

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%
	 Sick leave absenteeism rate: ≤ 2% ^{Note1}	Sick leave absenteeism rate: ≤ 2%	Sick leave absenteeism rate: 1.12% Target: <2%
Build Internal- External Alliances Collaborate with external parties to establish a safer working environment across the supply chain	 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

171

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.

173

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

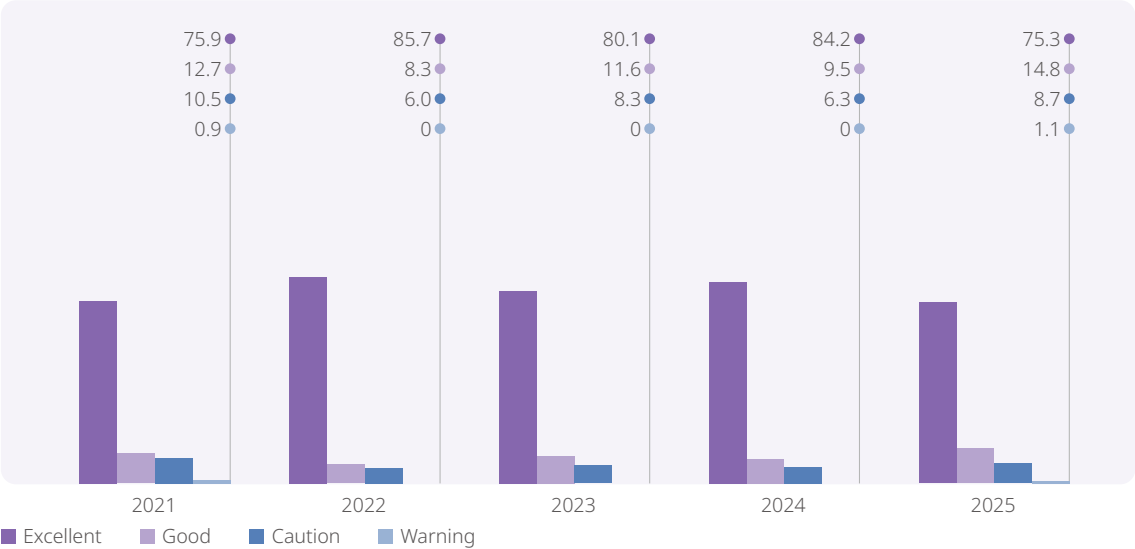
- Ensured employees stay informed of energy storage system safety regulations and international trends
- Increased training participation and promoted immersive safety education
- Brought together academic and industry experts to share insights and highlight TSMC's annual ESH achievements

Contractor ESH Communication Conference

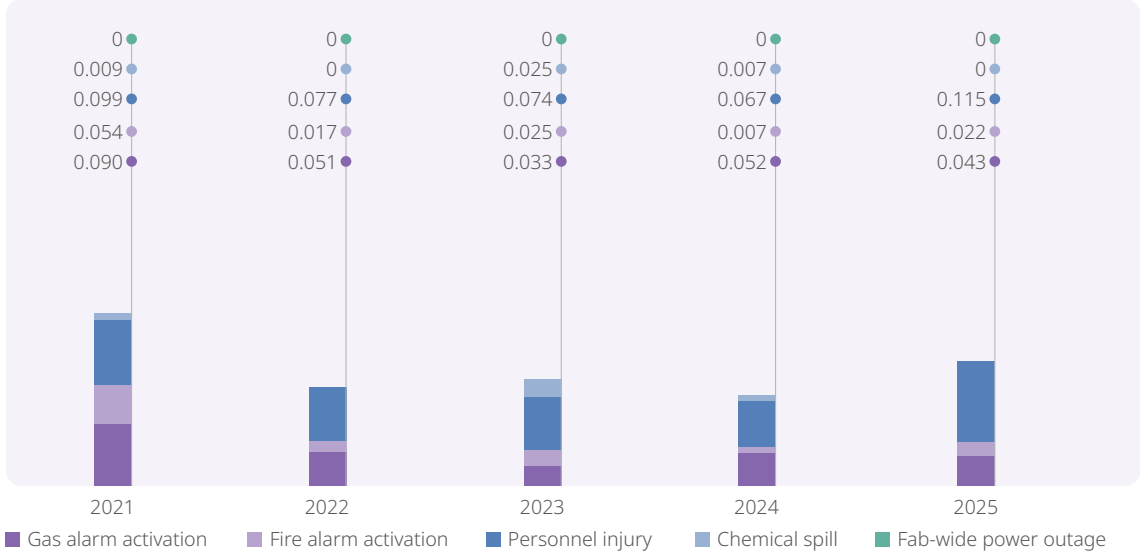
- Collaborated with contractors toward zero occupational hazards and zero incidents
- Strengthened safety awareness and empowered contractors to stop work when faced with unsafe behaviors or conditions



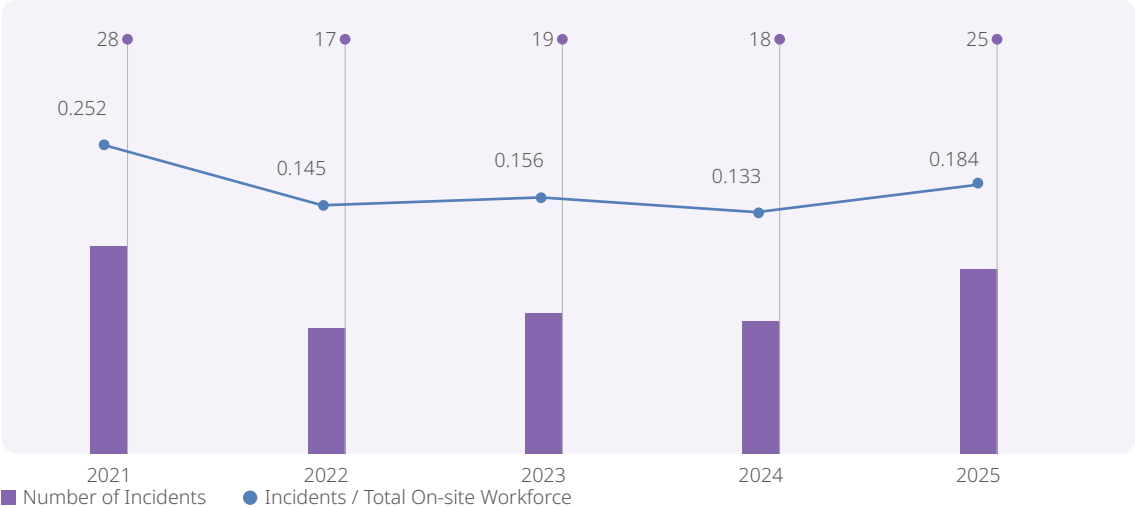
Safety Performance Indicator (SPI) Chart



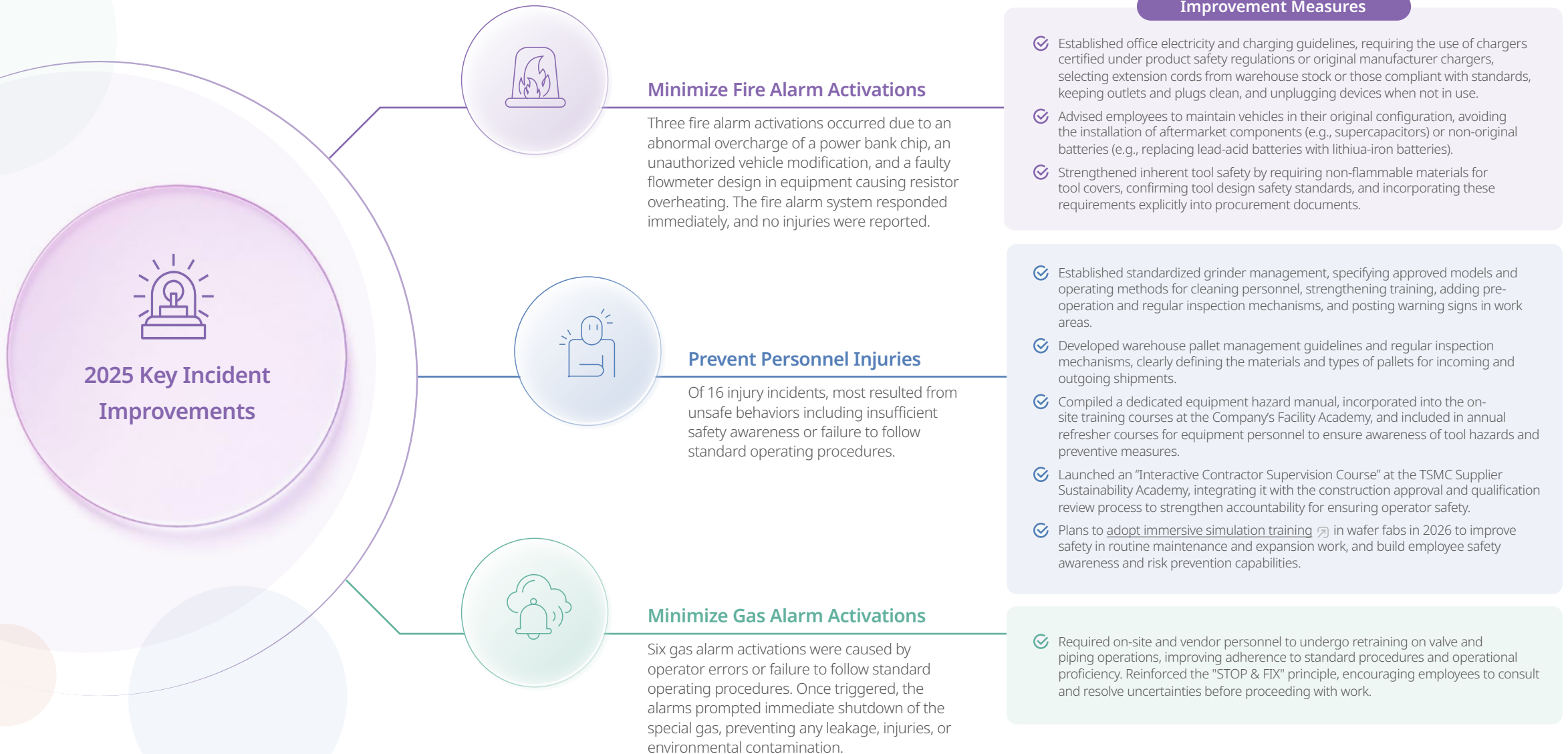
Incident Type Analysis



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

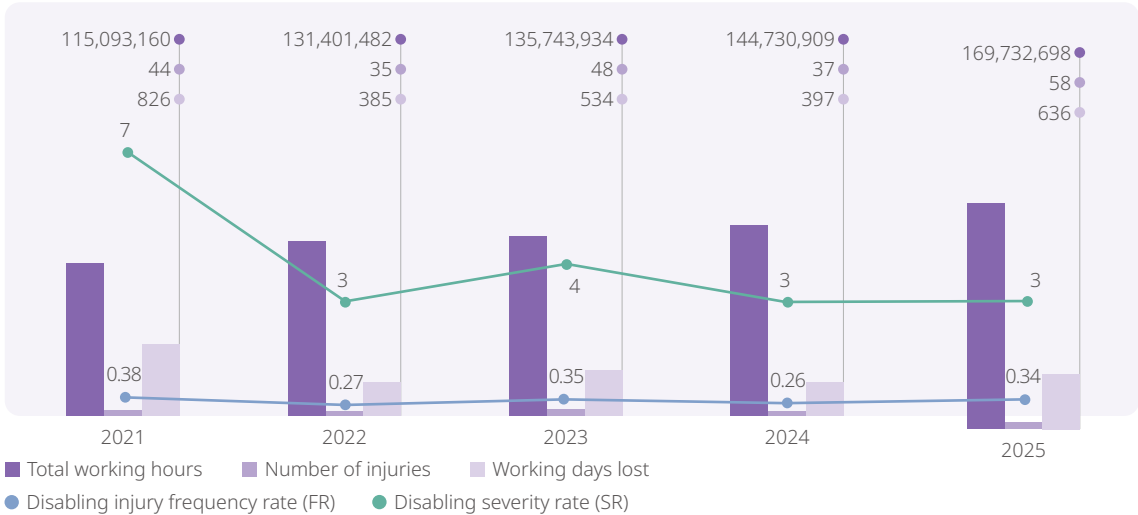
TSMC tracks occupational injuries based on definitions in the Occupational Safety and Health Act and the material disabling injury indicators published by the Global Reporting Initiative (GRI), with Disabling Injury Frequency Rate (FR) and Disabling Injury Severity Rate (SR) as the primary metrics. In 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

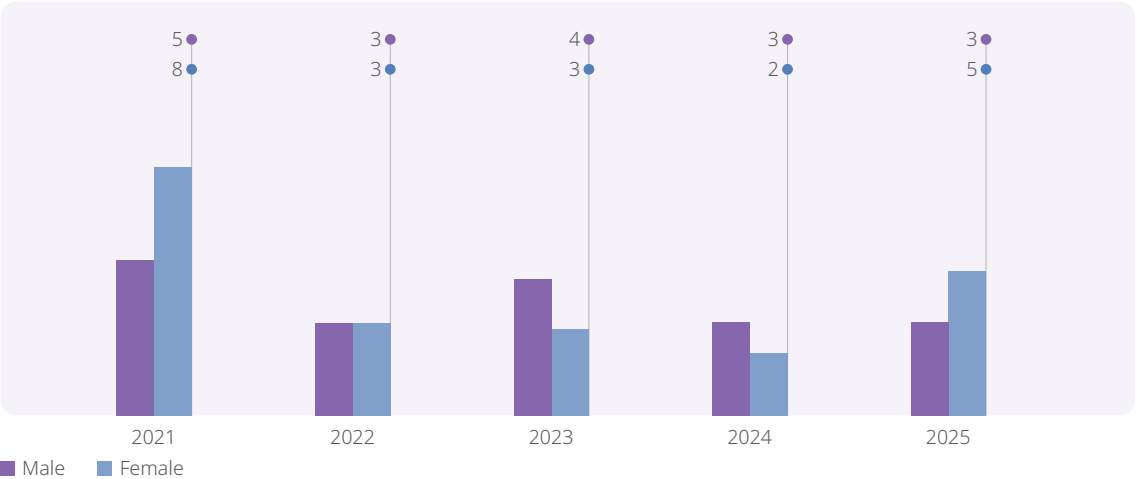


Note: Under the Occupational Safety and Health Act, only injuries classified as "work-related" — meaning diseases, injuries, disabilities, or fatalities caused by workplace buildings, machinery, equipment, raw materials, chemicals, gases, vapors, dust, work activities, or other occupational factors — 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

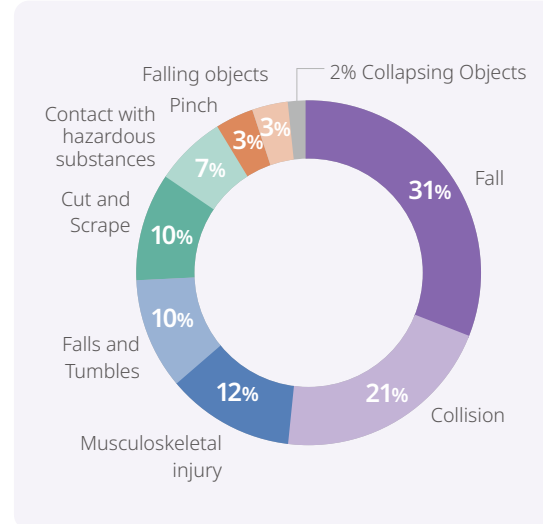


Disabling Injury Severity Rate (SR) by Gender



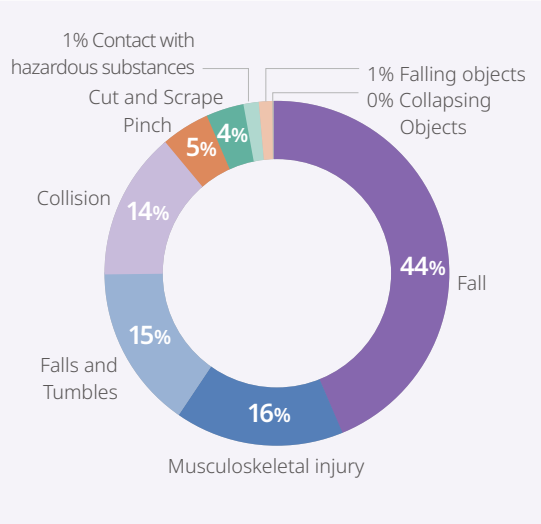
Disabling Injury Frequency Rate (FR) by Injury

Unit: %

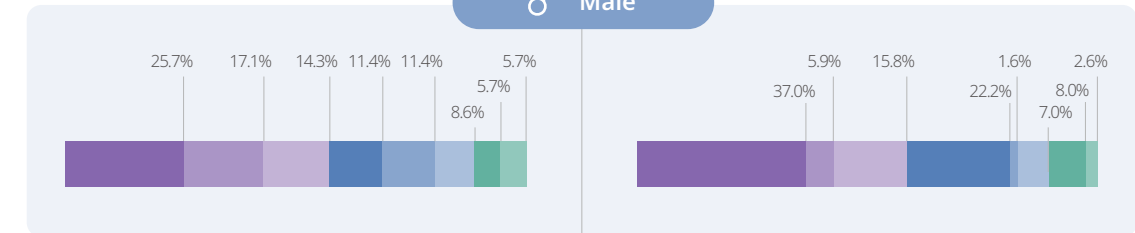


Disabling Injury Severity Rate (SR) by Injury

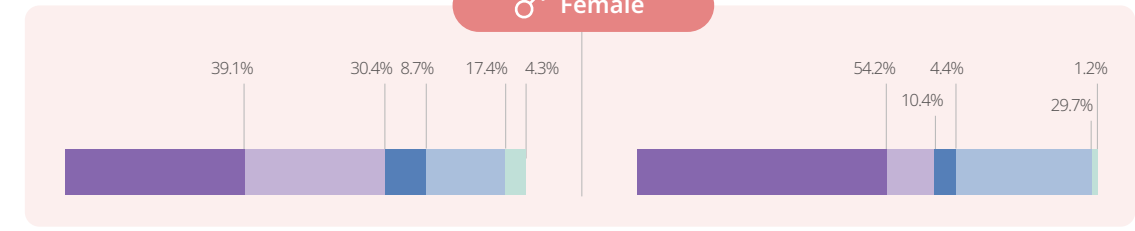
Unit: %



♂ Male



♀ Female



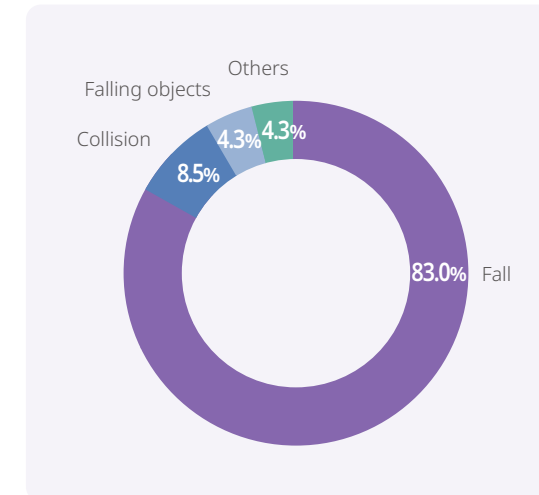
■ Fall ■ Cut and Scrape ■ Collision ■ Falls and Tumbles ■ Contact with hazardous substances ■ Improper Actions ■ Caught-in or Between ■ Falling objects ■ Collapsing Objects

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

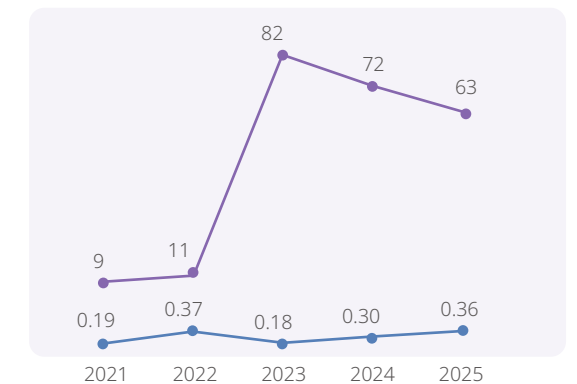
Unit: %



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



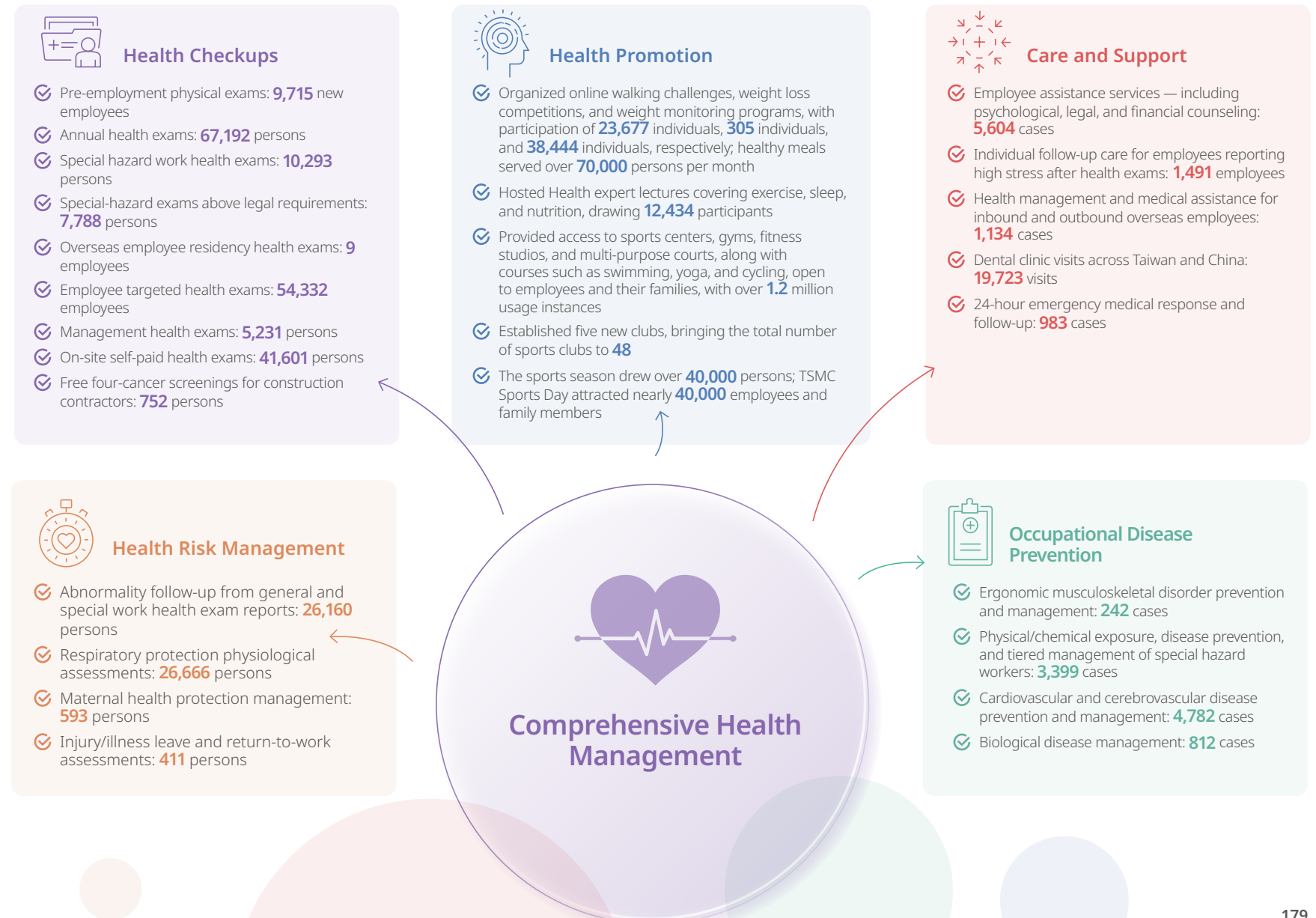
● Disabling Injury Severity Rate (SR)

● 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.

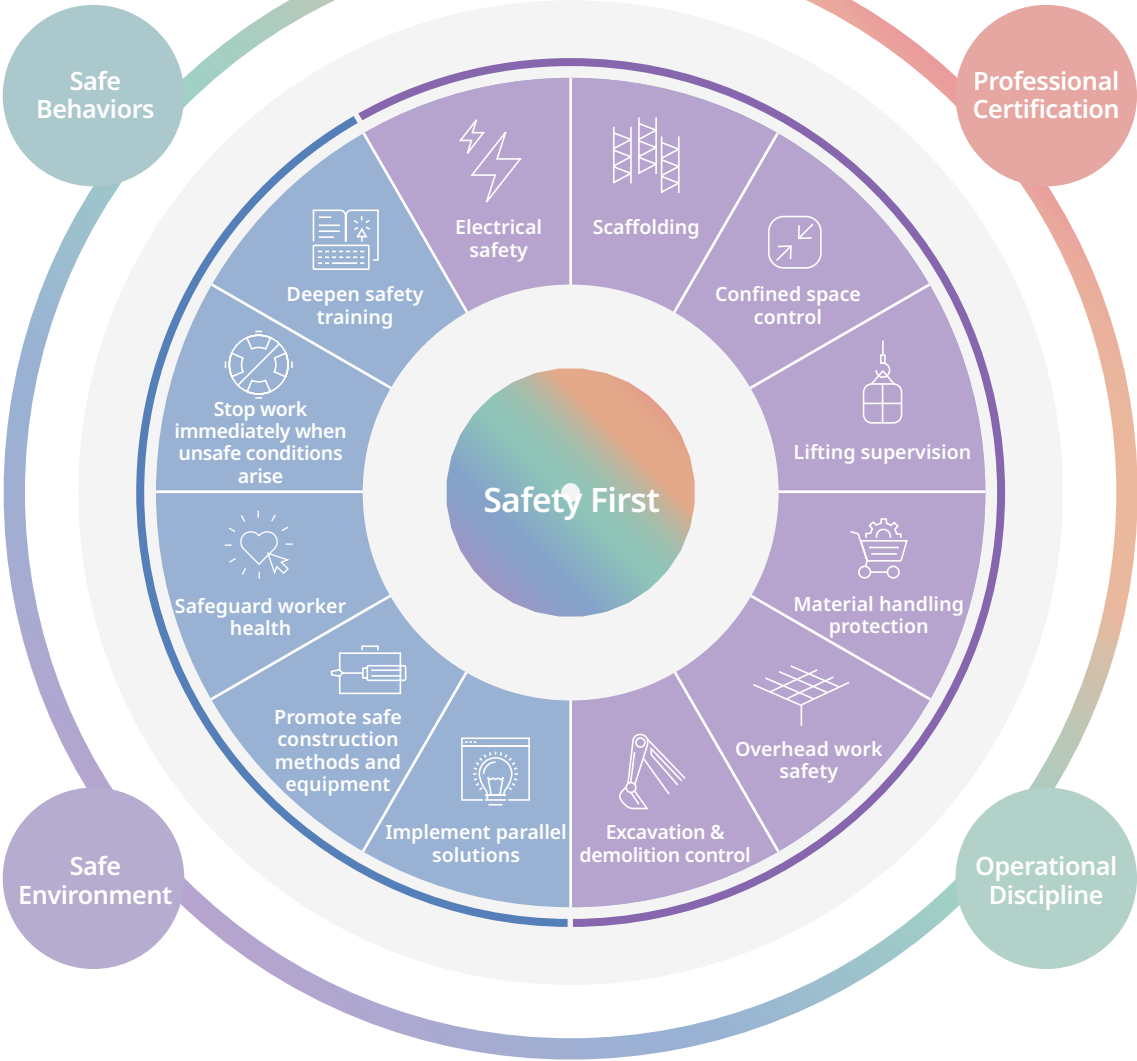
Fab Construction Safety Management Process and Mechanism

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