2025 Achievements
Promote Safety Culture Advocate for a human-centered safety culture, manage safety risks, and establish an intrinsically safe working environment	🌐 Incident Rate per 1,000 Employees: <0.2	Incident Rate per 1,000 Employees: <0.2	Incident Rate per 1,000 Employees: 0.18 Target: <0.2 ✓
	🌐 Disabling Injury Frequency Rate (FR): <0.3	Disabling Injury Frequency Rate (FR): <0.4	Disabling Injury Frequency Rate (FR): 0.34 Target: <0.4 ✓
	🌐 Disabling Severity Rate (SR): <3	Disabling Severity Rate (SR): <4	Disabling Severity Rate (SR): 3 Target: <4 ✓
Provide Comprehensive Health Management Prevent occupational diseases and promote comprehensive health management for employees	🌐 0 cases of occupational disorders caused by exposure to chemicals	0 cases of occupational disorders caused by exposure to chemicals	0 cases of occupational disorders caused by exposure to chemicals Target: 0 ✓
	-	-	Employees with abnormal blood lipids, blood pressure, and blood sugar: 9.15 %, 6.43%, 1.66% Target: <11%, 13.5%, 2.5% ✓
	-	-	Employees with reported high-stress levels: 4.5% Target: <9% ✓
	⚡ Employee self-enrollment in health programs: > 60% ^{Note1}	Employee self-enrollment in health programs: > 53%	Employee self-enrollment in health programs: 62.78% Target: >53% ✓
Build Internal- External Alliances Collaborate with external parties to establish a safer working environment across the supply chain	⚡ Sick leave absenteeism rate: ≤ 2% ^{Note1}	Sick leave absenteeism rate: ≤ 2%	Sick leave absenteeism rate: 1.12% Target: <2% ✓
	⚡ Assist all high-risk contractors ^{Note2} to obtain ISO 45001 certification for occupational safety and health management system	Assisted 100% of high-risk contractors to obtain ISO 45001 certification for occupational safety and health management system	Assisted 100% of high-risk contractors to obtain ISO 45001 occupational safety and health management system certification Target: 100% ✓
	⚡ Construction site incident and accident rate per 1,000 workers ^{Note3} : < 3.2 NEW	Construction site incident and accident rate per 1,000 workers: < 3.7 NEW	-
	⚡ Construction site fatal occupational accidents: 0 ^{Note4} NEW	Construction site fatal occupational accidents: 0 NEW	-
	⚡ Construction site occupational accidents frequency ^{Note4,5} <0.77 NEW	Construction site occupational accidents frequency <0.77 NEW	-

🌐 Applicable to all TSMC fabs around the world

🌐 Applicable to TSMC fabs in Taiwan and other specific fabs

⚡ Only applicable to TSMC fabs in Taiwan

🌐 Applicable to TSMC overseas fabs

⬆ Exceeded

✓ Achieved

— Missed Target

Note 1: To support its global expansion, TSMC added employee self-enrollment in health programs and sick leave absenteeism rate as health management targets. Currently, the data covers Taiwan sites. Compared with the previous targets — employees abnormal blood lipids, blood pressure, blood sugar, and employees with reported high stress levels — these two new targets are better aligned with health management across domestic and international sites. TSMC will discontinue use of the former targets for health management.

Note 2: Assistance will be ongoing as TSMC works with new contractors for high-risk operations each year, including operations in out confined spaces, live-line work, hot work, and gas/chemical pipeline-cutting operations.

Note 3: Construction site incidents refer to hospitalization cases, and construction site accidents refer to fatal cases.

Note 4: Starting in 2026, the Company introduced three new construction site management indicators to strengthen risk prevention mechanisms and minimize occupational hazards.

Note 5: Number of hospitalizations and deaths injuries / Total hours worked × 1,000,000

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introduced immersive simulation training and an incentive program for high-performing work crews to strengthen the safety culture on construction sites. Starting in 2026, the Company is developing an AI-based visual recognition system for construction sites to identify and address risks in real time, and added three construction site management indicators to track safety performance, ensuring every partner involved in construction projects works in a safe environment.

The diagram illustrates the organizational structure and functions of the ESH Division. At the top, a central box labeled 'Corporate ESH Division' is flanked by 'Inward' and 'Outward' arrows. Below this, the 'Internal Control for Safety and Health' section includes three main areas: 'All Departments' (collaboration and execution), 'Wellness Center' (health promotion and management), and 'New Construction Site' (responsible for safety and health of new fabs). The 'Fab-level Industrial Safety and Environmental Protection Division' promotes safety and health-related activities. The 'Construction Safety Enhancement Committee' (marked as 'NEW') promotes construction safety and health. The 'Corporate ESH Division' formulates corporate-level development blueprints, management protocols, and SOPs. Finally, the 'Collaborate with External Stakeholders to Reduce Occupational Safety and Health Risks' section includes 'Government, TSIA & SEMI Organizations' and 'Suppliers and Contractors'.

```

graph TD
    Inward --> ESH[Corporate ESH Division]
    ESH --> Outward
    ESH --> InternalControl[Internal Control for Safety and Health]
    ESH --> ExternalCollaboration[Collaborate with External Stakeholders to Reduce Occupational Safety and Health Risks]
    
    subgraph InternalControl [Internal Control for Safety and Health]
        AllDepartments[All Departments  
Collaboration and execution]
        WellnessCenter[Wellness Center  
Health promotion & management]
        NewConstructionSite[New Construction Site  
Responsible for the safety and health of new fabs]
        FabLevelDivision[Fab-level Industrial Safety and Environmental Protection Division  
Promote safety and health-related activities]
        ConstructionSafetyCommittee[Construction Safety Enhancement Committee NEW  
Promote construction safety and health]
    end
    
    subgraph ExternalCollaboration [Collaborate with External Stakeholders to Reduce Occupational Safety and Health Risks]
        Government[Government, TSIA & SEMI Organizations  
Collaborate to build a healthy and safe workplace]
        Suppliers[Suppliers and Contractors  
Enhance safety and health performance across the supply chain through guidance and collaboration]
    end
  
```

Internal Control for Safety and Health

- All Departments**
Collaboration and execution
- Wellness Center**
Health promotion & management
 - Healthcare
 - Employee assistance
 - Health improvement
 - Early warning for occupational diseases
- New Construction Site**
Responsible for the safety and health of new fabs
 - Construction site safety behavior guidelines
 - Construction site safety and environmental management
- Fab-level Industrial Safety and Environmental Protection Division**
Promote safety and health-related activities
 - Develop and drive fab-level initiatives in alignment with corporate ESH policies, management standards, and performance targets
 - Prevent work-related illness arising from physical ☺, chemical, and ergonomic hazards at the fab
 - Assess and improve health and safety risks
 - Establish hazard identification, exposure assessment, and control measures
 - Lead fab-level occupational illness prevention investigations and drive health promotion programs
 - Convene fab-level safety and health committee meetings
 - Manage contractors
 - Help subsidiaries establish ESH management standards and performance targets
 - Provide emergency response support for leased or borrowed facilities and offices
- Construction Safety Enhancement Committee NEW**
Promote construction safety and health
 - Collaborate across departments to comprehensively advance construction site safety and health initiatives
 - Ensure all construction activities comply with relevant safety and health regulations as well as internal standards
 - Support employee well-being and build a safe work environment
 - Adopt AI solutions to enhance construction site safety
 - Partner with contractors to encourage improvements in safety and workplace conditions
 - Coordinate interface management and safety improvements between existing facilities and new construction projects
 - Communicate externally and provide necessary legal guidance

Corporate ESH Division

Formulate corporate-level development blueprints, management protocols, and SOPs

- Develop policies, targets, and programs
- Create and update ESH management procedures, standards, and technologies; collaborate with fab-level ESH and health promotion units to establish ESH performance indicators
- Oversee departmental identification and control of occupational safety and health risks; conduct annual audits of fab-level ESH risk controls and regulatory compliance
- Convene quarterly company-level safety and health committee meetings
- Communicate company-wide ESH regulations and policy issues with external stakeholders; represent the Company at domestic and international ESH regulatory and policy forums
- Collaborate with Procurement and Quality & Reliability departments to build a sustainable supply chain
- Lead the Occupational Disease Investigation Committee to advance company-level occupational disease prevention
- Coordinate with health promotion units to set worker health promotion objectives
- Establish management responsibilities for leased and borrowed off-site facilities, and identify ESH regulatory compliance risks
- During significant cross-fab incidents, serve as the ESH staff to the incident commander, supporting crisis management and emergency response
- Help subsidiaries establish ESH policies
- Support responses to external ESH-related questionnaires and audits
- Research and promote technologies and protective measures that advance environmental protection, safety, and health
- Provide employees with training on environmental protection, safety, and health

Collaborate with External Stakeholders to Reduce Occupational Safety and Health Risks

- Government, TSIA & SEMI Organizations**
Collaborate to build a healthy and safe workplace
- Suppliers and Contractors**
Enhance safety and health performance across the supply chain through guidance and collaboration

Safety and Health Measures

TSMC puts employee safety first and is committed to building safe workplaces. The Company strictly follows occupational safety and health regulations and its internal [Safety and Health Policy](#) , and identifies potential hazards, assesses risks, and applies controls accordingly. TSMC tracks progress through Safety Performance Indicators (SPI) and maintains a management system that continues to improve and keeps workplace risks in check.

Items	Safety and Health Efforts in 2025	^{Note1} SPI	Taiwan Fabs	^{Note2} Overseas Fabs	VisEra
Regulatory Updates	- Regularly identified and tracked regulatory compliance in all fabs; recorded 75 occupational safety and health regulatory changes - To support overseas facility expansion, adopted a regulatory identification system covering U.S. federal and state, Japanese, and German ESH regulatory databases	✓	✓	✓	✓
Safety and Health Education	- All TSMC sites have completed hazard notification/education. Complete digital records are retained to comply with safety and health regulations and emergency response needs.^{Note 3} Those performing hazardous operations have obtained licenses to operate in compliance with relevant laws - TSMC launched 24 interactive online occupational safety and health courses at TSMC's Supplier Sustainability Academy. Combined with the initial/refresher training certification system for contractors, contractors were required to complete the courses to qualify for work. - Added a mandatory "Contractor Supervisor Interactive Course"; supervisors must complete training before entering construction sites NEW	✓	✓	✓	✓
Risk Identification and Assessment	Conducted workplace hazard identification, safety and health management, on-site observation, and health management analysis for employees and contractors. Through tiered management and ongoing monitoring, TSMC completed 51,250 risk identifications and assessments, effectively preventing workplace risks^{Note 4}	✓	✓	✓	✓
Procurement Management	All chemicals used in analytical instruments are now registered in TSMC's material number management system, ensuring full traceability throughout their use	✓	✓	✓	✓
Change Management	Completed 4,900 cases of change management with zero related incidents	✓	✓	✓	✓
Chemical Management ^{Note 5}	- All chemicals undergo review before entering facilities. Of 212 chemicals evaluated for adoption, 141 new chemicals cleared review. No near-miss incidents were linked to new chemical use, and no new IARC Group 1 carcinogens were added - New chemicals are tested by the chemical analysis laboratory to confirm the absence of carcinogens, mutagens, reproductive toxins, and internationally restricted substances, protecting employee health and preventing abnormal emissions - Applied the chemical and mixed acid hazard identification system to identify high-risk substances and hazards from chemical mixtures, lowering employee exposure risks - Launched the online course "Safety Controls for New Tools and New Chemicals from Suppliers/Equipment Vendors" to raise employee awareness NEW	✓	✓	✓	✓
Tool Management	- Evaluated 175 new tools for adoption; 136 cleared review. No near-miss incidents were linked to new tool use - Strengthened inherently safer design, including international certification^{Note 6} and safety upgrades: safety interlocks, Emergency Machine Off (EMO), office electrical and charging guidelines, requirements for non-flammable covers on specific tool components, and seismic design reviews NEW - Supported ESMC regulatory identification, including comparison of European and Taiwan regulations and CE (European Conformity) certification for tools and equipment NEW - Collaborated with R&D units and equipment vendors to assess elevated work, tool use, and oxygen-deficiency risks for next-generation EUV tools, considering changes in size, confined spaces, and hydrogen volume to ensure safe operations	✓	✓	✓	✓
Contractor Management	- Contractors completed 1,216,943 construction jobs inside TSMC facilities, of which 277,330 were high-risk operations — all managed in accordance with high-risk operation requirements - In 2025, an average of 57,737 contractors entered and exited TSMC facilities daily.^{Note 7} To strengthen safety and health management, TSMC holds an annual contractor safety and health communication conference (Contractor 100) to recognize outstanding contractors, supervisors, and safety personnel - TSMC reviews contractor construction management practices annually and updates the TSMC Contractor ESH Bluebook to help contractors stay current on safety and health requirements	✓	✓	^{Note8} △	✓
Compliance Audit	Internal audits identified 2,395 deficiencies, all resolved within the required timeframe	✓	✓	✓	✓
Emergency Response	TSMC established a cross-fab CCTV platform and a mobile app for evacuation roll call in Taiwan sites. During emergencies, the CCTV system provides real-time visibility into affected areas to support response efforts; employees use the app to report their locations, shortening roll call time	✓	✓	✓	✓

Note 1: TSMC adopts the [Safety Performance Index \(SPI\)](#) to quantitatively manage and supervise safety and health performance.

Note 2: The scope of overseas fabs covers TSMC China, TSMC Nanjing, TSMC Washington, LLC, TSMC Arizona, and JASM.

Note 3: 2024 [Training Statistics](#) : Trainees include both employees and contractors.

Note 4: [Risk Identification and Assessment](#) : Foster a safety culture where employees and the Company protect each other and encourage employees to speak up and offer suggestions for occupational safety. Classification management and tracking are used to control, prevent, or reduce hazards to cultivate a friendly and safe workplace.

Note 5: [TSMC Chemical Management Procedures](#) .

Note 6: International certifications include the Nationally Recognized Testing Laboratory (NRTL) and SEMI S2: Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment.

Note 7: The scope of calculation for contractors covers fabs in Taiwan, TSMC China, TSMC Nanjing, TSMC Washington, LLC, JRDC, TSMC Arizona, JASM, and VisEra, and covers the number of contractor personnel who enter fabs in Taiwan for new fab construction.

Note 8: △ refers to partial compliance; the number of persons from contractors is calculated as per Note 7, excluding the number of contractors for the construction areas of overseas fabs.

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Promote Safety Culture

TSMC builds its safety culture around three priorities: Reinforce Employees' Day-to-day Safety Awareness, Strengthen Safety Communication, and Develop Safety Awareness Training. Analysis of recent disabling injury data shows that most incidents stem from insufficient safety awareness and failure to follow management requirements; as a result, the Company continues to drive awareness improvements. In 2025, for the first time, TSMC brought its ESH outreach activities to the Company's Sports Day, promoting ESH knowledge at on-site booths. The Company also continued its Environmental Safety and Health Month to deepen employee understanding of ESH topics and encourage exchange and discussion.

TSMC launched a new occupational safety and health website presenting course content through animations and videos, making safety and health knowledge accessible to all employees. The online platform also allows employees to access lunchtime seminars anytime, without time or location limits. The Company plans to develop AI-powered real-time support to improve website interactivity and ease of use.

TSMC continues to increase contractor safety awareness. Contractors have the authority to stop work immediately upon identifying any situation that threatens personnel safety, the environment, or equipment. TSMC also develops key vendors to help

promote safety culture through the annual Contractor ESH Communication Conference, where participants discuss the [TSMC Contractor ESH Bluebook](#) , safety culture, and personal protective equipment selection. Combined with [immersive simulation training](#) , the Company works closely with contractors toward a zero-incident, injury-free workplace.

Key vendors shared best practices to promote safety culture

• Safety Performance Indicator (SPI)

TSMC monitors safety and health performance through Safety Performance Indicators (SPIs) — comprising [leading indicators](#) (such as [encouraging employee participation in safety and health programs](#)) and [lagging](#)

[indicators](#) (such as [self-assessment findings and near-miss incidents](#)) — using a [four-level color-coded management](#) . In 2025, 75.3% of SPI results were rated Blue (Excellent), a decline from the previous year, mainly due to the establishment of new fabs, expansion of overseas sites, and an increase in headcount. In response, TSMC is strengthening safety awareness, refining operating procedures, enhancing reviews and audits, and using incident analysis to drive improvement. When a near-miss occurs, TSMC [initiates an investigation](#) using the [3L5W quality analysis tool](#) . The Company conducts interviews, equipment inspections, material testing, document reviews, and on-site reconstruction to identify direct, indirect, and root causes, uncover improvement opportunities, and prevent recurrence.

TSMC Sports Day – ESH Booth

Environmental Safety and Health Month

TSMC Sports Day – ESH Booth

- Combined ESH themes with a Monopoly-style game to build ESH knowledge among employees and their families

OECD Workshop

- Promoted biodiversity mainstreaming, expanded conservation and inclusion initiatives, and shared ecological monitoring, and maintenance theory and practice

Environment, Safety and Health Forum

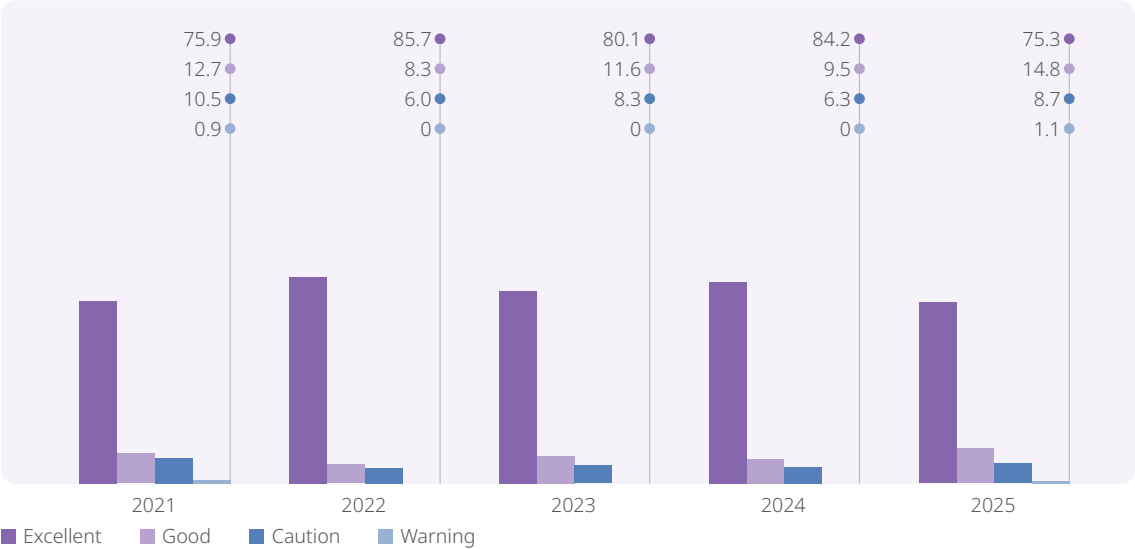
- Ensured employees stay informed of energy storage system safety regulations and international trends
- Increased training participation and promoted immersive safety education
- Brought together academic and industry experts to share insights and highlight TSMC's annual ESH achievements

Contractor ESH Communication Conference

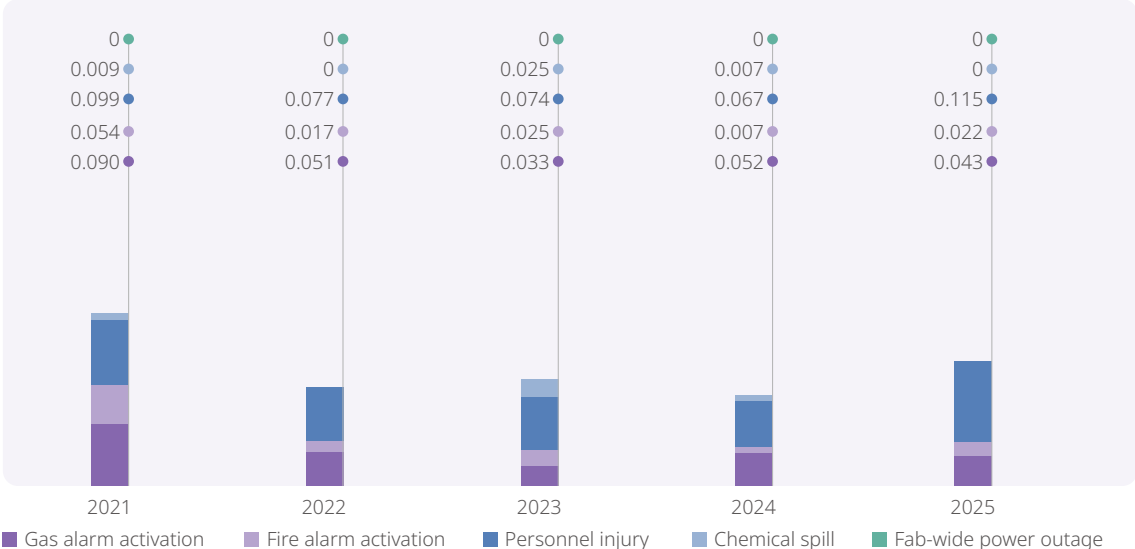
- Collaborated with contractors toward zero occupational hazards and zero incidents
- Strengthened safety awareness and empowered contractors to stop work when faced with unsafe behaviors or conditions



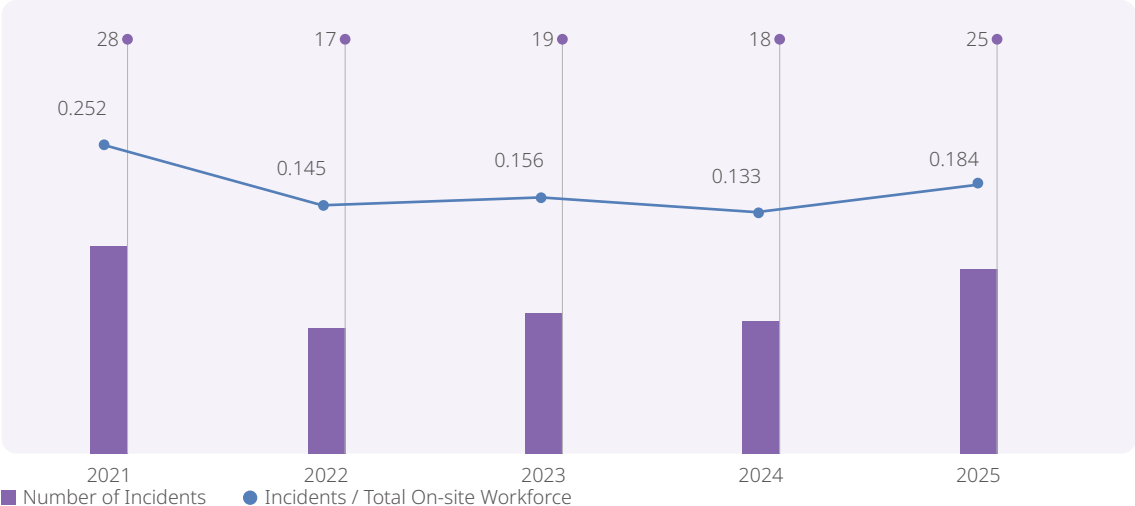
Safety Performance Indicator (SPI) Chart



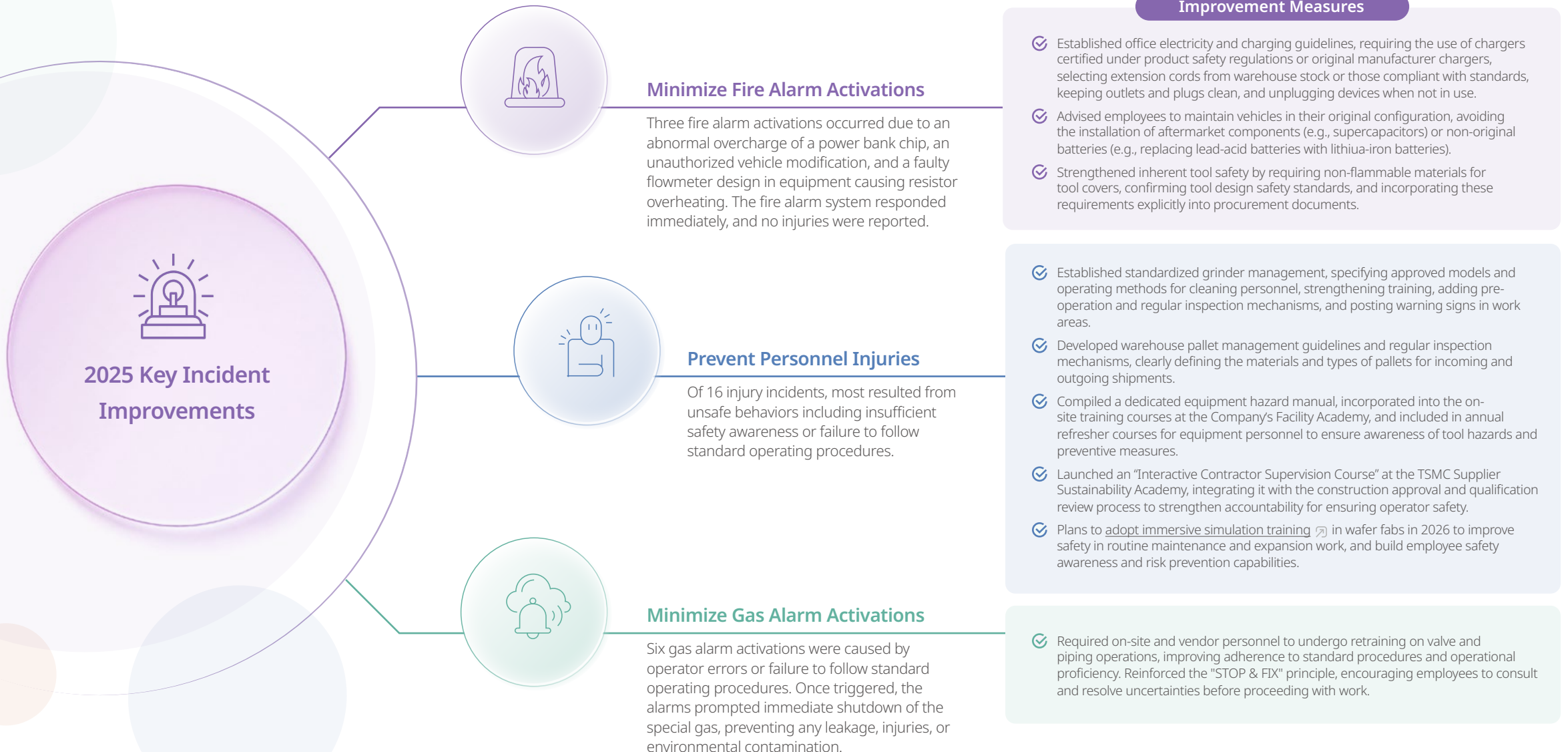
Incident Type Analysis



Number of Incidents and Incident Rate per 1,000 Workers by Year



TSMC Establishes Immersive Simulation Training to Enhance Safety Awareness



Employee Disabling Injury Statistical Analysis

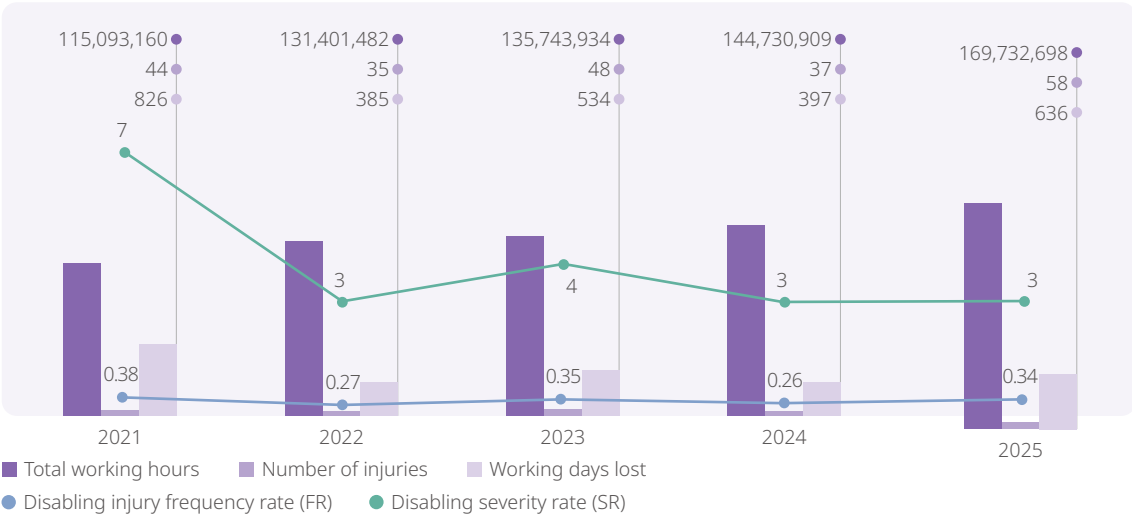
TSMC tracks occupational injuries based on definitions in the Occupational Safety and Health Act and the material disabling injury indicators published by the Global Reporting Initiative (GRI), with Disabling Injury Frequency Rate (FR) and Disabling Injury Severity Rate (SR) as the primary metrics. In 2025, the Company recorded 58 disabling injuries, resulting in a total of 636 lost workdays. Male employees accounted for 32 injuries and 314 lost workdays, while female employees accounted for 22 injuries and 247 lost workdays. The overall employee injury rate was 0.0007. Male employees experienced more work-related disabling injuries and lost workdays than female employees. Falls were the most common injury type for both, primarily

caused by tripping over materials, carts, and similar objects.

Improvement Measures

Analysis indicates that most falls resulted from unsafe conditions and insufficient safety awareness. In 2026, TSMC will continue strengthening preventive measures, including inspecting slippery floors, evenness, lighting, and material placement in work areas, adding hazard warning signs and anti-slip installations, and reminding employees to check shoe sole wear regularly. Through ongoing safety culture promotion, the Company aims to keep enhancing employees' safety awareness.

Total Work Hours, Number of Injuries and Working Days Lost

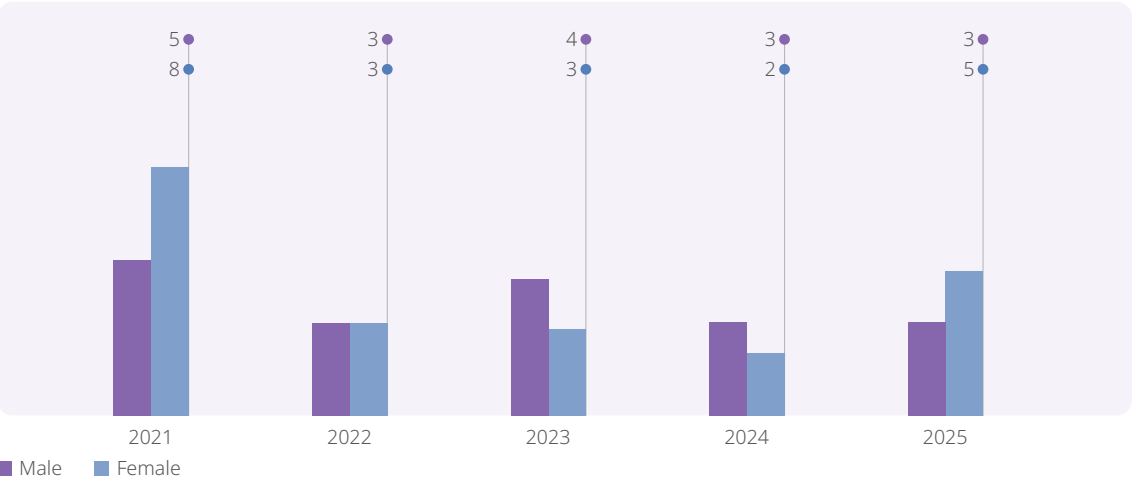


Note: Under the Occupational Safety and Health Act, only injuries classified as "work-related" — meaning diseases, injuries, disabilities, or fatalities caused by workplace buildings, machinery, equipment, raw materials, chemicals, gases, vapors, dust, work activities, or other occupational factors — are included in FR/SR calculations. "Non-work-related" injuries, such as falls in cafeterias or parking lots due to personal factors, are excluded.

Disabling Injury Frequency Rate (FR) by Gender

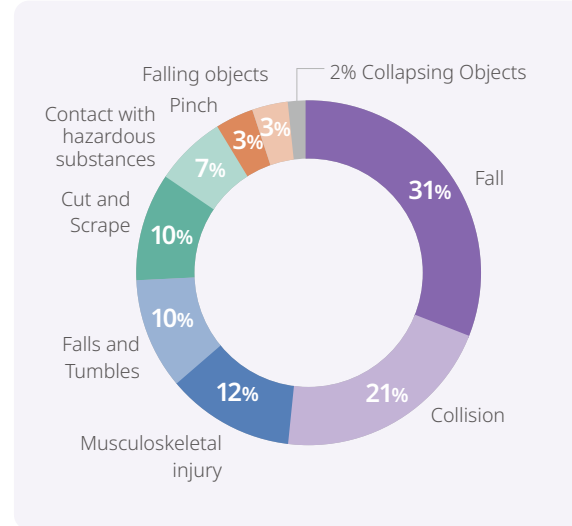


Disabling Injury Severity Rate (SR) by Gender



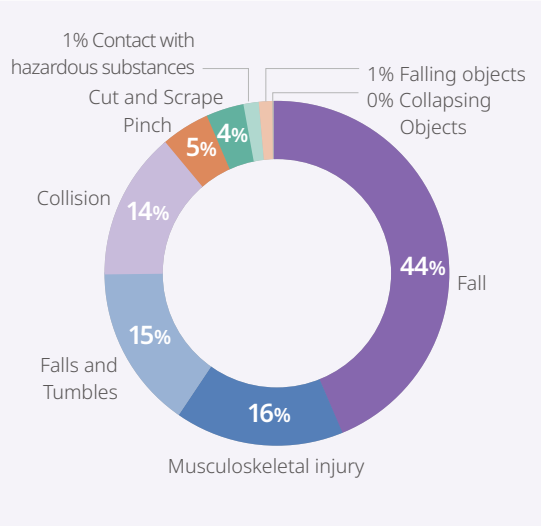
Disabling Injury Frequency Rate (FR) by Injury

Unit: %

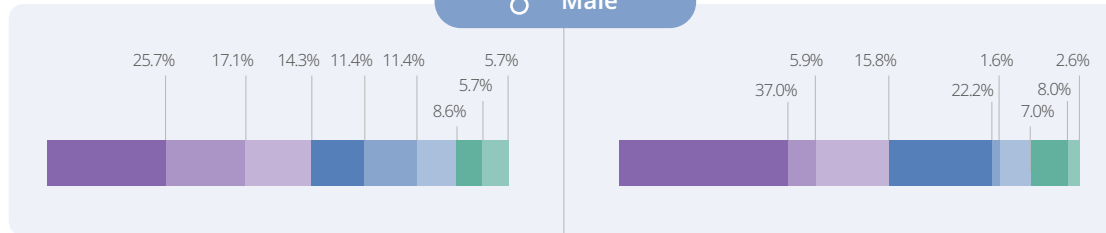


Disabling Injury Severity Rate (SR) by Injury

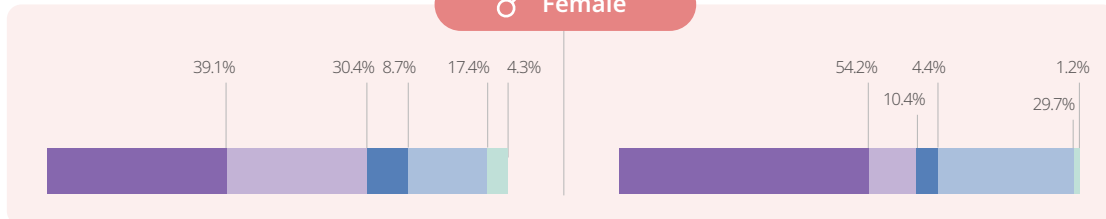
Unit: %



♂ Male



♀ Female



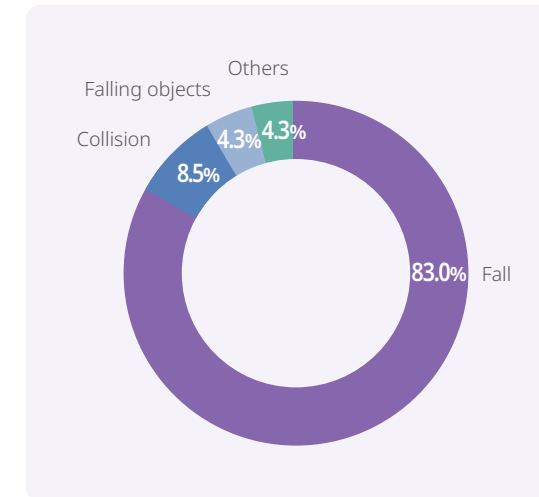
■ Fall ■ Cut and Scrape ■ Collision ■ Falls and Tumbles ■ Contact with hazardous substances ■ Improper Actions ■ Caught-in or Between ■ Falling objects ■ Collapsing Objects

Unit: %

In 2025, TSMC recorded 47 non-work-related injury cases, resulting in a total of 884 lost workdays. Falls constituted the highest proportion, with 39 cases (83%) and 798 lost days. Of these, 30 cases were due to personal factors, such as misstepping on stairs, distraction while walking, exiting vehicles inattentively, low blood sugar, or insufficient muscle strength. Nine cases were caused by environmental factors, primarily slippery floors or tripping. To minimize non-work-related injuries, TSMC actively reinforces employee safety awareness through safety culture initiatives, aiming to prevent incidents caused by personal factors.

Ratio of Non-work-related Injuries

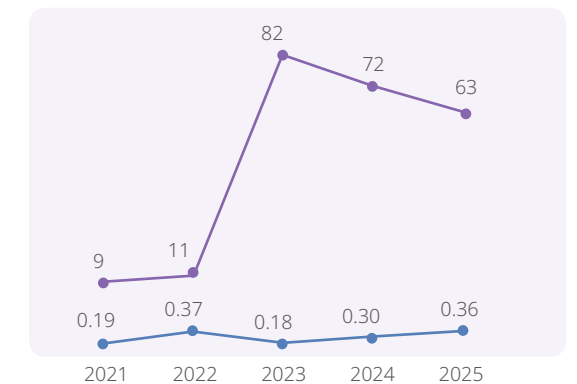
Unit: %



Statistics on Contractors' Disabling Injuries at TSMC Worksites

In 2025, a contractor was fatally injured while performing cooling tower maintenance. This unfortunate incident resulted in 6,000 lost workdays. TSMC conducted a comprehensive review of cooling tower maintenance procedures, designated cooling tower work as high-risk tasks, required work permits, enhanced pre-, mid-, and post-task inspection checklists, and improved the cooling tower drive shaft braking mechanism. The Company also launched a "Facilities Construction Safety Management Training" course, tied to construction permit approval, to reinforce the "STOP & FIX" safety principle. Contractor supervisors must complete the "Interactive Contractor Supervision Course" on TSMC's Supplier Sustainability Academy before entering construction sites. Additionally, facilities and safety and health experts have completed general operation risk identification and job safety analysis. In 2026, TSMC plans to install immersive simulation training facilities in wafer fabs to strengthen employee and contractor safety awareness and capabilities, preventing similar incidents from recurring.

Disabling Injuries of Contractors at TSMC's Worksites

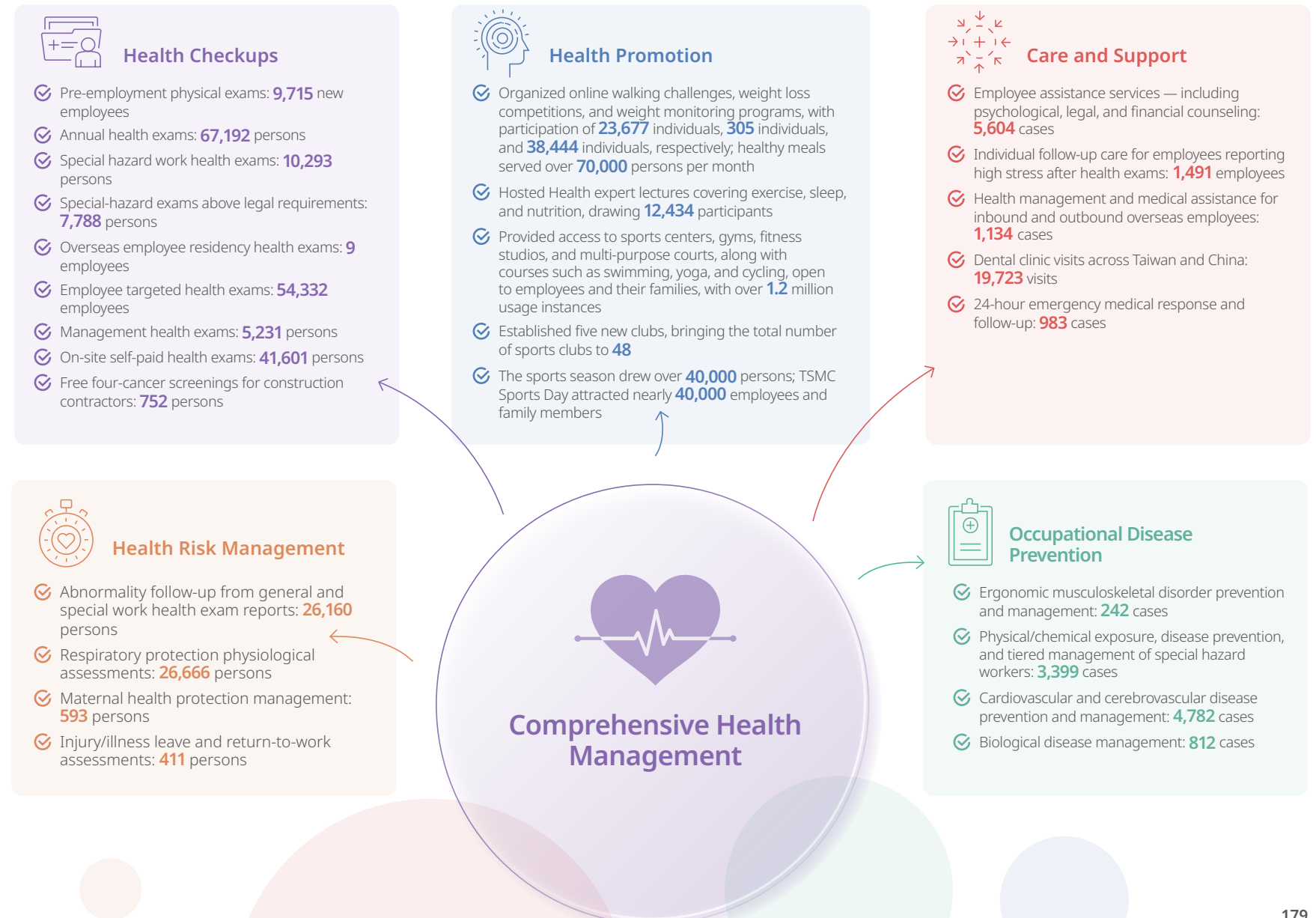


● Disabling Injury Severity Rate (SR)
 ● Disabling Injury Frequency Rate (FR)

Comprehensive Health Management

TSMC is committed to creating a supportive and safe work environment, caring for employees' physical and mental health through five channels: health check-ups, health risk management, occupational disease prevention, healthcare and support, and health promotion. All Taiwan and China campuses, TSMC Arizona, and JASM operate 24/7 health centers staffed with a total of 185 occupational health professionals, including physicians, nurses, and psychologists. The Company also partners with local and international medical resources, including hospitals, health screening institutions, psychotherapy clinics, general clinics, wellness providers, and occupational medicine facilities. Taiwan fabs also have on-site occupational health physicians. In addition, a dedicated team coordinates across health centers worldwide to ensure uninterrupted care for employees on domestic and overseas travel or assignments, covering medical resource support, health screening follow-up management, and occupational injury and illness prevention. In 2025, TSMC invested nearly NT\$600 million to improve employees' physical and mental health.

To promote healthy lifestyles, TSMC organizes walking challenges, weight management programs, and health education lectures, and promotes occupational disease prevention measures, including work-hour controls for high-health-risk employees and advanced health screening programs to help employees detect issues early and return to work smoothly. By encouraging employees to participate in health check-ups, management, and wellness programs, the Company not only enhances overall employee health but also lowers absenteeism due to illness. In 2025, TSMC further expanded employee support services by partnering with professional counseling agencies to provide psychological, legal, and financial advice, and by establishing an online appointment system to facilitate access to mental health services, demonstrating its commitment to employee well-being and a supportive work environment.



Contractor Partner Health and Wellness

TSMC prioritizes health and safety for contractors engaged in new fab construction and is committed to providing a quality work environment. Six health and wellness initiatives were launched to protect contractor partners' physical and mental health: vaccination, health management system, follow-up care mechanisms, on-site physician services, free health screenings at worksites, and professional medical consultation. To further provide professional medical services, TSMC formed a strategic alliance with National Taiwan University Hospital Hsinchu Branch. Along with

signing a “New Fab Construction Health Management Advancement Memorandum of Understanding” with these institutions, the Company launched a digital health management platform in 2025 and introduced advanced health screenings tailored to cardiovascular risk, age, and years of service to ensure each contractor partner’s health and welfare is protected.



Note 1: Work patterns are classified by physical demand as light, moderate, or heavy; work environments are categorized by location as indoor, outdoor, high-temperature, or well-ventilated settings.
Note 2: Programs cover ergonomic hazard prevention, maternal health protection, workplace violence prevention, and prevention of diseases caused by abnormal workloads.

Prevent Occupational Diseases

To prevent occupational diseases, TSMC collaborates with occupational medicine specialists and external experts to identify and manage five potential risk factors — chemical, physical, ergonomic, biological, and social/psychological — based on its [occupational disease risk identification procedures](#) . The Company regularly reviews personal protective equipment (PPE) certification compliance, adopts multi-size protective gear with both physical and chemical protection, and applies AI-based recognition and digital platforms to track and manage at-risk cases. Through these efforts, TSMC builds a safe and healthy working environment for all personnel.

Occupational Disease Prevention and Achievements



Ergonomic

Work with occupational medicine specialists to mitigate workplace risks and develop assistive tools to ease musculoskeletal strain

New Measure in 2025

- Developed process carriers and maintenance material carts to lessen musculoskeletal strain during manual handling and pushing

Ongoing Measures

- Arrange site visits by occupational medicine specialists to ergonomic work areas at Taiwan fabs, with findings recorded on a digital platform to support experience sharing
- Continue using a digital ergonomic identification system to flag high-risk operations
- Drive office ergonomics improvements and provide appropriate assistive tools
- Combine health center screening questionnaires with pain relief patch dispensing records to identify and follow up with employees on leave due to musculoskeletal issues, arranging physician consultations as needed
- Analyze patterns of musculoskeletal-related leave in the same departments to assess whether work activities present ergonomic risks

Achievement

- Designed a powered-assist cart for front-opening unified pods (FOUPs) and developed a maintenance material cart based on international ergonomic standards and fab-specific material handling requirements

Achievement

- Conducted **12** on-site visits by occupational medicine specialists, covering pushing, carrying, and lifting tasks, achieving a **100%** completion rate for recommended improvements
- Applied the Key Indicator Method (KIM2019) for ergonomic assessment, identified eight high-risk tasks, and mitigated all to “low risk” through engineering controls or process optimization
- Provided five ergonomically designed office aids, including monitor stands, external monitors, and wireless keyboards and mice, creating a more comfortable workspace
- Completed ergonomic exposure surveys for **170** Taiwan fab employees affected by musculoskeletal discomfort, assisting two employees with suspected ergonomic risks to adjust work tasks
- For four employees who repeatedly collected pain-relief patches for the same body area, occupational physicians determined low work-related risk; the health center provided health education and assisted in relieving discomfort



Chemical

Enforce chemical risk controls at the source and continue adopting and regularly reviewing PPE compliance

New Measure in 2025

- Conducted a protective performance review of existing PPE to verify suppliers' certification reports for compliance
- Launched a digital Safety Data Sheet (SDS) system with multiple electronic access interfaces

Ongoing Measures

- Manage chemicals in accordance with TSMC's chemical management procedures
- Continue to reduce chemical exposure risks from manual operations for equipment personnel
- Observe and assess high-risk tasks for the approximately 2% of contractors who may encounter high-risk substances^{Note} based on chemical exposure risk, task frequency, and task type
- Review PPE suitability annually to ensure correct selection and use by employees
- Arrange occupational physicians to assist on-site contractors in identifying chemical exposure risks in the work environment.
- Require contractors to proactively report any abnormal results from special health examinations

Achievement

- Established a digital review system for new materials before entry and for regular re-evaluation of existing materials. Defined six international selection and acceptance standards for **20** PPE items across seven categories, and documented testing methods for reference when TSMC headquarters and overseas fabs introduce new PPE
- Digitized on-site paper SDS at one fab across two work areas using QR codes, and developed tablet and mobile app access, with full deployment scheduled for 2026

Achievement

- Completed on-site inspections of three operations involving employees and contractors potentially exposed to high-health-risk substances, confirming adequate ventilation, proper PPE use, and no chemical exposure concerns
- Continued improvements on two automated supply systems
- Introduced five new compliant PPE items for personnel
- Recorded zero abnormal reports from special health examinations
- Recorded zero occupational diseases caused by chemical exposure



Social/Psychological

Continue improving cerebrovascular and cardiovascular disease prevention and management program

Ongoing Measures

- Classify employees with abnormal advanced imaging results^{Note 1} as at-risk and proactively manage their medical care and working hours
- Provide mid- and high-health-risk employees at Taiwan fabs with company-funded advanced imaging screenings during paid leave to prevent cerebrovascular and cardiovascular disease
- Leverage the health management system to evaluate health risks based on employees' latest check-up results and working hours; notify employees directly and alert supervisors and HR partners to help adjust workloads
- Automatically notify employees, their supervisors, and HR representatives when the system detects abnormal overtime

Achievement

- At Taiwan fabs, **17,446** employees completed advanced imaging health screenings, with **4,273** identified as moderate- to high-risk. Follow-up screenings and health education were provided based on severity. Among them, **349** required or declined follow-up, receiving guidance via physician consultations, phone interviews, or written reviews. Additionally, **157** employees required working hour restrictions or task adjustments, with physicians issuing medical orders and TSMC assisting with work arrangements
- Employee workloads were monitored monthly, with **5,899** moderate- to high-risk employees managed to ensure compliance with medical orders. Additionally, **1,394** health guidance sessions — via physician consultations, phone interviews, or written reviews — were conducted, resulting in **1,361** instances of working hour restrictions or task adjustments in accordance with medical advice



Biological

Monitor CDC announcements in real time and provides health education as needed

Ongoing Measures

- Monitor infectious disease developments across countries, maintain response guidelines for notifiable diseases, and keep the epidemic prevention committee active in developing countermeasures based on current conditions
- Maintain reporting mechanisms for non-notifiable infectious diseases and provide health education materials on seasonal influenza, dengue fever, and other illnesses

Achievement

- Managed **812** cases of notifiable and non-notifiable infectious diseases (including contact tracing), preventing further spread



Physical

Continue monitoring and identifying physical exposure in work environments while strengthening protective measures

New Measure in 2025

- Introduced compliant physical PPE in multiple sizes

Achievement

- Completed the adoption of **30** compliant PPE items across **10** categories in multiple sizes, enabling employees to select cleanroom safety shoes and goggles that suit their tasks and fit

Ongoing Measures

- Maintain a systematic mechanism for measuring ionizing radiation and controlling radiation sources by designated personnel, with a pre-employment rule prohibiting employees with pacemakers from operating related equipment
- Maintain a historical database of non-ionizing radiation measurements for facility equipment and require semiannual monitoring of all process tools
- Activate an automated outdoor heat hazard alert system

Achievement

- Recorded **0** radiation exposure cases
- Non-ionizing radiation measurements for both electric and magnetic fields remain well below ACGIH TLV^{Note 2} standards, with 0 abnormal findings
- Installed central temperature and humidity monitoring equipment across five zones, digitally integrating heat hazard risk indices and levels; when heat hazards reach Level **2** or above, the system automatically sends SMS and email alerts and triggers corresponding preventive measures

Note 1: Includes electrocardiogram (ECG), carotid/cardiac ultrasound, and coronary artery calcium scoring by computed tomography (CT).

Note 2: Non-ionizing radiation measurements (including electric and magnetic field strength) below the Threshold Limit Values (TLVs) defined by the American Conference of Governmental Industrial Hygienists (ACGIH) indicate no adverse effects on employees exposed daily to these levels.

Building Internal-External Alliances

TSMC fosters a supportive workplace, ensuring that every worker has access to appropriate personal protective equipment (PPE) to enhance operational safety and lower injury risks. By December 2025, the Company introduced 30 compliant PPE items across 10 categories to provide better-fitting and more comfortable options, benefiting 39,832 individuals. TSMC extended its impact beyond the fabs, designing PPE tailored to Asian body types; five chemical protective suits have been completed, with the goal of improving safety and comfort for more workers. As TSMC expands its wafer fabs around the world, the Company also addresses construction site safety challenges. In 2025, the Company issued the [Construction Site Safety at TSMC declaration](#) , partnering with contractors to improve safety awareness, behavior, and environmental management throughout construction projects.

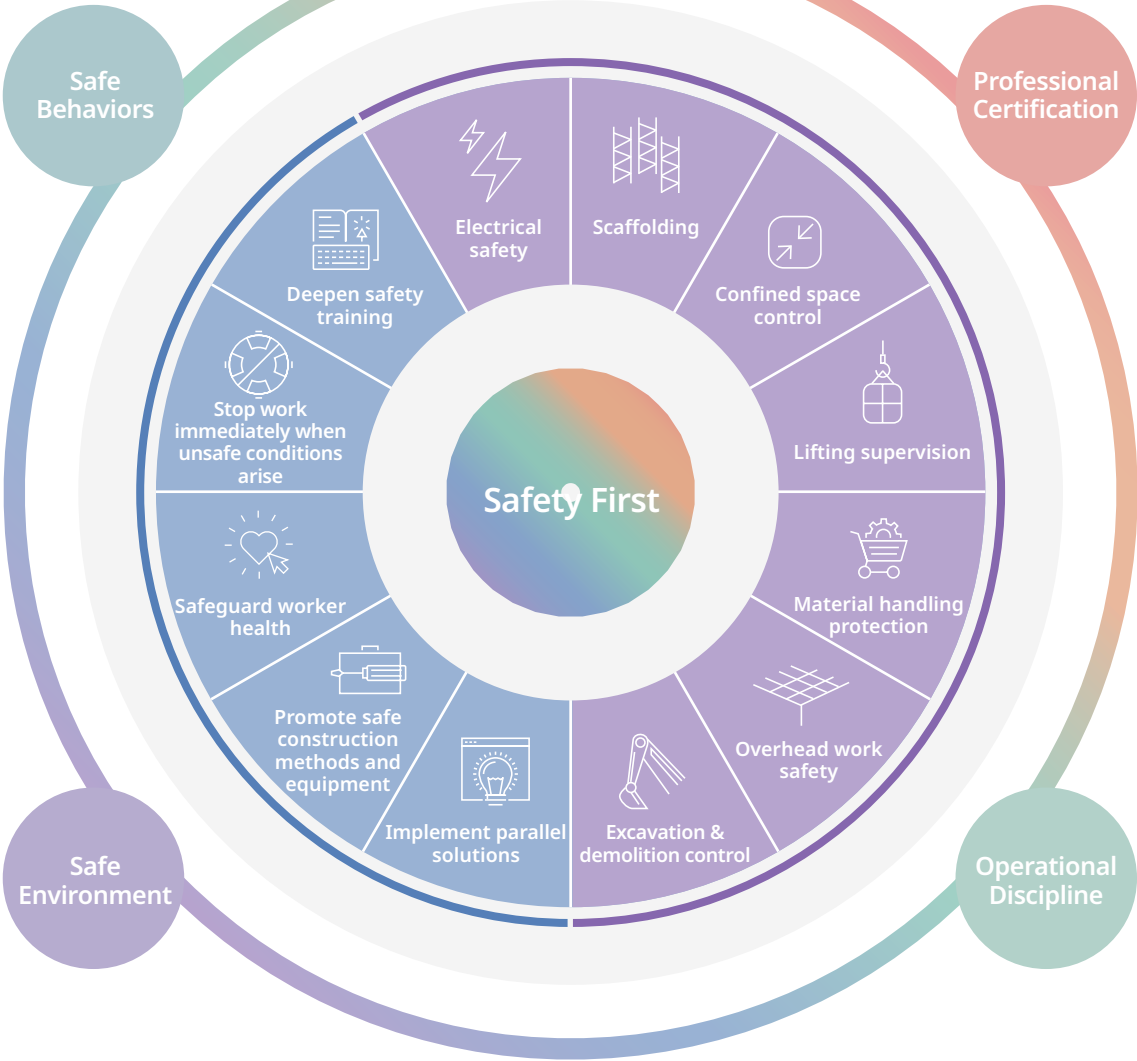
Fab Construction Safety Management Process and Mechanism

TSMC places “safety” at the core of fab construction projects, establishing a work safety management system covering four key aspects to ensure every construction partner can work with confidence. First, the Company invests resources to optimize workflows and equipment, creating a “safe environment” and enforcing zero tolerance for unsafe conditions. Second, TSMC strengthens “safe behaviors” through site education, training, and immediate corrections, internalizing correct practices as daily habits. Third,

the Company enforces “operational discipline” via standardized procedures and audit mechanisms, ensuring compliance and preventing human errors that could cause hazards. Finally, TSMC requires personnel performing high-risk tasks to complete statutory training and hold relevant licenses, using “professional certification” to safeguard safety.

To ensure effective safety management, TSMC established a cross-organizational Construction Safety Enhancement Committee including organizations such as Materials Management, Facility, Corporate ESH, Intelligent Manufacturing Center, and Corporate Information Technology. The committee oversees construction site management policies, monitors implementation, and drives improvement measures. Guided by five principles — deepen safety training, stop work immediately when unsafe conditions arise, safeguard worker health, promote safe construction methods and equipment, and execute parallel solutions — the committee focuses on seven high-risk operations: scaffolding, lifting, electrical work, excavation and demolition, confined spaces, overhead work, and material handling. Through clearly defined organizational responsibilities, TSMC fosters a top-down culture of accountability, adopting an AI-based construction site safety monitoring program, recognizing high-performing crews, and hosting safety-sharing sessions with on-site demonstrations to ensure every decision and action prioritizes worker safety and that all construction partners return home safely.

Dimensions of Work Safety Management



Fab Construction Project Contractor Safety Management

	Ongoing Measures	New Measures in 2025
 Safety Management - Collaborated with Japanese construction companies on fab projects, completing reviews of over 510 high-risk standard operating procedures and strengthening on-site work management to reinforce safety culture - Conducted 35 emergency response drills and deployed 192 automated external defibrillators (AEDs) across sites, establishing a rescue network to maximize response time during critical emergencies		- Held construction site safety sharing and on-site observation sessions, inviting senior management and safety officers from contractor companies; high-performing vendors shared their achievements to promote the core value of "Safety as a Source of Pride" - Deployed LUCAS 3 automated CPR devices to boost emergency response efficiency, shorten critical rescue time, and protect the lives of construction workers
 Safe Behaviors - Design construction site training programs tailored to specific risk profiles, training a total of 12,338 workers to enhance risk awareness and safe work practices - Held 35 joint toolbox meetings to recognize crews demonstrating strong safety discipline and proactive behavior management, awarding incentive bonuses to 1,037 workers to foster a culture of safety through positive competition		- Executed wireless camera monitoring at the Chiayi fab construction project, recording 1,109 uses and correcting 57 unsafe behaviors to mitigate operational risks in real time - Introduced immersive safety simulation training at the Hsinchu, Chiayi, and Kaohsiung fab construction projects, training a total of 6,823 participants and using simulated hazard scenarios to correct unsafe behaviors
 Safe Environment - Execute heat hazard prevention measures, holding 26 "Cool Summer" events across fab construction projects nationwide and distributing over 13,000 popsicles and cooling beverages - Expanded to nine comfort-grade container restrooms with automated flushing systems, greatly enhancing the quality and convenience of on-site sanitation facilities		- Improved facility provisions at the Chiayi and Kaohsiung fab construction projects, supplying dining tables and chairs, restrooms, and vending machines to create a safe, convenient, and comfortable workplace - Adopted systematically designed visual signage covering environmental hazard notices, safety messages, and guidance for safe movement to enhance workers' hazard recognition and overall safety awareness

Case Study

Enhancing Safety Awareness Through Immersive Simulation Training

Traditional construction site safety training relies primarily on written materials and verbal instruction, which often falls short in strengthening workers' risk awareness and driving behavioral change. TSMC moved beyond conventional training by adopting innovative, immersive education that mirrors real-world conditions to establish a Smart Occupational Safety Training Classroom. In a safe and controlled environment, participants experience potential hazards firsthand, enhancing their ability to identify risks and protect themselves. In 2025, 6,823 workers completed immersive simulation training, of whom 6,496 (95.2%) had no subsequent violations — demonstrating a tangible shift from knowledge transfer to behavioral change.

To address the five most common and critical risks in construction projects — falls, crushing, injuries caused by being caught between two objects, struck-by incidents, and electrical shock — TSMC designed six immersive training modules: post-fall suspension, VR fall simulation, crushing, caught-between, struck-by, and electrical shock training. The post-fall suspension module allows participants to experience the physical discomfort and psychological stress of hanging from a harness after a fall, reinforcing the importance of proper procedures and protective measures. The VR fall simulation uses immersive virtual reality to recreate the visual impact of working at height and the fear of losing footing, helping participants internalize the importance of safety protocols. By transforming abstract rules into tangible experiences, the training bridges the gap between safety knowledge and on-site practice.

Through immersive simulation training, TSMC embeds safety into everyday work behaviors. The Company plans to continue to refine training content and formats and expand the program to cover different fab operations such as overhead work and heavy material handling to fully realize its safety culture and commitment.

Unlike conventional written or verbal instruction, the discomfort experienced during immersive simulation reinforces our awareness of workplace safety

TSMC Contractor, Immersive Simulation Training Participant



Power to Change Society

TSMC, in collaboration with the "TSMC Education and Culture Foundation" and the "TSMC Charity Foundation," is committed to addressing societal needs. By integrating cross-disciplinary resources, TSMC focuses on fostering educational innovation for learners of all ages, promoting community inclusion, cultivating artistic and cultural appreciation, enhancing ecological sustainability and environmental awareness, and advancing health protection — driving meaningful and positive change.

Social Impact

TSMC Education and Culture Foundation

TSMC Charity Foundation

1

Achieved a milestone as the first Taiwanese company to establish a rehabilitation site for the [endangered species squalidus banarescui](#)

90,783 Participants

Engaged in arts and cultural activities

248,406 Seniors

Benefited from care services for those living alone



Social Impact

TSMC focuses on social issues, working closely with the TSMC Education and Culture Foundation and TSMC Charity Foundation in five core areas: educational innovation, community inclusion, ecological sustainability, art and cultural literacy, and health protection. With "empowerment" and "mutual good" as its core principles, the Company works to address social challenges.

To maximize the effectiveness of its resources, TSMC adopts the Business for Social Impact framework and builds a structured approach to its impact management. The Company tracks each project's impact pathway from Input and Output to Outcome and Impact. Through impact assessment, TSMC measures, manages, and discloses project effects on society and the environment. By analyzing tangible results in behavioral change, skill development, and improved quality of life, the Company ensures its investments generate lasting, sustained positive benefits. For more information, please refer to the [TSMC Sustainability Impact Valuation Report](#).

3,922,875
 Beneficiaries of social engagement programs

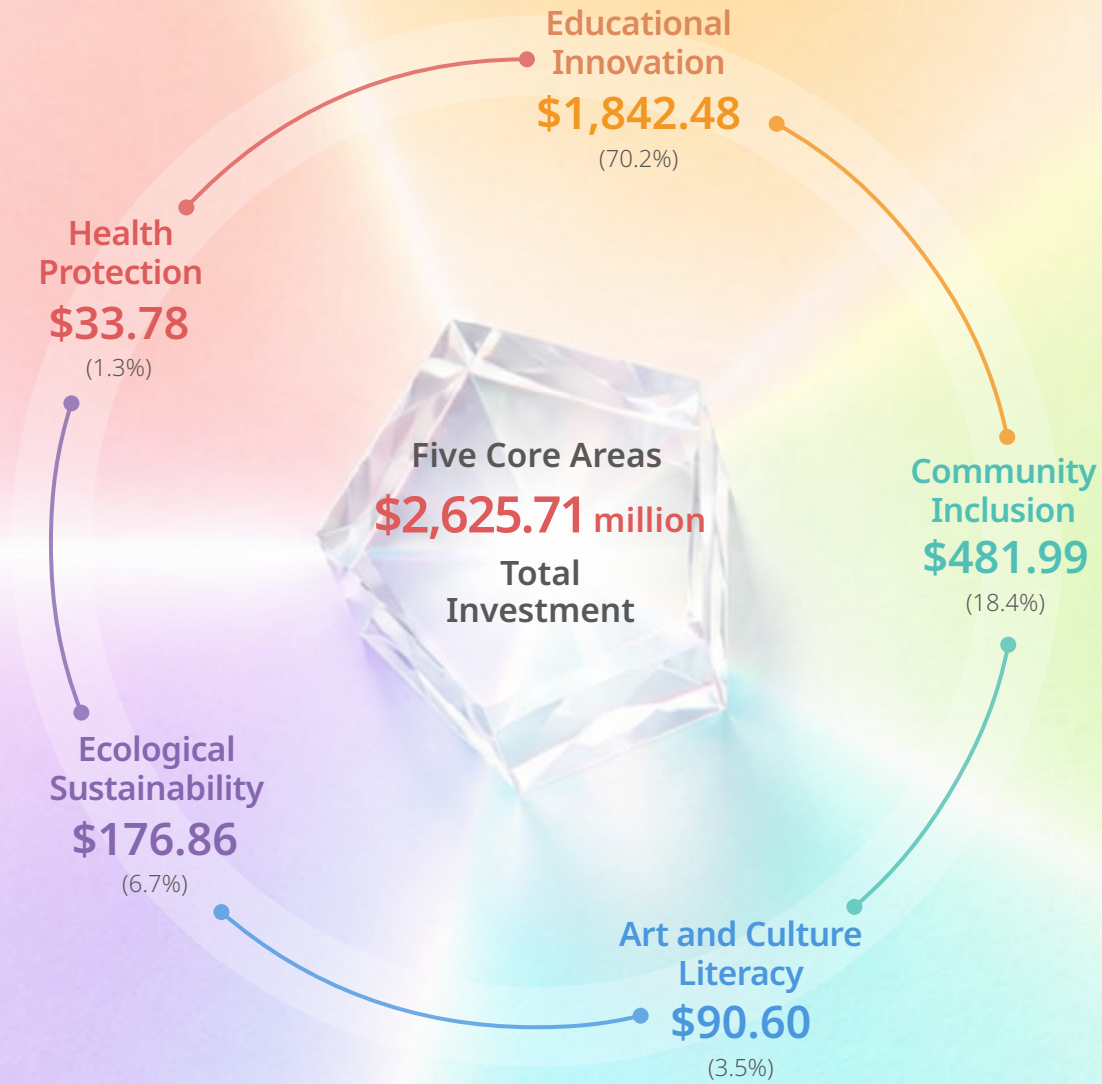
10.77 million
 Matching donation (NT\$)

23,053
 Total Number of Volunteers

118,281
 Volunteer hours accumulated

235
 Social engagement programs

909
 Social engagement partners



Unit: NT\$ million

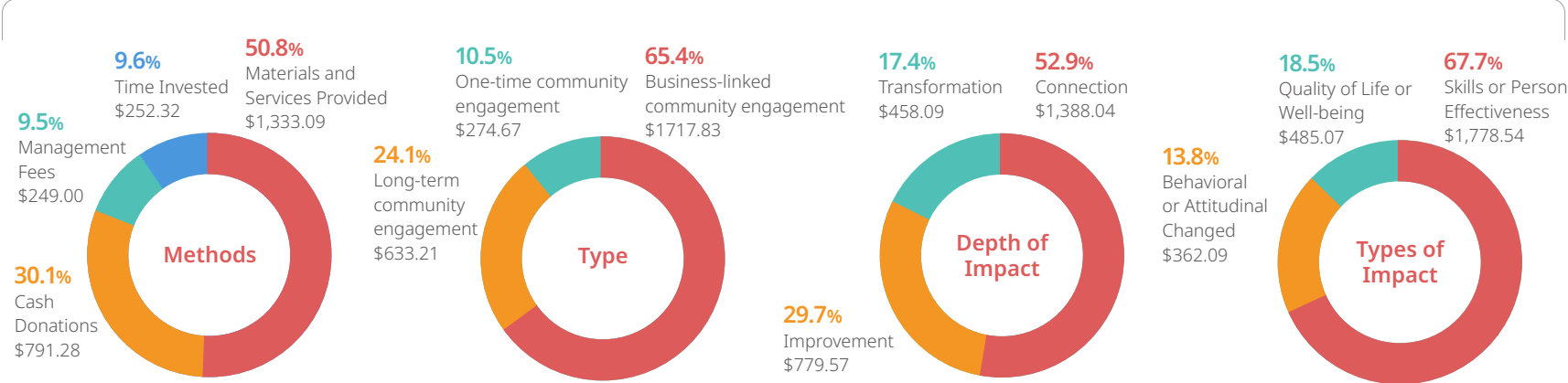
In 2025, TSMC worked with its two foundations to engage employees, community partners, suppliers, companies across industries, local governments, academic institutions, healthcare organizations, and other nonprofits. The Company built a wide range of channels for social participation, mobilized 23,053 TSMC volunteers, and recorded 118,281 service hours. Total social investment reached NT\$2,625.71 million and benefited 3,922,875 people.

TSMC also aligns its efforts with the United Nations Sustainable Development Goals (SDGs). In 2025, the Company allocated the largest share of its resources—59.38%—to SDG 4 (Quality Education), while also supporting SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), SDG 10 (Reduced Inequalities), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 16 (Peace, Justice and Strong Institutions), and SDG 17 (Partnerships for the Goals). These efforts integrate multiple issues into a coordinated social impact approach. Looking ahead, TSMC plans to strengthen its impact-driven engagement model and use systematic, measurable methods to advance shared benefits, respond to global sustainability challenges, and create long-term social value.



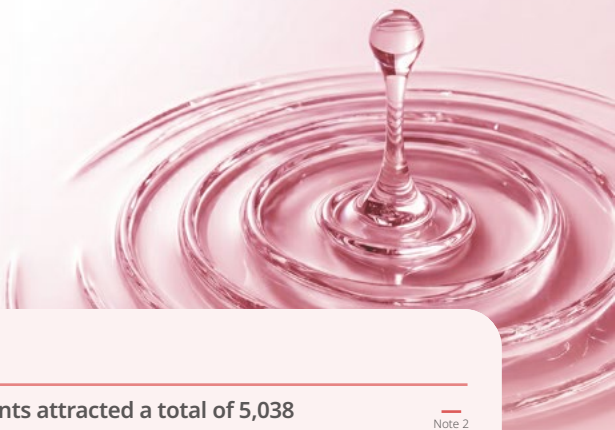
Resource Invested Corresponding to SDGs

Unit: NT\$ million



Unit: NT\$ million

TSMC Education and Culture Foundation



Strategies	2030 Goals	2026 Targets	2025 Achievements
Cultivate Young Generation Hold educational events; provide diversified educational platforms	🔥 Ensure participation in youth competitions and related programs reaches at least 20,000 Note1 🔥 Hold ≥ 30 popular semiconductor activities with ≥ 4,000 participants annually Note1 🔥 Invest ≥ NT\$45 million in resources annually	Ensure participation in youth competitions and related programs reaches at least 10,000 Hold ≥ 30 popular semiconductor activities with ≥ 3,000 participants Invest ≥ NT\$40 million in resources annually	Youth competition events attracted a total of 5,038 participants Target: ≥ previous year Note 2 Held 87 popular semiconductor activities with 3,435 participants Target: ≥ 30 activities with ≥ 2,000 participants ✓ Invested NT\$55.03 million Target: ≥ NT\$40 million ✓
Promote Educational Collaboration Cooperate with educational organizations to narrow the gap in educational resources	🔥 Continue to cooperate with educational organizations and invest ≥ NT\$50 million in resources Note3	Continue to cooperate with educational organizations and invest ≥ NT\$40 million in resources	Invested NT\$37.38 million Target: ≥ NT\$30 million ✓
Promote Arts and Culture Hold art festivals to foster local art groups	🌐 Sponsor ten talented local artists or art groups 🔥 ≥ 3,000 participants for Chinese opera activities 🌐 Ensure the annual number of beneficiaries for arts and cultural events is ≥ 30,000 people	Sponsor ten talented local artists or art groups ≥ 2,000 participants for Chinese opera activities Ensure the annual number of beneficiaries for arts and cultural events is ≥ 25,000 people	Sponsored 21 local groups, 8 International groups Target: ten talented local artists or art groups ↑ Chinese opera activities 5,008 participants Target: ≥ 2,000 participants for Chinese opera activities ✓ Arts and cultural events 90,783 participants Target: ≥ 25,000 participants ✓

🌐 Applicable to all TSMC fabs around the world

🌐 Applicable to TSMC fabs in Taiwan and other specific fabs

🔥 Only applicable to TSMC fabs in Taiwan

🌐 Applicable to TSMC overseas fabs

↑ Exceeded

✓ Achieved

— Missed Target

Note 1: Given the significant improvement in program outcomes in recent years, the funding and participant numbers for 2030 are expected to increase. The long-term target was raised, now including participation in related programs (such as exhibitions, workshops, and lectures) to assess impact more comprehensively.

Note 2: Due to declining birth rates and shifts in social and cultural trends, competition participation decreased slightly compared to prior years.

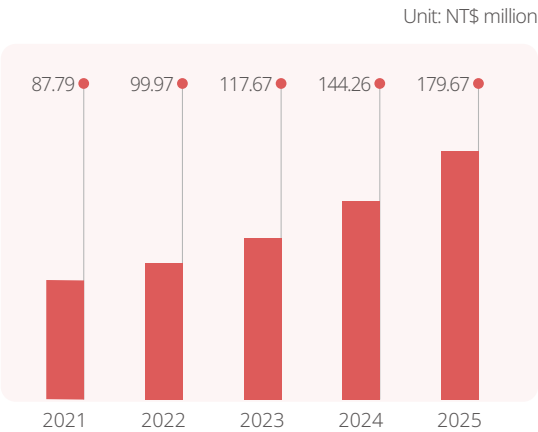
Note 3: In response to partnership needs, funding is expected to increase by 2030. The Foundation therefore raised this long-term target.

The TSMC Education and Culture Foundation focuses on three strategies: Cultivate the Young Generation, Promote Educational Collaboration, and Promote Arts and Culture. It engages in youth education, supports cultural programs, and nurtures talent with a strong sense of social responsibility. In 2025, the Foundation worked with public and private partners and allocated substantial resources. It encouraged female high school students to explore science while guiding youth to pursue their goals. It also advanced localized AI literacy education and used camps and competitions to build students' aesthetic and literary skills. The Foundation also brought in world-class musical performances to foster cultural activities, while integrating sustainability topics into its programming to encourage young people to engage with people with diverse backgrounds. In 2025, the Foundation invested NT\$179.67 million while reaching 3,127,314 participants. For more information on activities and sponsorship programs, please visit the official website of the TSMC Education and Culture Foundation.

Strategy and Action

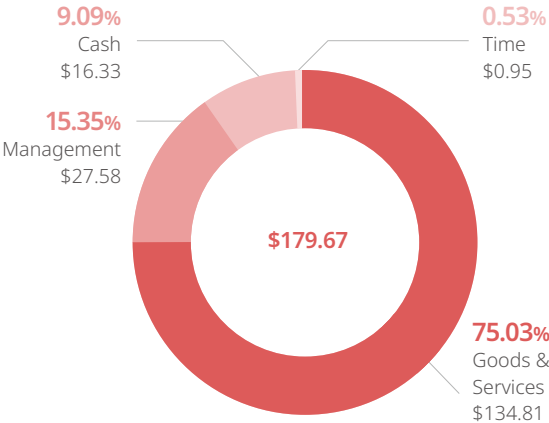


Historical Donation Amounts

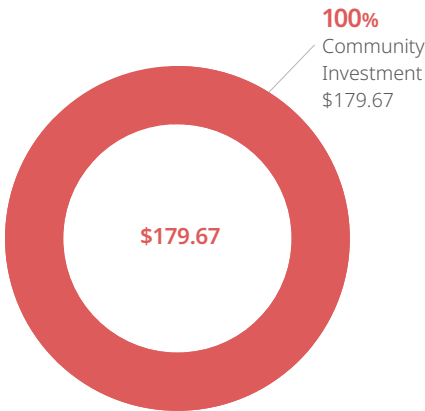


Contributions

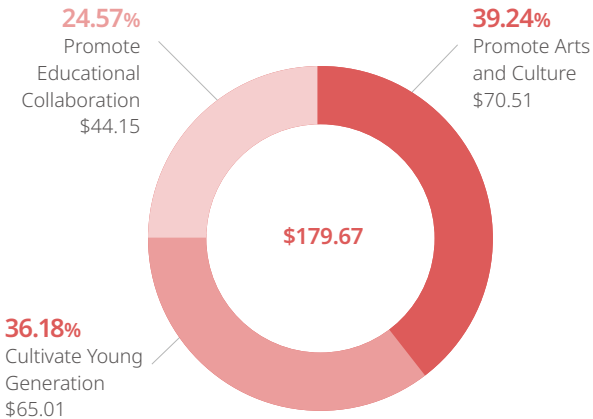
What We Contributed



How We Contributed



Focuses of Contributions





Cultivate Young Generation

What We Want to Solve

Domestic education often lacks literature, art, science, and exploration courses. As a result, students do not have a holistic education that integrates technology and humanities and thus lack the comprehensive skills required for future talents.

How We Respond

Organize competitions, science camps, lectures, and proposal competitions for senior high school and college students to inspire their interest in science and develop their cultural qualities. At the same time, the aim is to boost their self-confidence, insight, and problem-solving capabilities.

Our Actions

- [Cultivate Future Scientific Talent](#)
- [Create Diverse Platforms for Young Generations](#)

Students learn circuit applications through experiments.

Cultivate Future Scientific Talent

Develop Female Talent in Semiconductors

The TSMC Education and Culture Foundation continues to partner with the National Museum of Natural Science to offer the “TSMC Journey of Female Scientists.” This two-day camp is designed to spark female high school students’ interest in semiconductors by arranging visits to the World of Semiconductors and the TSMC Museum of Innovation, science workshops, and forums with female scientists working in the industry. In 2025, the Foundation further expanded the program to include semiconductor courses and one-day university immersion sessions. In addition to National Chung Hsing University, it introduced National Cheng Kung University as a new venue. Through faculty talks, lab tours, and hands-on sessions, the program helps female students understand semiconductor applications and encourages more women to enter science fields. In 2025, the program held 14 sessions with 1,839 participants. Since 2020, it has completed 47 sessions with a cumulative total of 6,426 participants, continuing to develop female talent in semiconductors.



The Journey of Female Scientists gave me confidence to choose STEM. I believe women can excel in technology.

Student, Kaohsiung Municipal Kaohsiung Girls' Senior High School



Sponsor Three Science Camps to Develop Talent

The TSMC Education and Culture Foundation has long been sponsoring the Wu Ta-You Science Camp, Wu Chien Shiung Science Camp, and Marie Curie Science Camp. In 2025, the Wu Ta-You Science Camp focused on “How Artificial Intelligence Is Changing Biomedical Research,” bringing together leading AI healthcare experts from Taiwan and overseas for panel discussions while holding creative competitions on future applications of AI in medicine. The Wu Chien Shiung Science Camp promotes science education while developing top talent, with prominent scientists sharing new advances. The Marie Curie Science Camp, themed “TAIWAN Strong: Envisioning a Smart Taiwan,” explored AI applications and trends through lectures, hands-on activities, lab sessions, and career discussions. Speakers from institutions such as the California Institute of Technology, Academia Sinica, and the Central Weather Administration guided students through emerging technologies while also addressing the ethical issues of AI. Together, the three camps drew 347 high school students, university students, and educators from around the world while building a pipeline of future scientists.



The scope of AI development far exceeded expectations. The keynote lectures led me to reflect on its impact.

Participant, Marie Curie Science Camp



Hands-on session at the Marie Curie Chemistry Camp.

Create Diverse Platforms for Young Generations

Dreaming Takes Collective Courage

The TSMC Education and Culture Foundation runs the [TSMC Udreamer Project](#) , encouraging youth to pursue their dreams. In 2025, the 10th TSMC Udreamer Project, themed “Off Track,” attracted 382 applicants. Eight teams were selected and awarded a total of NT\$3 million in grants. In partnership with the Taipei City Department for Youth and National Taiwan University's College of Design and Innovation, the Foundation held the “Off Track: Udreamer 10th Anniversary Interactive Exhibition.” The event featured 11 salons and nine project showcases curated by Udreamers. Additionally, a “NT\$1 Million Dream Fund” was established, with 100 “mystery guests” deciding how the funds would be allocated, demonstrating the power of collective dreaming for the project's next decade. The three-day exhibition attracted 2,521 attendees while 17 TSMC employees were recruited as mentors, guiding students through the nine-month dream journey.

Over the past decade, the project has inspired 3,864 young people to pursue their dreams, with many continuing their efforts long after the program ends. For example, “Lu Production,” an awarded team from the 7th TSMC Udreamer Project , used performing arts to deepen Yilan's cultural heritage. They participated in the [TSMC Hsin-Chu Arts Festival](#) , and were selected for the National Culture and Arts Foundation's Young Star, New Vision Program, representing Taiwan at the Edinburgh Festival Fringe. They are scheduled to perform at the Blackpool Magic Convention in the UK and the Prague Fringe Festival in 2026, bringing Taiwanese art to the international stage. “TimbormosÅ,” a team from the 5th edition led by Chia-Che Chang, established a studio after the program to promote reuse of discarded street trees. With support from the Foundation, the team holds workshops at TSMC sites, guiding employees in crafting keepsakes from reclaimed wood and expanding the impact of resource reuse — a testament to the project's lasting value.



We are grateful for the TSMC Education and Culture Foundation's support, which gave us the opportunity to perform on the international stage.

**Awarded team “Lu Production” from the 7th
TSMC Udreamer Project
Lu-Chieh Lin**

The TSMC Education and Culture Foundation's long-term support has enabled us to continue our dreams step by step. Growing from being accompanied to accompanying others — this is the most precious meaning of transforming education and lives.

**Awarded team “Light the Fire of Basketball” from the 7th
TSMC Udreamer Project
Chen-Hsun Hsu, Offtrack Exhibition Team**



Udreamer team visit TSMC wastewater treatment plant for sustainability inspiration.

Offtrack exhibition team Alpha Tanzania focus on local village education.

Ink and Words, Carrying Culture Forward

The TSMC Education and Culture Foundation continues to encourage young people to engage in writing and calligraphy — and sustain cultural heritage — through the TSMC Youth Calligraphy and Seal-Carving Competition, TSMC Penmanship Competition, and TSMC Youth Literature Award. In 2025, the TSMC Youth Calligraphy and Seal-Carving Competition adopted the theme “Learning from Nature,” encouraging students to experience the rhythm and power of brush and ink inspired by mountains, rivers, and all living things. In 2025, a junior high school division was added. The Foundation launched the TSMC Calligraphy Classroom outreach program. Winners in the past competitions served as instructors, guiding 279 students from 10 elementary schools across Taiwan to discover the joy of writing. In collaboration with the Tainan City Government, the Foundation held its first outdoor program at Anping Tree House, where 32 elementary school students explored the life and work of calligrapher Chiu-Ying Chu. Through interactive calligraphy games called “Tracing Character Shadows” and leaf-rubbing activities, students experienced the art of brush and ink. The TSMC Penmanship Competition, themed “Love Letters,” received 2,495 entries and builds public appreciation of calligraphy. The TSMC Youth Literature Award, under the theme of “The Year the Stars Appeared,” invited young people to express their ideas through writing and received 850 submissions. In 2025, the Foundation also launched a Short Story New Talent Award to encourage Taiwanese writers under 40 to continue creating and to strengthen literary development.

The Foundation also exclusively sponsors the Hsien-Yung Pai Literature Lectures at National Tsing Hua University. In 2025, under the theme of “Literature × Gender,” the lecture series partnered with the Department of Chinese Literature, the Center for General Education, and the Center for Language Education at National Tsing Hua University, bringing in 17 experts for weekly sessions that drew 2,851 participants. Drawing on modern literary works from Taiwan and around the world, the series broadened students' perspectives on gender diversity and inclusion. Past lectures were recorded and made available on NTHU's OpenCourseWare platform and the official YouTube channel of the TSMC Education and Culture Foundation, extending the program's cultural reach.



We thank the judges for taking the time to notice a quiet piece like this, giving a story of failure, silence, and divergence the chance to be understood.

Yu-Han Lin, Prose Award recipient

18th

TSMC Youth Calligraphy and Seal-Carving Competition

- High school students, junior high and high school teachers
- Calligraphy, seal carving
- Annually

402 entries /
34 creative lesson plans
2025 Achievements

7,280 entries /
122 creative lesson plans
Cumulative Achievements

3rd

TSMC Penmanship Competition

- Junior high and high school students and elementary school teachers
- Penmanship
- Annually

2,495 entries /
1,513 exhibition attendees
2025 Achievements

10,182 entries
Cumulative Achievements

22nd

TSMC Youth Literature Award

- High school students
- Short stories, prose, modern poetry
- Annually

850 entries
2025 Achievements

17,204 entries
Cumulative Achievements

1st

TSMC Short Story New Talent Award

- Under 40
- Short stories
- Biennially

312 entries
2025 Achievements

312 entries
Cumulative Achievements



Literature experts guide students to explore gender diversity through literary works.

A student practices calligraphy at the Changhua Yongjing Elementary School Calligraphy Classroom.

Promote Educational Collaboration

What We Want to Solve

Schools in remote townships in Taiwan are faced with long-term shortage of teachers and educational resources, resulting in low academic achievement among students. Students from underprivileged homes may be trapped by financial circumstances, hence they may be unable to explore and turn their lives around.

How We Respond

Collaborate with educational organizations from both the private and public sectors to expand curriculum development and promotion, as well as assist in the training of teachers in remote townships to improve the learning motivation and effectiveness of underprivileged students. Scholarships are also provided for disadvantaged students to reduce their financial burden.

Our Actions

- Establish Scholarships to Nurture Economically Disadvantaged Future Talent [🔗](#)
- Empower Teachers and Students in Rural Areas [🔗](#)

Establish Scholarships to Nurture Economically Disadvantaged Future Talent

The TSMC Education and Culture Foundation is committed to assisting outstanding students from economically disadvantaged families. In 2025, in addition to continuing support for Sunrise Program at National Tsing Hua University, the Sunflower Program at National Central University, the Cheng Star Program at National Cheng Kung University, the South Star Program at National Sun Yat-sen University, and the Chia Star Program at National Chung Cheng University, the Foundation established new master's scholarships in the humanities at National Tsing Hua University and National Cheng Kung University. Beyond financial assistance, the Foundation regularly organizes gatherings and arts events, monitoring students' progress through school-submitted learning reports to provide timely support. In 2025, a total of NT\$12 million in scholarships was awarded, benefiting 98 undergraduate and graduate students, while six scholarship recipients were offered summer internships at TSMC, helping them understand industry trends and expand their career options.

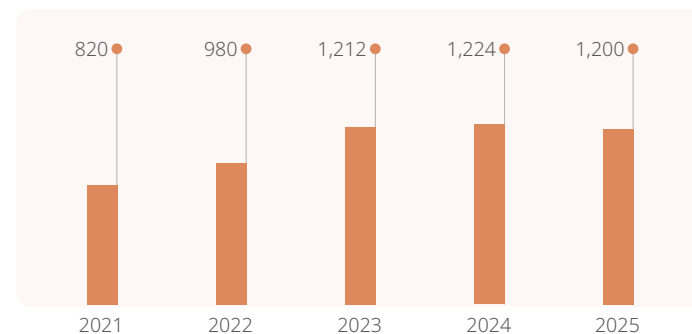


This scholarship gave me a completely new perspective on life, and made me feel supported enough to be brave and try!

Scholarship recipient, Cheng Star Program,
National Cheng Kung University

Total Scholarship Funding Increases Year by Year

Unit: NT\$ ten thousand



Empower Teachers and Students in Rural Areas

Adopt International Curricula, Build Taiwan's AI Education Ecosystem

To narrow the digital divide between urban and rural areas and address the growing need for AI literacy education, the TSMC Education and Culture Foundation worked with the Commonwealth Education to launch a three-year Global AI Literacy Program. The initiative localizes the Day of AI activities and curriculum developed by MIT's Responsible AI for Social Empowerment and Education office and the international nonprofit i2Learning, producing Chinese-language teaching materials tailored for Taiwan. These materials are also made available to over 100 Day of AI member countries, raising Taiwan's international profile in AI education. Additionally, the Foundation collaborated with industry, government, academia, and media partners to establish the AI Literacy Education Alliance, empowering teachers and students in elementary and junior high schools to develop AI literacy, strengthen their ability to interpret and apply AI information, and build a foundation in humanistic and technological literacy. In 2025, the program conducted 12 teacher training sessions, reaching educators across 19 counties and cities while benefiting 39,312 students.



Having video materials and resources adapted from international content and grounded in students' everyday experiences makes things much easier for teachers and keeps students highly motivated to learn.

Participating teacher

Teachers participate in a training session.



Develop Young Talent with Cultural Awareness

For six consecutive years, the TSMC Education and Culture Foundation has partnered with the Chengzhi Education Foundation to sponsor the holistic education KIST program (KIPP Inspired School in Taiwan) at Emei Bilingual Junior High School in Hsinchu. In 2025, the school continued to advance its experimental education and bilingual technology curriculum, adopting digital AI tools to strengthen teaching while deepening students' connection to local culture. Student enrollment grew to 53, a 26% year-on-year increase. The Foundation also held the fifth TSMC Youth Arts Camp at Emei Bilingual Junior High School, focusing on emotional writing and audio literature. Seven well-known writers guided 71 students from Taoyuan, Hsinchu, Miaoli, and KIST schools through sound recording, outdoor activities, expressive writing, and podcast performances to deepen literary skills. Recruitment for camp mentors attracted 302 university students — double the previous year — demonstrating the program's growing reach.



Students learn to record sound.



I really enjoyed creating the live podcast at the arts camp. I hope this incredible summer brought students literary inspiration and energy.

Writer Hsiao-Le Wu, Arts Camp Mentor

Students deepen their literary skills through podcast performance.

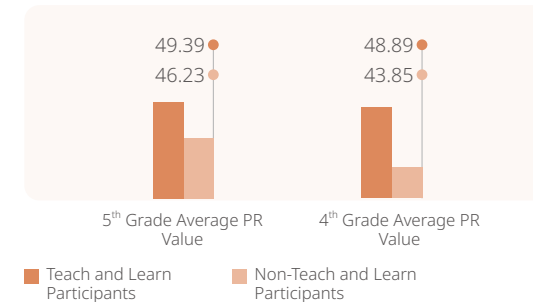


Digital Collaboration for Stronger Teaching in Rural Areas

Since 2021, the TSMC Education and Culture Foundation joined forces with the CommonWealth Magazine Education Foundation and the Prof. Hwawei Ko Reading Research Center at National Tsing Hua University to launch the five-year Teach and Learn Program. Through professional workshops and community exchanges, the program overcomes geographic barriers and steadily enhances rural teachers' expertise in reading instruction. Over five years, 58 teacher training sessions were held, 412 innovative lesson plans were developed, benefiting 6,512 students. In 2025, the Foundation further promoted a Reading initiative, encouraging students to form teams and transform 100 selected books into reading performances, extending reading comprehension into oral expression and continuing to strengthen rural students' language skills. In the same year, reading ability percentile rank (PR value) test results for fourth and fifth-grade students in rural areas showed that students who participated continuously in the Teach and Learn Program from first grade demonstrated higher reading abilities than those who did not, showcasing the program's substantial effectiveness in improving teaching quality and students' reading abilities.

Note: The PR value indicates a student's relative position within the overall group; a higher value signifies a higher ranking.

Reading Ability Test Results for 4th and 5th Graders



Back in the classroom, I found myself more intentionally examining the quality of dialogue — both my own and my students' and digging deeper into the inferential aspects of texts.

Participating teacher

Teacher training camp



Sow Seeds of Aesthetics to Inspire the Next Generation of Artists

The TSMC Education and Culture Foundation is committed to advancing arts appreciation by investing in cultural sponsorships. In 2025, the Foundation sponsored the National Palace Museum and Mediasphere Communications in presenting "From Impressionism to Early Modernism: French Masterpieces from the Robert Lehman Collection at The Metropolitan Museum of Art." Through a public service program, 611 teachers and students from 15 rural schools across Taiwan attended guided tours led by professional docents, sparking children's imagination and curiosity for art. The exhibition drew over 280,000 visitors in total. The Foundation also held an arts appreciation lecture for TSMC employees titled "A Meeting with the Masters: 19th and 20th Century Classics from The Met," offering discounted tickets to encourage employees to engage with art and enrich their aesthetic sensibility.

”

At the Met exhibition, I learned how different colors can capture light. The richness of the collection gave me a deep sense of the power and magic of art and history.

6th-grade student, Zhonghua Elementary School, Keelung



Elementary school teachers and students visit the exhibition.



Promote Arts and Culture

What We Want to Solve

Improve predicaments faced by domestic art groups such as inadequate resources, loss of audience and heritage, and foster the public's interest in traditional arts and cultural activities to popularize the art and make it an integral part of life

How We Respond

Apply digital technology to organize high-quality offline and online arts and cultural activities, sponsor exceptional domestic art groups, provide a performance stage, as well as organize rich, diverse programs and activities to raise the public's interest in art appreciation and Chinese opera

Our Actions

- [Support Arts and Cultural Performances](#)
- [Promote and Preserve Traditional Opera](#)

French cellist Gautier Capuçon and pianist Frank Braley perform in Taiwan.

Support Arts and Cultural Performances

AI Leads a New Cultural Wave, Delivering a Feast of the Arts

The TSMC Education and Culture Foundation is dedicated to promoting arts and culture, hosting the TSMC Hsin-Chu Arts Festival for 22 consecutive years, deepening humanistic sensibility across communities and campuses. In 2025, the festival adopted the theme “A.I. — Art & I,” collaborating with the Taiwan Contemporary Culture Lab and the NTHU Center for Arts and Culture to bring the nation's only mobile outdoor immersive theater, C-LAB Dome Theater, to the university campus, inviting the public to explore the boundless possibilities of next-generation tech-driven art. The festival also featured music, traditional opera, dance, and literature, aiming to integrate themed artistic experiences into everyday life while showcasing the richness of culture. A total of 106 events were held and attracted 30,702 participants.

“

The dome's animations simulated the impact of climate change — you didn't just 'see' the problem, you 'felt' it through your senses. It left a powerful impression.

Festival attendee



Wei Hai-min teaches Wang Xifeng Havocs Ningguo Manor, passing the baton to new-generation actress Huang Shih-ya who takes the stage.

Music Without Borders, Nurturing Young Talent Through Global Exchange

In 2025, the TSMC Education and Culture Foundation once again served as the title sponsor for the Berlin Philharmonic's performances in Taiwan, supporting a world-class musical experience while passing that standard of excellence on to the next generation of Taiwanese musicians. Through the "Music Without Borders" education program, young musicians participated in the Berlin Philharmonic's first-ever "Side-by-Side Rehearsal" in Taiwan, where six Philharmonic members rehearsed and guided 48 young musicians together, enabling direct mentorship and broadening students' horizons. The Foundation also hosted two chamber music masterclasses taught by the Berlin Philharmonic's principal second violin and contrabass players, providing 12 students with hands-on guidance and deepening Taiwan's musical literacy. Additionally, the Foundation invited 239 students to attend evening rehearsals at the National Concert Hall and experience the "master class" of Chief Conductor Kirill Petrenko and the profound impact of music refined to its finest detail.

The Foundation also supported the Taiwan National Symphony Orchestra's "From Taiwan" tour in Kumamoto, Japan, including concerts and masterclasses, drawing 899 participants, using music to strengthen community ties.

Note: Initiated by the TSMC Education and Culture Foundation, the National Symphony Orchestra and the Taipei National University of the Arts together, this program provides young musicians with opportunities to interact with world-class masters, nurturing the essential skills and inspiration to flourish on the music stage.



Watching the musicians communicate through eye contact, refine every detail, and pursue the perfect sound during rehearsal, I'm very grateful to the organizers and teachers for giving us this rare experience.

Student, Chien Hua Junior High School



On my first visit to Kumamoto, I had the chance to play alongside four outstanding young local musicians. Thanks to the TSMC Education and Culture Foundation for making this musical exchange possible.

Violinist Chun-Wen Huang



Berlin Philharmonic violinist Simon Bernardini guides young musicians in the Music Without Borders education program.



Violinist Chun-Wen Huang holds a masterclass in Kumamoto.

Music × Visuals × Sustainability, Awakening Environmental Awareness Through Art

The TSMC Education and Culture Foundation maintains a long-term focus on sustainability. In 2025, it sponsored the Asian premiere of National Geographic's "Secrets of the Whales" symphony concert, organized by the Taichung City Cultural Affairs Bureau. Combining a live performance by the National Symphony Orchestra with National Geographic's whale documentary footage, the concert guided approximately 8,000 audience members through a multisensory journey into the ocean world — conveying the grandeur of marine life, the mystery of whales, the knowledge of cetacean ecology, and the importance of environmental conservation.



I am thrilled to see the Secrets of the Whales documentary paired with classical music. By deeply understanding cetaceans, we can better appreciate the importance of environmental sustainability.

Dr. Chiu-Ju Yao, cetacean expert,
National Museum of Natural Science



The orchestra performs Secrets of the Whales live.

TSMC Lectures, Cultivating Students' Humanistic and Philosophical Thinking

Since 2014, the TSMC Education and Culture Foundation has been holding TSMC Lectures to promote Eastern and Western humanistic and philosophical thinking, inspiring students and the public to reflect on universal values while broadening their international perspectives. In 2025, Associate Professor Ting-Chia Yen from National Chengchi University was invited to National Tsing Hua University to deliver a lecture series titled Memory, Exile, and Utopia in Russian Literature. Using literature as a medium to explore the spiritual power in Russian literary works, the lectures attracted 533 participants, deepening young people's understanding of global issues and their engagement with them.



Hosting such an excellent literature lecture at the end of the year deepened my curiosity and imagination about Russian culture and its humanistic traditions.

Lecture attendee



TSMC Lectures expand students' international perspectives through literature.

Promote and Preserve Traditional Opera

The TSMC Education and Culture Foundation exclusively sponsors the GuoGuang Opera Company's "Chinese Opera on Campus Program," offering Peking opera appreciation and hands-on performance courses on Chun-Tsao Braving the Court at National Tsing Hua University and Tunghai University. Taught by professional Peking opera performers, the program offers the opportunity for college students to experience the art form firsthand and helps preserve traditional opera culture. In 2025, 66 students enrolled in the courses, performing Chun-Tsao Braving the Court and excerpts from The Pearl Curtain Village together with the Tsing Hua Peking Opera Club. Since 2022, the Foundation has also held the "TSMC Theatre" campus outreach program. In 2025, in partnership with the Taipei Quytuan Ensemble, Contemporary Legend Theatre, and Taiwan Kunqu Opera Theatre, the program held dedicated pre-show talks and performances in Hsinchu, Taichung, and Tainan, drawing 3,291 local high school and university students and faculty and cultivating younger generations' interest in traditional performing arts.

Additionally, the Foundation has produced the online radio program Tales from Chinese Opera for four consecutive years, hosted by An-Chi Wang, Artistic Director of the GuoGuang Opera Company, and Associate Professor Shih-Lung Lo of the Department of Chinese Literature at National Tsing Hua University. The program presents classic Chinese opera stories in an engaging format and reached a cumulative 1,234,519 online listeners in 2025, continuing to bring traditional Chinese opera to wider audiences.



We're so fortunate and grateful for excellent teachers who patiently guide us through movements, singing, and performance.

NTHU course participant

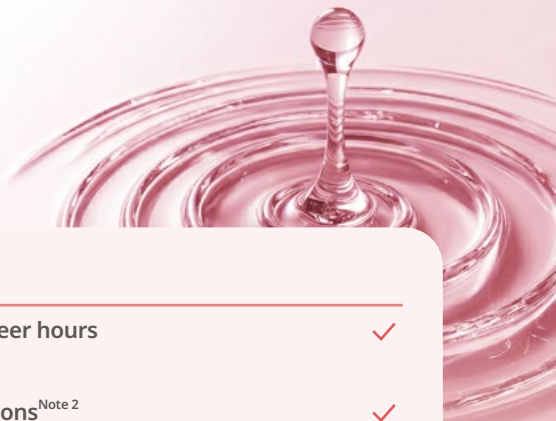


Actors from the Contemporary Legend Theatre pose with students.



Students practice on stage.

TSMC Charity Foundation



Strategies	2030 Goals	2026 Targets	2025 Achievements
Empower Education Integrate multiple learning resources, explore career opportunities, and collaborate across industry partners to unleash the potential of rural students in an attempt to cultivate professional skills, and promote employment matching	 20,000+ educational volunteer hours every year  At least NT\$18 million in annual donations to underprivileged people  Benefit 50,000+ children in rural areas	20,000+ hours of educational volunteer At least NT\$16.8 million in annual donations to underprivileged people Benefit 38,000+ children in rural areas	33,347 educational volunteer hours Target: >20,000 NT\$30.74 million in donations^{Note 2} Target: > NT\$16.5 million 37,885 children in rural areas benefited Target: >35,000
Care for the Elderly Through the cooperation of medical institutions and social welfare organizations, we aim to enhance the accessibility of elder care service in rural areas	 Serve seniors living alone 80,000 times each year via the Network of Compassion  300,000 meal deliveries via the Network of Compassion^{Note 3}  Reach 22,000 participants through health promotion programs for seniors living alone^{Note 3} NEW	Serve seniors living alone 60,800 times each year via the Network of Compassion 295,000 meal deliveries via the Network of Compassion Reach 20,000 participants through health promotion programs for seniors living alone NEW	Services offered 249,304 Target: 56,000 services Meals delivered 353,572 times Target: >350,000
Protect the Environment Partnering with corporations and university volunteers, we engage in environmental education, waste reduction initiatives, and support energy-saving for campuses and institutions	 Benefit individuals 60,000+ times each year via the Cherish Food Project^{Note 4}  Offer environmental protection-related volunteer services at least 1,200 times each year  Establish 6 solar power installations annually to provide sustainable support for social welfare institutions  Change LED light tubes for 240 elementary schools each year	Benefit individuals 56,000+ times each year via the Cherish Food Project Offer environmental protection-related volunteer services at least 1,136 times each year Establish 6 solar power installations annually to provide sustainable support for social welfare institutions Change LED light tubes for 240 elementary schools	Benefited individuals 56,915 times Target: 72,000 times Volunteer services offered 1,259 times Target: >1,120 times Solar panels installed for 14 institutions^{Note 5} Target: 6 institutions LED light tubes changed for 360 elementary schools^{Note 5} Target: 240 elementary schools

 Applicable to all TSMC fabs around the world
 Applicable to TSMC fabs in Taiwan and other specific fabs
 Only applicable to TSMC fabs in Taiwan
 Applicable to TSMC overseas fabs

 Exceeded
 Achieved
 Missed Target

Note 1: This estimated total amount includes time spent on volunteer service, event preparation, and transportation.

Note 2: The amount includes annual volunteer service expenses and expenditures for education and empowerment-related projects.

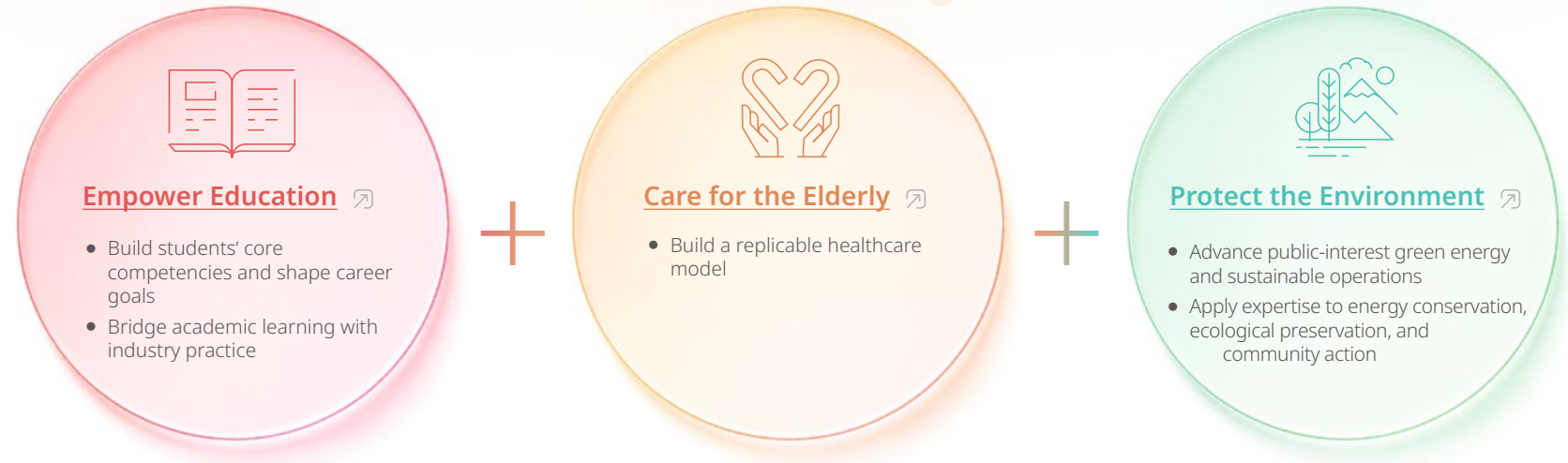
Note 3: Partner organizations secured support from other corporate sponsors. As resource needs stabilized, the Foundation adjusted resource allocation and set a new target: participants reached through health promotion programs for seniors living alone.

Note 4: Partner organizations secured support from other corporate sponsors. As resource needs stabilized and demand declined, the Foundation lowered the 2030 target.

Note 5: The number of beneficiary organizations increased following an expansion in the annual budget for the "Public-interest Green Energy Program". Furthermore, proceeds from selling green electricity to the grid are reinvested into care services for the underprivileged.

The TSMC Charity Foundation centers its efforts on a three-way framework that brings together government, business, and professional institutions. It works with cross-sector partners to focus on three priorities — Empower Education, Care for the Elderly, and Protect the Environment — to strengthen social support networks. In 2025, the Foundation channeled resources to build students' scientific literacy and map career pathways in technical and vocational fields, supporting talent development across all stages of education. In Kumamoto Prefecture, Japan, it established a cross-institutional healthcare network and developed a replicable model for community-based elder care. It also supported rural schools and social welfare organizations in installing green energy systems while mobilizing TSMC volunteers for ecological conservation efforts. For the year, the Foundation invested NT\$538.42 million, reaching 726,029 beneficiaries. For more information on the Foundation's social engagement programs, visit the [TSMC Charity Foundation website](#).

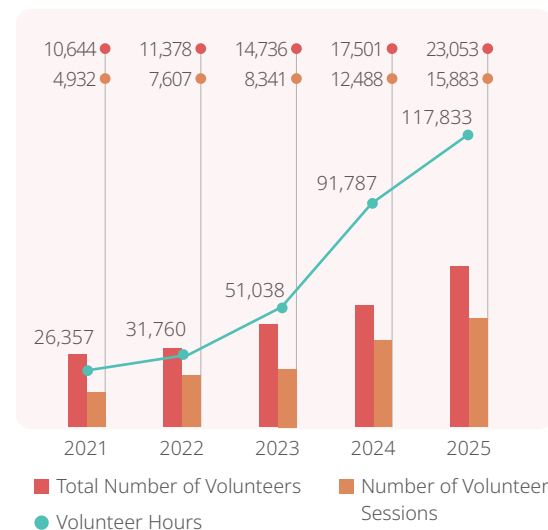
Strategy and Action



Contributions

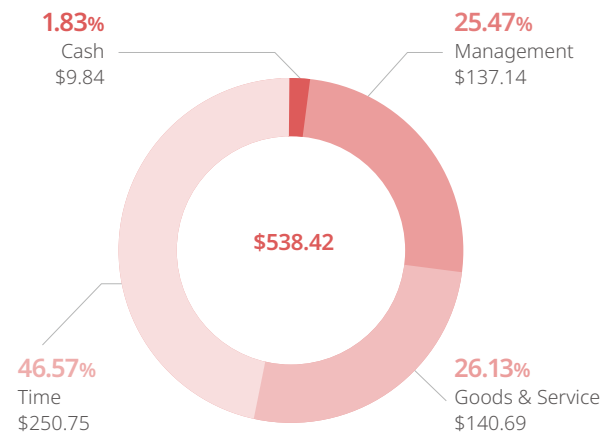
Total Number of Volunteers^{Note1}, Volunteer Sessions, and Volunteer Hours

Unit: Person / Session / Hour



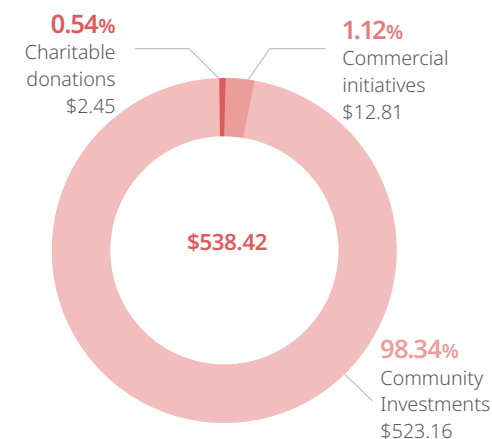
Note 1: The value of corporate volunteering equals the total TSMC volunteer hours multiplied by the average hourly wage of TSMC employees in 2025.

What We Contributed^{Note2}



Note 2: According to the Dow Jones Sustainability Indices (DJSI), events are classified under Commercial Initiatives, Charitable Donation and Community Investment; all of the contributions are shown in the monetary unit of New Taiwan Dollar (NT\$).

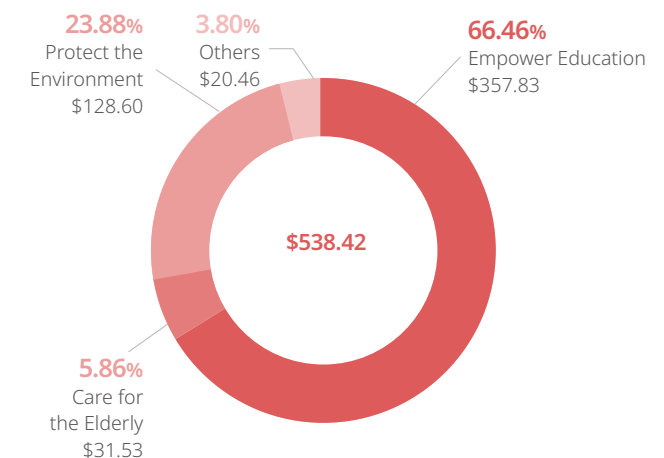
How We Contributed^{Note2}



Note 3: Volunteers participating in the TSMC Charity Foundation's volunteering activities include TSMC's current employees, former employees, retired employees, family members of employees, employees of partner corporations, and students under University Social Responsibility (USR) programs.

Focuses of Contributions

Unit: NT\$ million





Empower Education

What We Want to Solve

Limited social resources in rural areas restrict access to learning opportunities and basic support, constraining students' development. This deepens poverty and education inequality while increasing the potential costs of career transitions.

How We Respond

Support disadvantaged families and align resources across government, industry, and academia. Set phased capacity-building strategies and action plans. Work with companies to run training camps and career fairs, and create job opportunities for vocational high school students to explore career paths.

Our Actions

- [Build students' core competencies and shape career goals](#)
- [Bridge academic learning with industry practice](#)



Cooperation Partners

Build Students' Core Competencies and Shape Career Goals

The TSMC Charity Foundation maintains long-term support for education in rural areas, utilizing TSMC volunteers' technical expertise to advance STEM education and enhance students' scientific literacy. Through structured courses and teaching tools, the Foundation guides elementary students in exploring diverse career possibilities, developing self-awareness, and considering future paths. The Foundation also uses arts-based programs to promote filial duty, encouraging students to reflect on interactions with elders and strengthen character, laying a foundation for both humanistic care and personal growth.

Develop Diverse Courses and Strengthen STEM Education

In response to AI trends and the Ministry of Education's emphasis on technological literacy, the TSMC Charity Foundation collaborated with TSMC volunteers to develop STEM lesson plans covering information technology, cybersecurity, artificial intelligence, packaging technology, and resource recycling. Through volunteer support, the Foundation reinforced rural students' foundations in math and science while inspiring their enthusiasm for learning.

In 2025, the Foundation partnered with the Intelligent Manufacturing Center on the National Science and Technology Council's "South of the Border - Yingxi Science Train" initiative, enabling the science train to travel the South Link line of Taiwan's rail network for the first time. Nearly 1,000 students from nine elementary schools in Pingtung and Taitung participated in the program featuring hands-on science experiments and games. The Foundation also brought together TSMC volunteers' IT expertise to organize "TSMC Leads You in Science 2025" at Taoyuan Qiaoai Elementary School in collaboration with Taipei First Girls' High School's robotics club, offering practical courses and competitions that stimulated students' innovative thinking and fostered cross-generational science exchange.

Storytelling Volunteers

1,270
Participants

6,350
Hours

Science Education

50
Sessions

1,686
School children participated

Guided Tour Volunteers

1,133
Participants

4,532
Hours

Children experience the principles of sound transmission inside a specially designed carriage.

”

The STEM challenges inspire children's interest in learning while deepening their recognition of indigenous culture. The TSMC Charity Foundation brought the Science Train to the South-Link line, giving rural students a valuable opportunity to explore both science and culture.

Ching-Ling Yao, Magistrate of Taitung County



TSMC volunteers guide students in understanding chip packaging concepts through building blocks.

Students apply hands-on robotics to inspire innovative thinking.



Use Arts to Deepen Awareness of Filial Values

The TSMC Charity Foundation developed a wide range of programs to advance education on filial values. In 2025, it held half-day camps at 10 elementary schools across Taiwan, guiding 249 students and their parents to express emotions through art. Professional instructors facilitated reflection on interactions with elders, fostered character development, strengthened parent-child connections, and promoted filial values.

Filial Piety Education

10

Schools

249

Participants

”

The essence of education is to help children grow into gentle yet strong individuals. Deepening the parent-child bond provides essential nourishment for their development.

Chih-Wei Chang, Principal of Qiaoai Elementary School



Art activities open up parent-child dialogue to broaden the meaning of filial values.

Build Career Education for Young Students

To narrow the gap in career education resources for rural students, the TSMC Charity Foundation partnered with Career Creator, Inc. to create Taiwan's first set of career exploration cards and lesson plans designed for elementary school students. In 2025, the Foundation brought professional instructors to 10 rural elementary schools across Taiwan, guiding 205 students in using interactive cards to explore their interests and learn about diverse careers. The program also trained 50 elementary school teachers to integrate career exploration into daily teaching, laying a foundation for students' career awareness.

Career Exploration Education

50

elementary school teachers

205

students reached

”

Through interactive activities and card-based discussions, students reflect on their interests, strengths, and future paths while developing the ability to express their thoughts and engage in meaningful conversation.

Chih-Chuan Chang, Principal of Beishi Elementary School



Under the instructor's guidance, elementary school students and teachers explore career paths through card-based activities.

Bridge Academic Learning with Industry Practice

The TSMC Charity Foundation is committed to vocational education and youth employment, working to narrow the gap between academic learning and industry practice while helping students map their career paths and build a stronger understanding of industry trends and emerging skills. In 2025, it connected academic and industry resources through Vocational Training Camps and Job-Ready Express Camps to cultivate skilled talent. The Foundation also brought students closer to industry through Career Fairs and organized parent-child workshops to build shared career understanding — laying the groundwork for a solid career path.

Bridge Academic Learning with Industry Practice to Drive Vocational Education Forward

In 2025, the TSMC Charity Foundation focused on automotive talent development through its [Vocational Training Camps](#) by combining resources from Kuang-Fu High School, Minth University of Science and Technology, and industry partners such as Lexus and Mazda to advance vocational education. In the morning, Lexus managers analyzed industry talent trends for 27 junior high school teachers, followed by Kuang-Fu High School presenting its automotive department's training program. In the afternoon, 98 students from Kuang-Fu High School's automotive department and the junior high teachers visited Minth University's smart vehicle exhibition and factory floor for firsthand workplace experience.

The Foundation also worked with Happy Recome for the Job-Ready Express Camp, training students from Kuang-Fu High School's fashion styling department in professional skills and providing volunteer haircut services at Hsinchu Veterans Home. The Foundation aims to build a sustainable vocational education ecosystem that connects schools and industry, integrates resources, and establishes partnerships to support the long-term development of Taiwan's talent pool.



We hope this Talent Empowering Program partnership continues to grow. Kuang-Fu High School has diverse departmental strengths, and we look forward to expanding collaboration so more vocational students can gain professional growth through a stable, long-term program.

Shih-Ching Lee, Principal of Kuang-Fu High School



Industry executives guide vocational high school students in gaining professional automotive expertise.

Students from Kuang-Fu High School apply their professional skills to provide charity haircuts for seniors.

Vocational Training Camp
 27 junior high school teachers
 98 Kuang-Fu High School students



Career Fairs Guide Students Toward Their Future

In 2025, the TSMC Charity Foundation collaborated with the governments of Taoyuan, Hsinchu, Yunlin, Pingtung, and Taitung to host five career fairs. The events invited TSMC’s supply chain partners for on-site recruitment and partnered with 104 Job Bank to launch a “Career Mentor Corner,” featuring interest assessments, career counseling, and professional sharing. This helped junior and senior high school students explore their strengths and interests while understanding future skill requirements and career options. In total, 98 companies participated, attracting 7,995 students.



The TSMC Charity Foundation, together with supply chain partners, recruited talent in Pingtung, offering quality job opportunities while providing high school students with career exploration experiences — making Pingtung a top choice for young people to return or stay.

Chun-Mi Chou, Magistrate of Pingtung County



Career Fairs
98
 participating companies
7,995
 student participants

The Taitung Career fairs guide students toward their future

Note: Participant numbers are based on estimates provided by the organizing government authorities.

Parent-Child Learning, Exploring Diverse Career Paths

For the second consecutive year, the TSMC Charity Foundation partnered with Jinou Girls High School to hold Parent-Child Career Exploration Workshops, inviting junior high students and their parents to participate. Through aptitude assessments, hands-on experiences, and career guidance, participants gained insight into workplace trends and their assessment results, sparking meaningful conversations between parents and children as they explored diverse career paths together.



We are deeply grateful to the TSMC Charity Foundation for providing students with a quality pathway to explore their future.

Kuei-Hua Tien, Principal of Jinou Girls High School



Parent-Child Career Exploration Workshops
48
 participating students and parents

The Parent-Child Career Exploration Workshops guides families in exploring future directions for students.



Care for the Elderly

What We Want to Solve

With Taiwan's elderly population rising rapidly, demand for healthcare and long-term care is expanding each year, placing growing pressure on social welfare systems. In remote areas, limited service locations make access to resources more difficult. At the same time, changes in family structures led to a higher proportion of seniors living alone. Prolonged lack of companionship and care can lead to feelings of loneliness, which negatively impact both physical and mental health

How We Respond

The Foundation established the Network of Compassion system to link medical and social welfare institutions, enabling more efficient allocation of long-term care resources, while extending services to home healthcare and daily companionship. Guided by the triangular elder care model, the Foundation promotes community health initiatives globally to enhance the accessibility and local relevance of long-term care services, helping seniors maintain their physical and mental well-being.

Our Actions

- Build a replicable healthcare model [↗](#)



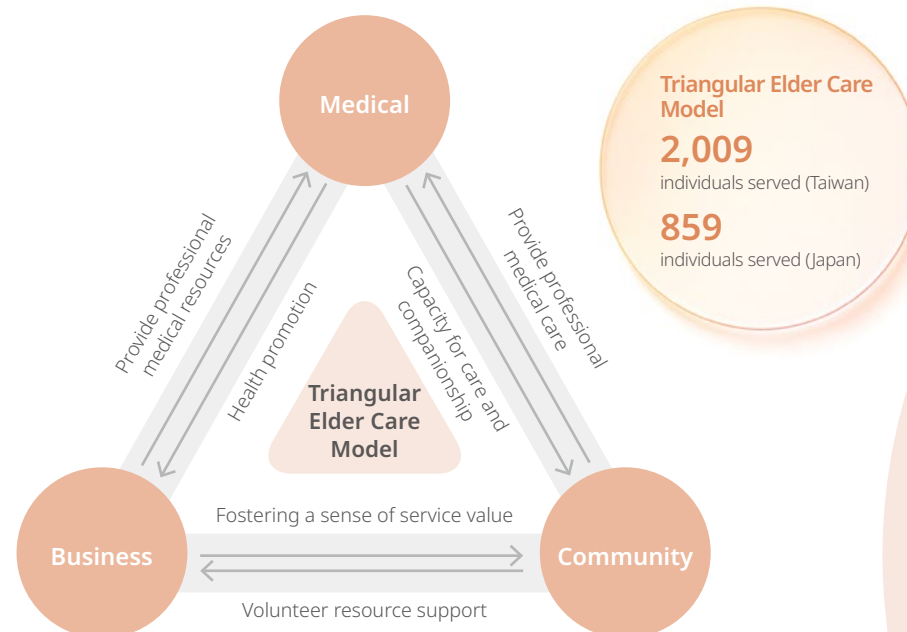
Cooperation Partners

Build a Replicable Healthcare Model

The TSMC Charity Foundation integrates corporate, hospital/academic, and social welfare resources to build a resilient, replicable elder care network. Through the "Network of Compassion" platform and local volunteer medical services, the Foundation strengthens community health support. In 2025, it successfully replicated the "triangular elder care model" in Kumamoto, Japan, in collaboration with local partners to establish an international care model. The Foundation also actively taps into senior volunteers' secondary skills to sustain their service contributions. In line with a spirit of shared benefit, Chairperson Sophie Chang shared these successful experiences at Business Today's "Happy Aging Forum," engaging participants in discussions on creating healthy lives for older adults.

Bring Taiwan's Experience Abroad, Set a New Model for Healthy Communities

The Foundation drives community health and medical services through its "Business × Medical × Community" triangular elder care model. In 2025, it offered Smart Fitness Clubs for Seniors program in Taiwan, serving 2,009 elders and building a stable local support network. The Foundation also extended the model to Kumamoto, Japan by signing partnership agreements with Kumamoto University and Kikuyo Town. Through smart healthcare, professional courses, and TSMC volunteer participation — with a focus on dementia prevention — the initiative provides exercise programs, nutritional guidance, and cognitive training to promote health and resource integration in local aging communities. Beyond serving Kumamoto's local population, this healthcare network also extends to TSMC's fab in Kumamoto, supporting expatriate employees and their families with human-centered medical care.



The elder care program provides essential health support for elders and allows residents to truly feel the connection and shared benefit between JASM and the local community.

Takatoshi Yoshimoto, Mayor of Kikuyo Town

We are honored to partner with the TSMC Charity Foundation. This collaboration not only improves the health of local seniors, but also gives JASM's assigned employees and their families access to more reassuring medical support.

Hisao Ogawa, President of Kumamoto University

The Charity Foundation partners with Kumamoto University and Kikuyo Town to foster a culture of community health and wellness.



Explore and Develop Senior Volunteers' Secondary Skills

Senior volunteers are a vital force behind the TSMC Charity Foundation's initiatives. Beyond encouraging their continued community service, the Foundation actively supports them in exploring and developing secondary skill sets ,opening new possibilities for retirement life while expanding their contributions.. In 2025, in collaboration with Shih Chien University, the Foundation organized a beauty empowerment workshop at St. Francis Girl's Home. Under the guidance of professional instructors, volunteers and the girls learned makeup application techniques together. Through interaction and shared appreciation of beauty, the program helped the girls build confidence while fostering community support and intergenerational communication.



Cross-Sector Collaboration for Community Health

TSMC volunteers have a long presence in local communities and, through long-term engagement, recognized the challenges posed by limited access to medical resources. In 2025, they partnered with the Senior Health Club of National Yang Ming Chiao Tung University to visit the Hsinchu Veterans Home, guiding residents in stretching exercises and sharing health tips. In addition, in collaboration with the Yuanshan Branch of Taipei Veterans General Hospital, they provided vision screenings and ran health education workshops for the elderly and children in the Hanxi Tribe in Yilan, a community they have long supported. These efforts not only enhanced the physical and mental well-being of both young and old residents but also strengthened the investment of local healthcare resources for a robust community health support network.



Build a Caring Support Network for Seniors

The Charity Foundation enhances the quality of elder care through the "Network of Compassion" platform. In 2025, it partnered with 19 healthcare systems and service sites to support 19 social welfare organizations across 12 counties and cities in establishing care systems. It also donated two meal delivery vehicles to improve seniors' living conditions. In addition, the Foundation provides diverse services — including medical visit support and health management — building a comprehensive care network for seniors living alone or with limited access to resources.



The Charity Foundation establishes a health support network for communities.

Senior volunteers and young participants develop makeup expertise together.





Protect the Environment

What We Want to Solve

Climate change not only threatens the natural environment and specific species but also exacerbates the challenges faced by vulnerable groups, including exposure to environmental disasters, unequal access to energy and resources, and inadequate nutrition.

How We Respond

Collaborate with partners across industry, government, and academia to help disadvantaged groups improve energy and resource management, while promoting the installation of green energy equipment and the development of renewable energy. Promote energy conservation education to support environmental sustainability through volunteer initiatives.

Our Actions

- [Advance Public-interest Green Energy and Sustainable Operations](#)
- [Apply expertise to energy conservation, ecological preservation, and community action](#)



Cooperation Partners

Promote Public-interest Green Energy and Sustainable Operations

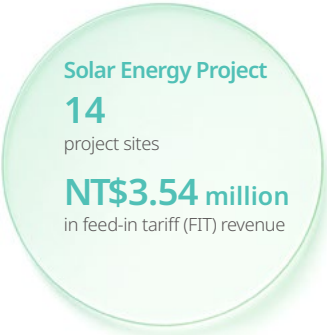
The TSMC Charity Foundation continues to partner with local governments and vocational schools through the “Green Energy Program” to support social welfare organizations and rural schools in installing solar photovoltaic systems. These efforts help reduce electricity costs while generating long-term income. At the same time, through the “LED Energy-saving Retrofit Project,” the Foundation enhances students’ learning environments and achieves energy-saving and carbon reduction goals. The initiative also enables vocational students to gain hands-on experience and earn income in the process, delivering dual benefits for environmental sustainability and talent development.

Generate Sustainable Momentum for Social Welfare

Since 2020, the TSMC Charity Foundation has been promoting an innovative green energy model, assisting local government project teams in selecting suitable organizations and installing solar photovoltaic systems. The feed-in tariff revenue from these solar sites is earmarked to support disadvantaged communities and social welfare organizations, ensuring their long-term operations and service continuity.

Create Energy-Efficient Campuses with Vocational Skills in Action

The TSMC Charity Foundation has long collaborated with vocational universities on the LED Energy-saving Retrofit Project, working with students to help rural schools replace traditional lighting with energy-efficient LED fixtures. In 2025, the project extended to vocational high schools, enhancing students’ hands-on skills while reducing electricity costs and creating brighter, healthier learning and teaching environments for faculty and students.



Note 1: Electricity sales proceeds are determined by multiplying the annual power generation (kWh) × Taipower’s feed-in tariff rate, based on the installed solar capacity (kW) of each site
 Note 2: Electricity savings are calculated as: (number of replaced light tubes × wattage reduced per tube) × estimated electricity usage hours per school × electricity rate per kWh



The TSMC Charity Foundation took the initiative to work with the Education Department to improve campus lighting, giving classrooms a fresh, revitalized look.

Education Department, Taitung County Government



Green Energy Program installs energy-efficient LED fixtures for rural primary schools.

Apply Expertise to Energy Conservation, Ecological Preservation, and Community Action

The TSMC Charity Foundation draws on volunteers' professional skills to advance environmental sustainability across energy management, ecological conservation, resource recycling, and community engagement. Energy conservation volunteers help rural schools and institutions improve energy efficiency while promoting energy- and water-saving practices. Ecological volunteers raise public awareness of biodiversity. Through the Cherish Food for Charity Program, the Foundation facilitates the redistribution of food resources to reduce waste and environmental impact. In 2025, the Foundation launched its first "One-Day Local Volunteer" campaign, guiding employees to explore community ecology and culture, building a shared commitment to conservation, and inspiring greater participation in ecological preservation efforts.

Foster Community Stewardship in One-Day Local Volunteer Experience

To encourage employees to engage in ecological conservation, the Foundation organized two "One-Day Local Volunteer" events in 2025, exploring natural and cultural sites near TSMC facilities. Through guided tours led by local organizations, ecological surveys, and agri-food education activities, participants gained a deeper understanding of local ecosystems and cultural heritage, fostering a sense of belonging and ecological stewardship. A total of 71 individuals took part in these events.



TSMC volunteers together with NTU Experimental Forest biodiversity staff to explore the forest, serve children in rural areas, and learn about ecology — providing a unique and meaningful experience for all volunteers.

Hsiu-Mei Liao, Chairperson of Howard Resort Xitou

Advance Energy Efficiency and Ecology to Maximize Green Impact

TSMC volunteers contribute to environmental sustainability across two areas. Energy conservation volunteers utilized advanced instruments and technology to conduct energy audits and recommend improvements at schools and organizations, boosting resource efficiency while promoting energy and water conservation practices among rural students. Ecological volunteers engage with facility-based ecological projects and the Tainan Jacana Ecological Education Park to raise public awareness of biodiversity. Together, these efforts advance the coexistence of technology and nature while amplifying the reach of environmental education.

Energy Conservation Volunteers

70
Participants

700
Hours

Ecological Volunteers

50
Participants

200
Hours

TSMC volunteers experience the process of making traditional rice-based foods to gain a deeper understanding of the local culture.

TSMC volunteers lead children and experts in exploring the local ecology.

Cherish Food for Charity, Put Resources to Better Use

Through the long-running Cherish Food for Charity Program, the TSMC Charity Foundation partners with Taiwanese food companies to collect near-expiry or cosmetically imperfect yet safe-to-eat food, distributing it to after-school tutoring programs, seniors living alone, rural students, and social welfare organizations, making effective use of food resources.

Cherish Food for Charity Program

369

Participating organizations

56,915

Benefited individuals



Unite TSMC's Strength to Bring Hope to Society

Cooperation Partners

The TSMC Charity Foundation responds to social needs through the iCharity donation platform, which allows TSMC employees to initiate projects and pool their efforts to create greater impact. The platform has three categories: Community Support, Employee Well-being, and Regular Donations. In 2025, it raised NT\$81.04 million to support 14 projects, covering post-disaster home reconstruction, care for elderly living alone, Indigenous music education, education for children in remote areas, and early childhood therapy. In addition, the Foundation activates emergency response mechanisms immediately after disasters, coordinating with volunteers and local governments to assist in rebuilding homes and providing relief supplies, bringing warmth and hope to the community.

Restore Schools After Disasters and Help Students Resume Classes

In July 2025, two typhoons struck southern Taiwan. In both cases, the TSMC Charity Foundation quickly mobilized for post-disaster recovery. In addition to visiting 10 schools, and based on damage lists provided by local governments, the Foundation raised NT\$12.8 million through employee donations. This funding assisted a total of 28 schools in disaster-affected areas with repairs to facilities such as roofs, walls, libraries, windows, and air-conditioning mounts, ensuring uninterrupted teaching and helping students in remote areas return to school.



Without this support, we would delayed the school opening by one to two months. Seeing the children back in their classrooms, smiling, is our greatest encouragement.

Liang-Chuan Tai, Principal of Shulin Elementary School, Kaohsiung

Support Hualien and Protect Homes with Professional Care

In September 2025, a landslide dam breach on the upper Mataian River in Hualien triggered severe flooding. The TSMC Charity Foundation responded swiftly, deploying its "Cleanup Heroes" volunteer team — TSMC volunteers led by professional cleaning and repair contractors — to help flood victims in Guangfu Township clean and restore their homes. This effort, including employee donations, raised NT\$10.31 million for post-disaster recovery. Beyond enhancing the safety of residents' homes, it also provided professional housekeeping services for seniors living alone. The Foundation transformed disaster relief into a driving force for local revitalization, launching a "Buy to Donate" initiative. This program involved purchasing local organic rice and other agricultural products from affected farmers and distributing them to disaster victims and seniors living alone. This supported post-disaster economic recovery, establishing a sustainable model for local economic circulation and community care, demonstrating professional and comprehensive disaster response.



When I learned about the volunteer recruitment, I was afraid of missing the opportunity. Thankfully, I was selected, and the experience brought me deep personal fulfillment and growth.

Ming-Yueh Tseng, TSMC Volunteer

A TSMC volunteer engaged in post-disaster reconstruction following the Mataian landslide dam breach in Hualien.





Operations and Governance

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Corporate Governance

TSMC supports operational transparency and respect for shareholder rights. We believe that the basis for successful corporate governance is a sound and effective Board of Directors. In line with this principle, TSMC Board of Directors delegates various responsibilities and authority to three Board Committees; Audit and Risk Committee, Compensation and People Development Committee, and Nominating, Corporate Governance and Sustainability Committee. Each Committee's chairperson regularly reports to the Board on its activities and recommendations.

Board

Inspired by the philosophy on corporate governance established by TSMC's Founder, Dr. Morris Chang's and guided by the leadership of Chairman Dr. C.C. Wei, TSMC's Board of Directors is committed to a serious and transparent approach to its responsibilities. The Board is composed of dedicated, highly competent and independent members who uphold the highest standards of governance.

TSMC's Board of Directors consists of ten distinguished

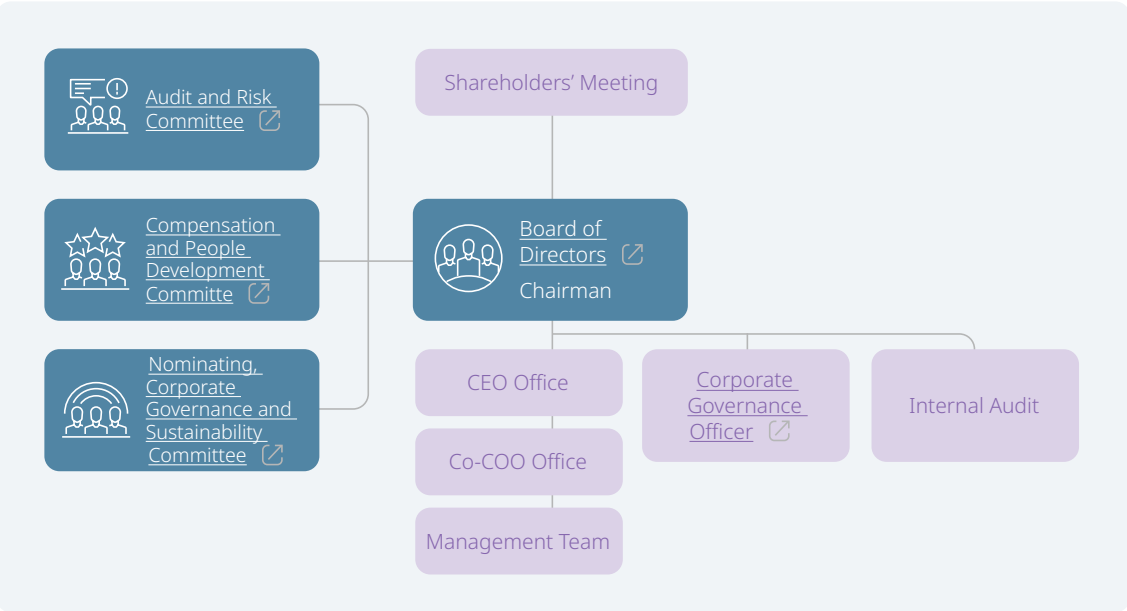
members possessing exceptional experience as world-class business leaders or professionals. We rely on them for their diverse knowledge, personal perspectives, and solid business judgment. The current board members are: Chairman Dr. C.C. Wei, Dr. F.C. Tseng, Dr. Chun-Hsien Yeh (Representative of National Development Fund, Executive Yuan), as well as seven Independent Directors: Sir Peter L. Bonfield, Mr. Michael R. Splinter, Mr. Moshe N. Gavrielov, Dr. L. Rafael Reif, Ms. Ursula M. Burns, Ms. Lynn L. Elsenhans, and Dr. Chuan Lin.

TSMC's Board consists of a diverse, multinational group of professionals from other industries and academia, including citizens from Taiwan, Europe and the U.S. Two female directors sit on the TSMC Board, and the Board's independence is illustrated by the fact that 70% of the Board's members are Independent Directors, with no marital or within second degree of kinship relationships among the directors. For further information, please refer to ["3.2 Board of Directors"](#) section in the Annual Report.

The Compensation and People Development Committee assists the Board in discharging its responsibilities related to TSMC's compensation and benefits policies, plans and programs, in evaluation of TSMC's directors of the Board and executives compensation, and the review of strategic planning by the Company's senior executives to ensure the long-term sustainability of the Company. The Chairman of the Board and the Chief Executive Officer are invited by the Committee to attend all meetings and are excused from the Committee's discussion of their own compensation. Currently, the Committee is comprised of four Independent Directors.

The Nominating, Corporate Governance and Sustainability Committee assists the Board in strengthening the selection mechanism for directors, building a diversified and professional board, selecting candidates for nomination to be elected as independent directors to the Board, and advising on corporate governance and sustainability matters. Currently, the Committee consists of the Chairman of the Board and three Independent Directors.

Governance Structure



For more details of "Corporate Governance", please refer to [TSMC's Annual Report](#) and [TSMC's website](#).

Functional Committees

The Audit and Risk Committee assists the Board in fulfilling its oversight of the quality and integrity of the accounting, auditing, reporting, and financial control practices, as well as risk management of the Company. Under R.O.C. law, the membership of audit committee shall consist of all independent directors. The Committee also engaged a financial expert consultant in accordance with the rules of the U.S. Securities and Exchange Commission.

Each Director is expected to attend every Board meeting and the Committees meeting on which he or she serves. In 2025, the average Board Meeting attendance rate was 100% and the attendance rate for the Audit and Risk Committee, Compensation and People Development Committee, and Nominating, Corporate Governance and Sustainability Committee's Meetings were all 100%. For further information, please refer to ["3.2.5 Director and Committees Members' Attendance"](#) section in the Annual Report.

Ethics and Regulatory Compliance

Ethics

"Integrity" is one of the foundations of TSMC's core values. TSMC established its "TSMC Ethics and Business Conduct Policy" ("Ethics Code") to be the guide for operating TSMC's business with integrity. At the same time, by establishing the "Supplier Code of Conduct" and "Supplier Sustainability Standards", providing online courses such as "Supplier Code of Conduct – Ethics", "TSMC Integrity Guidelines" etc. available on TSMC Supplier Sustainability Academy, and hosting seminars at TSMC Sustainable Supply Chain ESH Forum, TSMC extends and demonstrates the value of "integrity" throughout its supply chain. In addition, TSMC

published its "TSMC Anti-Corruption Commitment" on the TSMC website to specifically emphasize TSMC's firm compliance with its core value of integrity.

TSMC established relevant whistleblowing policies, making multiple reporting channels available for internal and external voices, and accepting anonymous reports. All reported incidents collected from these reporting channels are properly recorded, confidentially investigated and well traced, while enhancements to TSMC practices are made where applicable. TSMC keeps individual identities confidential and prohibits retaliation on any individual who, in good faith, reports a suspected violation or participates in an

investigation. Furthermore, TSMC has established an Ethics Committee that oversees the implementation of TSMC Ethics Compliance Activities, investigations and disciplinary actions for reported incidents. The committee holds a meeting every quarter and may hold additional meetings as needed. Any employee who violates the Ethics Code is subject to disciplinary actions in accordance with TSMC procedures, up to and including termination of employment, and will negatively affect his/her annual performance reviews (including bonus adjustment). In 2025, two incidents were verified upon investigation and determined for disciplinary action by the Ethics Committee.

With TSMC's operations expanding globally, it is mandatory to comply with laws and regulations, domestic or international. TSMC closely monitors any domestic and international policies and legal trends that may have a significant impact on its business and finances and aims to formulate and implement corresponding compliance plans in a timely manner to ensure that all businesses comply with the laws of various countries. Additionally, TSMC strengthens its compliance framework through a series of measures, including regulatory audits, legal tracking, regulation identification, compliance reviews, the development and updating of internal policies, as well as compliance education and training initiatives.

Regulatory Compliance

2025 Achievements



Ethics and Regulatory Compliance

- Regulatory Compliance: According to the definition of material regulatory violation under Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities, in 2025, TSMC did not receive any reports related to insider trading, money laundering, or other finance, accounting or antitrust matters, nor did TSMC receive any complaints concerning breach of customer privacy and loss of customer data, or any material regulatory violations (where a fine exceeds NT\$1 million), including non-monetary sanctions.
- More information related to TSMC ethics and regulatory compliance, please refer to the 3.5 Ethics and 3.6 Regulatory Compliance sections in the Annual Report.



Training and Conflict of Interest Declaration

Ethics Training Course for Newcomers

New employees in Taiwan sites (including contractors)

Online program

Performance by person

Unit: person

11,273	10,291	5,387	8,667	8,319
2021	2022	2023	2024	2025

Note: The course completion period is from January 1, 2025 to December 31, 2025

Annual Ethics and Compliance Training Course

All employees (including subsidiaries)

Online program

Performance by person

Unit: person

61,579	74,629	77,283	79,135	85,124
2021	2022	2023	2024	2025

Note: Considering that the Annual Ethics and Compliance Training Course (the "Course") is not only required for designated colleagues but also available for all colleagues to take as needed, the number of completed courses has been changed from only counting those who took the required courses to the number of course views, to more accurately reflect the actual completion on the Course.

Conflict of interest declaration / Declaration of Compliance with the Ethics Code

TSMC request the designated new employees, managers or employees who are required to declare (including subsidiaries)

Declaration by person-time

Unit: person-time

28,717	27,291	26,710	28,378	31,527
2021	2022	2023	2024	2025

Note: Compile the information of new employees and annual declarations, so the unit is person-time

Enterprise Risk Management

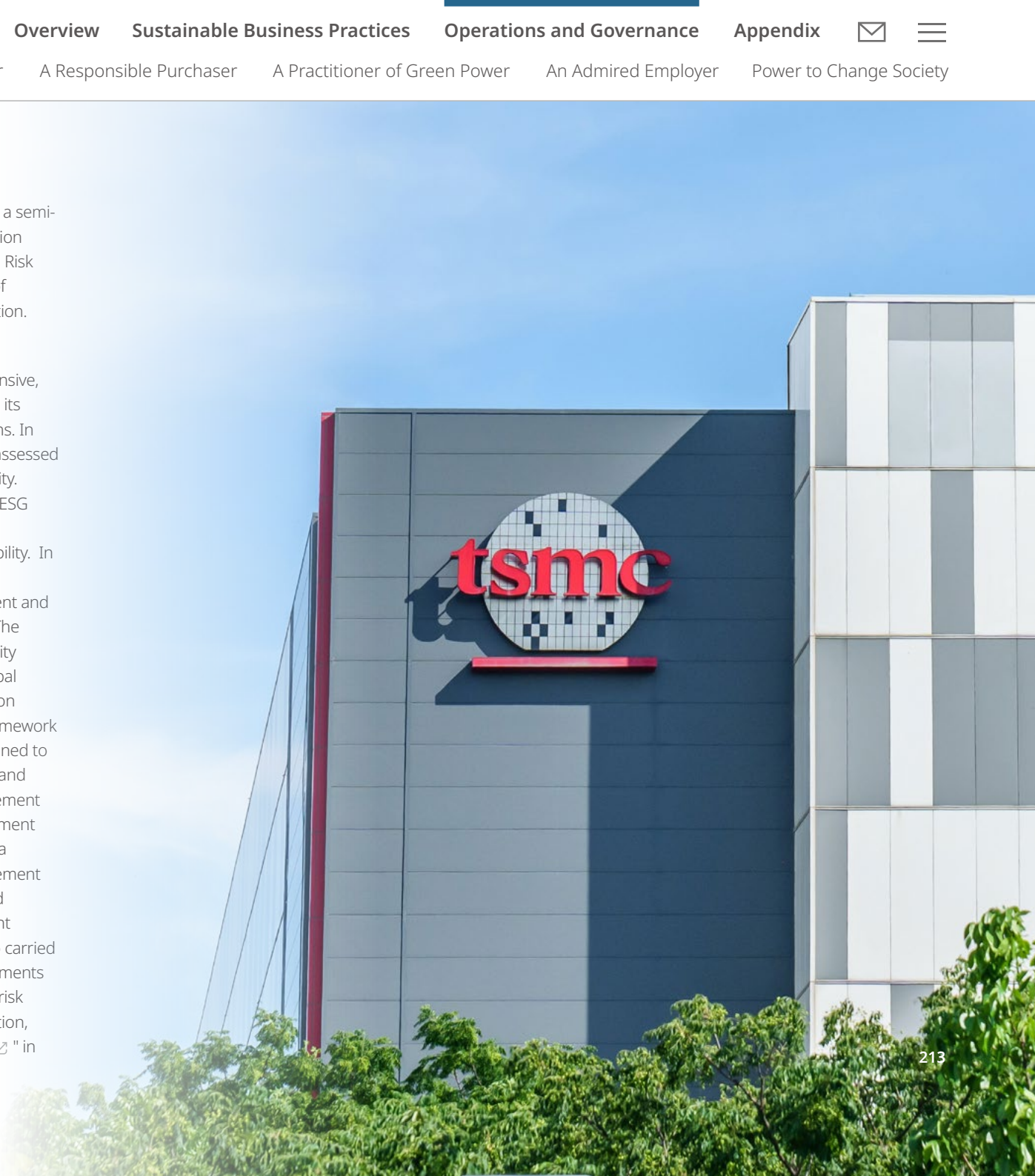
The TSMC Risk Management Policy [🔗](#), approved by its Board of Directors and signed by the Chairman and CEO, outlines TSMC's commitment to maintaining a proactive and robust Enterprise Risk Management (ERM) system and to adopting a balanced risk-reward management strategy that aims to optimize corporate returns and achieve long-term sustainable value for stakeholders.

TSMC's Risk Management Framework takes reference from ISO 31000:2018 risk management system and the "Enterprise Risk Management-Integrated Framework" by COSO (Committee of Sponsoring Organizations of the Treadway Commission). Effective risk management is integral to how TSMC develops and executes its strategies. TSMC fosters a strong risk-aware culture and systematically implements risk management practices to strengthen organizational resilience in an increasingly dynamic business environment. For details on the ERM framework and risk governance structure, please refer to section "[6.2 Risk Management](#) [🔗](#)" in the Annual Report.

The Board of Directors has ultimate responsibility for the governance of risk. Through the Audit and Risk Committee, the Board guides management in the formulation of the risk management framework and reviews the effectiveness of the risk management system. At the executive level, the Risk Management Steering Committee and the Risk Management Executive Council are responsible for the effective implementation of risk management strategies, policies, and processes. The Risk Management Division works with each function to ensure that risk management is integrated into business decisions

and operations across the Company. Following a semi-annual report from the Risk Management Division to the Audit and Risk Committee, the Audit and Risk Committee Chairperson reports to the Board of Directors on TSMC's risk profile and risk mitigation.

In 2025, TSMC continued to enhance its risk management capabilities through a comprehensive, multi-faceted approach, thereby strengthening its resilience and effectiveness across all operations. In strengthening risk governance, the fabs were assessed and measured based on the level of risk maturity. Embedding risk management indicators as an ESG target and integrating them into executives' compensation further promotes risk accountability. In optimizing risk management processes, TSMC integrates risk management into new investment and projects and institutionalizes lessons learned. The Company maintains a robust Business Continuity Management (BCM) system and enhances global operational resilience through regular simulation exercises. The BCM and crisis management framework and communication protocols were further refined to ensure prompt event escalation, coordination, and rapid recovery. TSMC digitalizes its risk management processes through an Integrated Risk Management Information System. TSMC continues to foster a risk-aware culture and enhance its risk management capabilities through training, presentations and conferences organized by the Risk Management Academy. A Risk-Aware Culture survey was also carried out to assess the state and to identify enhancements in fostering a stronger risk culture. For TSMC's risk management performance and strategic direction, please refer to section "[6.2 Risk Management](#) [🔗](#)" in the Annual Report.



Risk Management Initiatives and Achievements in 2025

🏆 Achievement

Risk Management Maturity Level NEW

Embed robust risk management processes across all fabs to strengthen the effectiveness of risk management implementation

- 🏆 All fabs achieved Level 4 out of 5 in maturity and conducted quarterly risk register reviews

Risk Management Indicators in Performance Management

Promote Risk Accountability and Ownership

- 🏆 Risk management is incorporated into the performance evaluation of all executives, including members of the Risk Management Steering Committee and Executive Council

Investment and Project Risk Management NEW

Integrate risk management processes in new investments and projects and institutionalize lessons learned

- 🏆 Completed risk assessments for 4 identified projects

Business Continuity Management NEW

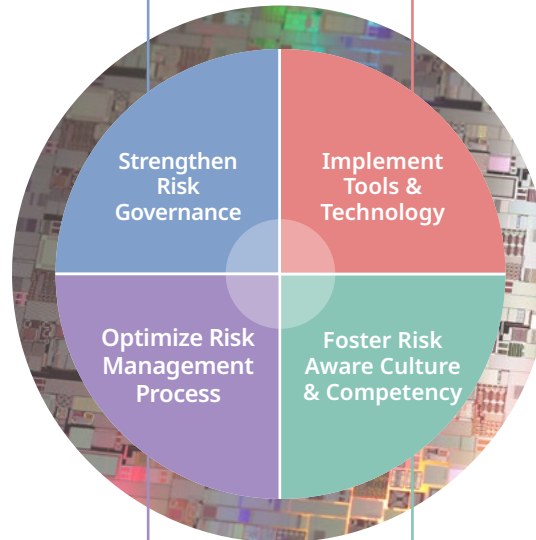
Fortify operational resilience through reviews and exercises

- 🏆 Over 35 Business Impact Analysis workshops to enhance Business Continuity Plans
- 🏆 178 Employees participated

Crisis Management (CM) NEW

Formalize crisis management framework and communication protocols, for timely and effective event escalation, coordination, and communication

- 🏆 59 documents reviewed leading to the formalization of the BCM and CM policy and procedure
- 🏆 29 senior executives and crisis management core team members participated in the Central Crisis Command Center exercise



Digitalization of Risk Management Process NEW

Advance the digitalization of risk management processes and tools through the implementation of a Risk Management Information System

- 🏆 22 fabs digitalized their risk management processes

Risk Management Training for Board

Support the Board of Directors in their oversight of current and emerging risks

- 🏆 1 Session of "Board Governance Duties in Sustainability Risks and Crisis Management"
- 🏆 20 Directors and Executives participated

Risk-Aware Culture Survey

Assess risk awareness culture and benchmark against industry peers

- 🏆 34,258 employees participated
- 🏆 94% of employees recognized that TSMC has a risk-aware culture in place

TSMC Risk Management Conference NEW

Foster a robust risk-aware culture led by the Board and senior management to empower employees in proactively anticipating and adopting risk in a dynamic business environment

- 🏆 2,485 employees participated
- 🏆 97% of employees reported a significantly better understanding of TSMC's risk management and their roles within it

Risk Management Academy

Strengthening risk communication, promoting risk awareness, and enhancing management capabilities

- 🏆 17,276 employees participated in online risk management training
- 🏆 2 Sessions of lunchtime talks, with a total of 1,916 participants, and 2 risk management newsletters published

Material Issues and Risk Management

		Innovation Management	Product Quality and Safety	Customer Relations	Sustainable Supply Chain
Risk Aspects/ Type	Strategy	Failure to foresee changes in technologies or develop innovative technologies	Yield loss due to lack of quality controls	Inability to fulfill customer's technology, capacity demand	Concentrated sourcing and suppliers non-compliant with TSMC or regulatory requirements
	Operation				
Risk Evaluation and Mitigation Measures		Advanced processes involve increasingly complex technologies, higher production costs, and more complicated supply chains. The Company's competitive advantage and market share could suffer if we are unable to identify technological changes and develop new technologies Please refer to Innovation Management section	Wafer quality control grows increasingly difficult as products become more complex. Inability to detect defects could incur a loss to our customers and impact company reputation If defects remain undetected in raw materials, it could lead to scrapping final product, impacting customers and operations Please refer to the Product Quality section	Failing to meet customers' requirements may lead to losing market share. Close engagements with customers to comprehend customer and application requirements and roadmap. Please refer to Customer Relations section	Disruptions in the supply chain (for raw materials or equipment) could impact Company operations and our commitment to customers Please refer to the Sustainable Supply Chain section
Likelihood ^{Note1}					
		Almost Certain			
		Likely			
		Possible			
		Unlikely			
		Rare			
Impact ^{Note2}					
		Catastrophic			
		Major			
		Moderate			
		Minor			
		Insignificant			

Note 1: Likelihood is defined as follows: "almost certain": may occur within 1 year; "likely": may occur within 3 years; "possible": may occur within 5 years; "unlikely": may occur within 10 years; "rare": may occur within 30 years.

Note 2: Impact is defined as follows: "Catastrophic": loss exceeding 10% of assets/revenue; "Major": loss of 5-10% of assets/revenue; "Moderate": loss of 3-5% of assets/revenue; "Minor": loss of 1-3% of assets/revenue; "Insignificant": loss of less than 1% of assets/revenue.

Risk Aspects/ Type

- Strategy
- Operation

Risk Evaluation and Mitigation Measures

Likelihood^{Note1}

- Almost Certain
- Likely
- Possible
- Unlikely
- Rare

Impact^{Note2}

- Catastrophic
- Major
- Moderate
- Minor
- Insignificant

Climate and Energy		Water Stewardship	Circular Resources	Air Pollution Control	Biodiversity	
Operational impact from climate disasters, increasing GHG emissions, regulations against GHG emissions, and other requirements 	Power Shortage or Outage 	Water shortage or suspension, and environmental impact from wastewater 	Suppliers fail to properly handle waste leading to pollution 	Environmental impact from pollutant emissions 	Operations or development impacting the ecological environment 	Failure to adequately address stakeholder expectations for information disclosure 
Increasing demands from stakeholders to increase usage of renewable energy could increase costs and, if requirements are not met, fab construction progress and customer orders could be impacted Please refer to Climate and Energy section and TSMC Climate and Nature Report 	Unstable power supply will limit production capacity and disrupt operations. Please refer to Climate and Energy section and TSMC Climate and Nature Report 	Unstable water supplies will limit production capacity, TSMC will therefore be unable to satisfy customer demands Anomalies in effluents will pollute the environment and negatively impact company reputation Please refer to Water Stewardship 	Waste management vendors failing to handle waste in compliance with regulations may subject TSMC to liabilities for waste cleanup and environmental recovery, impacting company reputation Please refer to Circular Resources 	Improper use or failure of air pollution control equipment could result in excess emissions, penalties from the authorities, and impact on company reputation Please refer to Air Pollution Control 	Reputation impact arising from ecological damage during operations or development Please refer to Biodiversity  section	Reputation impact due to delayed responses or unmet commitments
						
						

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Risk Aspects/ Type

- Strategy
- Operation

Risk Evaluation and Mitigation Measures

Likelihood^{Note1}

- Almost Certain
- Likely
- Possible
- Unlikely
- Rare

Impact^{Note2}

- Catastrophic
- Major
- Moderate
- Minor
- Insignificant

	Inclusive Workplace	Talent Attraction and Retention	Talent Development	Occupational Safety and Health		Human Rights
Risk Aspects/ Type	Failure to uncover TSMC employees' full potential 	Failure to attract or retain enough high-quality talents 	Talents failing to progress with evolving landscapes 	Natural calamities or man-made disasters such as earthquakes or fires 	Occupational diseases and injuries from chemical hazards 	Failure to protect the human rights of TSMC employees and suppliers
Risk Evaluation and Mitigation Measures	Company's grasp of various aspects of the market may suffer if the mix of employees is unable to reflect the current social landscape, further impacting the Company's competitive advantage Please refer to Inclusion Workplace section	Company operations could suffer from failure to attract and retain enough high-quality talents when needed Please refer to Talent Attraction and Retention section	Company's competitive advantage and growth momentum could suffer if talents fail to progress with evolving landscapes Please refer to Talent Development section	Natural calamities and man-made disaster such as earthquakes and fires could damage the Company's equipment and result in disrupted operations and financial losses Please refer to Occupational Safety and Health section and 6.2 Risk Management section in the Annual Report	Employees could suffer from injuries and diseases due to non-compliance with safety guidelines	Company reputation, employee morale, talent recruitment, customers' interests could suffer from the lack of proper protection for the human rights of our employee and suppliers. Please refer to the Human Rights section and TSMC Human Rights Report
Likelihood^{Note1}						
Almost Certain						
Likely						
Possible						
Unlikely						
Rare						
Impact^{Note2}						
Catastrophic						
Major						
Moderate						
Minor						
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Financial Performance

TSMC firmly believes that a robust financial framework is indispensable for corporate sustainability. TSMC creates long-term economic value and fortifies its financial strength through prudent business strategies, rigorous capital management, and a solid track record of strong financial outcomes. In 2025, the development of the AI market continued to be very positive, driving robust demand for semiconductors. Supported by TSMC’s technology leadership and a broad customer base, the Company delivered another strong growth year in both revenue and profits. Its performance clearly demonstrates TSMC’s capacity to harness its financial strength to navigate challenges, and to proactively advance its vision for corporate sustainability aspirations, creating significant benefits for its stakeholders — shareholders/ investors, employees, customers, suppliers/ contractors, governments/industry associations, and communities.

TSMC’s commitment to transparent and timely financial disclosure is a fundamental part of building investor confidence and affirming the Company’s long-term investment proposition. Beyond our

routine publication of financial results, we thoroughly define clear, quantifiable strategic financial targets and consistently achieve milestones toward our long-term financial goals. As the trusted technology and capacity provider of the global logic IC industry, TSMC continues to invest in innovations that support our customers' growth, while delivering profitable growth to our shareholders. Based on the long-term growth outlook from 2024 to 2029, TSMC expects (1) its long-term revenue growth, measured in US dollar terms, to approach a compound annual growth rate (CAGR) of 25%; (2) its long-term gross margin to be 56% and higher through the cycle; and (3) ROE to be high-twenties percent through the cycle.

TSMC raises capital in a strategic fashion to support these growth opportunities and maintain a strong financial foundation. Since 2020, the company has issued NT\$506.9 billion in NT dollar-denominated and US\$17.5 billion in US dollar-denominated corporate bonds, securing favorable pricing terms. These efforts have strategically positioned the company to capture future growth opportunities, while ensuring TSMC continues to maintain the highest credit ratings in the semiconductor industry.

AA-

Standard & Poor's (S&P) Ratings

Aa3

Moody's Ratings

twAAA

Taiwan Ratings

Four Strategies to Increase Long-term Investment Value



Continue to invest in technology leadership

14.4%

CAGR in R&D investment^{Note}

7.7%

CAGR in R&D headcounts^{Note}



Provide excellent manufacturing services and capacity support

>17 Million

Total capacity exceeded 17 million 12"-equivalent wafers in 2025

17.5%

CAGR in capital expenditures^{Note}



Pursue revenue and profit growth

16.5%

CAGR in net revenue^{Note}

18.8%

CAGR in net income^{Note}



Maintain or improve investment returns

28.3%

Average ROE^{Note}

3.6 Trillion

Cumulative cash dividends (NT\$)

Note: 2016 - 2025



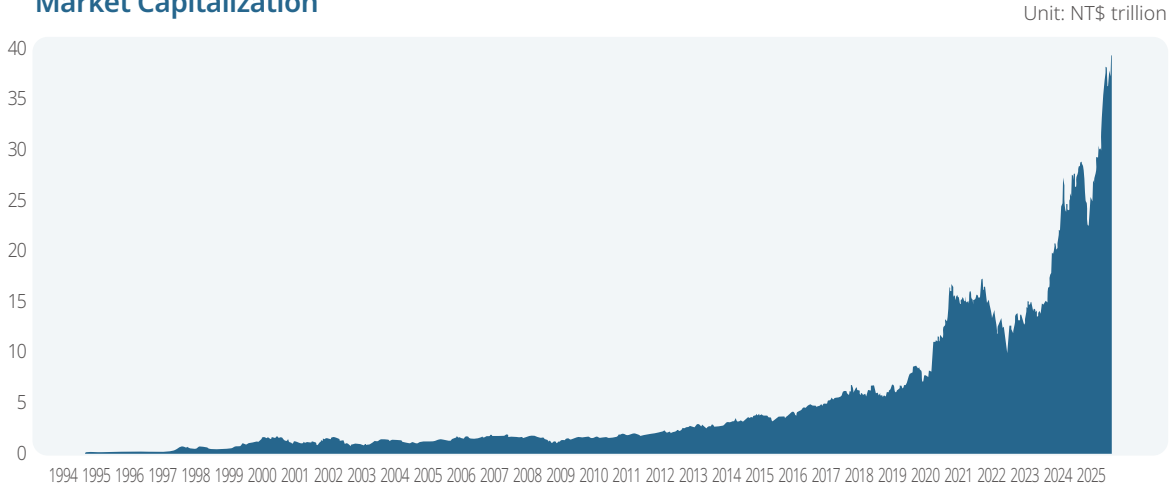
TSMC has consistently been profitable every year since going public in 1994, with steady growth in market capitalization. As of December 31, 2025, TSMC's market capitalization reached NT\$42.1 trillion, or approximately US\$1,339.5 billion.

TSMC's strong financial performance enables the Company to distribute profits to shareholders through cash dividends. In 2025, TSMC's Board of Directors approved an increase in the quarterly cash dividend from NT\$4.50 to NT\$5.00 per share in May, with an additional increase to NT\$6.00 per share

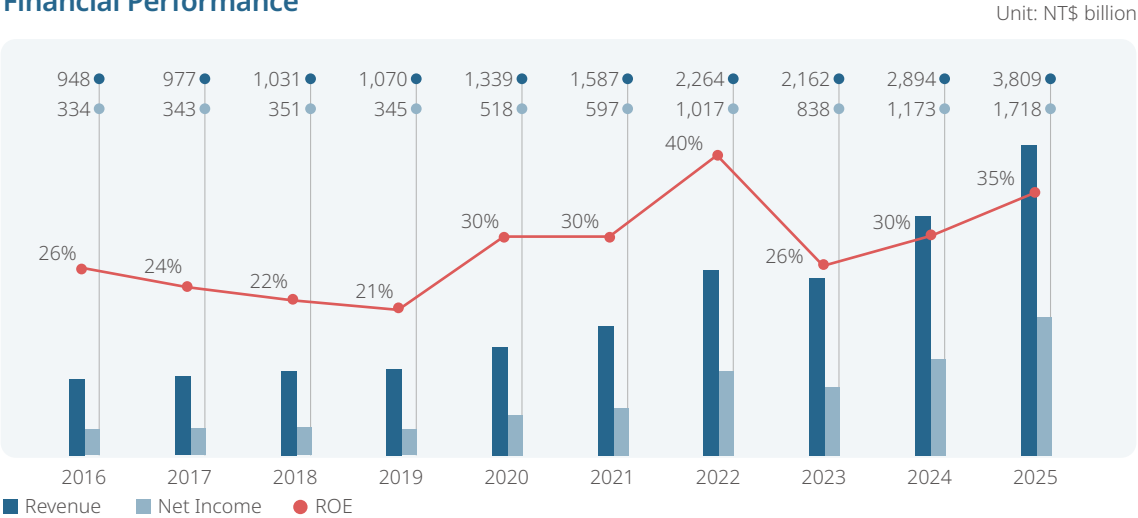
in November. Consequently, TSMC's shareholders received a total of NT\$18.00 per share in cash dividends in 2025, and they can expect to receive at least NT\$24 per share in 2026. Between 2004 and 2025, TSMC has distributed a total of NT\$3.6 trillion, or approximately US\$117.2 billion, in cash dividends.

In the future, TSMC intends to maintain a sustainable and steadily increasing quarterly cash dividend.

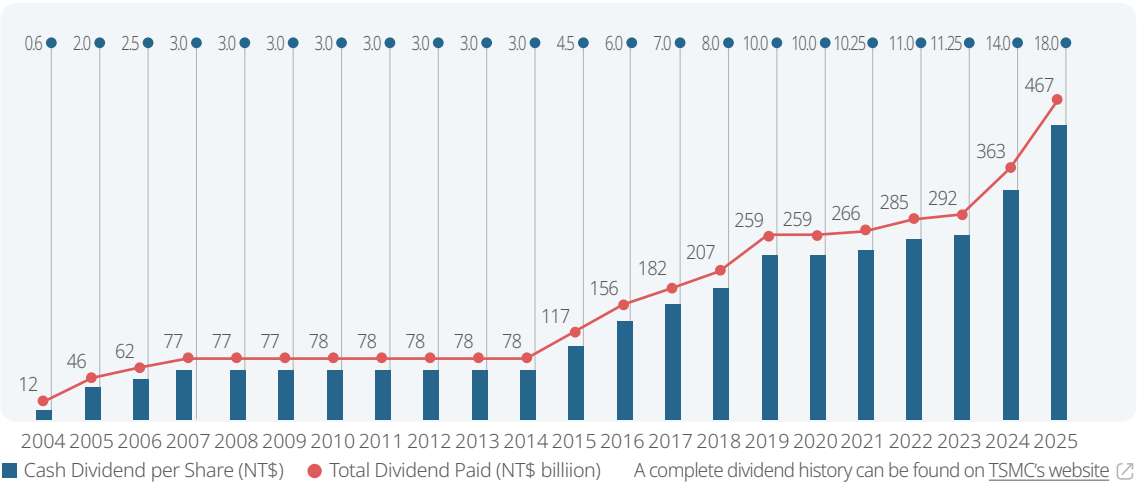
Market Capitalization



Financial Performance



Cash Dividend



Tax

TSMC supports the government in setting laws and regulations that encourage enterprise innovation and foster economic growth. The Chief Financial Officer reviews and approves the Company's tax policy each year, committing to transparency and sustainable development.

Tax Policy

- ✔ Act at all times in compliance with the spirit and the letter of all applicable tax laws and regulations in the jurisdictions in which we operate.
- ✔ Conduct inter-company transactions on an arm's length basis and in accordance with the internationally accepted transfer pricing guidance published by the OECD.
- ✔ Be transparent in financial reporting, make disclosures in accordance with applicable regulations and reporting requirements.
- ✔ Do not use tax havens or tax structures whose sole purpose is tax avoidance.
- ✔ Do not transfer value created to low-tax jurisdictions.
- ✔ Develop strong, mutually respectful relationships with tax authorities based on transparency and trust.
- ✔ Always consider tax as a part of major business decisions.
- ✔ Analyze the operating environment and assess tax risk through a corporate management mechanism.

Tax Risk Management

TSMC is subject to tax laws and regulations in various jurisdictions in which it operates or conducts business. Any unfavorable changes in tax laws and regulations in these jurisdictions could increase the Company's effective tax rate and have an adverse effect on its operating results. In order to effectively manage tax risks, TSMC follows internal control processes, identifies, assesses, and manages tax risks from regulatory changes and its business transactions, accounts for them appropriately, and implements and monitors controls over them. Tax risk management is embedded within TSMC's enterprise risk management (ERM) system. Every six months, following briefings by the Risk Management Division, the chairperson of the Audit and Risk Committee reports to the Board of Directors on TSMC's risk profile and risk mitigation. For more details on risk management, please refer to "[6.2 Risk Management](#)  " section in the Annual Report.

Tax Governance

The ultimate responsibility for taxation management for TSMC and its subsidiaries rests with the Chief Financial Officer, who delegates day-to-day responsibility to the Controller. A team of qualified and experienced tax professionals supports the Controller to meet TSMC's tax obligations. In addition, TSMC also leverages external tax service providers for complementary expertise.

TSMC's Audit and Risk Committee is delegated by the Board to oversee the quality and integrity of the accounting, auditing, reporting, and financial control practices of the Company through periodic review of certain major matters, including accounting policies and procedures, internal control systems, legal compliance,

and corporate risk management, etc. Among these, tax compliance is included as part of the Company's legal compliance.

Engagement and Management of Tax

TSMC meets with tax authorities to proactively exchange views on international tax reform trends and progress, as well as major domestic tax issues, and works together with authorities to establish a sound tax environment.

TSMC participates in conferences held by tax-related organizations to stay abreast of international tax trends and developments, in order to manage tax risks and enhance competitiveness.

Effective Tax Rate

TSMC's effective tax rate and cash tax rate in 2025 were 16.0% and 13.1%, respectively, both lower than

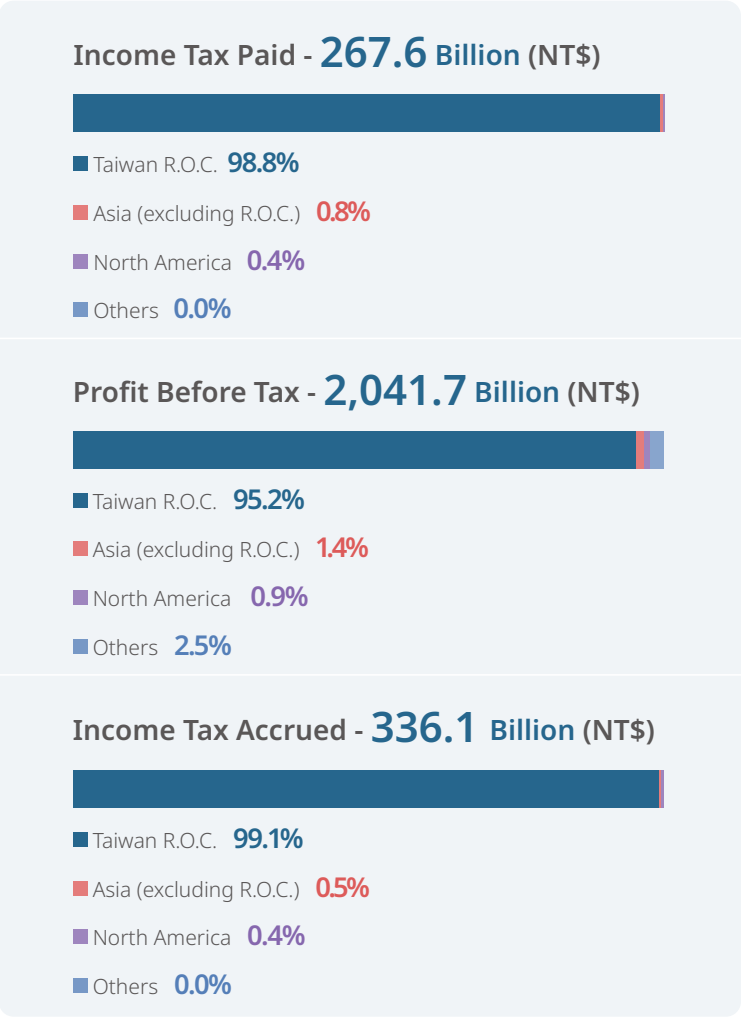
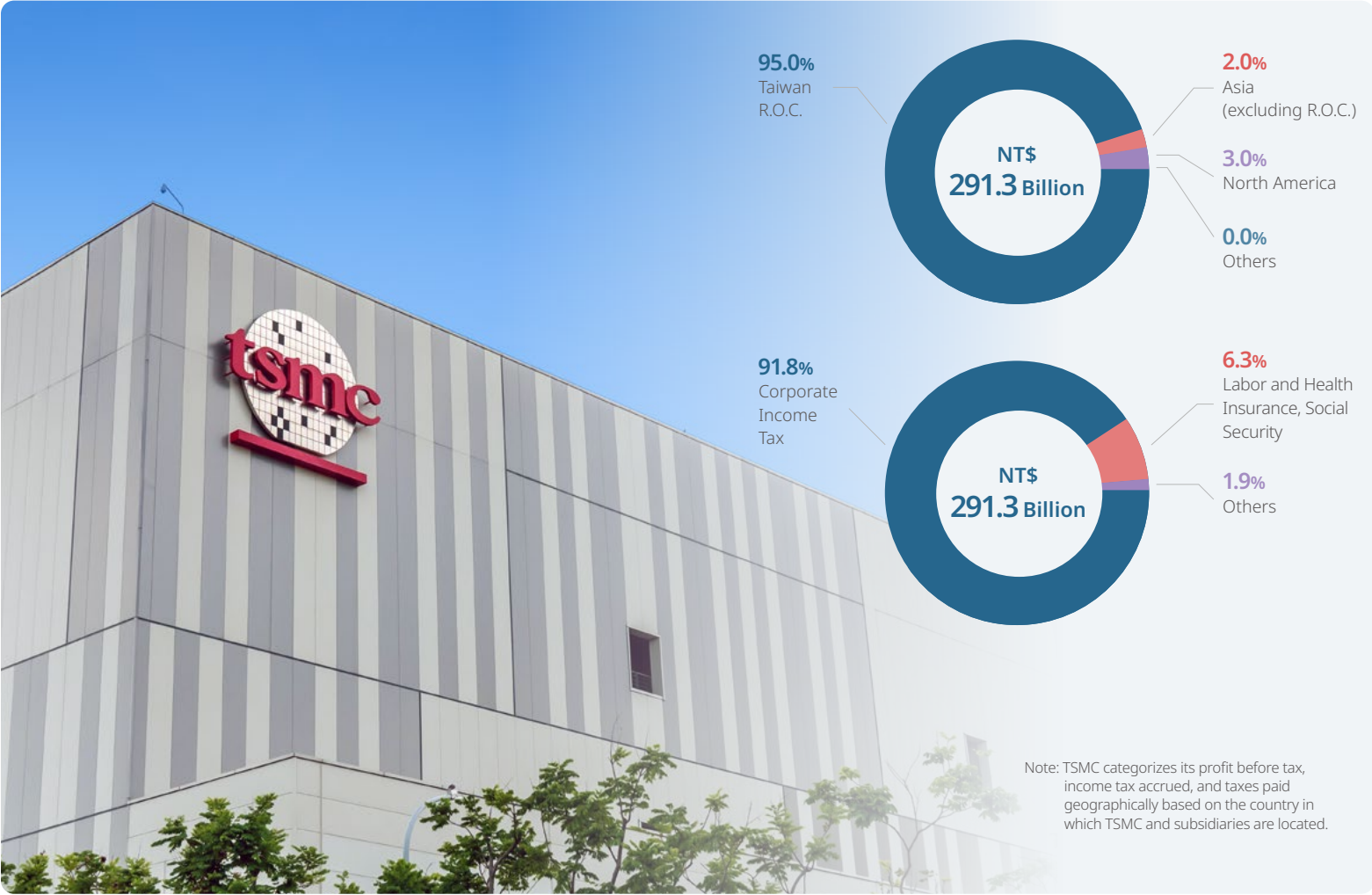
Taiwan R.O.C. statutory tax rate of 20%. This was primarily due to tax credits for investment in forward-looking innovative research and development, as well as for the acquisition of machinery or equipment for advanced manufacturing processes, in accordance with the R.O.C. Industrial Innovation Statute. Over the past two years, TSMC's average effective tax rate and cash tax rate were 16.2% and 13.1%, respectively. The latter is lower than the industry's average cash tax rate of 13.82%, as reported in the S&P Global 2026 CSA Methodology Handbook for the "Semiconductors and Semiconductor Equipment" industry group. This is primarily due to a timing difference where, in accordance with tax regulations, a portion of the current year's income tax will be paid when filing the income tax return in the following year. As TSMC's pre-tax profit has continuously grown over the past two years, the legal deferral of certain tax payments to the subsequent year has caused the average cash tax rate to be slightly lower than the industry average as a consequence of this timing difference.

NT\$291.3 Billion In 2025, TSMC's total tax payments on a cash basis worldwide were NT\$291.3 billion.	>90% In 2025, over 90% of TSMC's revenue and profit before tax were generated from its business operations in Taiwan. In addition, over 90% of its income tax payments were made to the Taiwan, R.O.C. government.
1st TSMC was the largest corporate income tax payer among all public listed companies in Taiwan in 2025^{Note 1}	23.1% TSMC's 2025 income tax payment in Taiwan represented 23.1% of total corporate income taxes collected by the R.O.C. government^{Note 2}

Note 1: Source: The Taiwan Economic Journal (TEJ) database
Note 2: Source: [National Statistics, R.O.C. \(Taiwan\), Public Finance Statistics Database](#) 

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2025 Tax Breakdown^{Note}



Information Security

In response to information security challenges arising from global expansion, digital transformation, and AI applications, TSMC continues to invest in building a comprehensive protection framework. In 2025, the Company established a Global Security Operations Center to enhance intelligent physical security management and early warning capabilities. TSMC promotes a culture initiative of “We Care, We Follow, We Report,” strengthening employees’ awareness of proprietary information protection and fostering a company-wide information security defense.

TSMC collaborated with the Ministry of Digital Affairs and SEMI to launch the SEMI E187 Semiconductor Equipment Cybersecurity Certification Program, extending standardized practices across the supply chain to strengthen overall defense capabilities. In 2025, TSMC achieved an average score of 99  in

international third-party information security risk assessments, ranking within the top 1% of the technology industry  , demonstrating leading information security capabilities.

Robust Information Security Governance

TSMC regards information security governance as a key pillar of sustainable development. The Company established a comprehensive, multi-layer governance framework to ensure that information security management is effectively applied from top-level decision-making to daily operations.

Governance and Organizational Structure

The Chairman and CEO of TSMC signed the Information Security Declaration  , with

governance oversight authorized by the Board of Directors and entrusted to the Audit and Risk Committee. The Committee is chaired by independent director Sir Peter L. Bonfield, who possesses expertise in cybersecurity. Senior Vice President and Deputy Co-COO Dr. Cliff Hou serves as Chief Information Security Officer (CISO), responsible for planning global information security strategies and coordinating resources. In response to the needs of global expansion, TSMC established a Global Security Management Organization encompassing three key domains: information technology security, proprietary information protection, and global physical security. Led by Senior Director Dr. James Tu, the organization is responsible for implementing and managing global information and physical security operations, and reports to the Audit and Risk Committee every six months on the status of information security and execution performance.

Committees and Reporting Mechanisms

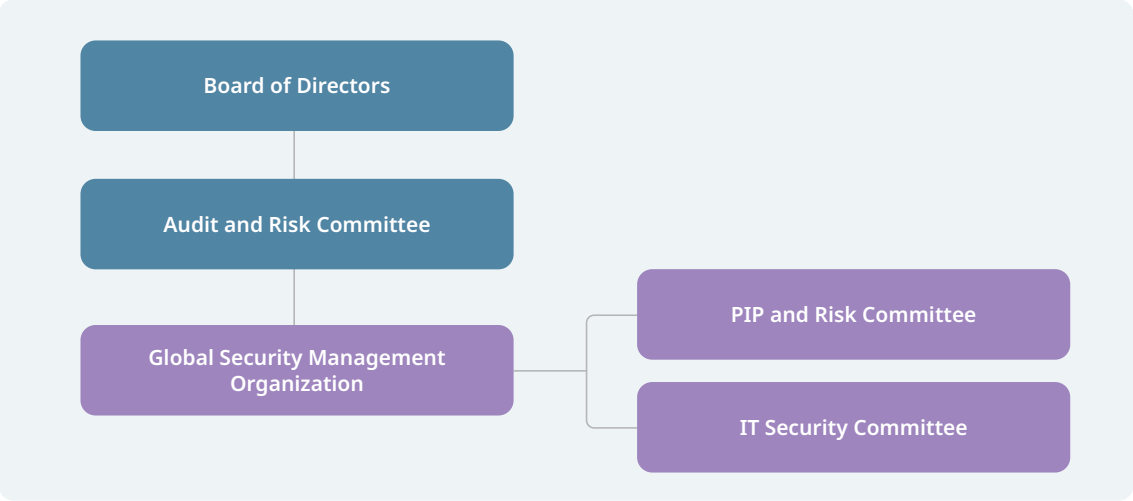
TSMC established the PIP and Risk Committee and the IT Security Committee. Led by the CISO and the executive management team, these committees convene regularly to review the effectiveness of information security policies, assess risks, and evaluate the progress and outcomes of information security initiatives. The Global Security Management Organization, along with dedicated information security teams, provides regular reports to the Audit and Risk Committee on information security risk management, threat trends, policy updates, and implementation results, ensuring comprehensive visibility into the Company's overall security posture.

International Standards and Certifications

TSMC adopts internationally recognized information security standards as guiding principles, including the National Institute of Standards and Technology's Cybersecurity Framework (NIST Cybersecurity Framework) and the ISO/IEC 27001 Information Security Management System. These standards are internalized into the Company's management systems and technical practices, covering key domains such as physical environments, system operations, cybersecurity, and information protection. Through the application of the PDCA (Plan-Do-Check-Act) management cycle, TSMC continuously strengthens its defense capabilities and regulatory compliance. In 2025, TSMC introduced and revised 16 information security policies, completed information security audits for eight customers, and conducted questionnaire-based assessments for 20 customers. Aforementioned information security-related audits identified no material deficiencies, and no major security incidents resulting in breaches, customer information leaks, or fines. Furthermore, there were no complaints filed by third parties or regulatory authorities against the Company for violations of customer personal data protection or leakage of customer data that resulted in legal action.

TSMC maintained its ISO/IEC 27001 certification, while specific fabs and products also obtained ISO/IEC 15408 certification for information security product management. In 2025, Fab 14B, Fab 18A, Fab 18B, Advanced Backend Fabs 2B and 2C, as well as Advanced Backend Fabs 6A, 6B, and 6C, all received ISO/IEC 15408 EAL6 site security certification from the German Federal Office for Information Security (BSI).

TSMC Global Security Management Organization



Advancing Information Security Certification to Strengthen Supply Chain Protection

TSMC reinforces supplier information security management across four key dimensions: establishing standards, implementing assessment mechanisms and collaboration, promoting wide-ranging initiatives, and strengthening risk management. The Company also initiated and promoted the Specification for Cybersecurity of Fab Equipment (SEMI E187) to elevate the overall security posture of the semiconductor supply chain, gaining practical results through Verification of Conformity (VoC). In 2025, TSMC

collaborated with key partners, including the Ministry of Digital Affairs and SEMI, to jointly launch the SEMI E187 Semiconductor Equipment Cybersecurity Certification Program. This program requires equipment suppliers to obtain cybersecurity certification, strengthening supply chain resilience from the source. Through cross-sector collaboration among industry, government, academia, and research institutions, it aims to enhance the cybersecurity capabilities of the global semiconductor supply chain.

Strengthening Physical Security to Enhance Operational Resilience

TSMC leverages AI in addition to information and

communication technologies to establish a globally unified intelligent physical security framework. In 2025, the Company established a Global Security Operations Center to monitor global fab and office operations in real time and updated global physical security standards, incorporating them into fab design processes. This ensures that both hardware and software systems are integrated from the source, safeguarding operational security.

To deepen the intelligent security system, TSMC deployed a surveillance network with over 800 AI visual recognition devices capable of providing proactive early warnings across its global fabs and offices, providing

over 80,000 precise early warnings each month. This increases the application ratio of technology systems in assisting manual monitoring, with an estimated annual operational cost savings of NT\$42 million. In addition, by optimizing the physical security management information system, 60% of service application processes have been digitized, and the efficiency of the monitoring retrieval system has been enhanced, leading to faster and more accurate judgment and response, further improving the flexibility of human resource utilization.

Case Study

Building an Information Security Culture Through a Three-pronged Approach

Proprietary information protection is a core corporate value at TSMC. In 2025, the Company advanced a three-pronged approach, “We Care, We Follow, and We Report,” to comprehensively enhance employee information security awareness, foster a company-wide security culture with full participation, and ensure the protection of operational security.

We Care

TSMC organizes annual initiatives such as Proprietary Information Protection Week and the Proprietary Information Protection Quarterly Incentive Awards. In 2025, the third Proprietary Information Protection Week adopted a “global localization” strategy, with activities tailored to regional needs. For example, Taiwan sites invited cybersecurity experts to share insights on threat and defense in the AI era; China sites promoted information security culture through interactive activities; U.S. sites introduced themed T-shirts for the first time and hosted supply chain cybersecurity seminars; and Japan sites shared real-world cases and key insights to strengthen risk response capabilities.

We Follow

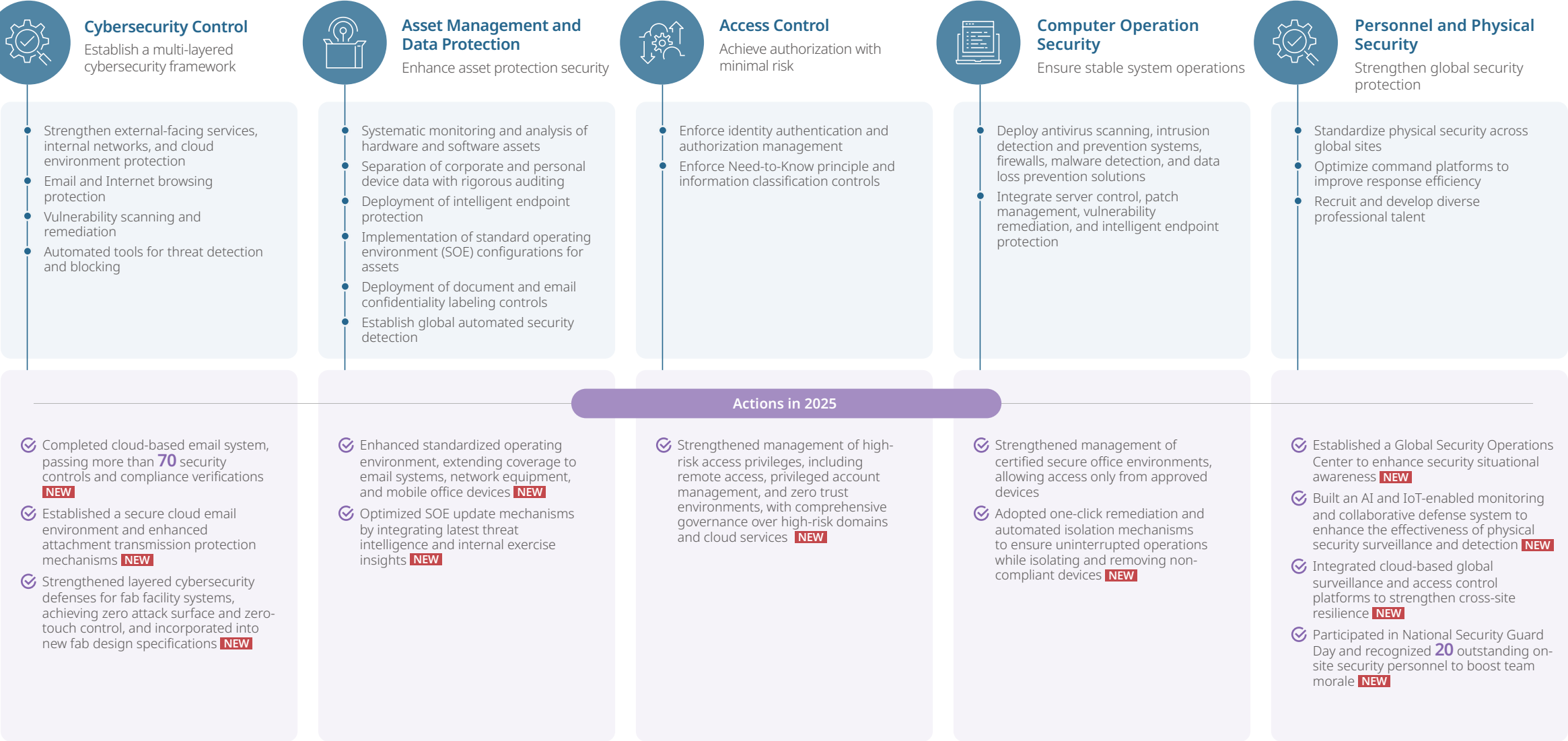
To ensure effective implementation of information security practices, TSMC established standardized processes and intelligent tools. In 2025, the Company launched a Global Security Management Portal, which included access to policies, standards, and training resources. TSMC also developed an AI chatbot, Dr. Security, to provide real-time responses and serve as an intelligent channel for issue monitoring. In addition, monthly meetings are held for PIP Guardians across R&D, operations, supporting functions, and overseas subsidiaries to ensure alignment with the latest measures.

We Report

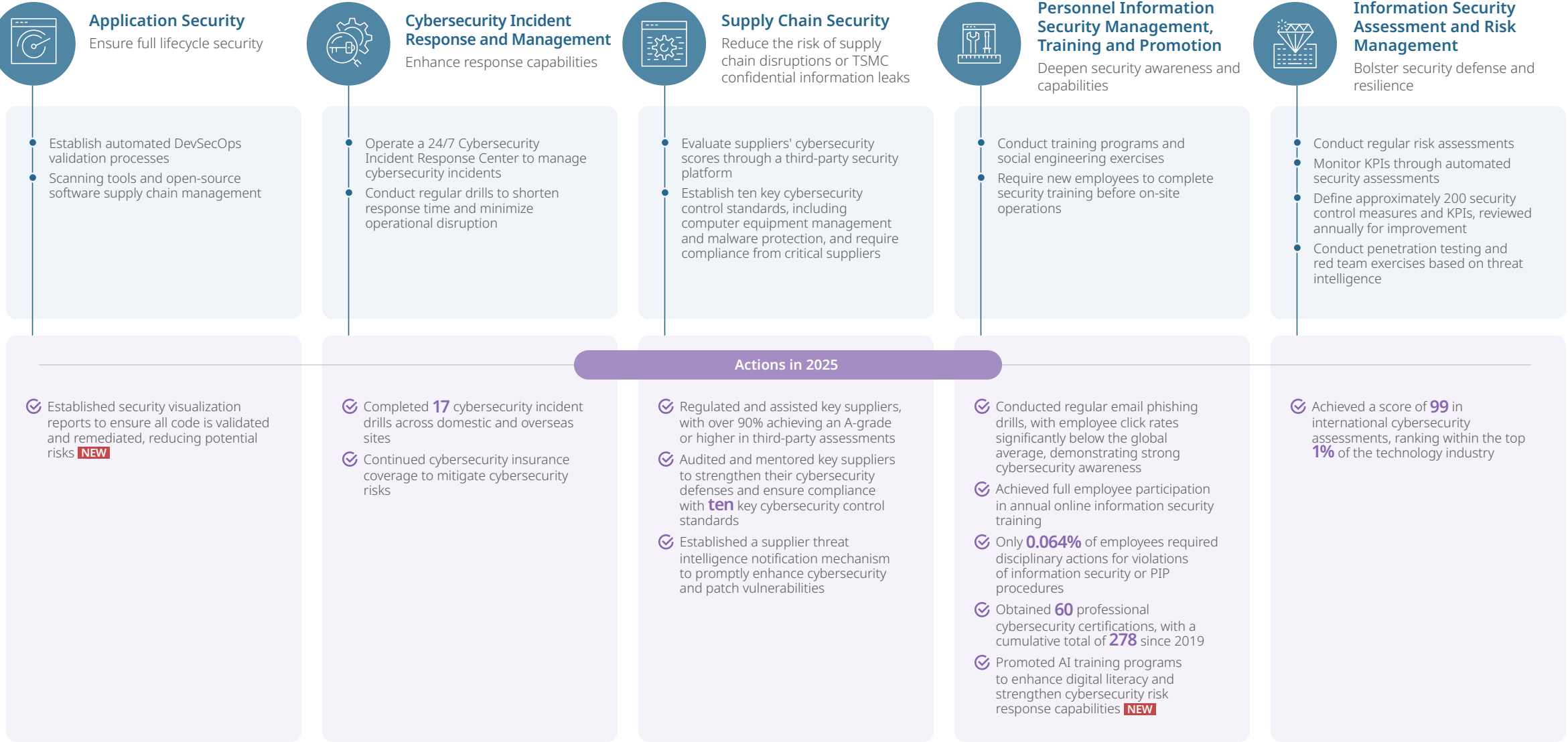
TSMC recognizes that timely detection and rapid response are critical to minimizing the impact of information security incidents and encourages employees to proactively report suspicious activities. Through established internal reporting and investigation mechanisms, the Company effectively responds to threats and refines its defensive measures, building a self-learning information security management framework that keeps improving and strengthening organizational resilience.



Key Information Security Measures in 2025



Note: In 2025, the scope of performance indicators related to PIP includes both Taiwan facilities and all overseas subsidiaries.



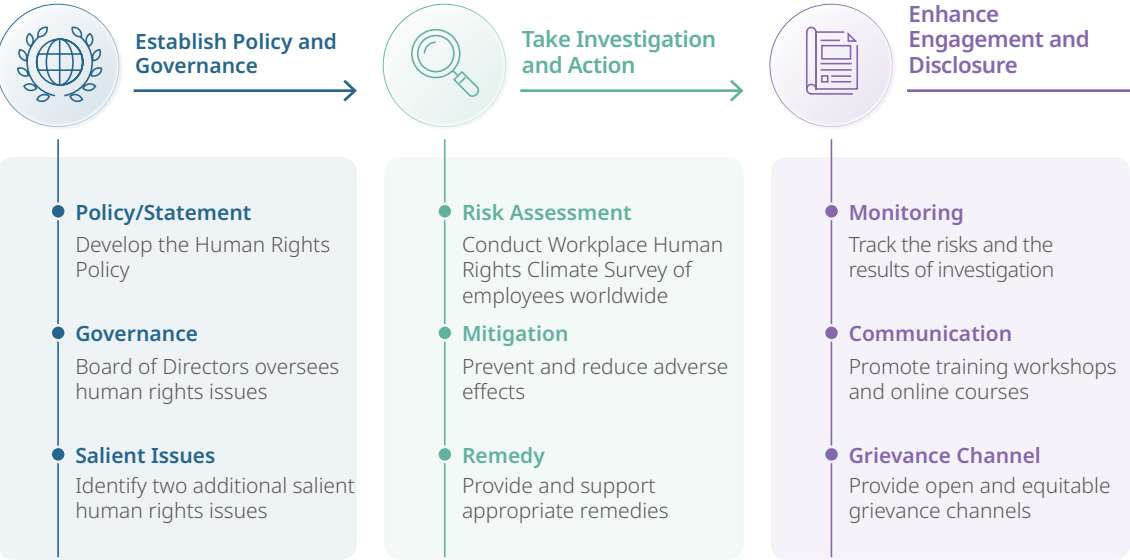
Note: In 2025, the scope of performance indicators related to PIP includes both Taiwan facilities and all overseas subsidiaries.

Business and Human Rights

Aligned with the Universal Declaration of Human Rights, TSMC follows the Responsible Business Alliance (RBA) Code of Conduct, the OECD Due Diligence Guidance for Responsible Business Conduct, and the United Nations Guiding Principles on Business and Human Rights (UNGPs). The Company has established a human rights due diligence process and works to prevent and address human rights impacts across its value chain, including its operations, affiliates, suppliers, contractors, and partners (customers and communities). TSMC provides a work environment that respects human rights and upholds dignity.

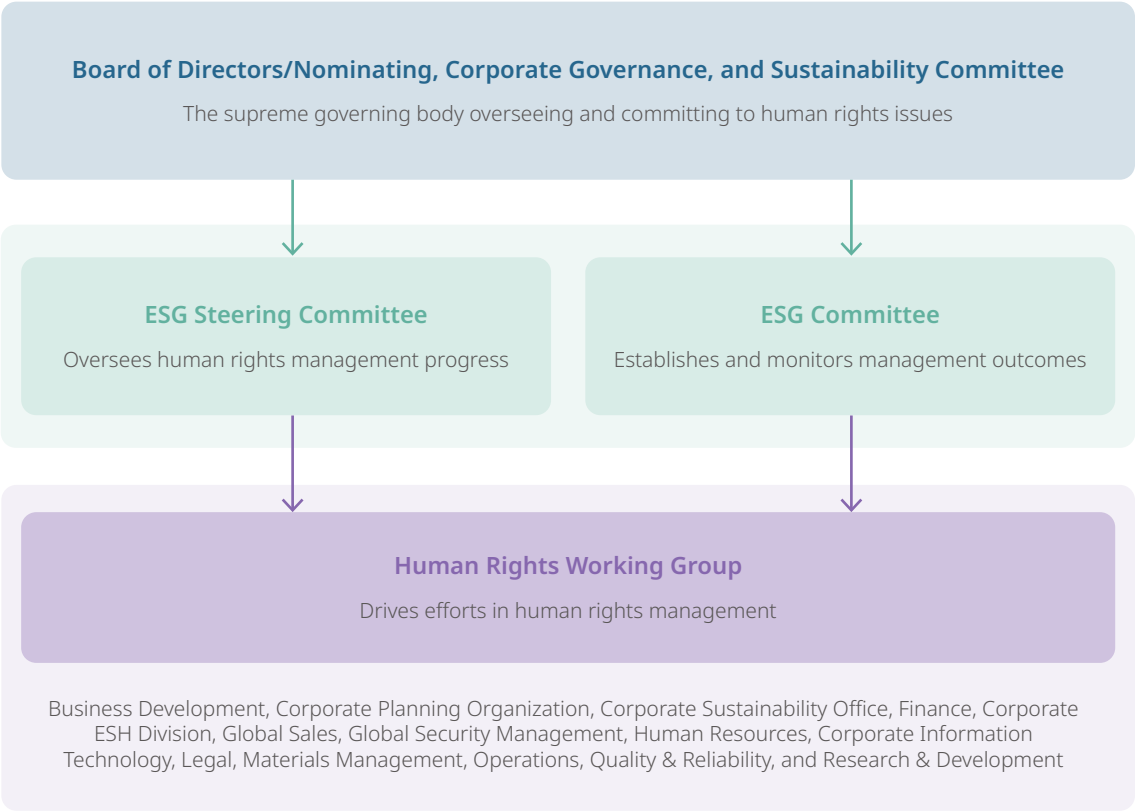
Based on six human rights categories defined by the UN Development Programme (UNDP) — Labor Rights, Environmental Rights, Voice and Participation, Gender Equality, Products and Services Liability, and Governance and Security — TSMC monitors changes in relevant human rights issues and strengthens its policies, mitigation measures, remediation mechanisms, and grievance channels to prevent human rights violations. The Company also builds awareness and capability through training, workshops, and online courses. For details, see the [TSMC Human Rights Report](#) .

Human Rights Due Diligence Process



Human Rights Governance Mechanism

TSMC designates the Board of Directors and the Nominating, Corporate Governance and Sustainability Committee as the highest oversight body for human rights governance. The ESG Committee has established a cross-functional human rights working group, which reports regularly to the ESG Steering Committee and the Board of Directors / Nominating, Corporate Governance and Sustainability Committee on progress, management actions, and results in human rights initiatives.



Key Actions and Progress

To advance the concept of “Decent Work”, TSMC has established a human rights due diligence management process aligned with international standards, and regularly conducts workplace human rights climate survey to understand employees' perceptions and needs regarding human rights issues, and develops concrete, impact-oriented action plans to fulfill its commitment to human rights governance.

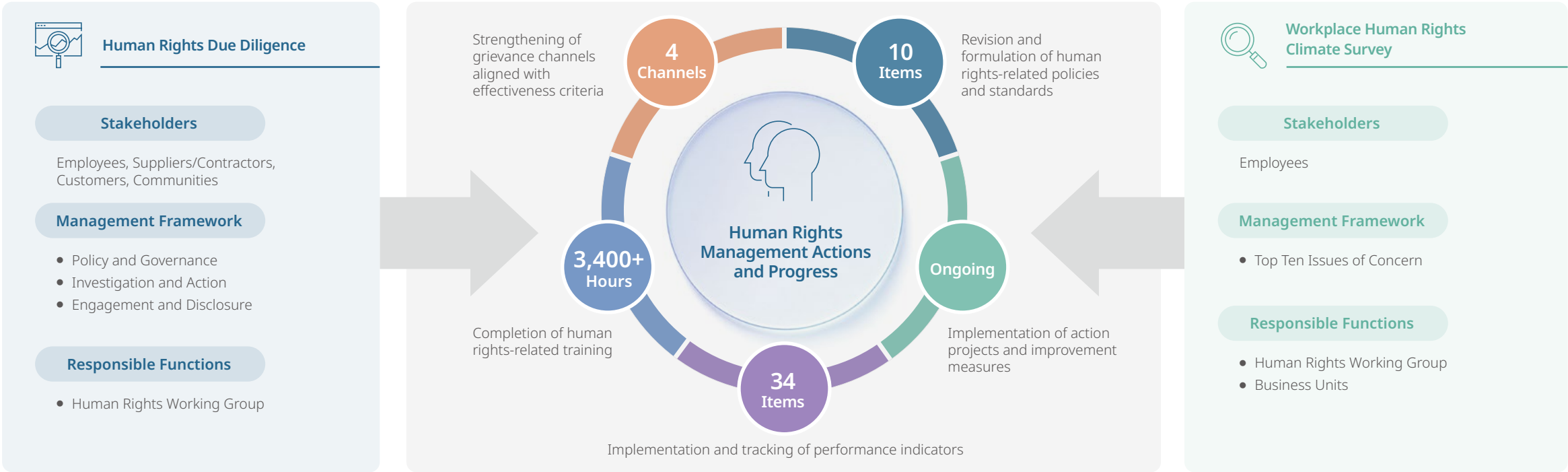
In 2025, TSMC advanced its human rights due diligence efforts under three management frameworks — “Policy and Governance, Investigation

and Action, and Engagement and Disclosure” — focusing on four key stakeholder groups: employees, suppliers/contractors, customers, and communities. The Company also continued to improve human rights risk management. Under Policy and Governance, TSMC set or revised 10 human rights-related policies and standards. Looking ahead to 2026, the Company plans to launch new policies including the [Anti-Discrimination and Anti-Harassment Policy](#) , [Grievance Policy](#) , [Responsible Artificial Intelligence Policy](#) , and [Supply Chain Migrant Worker Management Policy](#) ,

further reinforcing its human rights governance foundation. Under Investigation and Action, TSMC translated due diligence findings into concrete improvement actions, developed responses to relevant issues, and tracked 34 performance indicators. Under Engagement and Disclosure, the Company delivered over 3,400 hours of human rights training and strengthened four stakeholder grievance channels to ensure alignment with the UNGP effectiveness criteria, so that human rights issues are properly addressed and resolved.

Based on the 2024 global workplace human rights survey, the Human Rights Working Group and business units jointly developed improvement initiatives targeting the top ten employee concerns. The Corporate Sustainability Office tracks progress and outcomes each quarter and reports regularly to the ESG Committee, thereby embedding human rights management into daily operations and putting the principles of Decent Work into practice. For more information, please refer to the [TSMC Human Rights Progress Report](#) .

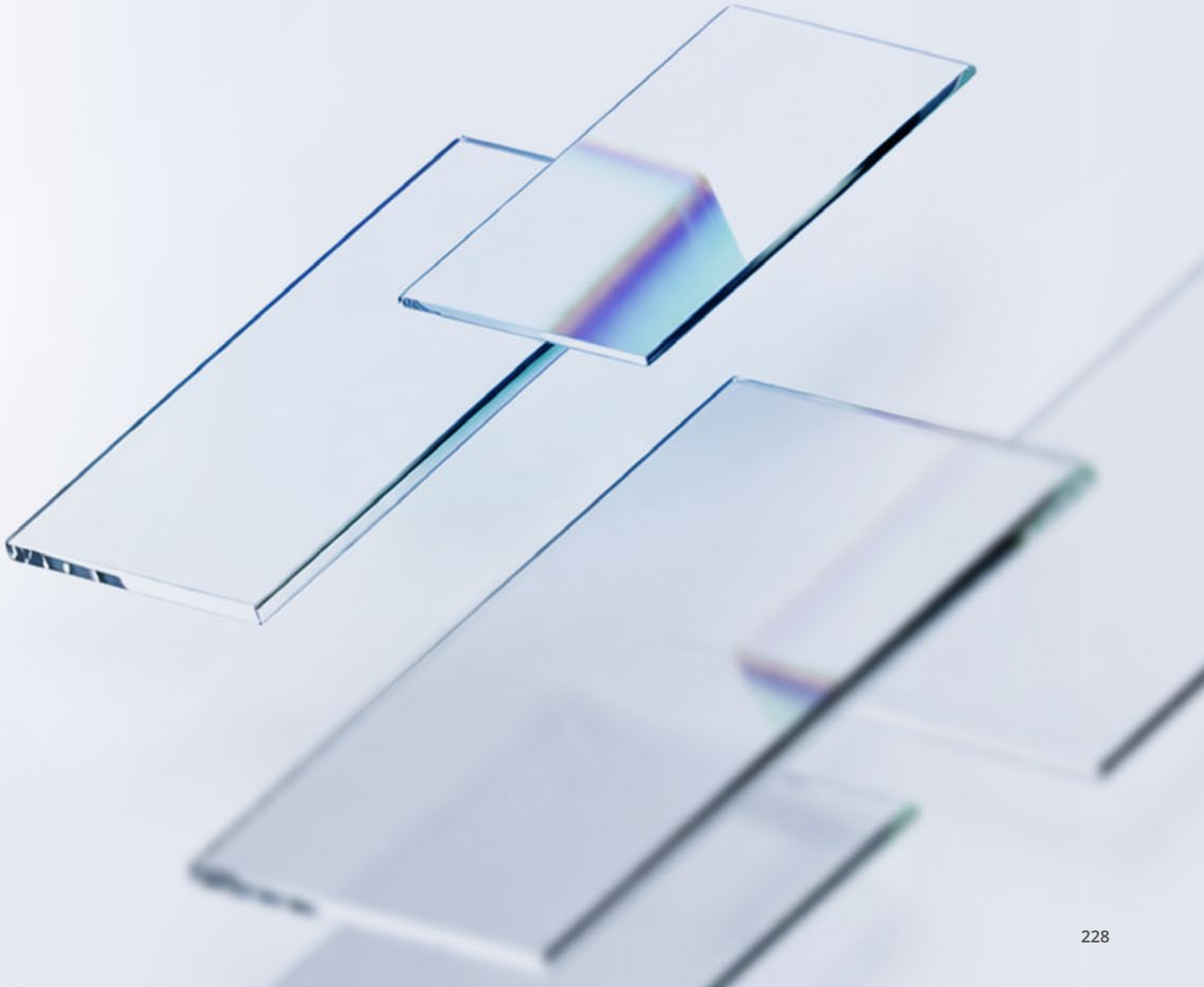
Human Rights Management Actions and Progress





Appendix

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About This Report

TSMC is committed to optimizing its data collection systems and processes for sustainability reporting. In alignment with the International Sustainability Standards Board (ISSB), the Company works to enhance the credibility and governance of its sustainability information. In 2025, TSMC established the ESG Data Platform to advance the digital management of ESG data, enabling high-quality, verifiable sustainability information and improving stakeholder communication. TSMC continues to align with international sustainability trends, frameworks, and standards, fulfilling its transparent reporting obligations through multiple disclosure channels. Now in its 27th consecutive year of publishing a non-financial report, TSMC prepares its sustainability reporting in accordance with the GRI Standards, the TCFD Recommendations, the TNFD Recommendations, and the SASB Standards.

In addition, referencing the double materiality principle under ESRS 1 of the European Sustainability Reporting Standards (ESRS) and incorporating material information analysis under IFRS Sustainability Disclosure Standards S1 and S2, TSMC continues to enhance its TSMC Dynamic & Double Materiality (TDDM) methodology. Through materiality analysis, the Company aligns its sustainability management direction, develops strategies and actions for material issues, and regularly discloses short-, medium-, and long-term targets and performance outcomes. The sustainability report serves as a key tool for driving

ESG progress while facilitating communication and collaboration with employees, shareholders/investors, customers, suppliers/contractors, government industry associations, and communities to create shared value.

TSMC tracks the evolution of global sustainability

regulations and standards to ensure compliance with disclosure requirements in the jurisdictions where it operates and to address stakeholder expectations. The Company closely monitors developments in ESRS disclosure requirements, including scope and timeline updates, while also tracking IFRS progress on the Practice Statement for

nature-related disclosures. In 2025, TSMC added “[biodiversity](#)” as a material issue and disclosed its commitment to and actions on biodiversity and the natural environment surrounding its facilities, in response to evolving international sustainability trends.

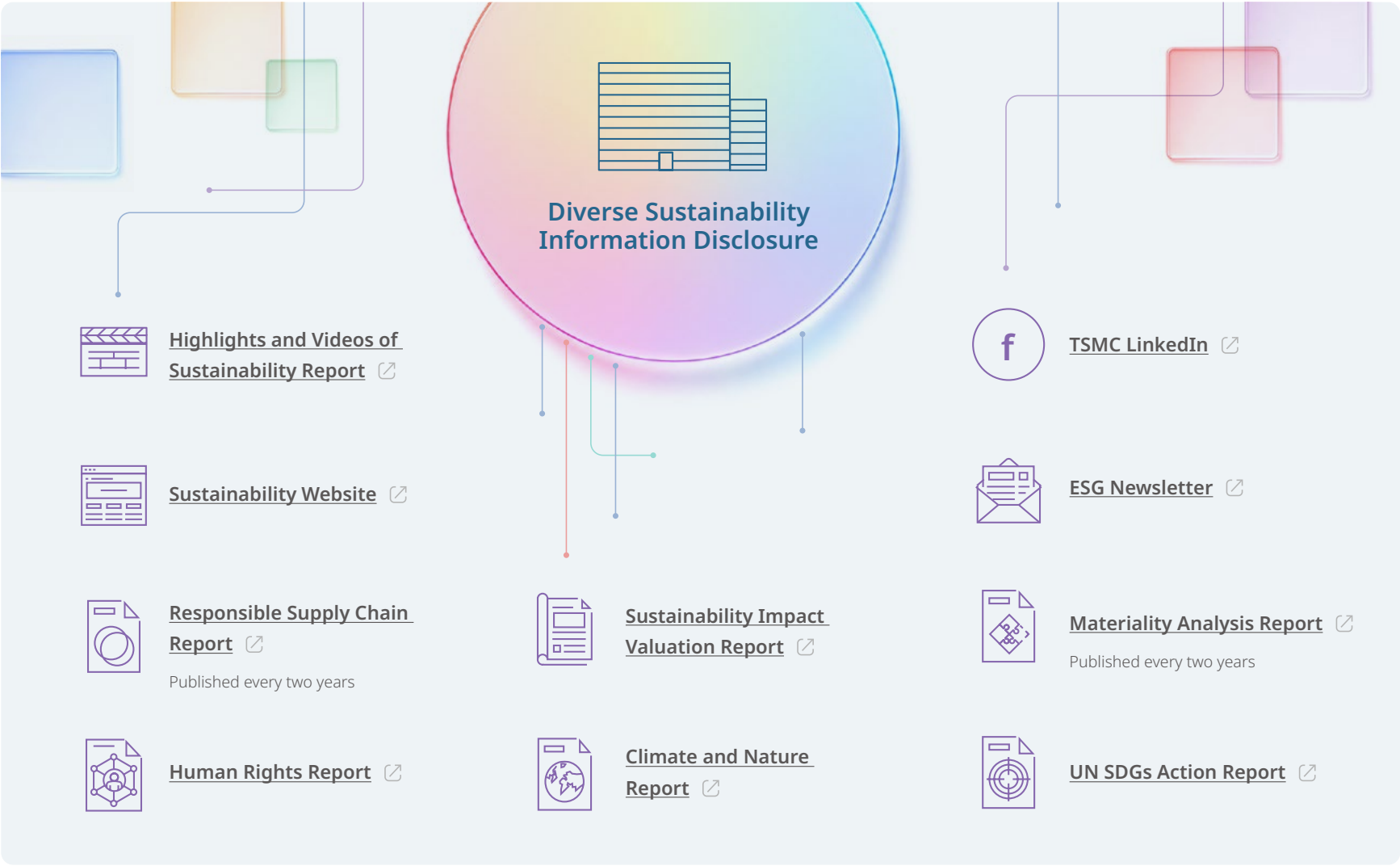


Reporting Period

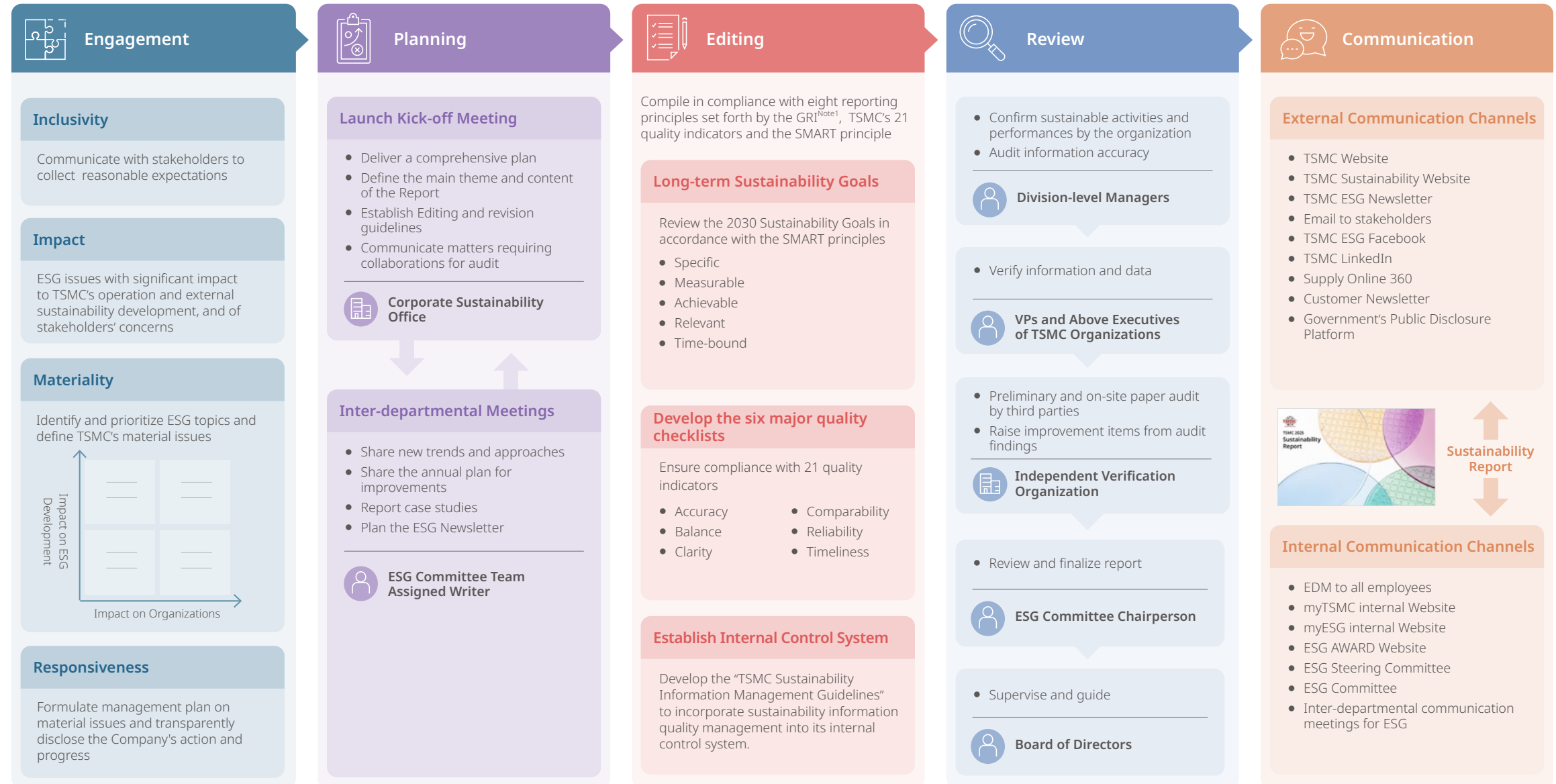
The reporting period covers January 1 to December 31 2025. TSMC plans to publish the report in both Chinese and English on its Sustainability website in August 2025. The report addresses material issues of concern to stakeholders and presents the Company's specific performance across economic, environmental, social, and governance aspects.

Reporting Scope

The reporting boundary for the TSMC sustainability report aligned with the consolidated financial statements, including all TSMC fabs in Taiwan, TSMC headquarters, all wafer fabs, and advanced backend fabs, as well as TSMC (China), TSMC (Nanjing), TSMC Washington, LLC, VisEra, and other subsidiaries . Any variations in the disclosure scope among the entities mentioned will be noted in the corresponding paragraphs.



Report Compiling and Quality Management Process



Note 1: Accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness and verifiability
 Note 2 : For each [certification](#) , please refer to [TSMC's Sustainability website](#) 

Report Writing Guidelines and Principles



ESG

Standards

- GRI Standards
- ESRS Double Materiality
- TCFD
- TNFD
- SASB Index for the Semiconductor Industry
- AA1000 AccountAbility Principles
- The International Integrated Reporting Framework
- CDP Climate Change/Water Security
- The United Nations Global Compact (UNGC)
- The United Nations SDGs
- WEF IBC Stakeholder Capitalism Metrics
- Impact Reporting and Investment Standards, IRIS+

Financial Information

- DNV Business Assurance Co. Ltd. certified this Report
- In compliance with the DNV VeriSustain™ Protocol , GRI Standards, and SASB Index



Financial Information

Standards

- IFRSs endorsed by the Financial Supervisory Commission (FSC) with the effective dates
- Regulations Governing the Preparation of Financial Reports by Securities Issuers

Financial Information

- Deloitte & Touche



Feedback

If you have any feedback, advice, or suggestions on this report or TSMC's sustainable development, please feel free to contact us. For more information about TSMC's latest sustainability practices, please [subscribe](#)  to the TSMC ESG Newsletter.

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Sustainability Disclosure Framework

TSMC’s sustainability reports follow standards and guidelines issued by the [Global Reporting Initiative](#) (GRI), [AccountAbility](#) , the [International Sustainability Standards Board](#) (ISSB), the [Taskforce on Nature-related Financial Disclosures](#) (TNFD), the [World Economic Forum's International Business Council](#) (WEF IBC). The reports also apply the double materiality principle outlined in the [European Sustainability Reporting Standards](#) (ESRS), [developed by the European Financial Reporting](#)

[Advisory Group](#) (EFRAG) in response to the Corporate Sustainability Reporting Directive (CSRD). TSMC is progressively adopting ISSB [Sustainability Disclosure Standards S1 and S2](#) to strengthen the completeness and transparency of its disclosures. The Company also participates in ESG assessments by [CDP](#) and [S&P Global](#) , and responds to [UN](#) initiatives to deepen stakeholder trust and improve sustainability management across organizations.



Participation in Industry Associations and Non-Profit Organizations

In line with its core corporate values, TSMC works with a wide range of stakeholders to meet its commitments to the environment, society, and governance. TSMC actively participates in domestic and international industry public associations and related non-profit organizations^{Note1} related to key issues such as technological innovation, corporate governance, environmental sustainability, supply chain management, and social inclusion. Through practical exchanges and experience sharing, or by serving as board or supervisory council representatives in these associations, TSMC promotes the development of the semiconductor industry and fulfills its corporate sustainability responsibilities. In 2025, TSMC participated in a total of 121 public associations and non-profit organizations, spending approximately NT\$97,403,000. Total expenditure over the past 5 years (2021 to 2025) was approximately NT\$331,424,000.^{Note2,3}

In accordance with TSMC's "Public Policy Engagement Guidance", the company reviews its memberships in industry associations, and its public policy-related expenditures annually to ensure alignment with the company's values and business priorities. Since the company is majority owned by foreign institutional investors, TSMC is not permitted to make political donations under Taiwan's Political Donations Act. TSMC has always followed this legal requirement and maintained political neutrality, while respecting employees' political affiliations and encouraging all employees to fulfill their civic duties in their respective countries.

Note 1: The definition of non-profit organizations here does not include the TSMC Charity Foundation and the TSMC Education and Culture Foundation. For details of both foundations, please see "TSMC Charity Foundation" and "TSMC Education and Culture Foundation."

Note 2: TSMC's annual expenditures in membership and donations to industry associations and nonprofit organizations between 2021 and 2025 were NT\$44,367,769, NT\$70,943,042, NT\$54,089,183, NT\$64,621,556 and NT\$97,402,715 respectively.

Note 3: In addition to the expenditures disclosed in Note 2, TSMC's government relations expenses in 2025 amounted to NT\$42,439,801 with the primary expense being employee payroll. TSMC did not make any political donations in the reporting period. In the past five years (from 2021 to 2025), TSMC did not make any political donations or other spendings related to ballot measures or referendums.

Participation in Major Associations in 2025	Primary Activities	Participant Role	Resources Invested (Unit: NT\$ Thousand)
Information Technology Industry Council (ITIC)	Joined other global technology companies to discuss policy trends and industry standards related to technology industry development, and to communicate with the U.S. and global governments on the importance of technology to the global economy	Member	12,486
Taiwan Semiconductor Industry Association (TSIA)	Supported Taiwan's semiconductor industry and developed consensus among R&D, design, manufacturing, assembly, packaging and testing industries through the association's activities and promoted cooperation and healthy growth for the sector	Chairman, Chairs of several committees	8,869
SEMI	Worked with global semiconductor design, manufacturing, equipment, and materials companies to promote semiconductor industry collaboration and technological innovation, as well as focus on talent development, industrial cybersecurity, and sustainable development issues	SEMI Board of Industry Leaders, Chairs of several SEMI Taiwan's committees	7,800
Semiconductor Industry Association (SIA)	Joined other industry members to collectively communicate with the U.S. government and highlight the importance of the semiconductor industry to U.S. economic development, national security, and global competitiveness	Member	6,800
National Association of Manufacturers (NAM)	Worked with other industry leaders in the United States to advance more forward-looking industrial policies, foster industrial innovation and sustainable growth, and uphold shared core values: free enterprise, competitiveness, individual freedom, and equal opportunity	Member	6,243

Note: The five largest membership fees paid or donations made by TSMC in 2025, in descending order

Facing the challenges of climate change, TSMC has issued a “Climate Change Declaration” and follows the “Science Based Targets initiative” (SBTi) to outline its carbon reduction pathways. By improving energy efficiency, using renewable energy, strengthening climate resilience, and incorporating biodiversity considerations, TSMC works closely with its business partners and stakeholders to transition toward net-zero emissions by 2050, and fulfills its collective responsibility to protect the global environment.

TSMC participation in organizations supporting the goals of the Paris Agreement

Association		Participant role
1	Academia-Industry Consortium for Southern Taiwan Science Park	Council Member, Committee member
2	Alliance for Telecommunication Industry Solutions	Member
3	Association for Net Zero Emissions Taiwan	Vice Chairman, Committee members
4	Business Council for Sustainable Development of Taiwan	Member
5	CommonWealth Sustainability Association	Member
6	Global Electronics Association	Board Member
7	Global Semiconductor Alliance	Member
8	Information Technology Industry Council	Member
9	Internet of Intelligent Agent Association	Member
10	Kumamoto Industrial Federation	Member
11	Kumamoto Semiconductor Green Innovation Association	Vice Chairman
12	Kyushu Semiconductor & Digital Innovation Association	Member
13	RE100	Member
14	Science and Technology in Society forum	Member
15	SEMI	SEMI Board of Industry Leaders, Chairs of several SEMI Taiwan's Committees
16	Semiconductor Industry Association	Member

Note: Alphabetical Listing by Association Name

TSMC also engages with industry associations and non-profit organizations on climate change issues and global net-zero carbon reduction. TSMC leverages its public policy influence to work with all sectors to comply with and implement the goals of the Paris Agreement. In 2025, TSMC participated in 30 major industry associations and non-profit organizations in alignment with the goals of the “Paris Agreement.”

Association		Participant role
17	Taiwan Advanced Automotive Technology Development Association	Director
18	Taiwan Climate Partnership	Director
19	Taiwan Carbon Capture Storage and Utilization Association	Executive Director, Supervisor
20	Taiwan Electrical and Electronic Manufacturers' Association	Director
21	Taiwan High-Tech Facility Association	Executive Director
22	Taiwan Institute for Sustainable Energy	Member
23	Taiwan Institute of Chemical Engineers	Member
24	Taiwan Semiconductor Industry Association	Chairman, Chairs of several committees
25	The Allied Association for Science Park Industries	Executive Director, Supervisor, Committee Members
26	The Chinese National Association of Industry and Commerce, Taiwan	Executive Director
27	The National Association of Manufacturers	Member
28	The Responsible Business Alliance	Member
29	The Third Wednesday Association	Member
30	U.S. Chamber of Commerce	Member



Independent Third Party Assurance Statement

DNV WHEN TRUST MATTERS Page 1 of 4 Statement No.: DNV-2025-ASR-850652 Independent Limited Assurance Statement Taiwan Semiconductor Manufacturing Company Ltd. ("TSMC" or "the Company") commissioned DNV Business Assurance Co. Ltd. ("DNV") to undertake independent assurance of the 2025 Sustainability Report (the "Report") for the year ended 31 December 2025. Our Conclusion: On the basis of the work undertaken, nothing came to our attention to suggest that the Report does not properly describe TSMC's adherence to the Principles described below. In our opinion, the Report provides sufficient information for readers to understand the Company's management approach to its most material issues and impacts. Scope and approach We performed a limited data only assurance engagement using the international assurance best practice including the International Standard on Assurance Engagements (ISAE) 3000 - 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised) issued by the International Auditing and Assurance Standards Board. To ensure consistency in our assurance process, we conducted our work in accordance with DNV's assurance methodology, Verisustain, applying only the pertinent sections of the protocol relevant to the specific purpose of the activity. This methodology ensures compliance with ethical requirements and mandates planning and execution of the assurance engagement to obtain the desired level of assurance. The Report has been prepared with reference to the reporting principles and requirements of the Global Reporting Initiative (GRI) Standards 2021. The Report also incorporated the relevant sustainability reporting guidelines, such as Sustainability Accounting Standards Board (SASB) Semiconductors Sustainability Accounting Standard, Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and Taskforce on Nature-related Financial Disclosures (TNFD). We evaluated the Report using the reliability principle together with TSMC data protocols for how the data are measured, recorded and reported. The reported data in scope were evaluated against TSMC's material Environmental, Social and Governance (ESG) issues, its 2030 sustainability commitments and the topics set forth in the GRI standards. We understand that the reported financial data and information are based on data from TSMC's Annual Report and Accounts, which are subject to a separate independent audit process. The review of financial data taken from the Annual Report and Accounts is not within the scope of our work. GHG verification is excluded from the scope of this assurance engagement because GHG emissions have been subject to a separate verification conducted by DNV as an accredited verification body under the regulated scheme administered by the competent authority. For the purposes of this engagement, DNV did not re-perform GHG verification but has referred to the issued GHG verification statements (CB253112-2025-AG-TWN-DNV, 17 July 2026; CB253113-2025-AG-TWN-DNV, 12 May 2026). We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing a 'moderate / limited level' of assurance. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less detailed than, those undertaken during a reasonable assurance engagement, so the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our conclusion, so that the risk of this conclusion being in error is reduced, but not reduced completely. DNV Business Assurance Co., Ltd. is part of DNV, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnv.com	DNV WHEN TRUST MATTERS Page 2 of 4 Statement No.: DNV-2025-ASR-850652 Basis of our Opinion A multi-disciplinary team of sustainability and assurance specialists performed work at both headquarters and site level. We undertook the following activities: - Review of sustainability topics relevant to TSMC and of interest to its stakeholders; - Review of TSMC's stakeholder engagement approach and recent outputs; - Review of information provided by TSMC on its reporting and management processes relating to the Principles; - Interviews with selected directors and senior managers responsible for management of sustainability topics and review of selected evidence to support topics discussed. Interviewees represented functions including financial, legal, environment (including climate change & energy, air emission, water resource, chemical and waste management), human resource, safety, procurement, wellness, product development, information security, intellectual property, trade secret, TSMC Education and Culture Foundation and TSMC Charity Foundation; - With respect to certain information provided by TSMC Charity Foundation, the reported figures were derived from estimation approaches without sufficiently documented methodologies or traceable supporting data; therefore, the traceability and verifiability of these figures could not be established, and the extent of evidence available to support them was limited; - Site visits to HQ in Taiwan and remote meeting with other production sites to review process and systems for preparing site level sustainability data and implementation of sustainability strategy. Sites were selected based on materiality issues; - Review of supporting evidence for key claims and data in the Report. Our verification procedures were prioritised based on the materiality of issues at the consolidated corporate level; - The regulated scheme (Climate Change Administration, Ministry of Environment Greenhouse Gas Programme as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting.) was used as the criteria for evaluating GHG in the statement, with reference to the period DNV conducted this activity; - Review of the processes for data gathering and consolidating, supported by sample-based testing, including, - where financial data had been checked by another third party, Our competence, independence and quality control DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience. DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17029:2019 – Conformity assessment, whose general principles are requirements for validation and verification bodies. Accordingly, DNV maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. DNV Business Assurance Co., Ltd. is part of DNV, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnv.com	DNV WHEN TRUST MATTERS Page 3 of 4 Statement No.: DNV-2025-ASR-850652 where data of Scope 1, 2 and 3 GHG emissions had been verified by DNV, we tested transposition from these sources to the Report, where relevant data and information had been generated from the implementation of specific certified management system, indicating the relevant specifications of the management system certification and the connection to the data and information used in the Report; - Independent assessment of TSMC's reporting against the Global Reporting Initiative (GRI) Standards 2021; - Exclusion of salary data from the scope of this engagement due to confidentiality restrictions; accordingly, performance against reference standards for this topic has not been assessed; - The verification was conducted based solely on the Chinese version Report. Observations Without affecting our assurance opinion, we also provide the following observations. The following is an excerpt from the observations and opportunities communicated to the management of TSMC. - Further enhance the data collection process by transitioning from annual manual requests to a consistent, platform-enabled approach, thereby improving data transparency, traceability, reliability, and accuracy. Sustainability Context The Report provides an accurate and fair representation of the level of implementation of related ESG policies and meets the content requirements of the GRI Standards 2021. Materiality The materiality determination process was reevaluated based on survey from key stakeholders including employees, shareholders/investors, customers, suppliers/contractors, government/industry associations, communities and senior management of TSMC and has not missed out any significant and known material issues about the Semiconductor Sector. A methodology has been developed to evaluate the priority of these issues and identified priority issues are fairly covered in the Report. An internal assessment process for monitoring and management on a continual basis for their long-term organisational sustainability has been established. Inherent limitations All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities. Our assurance relies on the premise that the data and information provided to us by TSMC have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Statement. Responsibilities of the management of TSMC and DNV The Directors of TSMC have sole responsibility for the preparation of the Report. In performing our assurance work, our responsibility is to the management of TSMC; however, our statement represents our independent opinion and is intended to inform all of TSMC stakeholders. DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV provides a range of other services to TSMC, in our opinion none of which constitute a conflict of interest with this assurance work. DNV's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement. DNV Business Assurance Co., Ltd. is part of DNV, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnv.com	DNV WHEN TRUST MATTERS Page 4 of 4 Statement No.: DNV-2025-ASR-850652 Completeness The Report has fairly attempted to disclose the generic disclosures and management approaches and performances of identified material topics for GRI Standards 2021. The reporting of performance and data are within the Company's reporting boundary and reporting period except for certain material topics. A system to report the performances of material topics are being established and set the internal timelines for disclosure. Reliability The majority of data and information verified at the Corporate Office and sampling operational sites were found to be accurate and nothing came to our attention to suggest that reported data have not been properly collated from information reported at operational level, nor that the assumptions used were inappropriate. Some of the data inaccuracies identified during the verification process were found to be attributable to transcription, interpretation and aggregation errors and the errors have been communicated for correction. Stakeholder Inclusiveness The Company has identified the expectations of stakeholders through internal mechanisms in dialogue with different groups of stakeholders. The stakeholder concerns are well identified and documented. The material topics identified through this process are reflected in the Report. Responsiveness The Report meets the content requirements of the GRI Standards 2021. The Report provides an accurate and fair representation of the level of implementation of related ESG policies. The Company has adequately responded to stakeholder concerns through its policies, ESG Committee, and quarterly / annual financial report, and this is reflected in the Report. Neutrality Based on the work undertaken, nothing has come to our attention that causes us to believe that the Sustainability Report does not, in all material respects, present information in a neutral manner. The report appears to provide a balanced and unbiased representation of the organization's significant sustainability impacts, performance, achievements, and challenges during the reporting period, consistent with the principle of Neutrality. DNV Business Assurance Co., Ltd. C. K. Wong Management Representative Taipei 21 July 2026 DNV Business Assurance Co., Ltd. is part of DNV, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnv.com
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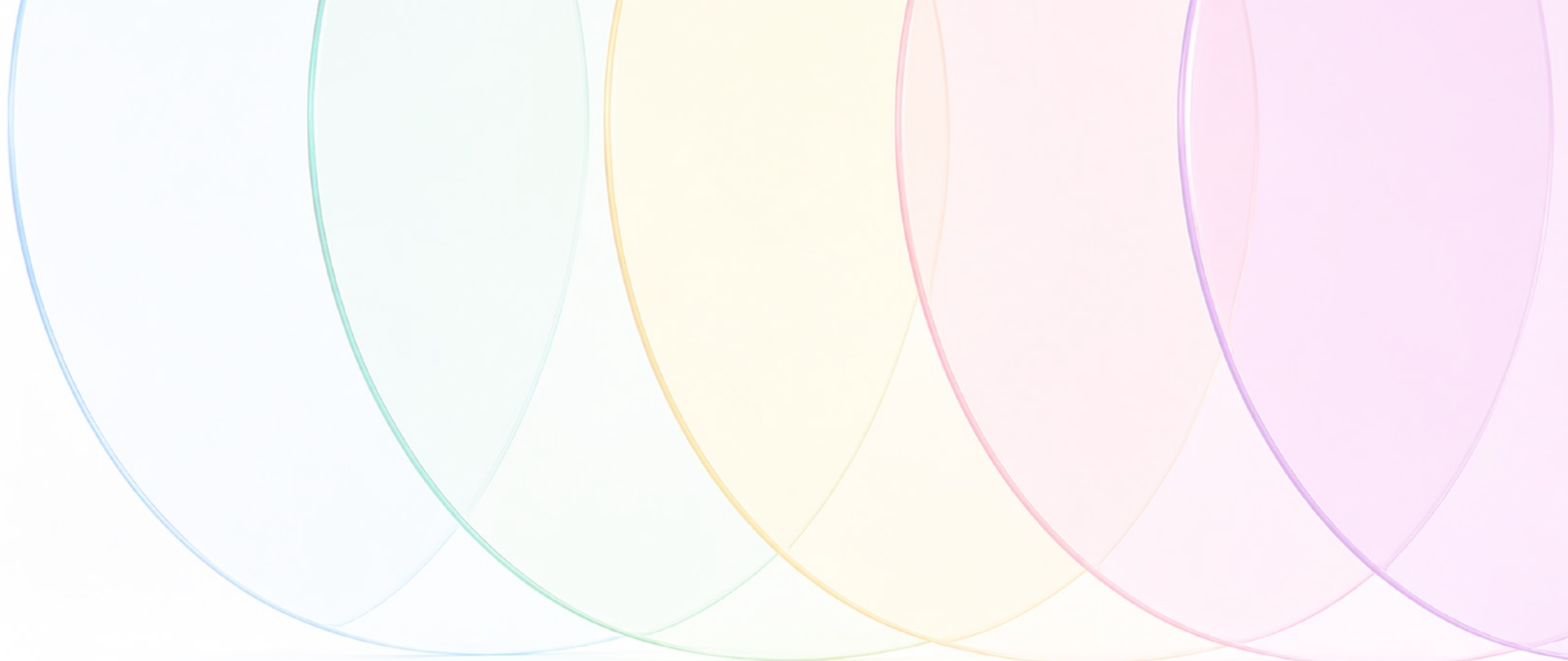
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