

2026 Annual Administrative Plan for the National Science and Technology Museum

1. Preface

The National Science and Technology Museum (hereinafter referred to as the Museum) is a diverse and multi-faceted science museum whose functions include collection, research, exhibition, education, and leisure. Through the collection and research of technological artifacts, the display of technology-related themes, and the introduction of important technological developments and their impact on human life, it implements the spirit of lifelong learning. It integrates the museum's cultural democracy strategy of "Participation, Cooperation, Accessibility, and Equity," strengthening support for the underprivileged and social education services, with the mission of "Inspiring Exploration, Anchoring in Technology, Cultivating Innovative Thinking, and Pursuing Sustainability." The following explains the Museum's development goals, SWOT analysis, 2026 administrative strategies, and specific implementation measures.

2. Development Goals

- (1) Enrich the public's technological knowledge, inspire national interest in technological research, and enhance national technological literacy.
- (2) Promote social education and popular science education, construct a high-quality lifelong learning environment, and promote lifelong and diverse learning for the public.
- (3) Enhance the museum's professional influence through collection, research, exhibition, education, cultural and creative expansion, and exchange and cooperation with domestic and foreign museums.

- (4) Develop and utilize strategies of participation, cooperation, accessibility, and equity to highlight the museum's diversity, sustainability, accessibility, and inclusivity.
- (5) Create a friendly, safe, comfortable, and intelligent environment; provide wonderful, unique, pleasant, and innovative services; and become a world-class applied technology museum.

3. SWOT Analysis

To establish the characteristics of museum development, a comprehensive analysis was conducted on the Museum's strengths and weaknesses, as well as the threats and opportunities it currently faces. The Museum's SWOT analysis is detailed in the table below.

Strengths	Weaknesses
1. National museum of applied technology, capable of linking with industry 2. Located in the Kaohsiung metropolitan area with convenient transportation 3. Vast site, large building volume, and extensive exhibition and education spaces help it become a comprehensive technology museum 4. Colleagues have high academic qualifications and quality, possess team concepts, and the ability to brainstorm effectively 5. Exhibition planning focuses on connecting with the public's life	1. Large exhibition halls and park areas lead to heavy operating costs 2. The Museum lacks researchers with research capabilities in basic science and the history of technology 3. Human resources are gradually aging, increasing the burden of personnel costs 4. The average age of service volunteers is relatively high 5. Collection policies have not been fully implemented, resulting in limited research on Taiwan's local industrial development 6. There are currently no other large-scale cultural, educational, or

Strengths	Weaknesses
experiences and interaction, providing an educational and entertaining visiting experience 6. Science education activities have established a brand image in Southern Taiwan	leisure facilities in the vicinity of the Museum, making cross-industry alliances and cooperation difficult
Opportunities	Threats
1. Taiwan's technology industry is well-developed 2. Families, schools, and society value science education 3. Demand for domestic leisure and tourism is recovering 4. The 2019 new curriculum emphasizes the cultivation of scientific literacy and lifelong learning 5. The establishment of science parks in Southern Taiwan (STSP, Luzhu Science Park, Kaohsiung Software Park) helps link industry and government 6. Companies increasingly value ESG (Environmental, Social, and Governance)	1. The Museum's land is owned by the Kaohsiung City Government; the Museum only has the right of use, not ownership 2. Audience standards for service quality requirements are increasing daily 3. Changes in population structure, such as declining birthrates and aging, negatively impact the Museum's primary customer base 4. Government finances are increasingly tightening, and budget appropriations are decreasing year by year 5. The Museum's available funds continue to decline 6. Lack of connection with other tourism and leisure attractions in the Kaohsiung area

4. 2026 Administrative Strategies and Specific Implementation Measures

According to the redefinition of a museum by the International Council of Museums on August 24, 2022, a museum is "a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. It is open to the public, accessible and inclusive, fostering diversity and sustainability. Museums operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing." The above definition points out that museums should be non-profit, serve the public and society, utilize professional knowledge with a spirit of accessibility and inclusion, promote social diversity and the sustainability of the earth, and encourage community participation in museum operations, in striving to provide the public with diverse learning, growth, and pleasant experiences. In consideration of following the trends and currents of global museum development and ensuring the Museum's survival and growth, the strategic dimensions for the Museum's operation and development are planned as "Building a Friendly Environment," "Enhancing Professional Quality," and "Accumulating Sustainable Capital" to respond to future challenges and pursue sustainable development. Detailed specific implementation measures are as follows:

I. Building a Friendly Environment

(I) Replace and update old operating systems, actively implement energy conservation and carbon reduction

1. Replacement of irrigation systems and integration of water resources in the North Building Park

The irrigation pipelines in the museum area are old, experiencing occasional damage and leakage. By seeking infrastructure funding, an environmentally friendly irrigation system will be re-established to solve the leakage problem and achieve the benefits of energy conservation, carbon reduction, and saving management manpower.

2. Green sustainable landscape creation

Establish a nursery and utilize volunteer labor to raise seedlings and cultivate turf, reducing landscape gardening maintenance costs and the use of gardening consumables; replant identical shrub hedges in different areas to create environmental integrity and aesthetics.

3. Improvement of energy consumption in electromechanical and air-conditioning facilities

(1) Facility maintenance and renewal

Commission professional technicians to evaluate facilities such as air conditioning, substations, fire fighting, and freight elevators, and continue to carry out routine maintenance and renewal operations based on the urgency of each area.

(2) Implementation of Net-Zero transformation

Conduct building energy efficiency assessment for the South Building and obtain a 1+ rating. Simultaneously execute the Ministry of Education's "Net-Zero Transformation Project" and "Site Optimization and Facility Renewal Project" to carry out the renewal of air conditioning, air handling units, high and low voltage substation equipment, waterproof measures for station internal spaces, and fire-fighting equipment in the North Building, thereby enhancing the Museum's energy efficiency and strengthening equipment stability and safety.

(II) Optimize audience service quality and strengthen core museum functions

1. Implementation of the "Realizing Technology Inclusion and Promoting a Sustainable Happy Society" Technological Innovation Service Project for National Social Education Institutions

This project is a special subsidy project under the Ministry of Education. This year, it plans to introduce how digital technology can benefit the practice of life transformation and industrial transformation, utilizing existing permanent exhibition halls to promote popular science themes related to energy conservation and Net-Zero. Meanwhile, the "Optimizing Online and Offline Services" plan will integrate Artificial Intelligence (AI) into the application side of the membership system and build a Green BIM system to achieve more appropriate configurations in the regulation of energy such as electricity and air conditioning.

2. Expanding online learning resources and virtual museum capacity

(1) Online Collection Website

Continuously update collection website resources, reaching 1 million views annually.

(2) Exhibition Hall Online Learning Sheets

Review learning sheets for each exhibition hall and provide them for audience download as extended learning before and after visiting, and as teaching materials for school teachers, totaling 10 items annually.

(3) Promotion of cloud technology education resources

Promote digital resources on the Science Learning Center website to encourage schools at all levels to use technological education teaching resources, reaching 100,000 views annually.

(4) Production and broadcasting of Museum podcasts

Utilize digital media to disseminate popular science knowledge, producing 22 episodes annually with an average of 1,200 listens per episode.

3. Museum overall environment reconstruction, promoting site optimization and facility renewal projects

Since its opening in 1997, the Museum has been dedicated to applied science exhibitions and interactive learning, promoting science education for all. With technological progress, educational system reforms, and changes in leisure culture in the 21st century, the public's expectations and needs for museums have changed, and the Museum's operation faces challenges as well as opportunities for transformation. The Museum is about to enter its 30th anniversary, and basic infrastructure is gradually aging. Some equipment functions are deteriorating, even affecting safety; the traffic flow and signage systems designed in the early days of the opening can no longer meet current needs. In addition, the completion of the Kaohsiung Railway Underground Project and Light Rail stations has driven the upgrade of transportation and living functions around the South Building, making the integration of the museum area with urban green belts and municipal facilities possible. To respond to social changes and urban development, and to realize the demonstration function a technology museum should have, the Museum plans to promote the "Site Optimization and Facility Renewal Project," which includes the following four key points:

(1) South Building Site Revitalization

With the aim of revitalizing the 3.5 hectares of buildings and landscape of the South Building, strengthening popular science education, and driving regional prosperity, the project promotes a comprehensive

renovation of the South Building, introducing green building concepts, intelligent services, and innovative exhibition spaces to create a modern popular science site with sustainable value, operational efficiency, and community connection.

(2) North Building Infrastructure Improvement

Replace high-voltage equipment in the North Building substation to ensure power safety, improve fire-fighting equipment to enhance safety protection, and integrate multiple water sources for the irrigation system to establish an animal-friendly and ecologically sustainable environment.

(3) Optimize audience service

The North Building will re-plan the overall visiting flow, especially the separation and guidance between the Special Exhibition Area on the east side and the Permanent Exhibition Area. Redesign various indicators, incorporating smart information boards, equality icons, a unified style for instructional signs, and the installation of smart ticket gates (estimated 6-9 units); modify the ticket verification system to support QR Code and electronic ticket scanning for automated entry and exit.

(4) Update the Industrial History Permanent Exhibition Hall

In recent years, Taiwan's industrial structure has been transforming, including high-tech fields such as semiconductors, AI, and green energy, with "driving innovation with chip AI, and high-value net-zero low-carbon and digital transformation" as the main axis of industrial development starting from 2026. In response to this trend and the Museum's curatorial philosophy of "Precise Revitalization, Accessible Equality, and Sustainable Launch," the Museum will initiate a comprehensive update of the Industrial History Hall, with "The Past,

Present, and Future of Taiwan's Industry: Technology Island" as the core narrative. This update will be carried out in two phases, aiming to guide the audience to rediscover the development process of Taiwan's industry from mass manufacturing toward high added value, smart manufacturing, and environmental sustainability.

II. Enhancing Professional Quality

(I) Utilize museum collection artifacts and strengthen academic research capacity

1. Systematically collect technological artifacts and deepen artifact research

(1) Industrial research: 2 cases annually.

(2) Integration of collections into exhibitions: Organize 1 collection-themed special exhibition annually.

(3) Rights inventory: Complete the inventory of 100 rights items of the Museum.

(4) Deaccession of temporary collections: 20 items annually.

(5) Object evaluation for accession: 10 items annually.

2. Strengthen the connection between collection goals and the museum mission

Conduct artifact cancellation or report items as collection pieces according to the Museum's collection policy and relevant collection regulations.

3. Conduct inter-museum cooperation and exchanges to establish an international image

Organize 1 museum-themed forum or seminar, with 200 participants.

4. Strengthen R&D and innovation energy to shape a professional brand

(1) Publish professional academic papers: At least 36 papers annually.

(2) Issue publications:

Issue "Technology Museum" and "Technology, Medical and Society" journals, and the digital publication of the Museum's annual report.

(3) Develop teaching materials, tools, and lesson plans:

40 items of exhibition hall educational resources; 3 self-made exhibition items; 50 sets of lesson plans and tools for themed science education activities, serving 1,000 participants.

(4) Promotion of museum collections: Select 15 items from the Museum's collections for promotion.

(5) Obtain certification and enhance information security:

Obtain "ISO9001:2015 Quality Management System" and "BS 10012:2017 Personal Information Management System" certifications, and continue to implement "ISO27001:2022 Information Security Management System."

5. Enhance professional staff functions and implement professional staff performance evaluation goal setting

Complete the professional staff work plan for the following year set in October of the previous year; the year-end performance evaluation goal setting table for the following year, having completed the preliminary review by the respective unit, shall be sent to the Personnel Office for final review.

(II) Enrich exhibition and education resources, provide all-age education services

1. Diverse exhibitions

Self-curated high-quality exhibitions, traveling exhibitions, and joint exhibitions with external units. Total of 40 exhibitions annually, with 100,000

participants.

2. All-age education promotion

(1) Launch exhibition hall themed activities: 1,200 sessions annually, serving 22,000 participants.

(2) Conduct diverse student study activities: 750 sessions annually, serving 95,000 participants.

(3) Conduct family and parent-child activities: 50 sessions annually, serving 3,000 participants.

(4) Launch activities for adults and seniors:

Conduct series of study activities such as "NSTM Creative Life Workshop," "Popular Science Inquiry Promotion," and "Fun Maker," totaling 50 sessions annually, serving 3,000 participants.

(5) Organize the "Taiwan Science Festival":

Accumulate more than 200 sessions of activities, with at least 80,000 participants.

3. Establish nighttime operation models and develop new customer segments

Conduct 22 nighttime and senior courses, expected to serve 220 participants. Additionally, organize 2 nighttime markets to attract young groups, expected to reach 200 participants; 6 weekday nighttime creative courses for office workers, expected to reach 120 participants.

4. Promote participation, accessibility, and equality; conduct science learning support for the underprivileged

(1) Update barrier-free exhibition units: Select 1 exhibition hall to carry out barrier-free updates in relevant areas.

(2) Conduct off-site education rooting activities: 90 sessions annually,

serving 3,500 participants.

(3) Science Sapling Charity Event:

Seek funding sponsorship from various sectors to organize Science Sapling charity events, achieving a donation-to-aid funding ratio of over 60% annually.

III. Accumulating Sustainable Capital

(I) Continue revenue-increasing and cost-cutting measures, strive to improve fund performance

1. Formulate an annual financial plan

Complete the financial plan for the following year set in October, implement according to the annual income targets, and track implementation progress through business meetings and museum affairs meetings to ensure the plan is implemented.

2. Activate the use of museum spaces to steadily enrich museum revenue

Conduct long-term venue bidding and leasing for at least 6 sites annually, with revenue of at least 21.5 million TWD; revenue from venue rentals in the North and South Buildings of at least 5 million TWD annually.

3. Promote green exhibition inspection to enhance cost-saving and energy-saving performance

During exhibition planning, consider the reuse of newly made exhibits, eco-friendly materials, energy-saving lighting, and the use of resource items, saving at least 500,000 TWD annually.

4. Establish a reference list of suppliers for small-amount procurement to improve procurement efficiency and reduce costs

Implement price comparison and negotiation for small-amount purchase

requests, saving 150,000 TWD annually; continue to find new suppliers, with 10 entries annually.

(II) Integrate internal resources, cross-domain cooperation and innovation

1. Integrate and deepen membership mechanisms to provide customized services to members

Based on the "Master NSTM" and membership platforms, plan exclusive activities for members, with usage of various membership mechanisms reaching 25,000 participants annually.

2. Establish an audience research and analysis system

Conduct audience satisfaction surveys, with an average overall satisfaction score of 4.3 or above annually; build a member audience visiting behavior analysis system on the "Master NSTM" mobile webpage.

3. Promote exhibition hall conveners to seek external resource injections

Exhibition hall conveners lead cross-unit team cooperation to utilize their respective expertise and seek external resources for the halls, targeting 3 million TWD annually.

4. Strengthen cooperation with domestic and foreign museums and expand overseas markets

Actively seek joint curation with foreign museums throughout the year and complete 1 overseas cooperation project. Actively seek and complete 1 overseas traveling exhibition cooperation project throughout the year.

5. Combine the volunteer system with lifelong learning

Review the optimal scale of volunteer manpower, optimize manpower allocation and strengthen education and training to improve overall service quality. In addition, value volunteer expertise to create service content where

talents are matched with appropriate positions, combining exhibition hall themed training for volunteers to assist in organizing exhibition hall activities, thereby realizing lifelong learning.

5. Expected Benefits

- I. Improve the spatial function of the museum area and create a safe and high-quality environment
- II. Strengthen collection exhibition and education to enrich the public learning experience
- III. Enhance national scientific literacy and move toward a lifelong learning society